EPC COMMISSION
MINUTES & AGENDA

MONTH August

YEAR 1987

ADM-1-1-1
August 1987

INDEX
ENVIRONMENTAL PROTECTION COMMISSION
Meeting at Wallace State Office Building
Des Moines, Iowa
August 19-20, 1987

	Page
MEMBERS PRESENT	1
MEMBERS ABSENT	1
ADOPTION OF AGENDA	1
ADOPTION OF MINUTES	1
DIRECTOR'S REPORT	1
DNR BUDGET REQUEST, MAJOR ISSUES AND CAPITAL SCHEDULES	2
APPROVAL TO PURCHASE AIR QUALITY MONITORING EQUIPMENT	7
APPOINTMENT -- LYLE TEEKIPPE	8
PUBLIC PARTICIPATION	10
MONTHLY REPORTS	10
STATUS OF THE ONE-TIME PESTICIDES AND SYNTHETIC ORGANIC CHEMICAL MONITORING ACTIVITY	16
REVISIONS TO CHAPTERS 40 AND 41 -- WATER SUPPLY RULES	19
RECESS	21
MEETING RECONVENES 8:30 A.M. AUGUST 20	21
REVISION OF CHAPTER 23, "EMISSION STANDARDS FOR CONTAMINANTS"	22
EMISSIONS OF ACRYLONITRILE AT MONSANTO, MUSCATINE	25
REFERRALS TO THE ATTORNEY GENERAL	26
APPOINTMENT -- WILLIAM WIMER	26
APPOINTMENT -- HAROLD W. JOHNSON	28
SAYLORVILLE HYDRO DEVELOPMENT CONTRACT APPROVAL	30
DISCUSSION OF BOD TESTING STANDARDS	34
NOTICE OF INTENDED ACTION--CHAPTER 152, CRITERIA FOR SITING LOW-LEVEL RADIOACTIVE WASTE DISPOSAL FACILITIES	36

Page

DRAFT RULE FOR AMENDMENTS TO CHAPTER 135, UNDERGROUND STORAGE TANK RULES 40

FY 88 CONSTRUCTION GRANTS STATE PROJECT LIST 42

STATE CONSTRUCTION GRANT STATUS 43

RECENT U.S. SUPREME COURT DECISIONS 45

PROPOSED CONTESTED CASE DECISION--DES MOINES METRO SOLID WASTE AGENCY 46

DISCUSSION OF COMMISSION'S ROLE REGARDING LITIGATION 47

DISCUSSION OF LEGISLATION ITEMS 48

ADDRESS ITEMS FOR NEXT MEETING 48

NEXT MEETING DATES 48

ADJOURNMENT 48

MINUTES
ENVIRONMENTAL PROTECTION COMMISSION
Wallace State Office Building
Fourth Floor Conference Room
Des Moines, Iowa
August 19-20, 1987

The meeting of the Environmental Protection Commission was held at the Wallace State Office Building in Des Moines, Iowa convening at 1:00 p.m. on Wednesday, August 19.

MEMBERS PRESENT

Charlotte Mohr, Gary Priebe, Nancylee Siebenmann, Clark Yeager, Richard Timmerman, Keith Uhl, and Robert Schlutz.

MEMBERS ABSENT

Catherine Dunn, Donna Hammit, Keith Uhl (August 19)

ADOPTION OF AGENDA

The following additions were made to the agenda:

a) Item #17A, Proposed Contested Case Decision--Des Moines Solid Waste Agency
b) Appointment -- Bill Shields, 9:30 a.m.
c) Appointment -- Richard Rinehart, 10:15 a.m.

Motion was made by Charlotte Mohr to approve the agenda as amended. Seconded by Richard Timmerman. Motion carried unanimously.

ADOPTION OF MINUTES

Approval of the minutes of July 20-21, 1987 was postponed until the September meeting due to unavoidable delays in preparation.

DIRECTOR'S REPORT

Director Larry Wilson reported that a description has been written outlining the responsibilities of the Waste Management Authority Division. Also, a staffing plan has been completed for that division. The first position to be filled will be that of the Division Administrator. After the Division Administrator is selected, he will be involved with the selection of staff for the rest of the division.

We are facing a very important time frame with this division as two statutory obligations are due the legislature by January, 1988 from this division.

The Groundwater Protection Act provides for a number of employees to be added to the Department and a staffing plan is being developed for those positions.

Director Wilson reported that he and Allan Stokes had very recently attended a meeting of the Midwest Low Level Radioactive Waste Compact Commission. The

primary issue of the compact is seeking final form and approval of the host state agreement. The governor of each state in the compact has to sign the agreement and it has to be ratified by the legislature of each of the involved states.

The four main issues contained in the agreement are: 1) Shared liability; 2) Sovereign immunity; 3) Sequence of events if a state withdraws; 4) Results if compact dissolves. These are the binding and protective clauses in the agreement that commits the states to the compact. Mr. Wilson explained each of these issues in detail.

DNR BUDGET REQUEST, MAJOR ISSUES AND CAPITAL SCHEDULES

Stan Kuhn, Division Administrator, Administrative Services Division, presented the following item.

Within the next several months, the Environmental Protection Commission and the Natural Resource Commission will be requested to approve the FY88 budget and the FY89 budget request. The purpose of this item is to review major issues facing the DNR and to invite comments, questions and suggestions from the commissions.

SUPPLEMENTAL APPROPRIATIONS

1. Low-Level Radio Active Waste Compact. Because the G.A. appropriated the $60,000 participation fee for FY88 from FY87, it was vetoed. In order for Iowa to remain an active member, it will be necessary to appropriate the above amount from the proper fiscal year.

2. Union Grove Restoration Project. The DNR requested $500,000 from the General fund to match an equal amount from the E.P.A. to complete this project. The G.A., instead, provided $250,000 from lottery funds. While this will allow some of the work to proceed, only a small contract can be let this winter to dredge a portion of the lake. It will be more cost-effective to let the complete dredging contract at one time, but this will require an additional $250,000 to be available for obligation by late winter.

3. 5% Sewage Works Matching Grants. Recent previous appropriations have not been sufficient to continue the state's previous practice of matching all federal grants. $2.5 million is needed for FY88 projects.

FUNDING OF CONSTRUCTION OF SEWAGE TREATMENT PLANTS

The E.P.A. intends to change funding assistance from the federal government from a 75% cost-share program to assisting states with the establishment of a state revolving fund for loans to local government. This would require an estimated 20% match from the state to establish the loan revolving fund. The state match for the FY89 capitalization grant is estimated at $3.2 million. Also for FY89, an estimated $3.0 million is required to meet the 5% commitment to the regular sewage works cost-share program.

FACILITY MAINTENANCE AND EQUIPMENT REPLACEMENT, STATE PARKS, STATE RECREATION AREAS, AND STATE FORESTS

Due to limited budgets, routine facility maintenance and replacement of equipment has been deferred for a number of years. Current budget levels for facility maintenance are barely adequate for routine operating supplies like trash bags and toilet paper, much less routine facility repairs. Replacement of equipment has been limited to situations where the existing piece of equipment cannot be repaired.

Park User fees are appropriated "solely for renovation and replacement of existing park facilities." It was the intent of the G.A. to use fees for upgrading park facilities, not as a replacement of General fund support for routine maintenance. However, since there is no other source of funds to turn to, there is some-times no choice but to use User fees for repairs that should be handled by the normal operating budget.

STAFFING LEVELS, STATE PARKS, STATE RECREATION AREAS AND STATE FORESTS

Season staffing has been reduced significantly in response to limited budgets. Season wage rates are significantly lower, $4.48, than the bottom step for the pay grade, and IDOP is insisting that the DNR raise pay rates to the level indicated in the pay plan.

Likewise, many maintenance positions have been held vacant for months at a time in order to stay within the budget. The lack of staff has also contributed to decreased area facility maintenance.

The budget for FY87 and the current budget for FY88 are not sufficient to fund the park, recreation area and forest maintenance positions that were approved in the DNR reorganization plan. Additionally, newly developed recreation areas like Pleasant Creek, and newly acquired areas like the Western Iowa Forest will require staff for operations and maintenance.

TOURISM SUPPORT

In addition to providing quality outdoor areas through adequate maintenance, the DNR is expected to support tourism promotional efforts by DED through the production of adequate quantities of brochures, guides, maps, etc. Direct mail promotion, such as was accomplished last year by DED relative to nonresident hunting, can have a positive effective relative to tourism. A higher level of promoting Iowa's resources at in and out-of-state sports shows can result in more tourists. The DNR's current efforts in these areas are minimal due to limited resources.

CAPITAL ACQUISITION AND DEVELOPMENT

Due to the limited General fund budget, virtually all of the capital acquisition and development, in recent years, has depended on earmarked revenue sources: lottery, Park User fees, Fish and Wildlife licenses, and Marine Fuel taxes. There are a number of capital projects and programs that cannot be readily funded from the above sources. These include the Protected Water Area program, capital development in state forests, etc. The DNR will need either increased allocations for capitals from the lottery revenues, or support from the General fund for these projects and programs.

A better mechanism is needed for establishing long-term priorities for major capital acquisition and development projects. Too often, what is high priority one session is ignored by the G.A. the next session. Completely new projects are appended to the appropriations bill during the last weeks of the session without any significant planning or design work by the DNR. Initiation and carrying out of major development projects needs to occur in a planned, systematic manner.

Attached to this item are various capital program schedules. The FY88 capital schedules reflect closely the current DNR plans. The commissions will be asked to approve the detailed FY88 capitals as part of the overall budget package within the next several months. The FY88 projects are presented for information at this time, but the commissioners should raise any questions or make any comments or suggestions they might have as soon as possible in order to avoid problems at the point contracts are presented for approval. The FY89 capital request will be revised and placed in priority order, and also be presented to the commissions for approval within the next two months.

PROPERTY TAX REPLACEMENT FUNDING RELATIVE TO DNR LANDS

While the acquisition of land for DNR purposes has generally been supported by the G.A., the legislators are frequently concerned about the loss of property tax revenue to local taxing bodies. The G.A. has addressed this issue in a piecemeal manner, and the current situation is confused, to say the least.

1. The 1987 G.A., H.F. 620, mandates that the DNR pay property taxes on all "open spaces" lands acquired after January 1, 1987. However, the term "open spaces" is not defined.

2. All land acquired under the Wildlife Habitat program and the Nongame checkoff program is assessed full property taxes. This currently amounts to approximately $30,000 per year and is paid by Wildlife Habitat stamp and checkoff revenues.

3. The Protected Water Area legislation established a "Standing Unlimited" General fund appropriation to pay all property taxes of lands acquired, either by easement or fee, under this program. No payments have been made to date because the state only recently acquired three donated easements.

4. Up to FY87, the G.A. has appropriated approximately $40,000 from the General fund, each year, to pay school taxes related to lands bought under a variety of "open spaces" programs (General fund appropriations) throughout the 1970's.

5. The federal government pays local governments an "in lieu of" payment for most federal lands in Iowa. However, such payments are generally less than comparable property taxes.

6. No taxes are paid on most DNR fish and wildlife lands, park lands, state forest lands, and recreational area lands, even though the character of these lands is exactly the same as the "open spaces", "wildlife habitat", "nongame" and "protected water areas" lands referred to previously.

As demonstrated above, the G.A. is addressing this issue, generally, on a piecemeal basis. It would seem that a general state policy regarding property taxes on all state lands would be desirable.

GROUND WATER PROTECTION

H.F. 631 contains appropriation authorizations for FY88, FY89, and beyond. Therefore, the DNR will show expected revenues, expenses and staffing as part of the budget request, but it will not be necessary to request additional funds. However, as planning for implementation proceeds, as legal interpretation issues are settled, and as better revenue and expense estimates are prepared, it may be necessary to request legislative and budgetary changes to better implement the intent contained in the bill.

As part of the budget process, a Ground Water Protection budget will be presented to the commissions. Staffing related to this bill is estimated at 51 positions for FY88 and an additional ten in FY89.

WASTE MANAGEMENT AUTHORITY DIVISION

This new division, established under authority of S.F. 396 will have approximately eleven authorized positions. In addition to various waste management programs, this division will have responsibility for toxic waste clean-up days. Detailed budgets will be presented to the commissions for this division as part of the budget process. Funding will come from solid waste fees and Ground Water Protection sources as appropriate.

LICENSE INCREASES

At this point, it does not appear to be necessary to request approval for any major license fee increases. However, the staff has not yet completed projections related to the Fish and Wildlife Trust fund. Accurate salary projections for FY88 are not yet available. Additionally, it is necessary to carefully consider the effect of the major increase in fisheries related capital programs before a final recommendation can be made regarding hunting and fishing license fees.

FUTURE BUDGET ACTIONS

The budget request will be presented to the commissions for review and final approval in a manner similar to that of last year. As budget recommendations are formulated, they will be presented for comment. The final budget request document will include revenue projections for each fund; an expense schedule for each division showing actual FY87 expenses and staffing, proposed FY88 expenditures and staffing, and recommended FY89 expenses and staffing.

The state is, once again, using the 75% modified zero-based budget approach. For each division, a "base" is established which is defined as 75% of the previous budget. In this case, the "base" for the FY89 request is, simply, 75% of the FY88 budget. The "base" is supposed to be a logical package. In other words, the

division could be expected to function at the "base" level if only the "base" were approved by the General Assembly.

In addition to the "base" request for each division, Decision Packages will be presented, arrayed in priority order. The total of the "base" and all "decision packages" constitute the total budget request for each division. Each decision package is a logical addition to a division's program. For example, a decision package might involve the staff, equipment and supplies necessary to initiate operations at the Western Iowa Forest. Another decision package might related to the replacement of equipment at the Nursery.

In theory, the Governor recommends, and the G.A. funds the decision packages they believe warrant funding. However, in recent years, the Governor and the G.A. have held very closely to simply continuing funding at the previous year's level instead of care-fully considering the various bases and decision packages.

Capital requests are simply arrayed, by separate funding source, in priority order, project by project.

Agencies do not request salary adjustments as part of the budget request. The salaries that will be shown in the staff's recommendations are simply the current FY88 salary levels.The Governor recommends and the G.A. approves a separate salary adjustment appropriation bill, and the adjustment is, later, prorated to the various agency appropriations. In FY89, the salary adjustment bill, in addition to funding COLA's and merit raises, will include an additional amount to fund the 27th payroll. Because the state is on a biweekly pay system, every so often it is necessary to added a 27th payroll to catch up and compensate for the fact that each year contains one day (and sometimes two) more than 26 payrolls times 14 days.

We expect to complete action by the commissions on the budget request by September or early October. The law requires the request to be submitted by September 1st, but it is not uncommon to complete agency budget action several weeks later. Usually, major changes to the request can be made into early October.

During the later part of November and early December, the Governor holds formal budget hearings, formulates his recommendations and presents a budget recommendation to the G.A. in January.

Comments, questions, and suggestions from the commissioners are invited. Please make them as early as possible so they can be properly considered in the budget process.

Mr. Kuhn stated that under Supplemental Appropriations on Page One there should be a fourth item showing River Basin Memberships. He explained in detail the various items contained in the budget request.

Richard Timmerman inquired about the deadline for the budget.

Mr. Kuhn responded that it is due, theoretically, by September 1, but it normally is finalized toward the end of September and we have the ability to make major changes as late as the middle of November.

APPROVAL TO PURCHASE AIR QUALITY MONITORING EQUIPMENT

Stan Kuhn, Division Administrator, Administrative Services Division, presented the following item.

The Department requests approval to purchase the equipment and services listed below. The purchases are to be made in order to upgrade and expand the Department's computer capabilities as well as expansion in the SO2 monitoring network to address areas of particular concern for which there is no current data. These items are 100 percent federally funded from otherwise anticipated carry-over in the current federal fiscal year and from an EPA supplemental grant specifically to expand the SO2 network.

Equipment To Be Purchased

Cost	Description
$ 843	Purchase 1 terminal
3,365	Purchase 1 personal computer
1,680	Purchase 3 mice and 2 emulators for this and two existing computers
9,900	Purchase 1 large-scale plotter
7,779	Purchase 1 large-scale digitizer
274	Purchase math computer upgrade for IDNR
17,400	Purchase 6 enclosed monitor trailers
10,000	Refurbish 10 SO2 monitors
3,150	Purchase 9 modems
17,775	Purchase 9 data loggers
4,080	Purchase 6 wind speed/direction sensors
$ 76,246	

Richard Timmerman asked if there are presently any nonattainment areas in SO2. Allan Stokes responded that there are secondary nonattainment areas, but no documented primary nonattainment areas where sulphur dioxide is concerned.

Discussion followed regarding refurbished monitors, ADM equipment, and modeling.

Motion was made by Charlotte Mohr to approve the purchase of air quality monitoring equipment at a federally funded cost of $76,246. Seconded by Richard Timmerman. Motion carried unanimously.

Chairman Schlutz recognized Senator Berl Priebe of Algona.

Senator Priebe addressed the Commission stating that he was contacted by REC in Humboldt. Senator Priebe stated that in 1976 coal buyers were mandated by the legislature to use Iowa coal. The REC purchased Iowa coal to be used in plants at Humboldt and Spencer and have 80,000 tons of it on hand. He stated that there is no way they can burn the coal and comply with the 5.0 lbs. SO2 per million Btu standard. He further stated that they only run the plant from three to twenty days per year during peak periods. If they have to meet the 5.0 lb. standard, they will have to purchase $500,000 worth of Wyoming coal to blend it with Iowa coal. This would give them a supply of coal that would last over twenty years. Coal does deteriorate if it is on top of the ground.

Senator Priebe stated that he would ask the Commission to consider a variance to let them grandfather in until their Iowa coal is used. They could easily meet the 6.0 lb. standard.

Chairman Schlutz asked if a variance has been requested. Senator Priebe replied that he has suggested that they apply for one.

Allan Stokes explained the history of the difference in standards and stated that since 1975 we have had the dual standards situation.

Mr. Stokes stated that they have not applied for a variance, but they did make comments on the proposed rules to the extent that they had asked for consideration in the rulemaking process for continued use of their coal. We would consider that to be an early opening conversation regarding a variance or some form of relief. A formal variance request has not been received.

Mr. Stokes stated that, according to information received by his staff, the 50,000 tons at Humboldt was Oklahoma and Utah coal and the 30,000 tons at Spencer is Oklahoma coal.

Senator Priebe stated that the President of REC told him that it was Iowa coal.

Senator Priebe stated that, considering the economic times we are in today, he does not feel that those people can be asked to discard that coal. He further stated that he would not have a problem with this if an exception was not made for parts of the state with 6.0 lbs. He stated that this is totally unfair to the rest of the state.

Senator Priebe asked that before the Commission adopt the rules that they at least see if they can grant REC a variance.

APPOINTMENT

Lyle Teekippe, Oran Sanitary District, stated that he is the project engineer on a community sanitation district project for which they are trying to obtain a variance. He introduced Lawrence Youngblood, President of the Oran Sanitation District, Lyle Jackson, Oran County Sanitarian and Wayne Pape, Chairman of the Board of Supervisors.

Mr. Youngblood stated that the town has a very old sanitary system consisting of septic tanks which discharge to clay tile lines which are very badly deteriorating and plugging and backing up in basements and drains. He stated that the reason they want to install a collection system first is because they do not have money to complete the treatment plant at the same time. They were fearful that if the treatment plant was constructed first and they continued to use the old tiles, the large amount of seepage water would overflow the treatment plant right away.

Mr. Youngblood stated that they have spent $15,000 to date and have signed a resolution that they will have the treatment plant completed within five years.

He stated that their present line goes to the northwest corner of their town and the only change they are making on the outlet is moving it to the north side of the road from the south side of the road. He stated that they have agreed to clean and check all septic tanks before hooking them up and if necessary will install a large septic tank at the end of the outlet.

Mr. Youngblood stated that they contacted the Department in early spring for a variance and had the feeling it was approved.

Mr. Teekippe explained that they are asking for a variance to allow for the phase construction. The resources are not there to do the collection system and the treatment plant at the same time. He stated that they are asking to have the latitude to construct the collection system first because that is where the real problems are.

Chairman Schlutz recognized Senator Larry Murphy of Oelwein who spoke in behalf of the community in asking for a variance. He gave a history of the area and their problems. He stated that they are trying to do what they can in a step-by-step manner.

Chairman Schlutz requested that Allan Stokes give the views of the Department concerning this situation.

Allan Stokes stated that their septic tank system is in an area that does not work and does not achieve the degree of treatment that it should be achieving. Over the course of years, they have cut most of the septic tanks into farmers field tiles, or improved farmers field tiles that the city itself had improved as they caved in. Essentially, they are directly discharging ill-treated human waste to the open environment and very probably to waters of the state. The county finally told the people that there were not going to be any more septic tanks built there. They will allow rehabilitation of existing septic tanks. The Department has sent a letter to the County Supervisors encouraging them to take steps to shoulder their responsibilities and enforce provisions regarding illegal discharges from septic systems.

Mr. Stokes stated that the community may have contacted the department, and perhaps someone had led them to believe that we would approve a phased program. He added that they might approve a phased program, but certainly not a distribution system before treatment. The Department's position has always been that they do not approve and build sewers without a treatment system to hook into. They are asking us to issue a permit to legalize this direct discharge of untreated waste to the environment. They have the right to a formal contested case appeal, on the denial of a permit, to the Commission.

Discussion took place regarding alternative types of treatment and alternative phasing of systems.

Lyle Jackson, Fayette County Sanitarian, stated that there are very few private sewage options. The town is very small and cost of sewage treatment is excessive. Mr. Jackson said that he also serves on the Board of Health and they are not going to evict people from their homes. They must put in a central sewage system as there is no other choice for them. He stated that he hopes something can be worked out.

Wayne Pape, Fayette County Supervisor, stated that they would like the Commission to work with them and allow the collection system to go in first.

Chairman Schlutz stated that the Commission cannot go against the laws of the state of Iowa when granting variances and permits. He asked Mike Murphy of the legal staff to comment on legal aspects of this situation.

Mr. Murphy stated that, as he understands it, the community wants to build a sewer system to collect waste and transport it away from the community and not provide treatment of the waste. He stated that the Iowa Code allows the Director and the Commission to grant variances from rules of the Department, but does not authorize variances from the Iowa Code. The Iowa Code requires that pollutants shall not be discharged to waters of the state and provides that adequately treated pollutants discharged pursuant to a permit from the Department may be allowed. A permit can be issued to facilities that do not allow full compliance with the law as long as there is a compliance schedule to achieve compliance. Under the federal and state mandates, that is supposed to occur by July, 1988. The problem in this case is that we would be allowing untreated waste to be discharged for an unknown and possibly long period of time, and the Commission does not have the authority to allow that.

Discussion occurred regarding primary treatment and partial treatment and cleaning of septic tanks.

Motion was made by Richard Timmerman that the Commission not override the denial of the variance and that staff be directed to consult with the community of Oran and provide for them options consistent with funding and state law. Also, that a report be made by the Department to this Commission at the September meeting reference that consultation. Seconded by Nancylee Siebermann. Motion carried unanimously.

PUBLIC PARTICIPATION

Chairman Schlutz announced public participation at 3:30 p.m.; no one requested to speak.

MONTHLY REPORTS

Allan Stokes, Division Administrator, Environmental Protection Division, presented the following item.

The following monthly reports are enclosed with the agenda for the Commission's information.

1. Rulemaking Status Report
2. Variance Report
3. Hazardous Substance/Emergency Response Report
4. Enforcement Status Report
5. Contested Case Status Report

Members of the department will be present to expand upon these reports and answer questions.

IOWA DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION COMMISSION
RULEMAKING STATUS REPORT
AUGUST 1, 1987

PROPOSAL	DRAFT TO COMMISSION	NOTICE PUBLISHED	RULES REVIEW COMMITTEE	HEARING	SUMMARY OF COMMENTS & RECOMMENDATIONS TO COMMISSION	RULES ADOPTED	RULES PUBLISHED	RULE EFFECTIVE
1. Ch. 23 - NO_x	5/20/87	6/17/87	7/08/87	7/07/87 7/08/87 7/10/87				
2. Ch. 40, 41 - Fluoride MCL	5/20/87	6/17/87	7/10/87	7/07/87 7/08/87 7/10/87		*8/19/87	*9/09/87	*10/14/87
3. Ch. 50 - 52 Water Allocation (Conservation)	5/20/87	6/17/87	7/08/87	7/07/87 7/08/87 7/10/87				
4. Ch. 62 - Effluent Standards	7/21/87					*7/21/87	*8/12/87	*9/16/87
5. Ch. 65 - Pesticides	11/12/86	12/03/87	1/06/87 7/08/87	12/23/86 12/30/86 1/05/87	5/20/87	5/20/87	6/17/87	7/22/87
6. Ch. 100, 102 - Landfill Groundwater Monitoring	3/16/87	5/20/87	6/10/87	6/09/87 6/10/87 6/11/87		*8/19/87	*9/09/87	*10/14/87
7. Ch. 135 - Underground Tank Monitoring	12/15/86	1/14/87	2/10/87 6/10/87	2/03/87 2/05/87 2/10/87	4/21/87	4/21/87	5/20/87	Delayed
8. Ch. 141 - Used Oil	6/17/87	*8/12/87						
9. Ch. 152 - Criteria for Siting Low - Level Rad Waste Facilities	8/19/87	*9/09/87		10/01/87 10/02/87 10/06/87				

*Postponed

MONTHLY VARIANCE REPORT 07/[illegible]

No.	Facility Name	Program	Engineer	Subject	Decision	Date
1	Brink Rooster, Inc.	Air Quality		Equipment Test	approved	07/10/87
2	John Deere-Waterloo Wk	Air Quality		Equipment Malfunction	approved	07/10/87
3	Manning, City of	Air Quality		Landscape Waste	denied	07/15/87
4	Onawa, City of	Air Quality		Landscape Waste	denied	07/15/87
5	Gene Vorwald&Sons Cons	Air Quality		Landscape Waste	approved	07/17/87
6	Riverview Estates II	Wastewater Const.	Hawkeye Engr. Co.	Site Separation	denied	07/17/87
7	DeWitt, City of	Wastewater Const.	Boling Consultants	Sewer Grade	approved	07/27/87
8	West Branch Hainsbrdg	Flood Plain	HNM, Inc.	Freeboard	approved	07/11/87
9	Logan, City of	Wastewater Oper.		Sample Type	denied	07/01/87
10	Lake Mills	Wastewater Oper.		Effluent Limit	approved	07/02/87

REPORTS OF HAZARDOUS CONDITIONS

During the period of July 1, 1987 through July 31, 1987, reports of 74 hazardous conditions were forwarded to the Central Office. Two incidents are highlighted, followed by a general summary and the number per field office.

Date Reported and County	Description: Material, Amount, Date of Incident, Cause, Location, Impact	Responsible Party	Response and Corrective Actions
7/1/87 CLINTON	About 200 pounds of phosphoric acid leaked from a valve on an above ground tank at 2200 Manufacturing Drive in Clinton, Iowa on July 1, 1987. The material was contained in an area by railroad tracks.	Ralston Purina 2200 Manufacturing Drive, Clinton, Iowa 52732	The material was diluted by water until a neutral pH was attained.
7/27/87 DES MOINES	A vapor hose ruptured on an 80-ton railcar and caused a release of about 4.4 tons of ammonia about three miles south of Burlington, Iowa on July 25, 1987.	Agri-Basic Fertilizer, P.O. Box 841, Burlington, Iowa 52601	Nearby residents were evacuated. An employee of the responsible party borrowed a self-contained breathing apparatus from the fire department and shut off the valve that supplied the hose.

Numbers in Parentheses Represent Reports for the Same Period in Fiscal Year 1986

		Substance Type				Mode				
Month	Total # of Incidents	Petroleum Product	Agri. Chemical	Other Chemicals and Substances	Handling and Storage	Pipeline	Highway Incident	RR Incident	Fire	Other
Oct	79	45	0	34	53	0	18	2	0	6
Nov	24	12	3	9	17	0	5	1	0	1
Dec	43	36	1	6	24	1	14	1	0	3
Jan	48	32	3	13	37	0	9	0	1	1
Feb	41	25	1	15	30	1	5	1	2	2
Mar	55	35	5	15	37	0	12	4	1	1
Apr	75	32	25	21	51	3	16	3	2	3
May	74	24	29	21	39	0	24	2	6	3
Jun	75	34	11	28	47	1	14	1	2	8
Jul	74(62)	26(22) UST-16	10(11)	38(29)	50(48) UST-16	1(0)	13(6)	3(1)	1(1)	6(6)

Total # of Incidents Per Field Office This Period

01	02	03	04	05	06
11	10	14	6	22	11

Enforcement Report Update

The following new enforcement actions were taken last month:

Name, Location and Field Office Number	Program	Alleged Violation	Action	Date
Osage River City Egg, Inc, Mason City (2)	Wastewater	Compliance schedule, improper discharge	Order/Penalty	7/01/87
City of Breton (3)	Wastewater	Plan of action	Order/Penalty	6/30/87
City of Inwood (3)	Wastewater	Plan of action	Order/Penalty	6/30/87
Hill Knoll, Carroll (4)	Drinking Water	False reporting	Order/Penalty	7/07/87
Cattlemen's Steak and Provisions LTD, Belmond (2)	Drinking Water	Failure to monitor bacteria	Order/Penalty	7/07/87
Mt. Vernon Steel and Wire Company Mt. Vernon (1)	Wastewater	Compliance schedule/ pretreatment plan	Order/Penalty	7/13/87
New Hampton Farmer's Cooperative (1)	Hazardous Condition	Abandoned sites	Order/Penalty	7/13/87
Clarion Farmers Elevator Cooperative	Wastewater	Prohibited discharge	Order/Penalty	7/16/87
Great Rivers Coop, Libertyville (6)	Hazardous Condition	Failure to notify - abandoned site	Order/Penalty	7/16/87
Powashiek Rural Water (5)	Drinking Water	Operational violation	Order/Penalty	7/16/87
Big Rock Tap, Big Rock (6)	Drinking Water	Operating w/o permit Failure to monitor bacteria.	Order/Penalty	7/16/87
Lloyd Mathews, Allamakee Co. (1)	Wastewater	Prohibited discharge	Order/Penalty	7/16/87
Bremer Utilities (1)	Drinking Water	Failure to monitor bacteria.	Order/Penalty	7/24/87
Kountry Manor Garnavillo (1)	Drinking Water	Failure to monitor bacteria.	Order/Penalty	7/24/87
City of Doon, (3)	Drinking Water	Failure to monitor nitrates.	Order	7/24/87
River Road Golf Club, Algona (2)	Drinking Water	Failure to monitor bacteria.	Order/Penalty	7/24/87
Squaw Valley South Subdiv. (5) Ames	Drinking Water	Failure to monitor bacteria.	Order/Penalty	7/24/87
Rich Metals Co., Davenport (6)	Air Quality	Open burning.	Order/Penalty	7/27/87
City of Jewell (2)	Wastewater	Effluent violations.	Order	7/27/87
Village Oaks Homeowners Assoc., Blue Grass (6)	Drinking Water	Failure to monitor bacteria. MCL - bacteria.	Order/Penalty	7/27/87
City of Dixon (6)	Drinking Water	Failure to monitor organics	Order/Penalty	7/29/87
City of Donnellson (6)	Wastewater	Municipal improvement plan	Order	7/29/87
City of Albert City (3)	Wastewater	Municipal improvement plan	Order	7/29/87
City of Moville (3)	Wastewater	Municipal improvement plan	Order	7/29/87
City of Dike (2)	Wastewater	Municipal improvement plan	Order	7/29/87
Linwood Mining and Minerals Davenport (6)	Air Quality	Fugitive dust	Order/Penalty	7/29/87

Summary of Administrative Penalties

The following administrative penalties are due:

NAME/LOCATION	AMOUNT	DUE DATE
*Shelter Shield (Buffalo Center)	$1,000	12-03-86
*Lawrence Payne (Ottumwa)	700	12-05-86
*Cedar Hills Apartments (Dubuque)	1,000	12-29-86
*Chico's Supper Club (Burr Oak)	863	2-10-87
*City of Dysart	400	3-13-87
*OK Lounge (Marion)	448	3-29-87
Rhinehart Construction Co. (N. Dallas SLF)	800	5-15-87
Giese Construction Co. (Eagle Grove)	1,000	5-23-87
The Moore Oil Co. (West Branch)	336	6-09-87
City of Swan	530	7-01-87
**G & K Truckstop (Lenox)	162	7-01 87
Ken Turner (Fort Madison)	200	7-15-87
Elings/Catron/Frey (Des Moines)	1,000	7-18-87
Orrie's Supper Club (Hudson)	336	7-21-87
Frederika's Tap (Frederika)	50	8-01-87
Country Corner Cafe (Pacific Junction)	451	8-05-87
JTM Indust./MacDade/Lesmer (Pleasant Valley)	1,000	8-12-87
Glen Mark Subdivision (Burlington)	436	8-19-87
McFadries (Davenport)	1,000	8-19-87
Wilson/Pingel (Fort Dodge)	500	8-19-87
Trausch Co. (Carroll)	1,000	8-19-87
Trausch Co. (Carroll)	1,000	8-19-87
City of Shenandoah	500	8-21-87
Golden Slipper (Dunlap)	250	8-21-87
City of Toledo	500	9-01-87
Osage River City Eff (Mason City)	500	9-06-87
City of Ireton	500	9-06-87
City of Inwood	400	9-07-87
Cattleman's Steak...(Belmond)	324	9-08-87
Mt. Vernon Steel and Wire	1,000	9-12-87
Clarion Farmer's Coop	750	9-18-87
Great Rivers Coop (Atavia)	1,000	9-18-87
Lloyd Matthews (Allamakee Co.)	500	9-18-87
New Hampton Farmer's Coop	1,000	9-19-87
Poweshiek Rural Water	500	9-20-87
Big Rock Top	660	9-21-87
Bremer Utilities	262	9-21-87
Kountry Manor (Garnavillo)	312	9-26-87
River Road Golf Club (Algona)	$ 274	9-26-87
Squaw Valley South Sub. (Ames)	212	9-26-87
Rich Metals (Davenport)	1,000	----
Village Oaks Homeowners Ass'n (Blue Grass)	424	----
City of Dixon	200	----
Linwood Mining (Davenport)	1,000	----
City of Wapello	500	----
City of Newell	500	----

The following administrative penalties have been appealed:

NAME/LOCATION	AMOUNT
Kula and Boge (Martelle)	$1,000
Hardi-Klasp, Inc, (Webster City)	1,000
Munn and Traum (Davenport)	100
Scotty's Auction Service (Davenport)	100
Des Moines Metro SLF	1,000
Iowa City Regency MHP	1,000
Bianchi Meyrat Lagoon (Des Moines)	600
Thomas E. Lennon (Barnum)	700
Larsen/O'Donnell (Humboldt)	500
Trausch Co., Inc. (Carroll)	1,000
Trausch Co., Inc. (Carroll)	1,000
Trausch Co., Inc. (Carroll)	1,000
The Bank (Turin)	212

Penalties were rescinded for Sport Wade, Inc. (Weldon) and Basch/Ralston (Fort Dodge).

* Referred to the Attorney General
** On Payment Schedule

The following administrative penalties were paid in July:

NAME/LOCATION	AMOUNT
*Country Corner Cafe (Pacific Junction)	$ 400
Chicago Central & Pacific RR (Fort Dodge)	500
The Midway (Holy Cross)	100
Fox Roller Rink (Camanche)	50
Telegrove Water Assn. (Davenport)	50
Country Living MHP (Altoona)	400
Monti-View MHP (Monticello)	200
Marion County Care Facility	100
Huegerich Homes of Carroll	1,000
Winnebago Industries, Inc.	600
E.J. Rath, Inc. (Missouri Valley)	30
*Finlan Landfill (Chickasaw County)	1,000
Lakewood Sanitary District	1,000
Regional Environmental Imp. Comm. (Marengo)	1,000
Bill Boell (Carroll)	100

CONTESTED CASES
AUGUST, 1987

DATE RECEIVED	NAME OF CASE	ACTION APPEALED	PROGRAM	ASSIGNED TO	STATUS
3/10/87	Lakewood Sanitary District	Administrative Order	WW	Hansen	Proposed decision 7-13-87.
3/16/87	Deere and Company	Administrative Order	WW	Murphy	Negotiating before filing.
3/18/87	Grellner	Administrative Order	FP	Clark	Hearing held 6-30-87; Mayer/Vogel withdrew.
3/19/87	City of Mt. Pleasant	Administrative Order	WW	Hansen	Negotiating before filing.
3/25/87	City of Lone Grove	Design Denial	WW	Hansen	Hearing set for 7-15-87
3/25/87	Traum and Munn	Administrative Order	SW	Kennedy	Negotiating before filing.
4/06/87	Scotty's Auction Service	Administrative Order	SW	Kennedy	Negotiating before filing.
5/05/87	Des Moines Metro SLF	Administrative Order	SW	Kennedy	Hearing held 7-16-87.
5/12/87	Iowa City Regency MHP	Administrative Order	WW	Hansen	Hearing continued.
5/22/87	Bianchi-Weyrat Lagoon (Hank Smith)	Administrative Order	WW	Kennedy	Hearing set for 8-5-86.
6/05/87	Truscott Company, Inc.	Administrative Order	AQ	Lande	New case.
6/10/87	City of Toledo	Administrative Order	WW	Hansen	Appeal dismissed 7-15-87.
6/11/87	Thomas Lannan	Administrative Order	FP	Clark	New case.
6/15/87	Robert O'Donnell	Administrative Order	SW	Kennedy	New case.
7/20/87	Truscott Company, Inc.	Administrative Order	HZ	Lande	New case.
7/20/87	Truscott Company, Inc.	Administrative Order	WW	Lande	New case.
9/14/86	Raimond, et. al.	Administrative Order	HZ	Lande	Proposed decision 11-4-85; appealed.
10/17/86	City of Bevington	Administrative Order	WW	Hansen	Hearing continued.
1/23/86	Oelwein Soil Service	Administrative Order	WW	Lande	Hearing continued.
6/12/86	ADM - Clinton	Administrative Order	Air	Lande	Hearing continued.
7/30/86	IBP - Columbus Junction	NPDES Permit	WW	Hansen	Proposed decision 7-9-87
9/10/86	Hale and Bego	Administrative Order	SW	Lande	Negotiating before filing. Removal started.
10/27/86	Union County/Wittstock	Permit Issuance	FP	Clark	Remanded by District Court.
10/30/86	Leonard Municipal Utilities	Administrative Order	WW	Hansen	Negotiating before setting hearing.
10/29/86	Hamdi-Klemp Company, Inc.	Administrative Order	AQ/WW SW	Lande	Hearing continued.
11/14/86	Gale Conrad	Permit Condition	FP	Clark	Proposed decision 6-18-87.
12/03/86	City of Waukee	Administrative Order	WS	Hansen	Hearing continued.
12/11/86	Kleine Reese	Permit Condition	FP	Clark	Hearing continued.
12/24/86	Francis Hawkerlin	Administrative Order	FP	Clark	Hearing continued.
1/ /87	Ampro, Inc.	Administrative Order	AQ	Lande	Hearing set for 7-9-87.

In reference to the Rulemaking Status Report, Mr. Stokes explained that the Administrative Rules Review Committee delayed the Underground Storage Tank Monitoring rule because they questioned the provision addressing the use of unregistered professional engineers, or company engineers for the purpose of preparing as-built plans. The Commission, in approving those rules, expanded on the definition of company engineer to mean either a full-time employee of the company or a person who had an engineering degree and was hired to prepare the plans. The rules review committee was concerned it might still be discriminatory against a small company who would have to go out and hire someone who had an engineering degree, whereas a major corporation would only need to use a company engineer under the full-time employ of the company. Secondly, they were concerned as to how this would match up with what is stated currently in Code under Chapter 114 of the law that deals with the Board of Engineering Examiners.

The Rules Review Committee directed us to communicate with the Board of Engineering Examiners for their opinion regarding this. They indicate that the practice of preparing these plans would be considered to be professional engineering within the meaning and intent of Chapter 114, and they recommended that the rule be amended by simply making the requirement that everybody would have to have a registered professional engineer.

Mr. Stokes stated that this information has been given to the Administrative Rules Review Committee. They met yesterday but did not cover this topic. At this point, it remains on the 70-day delay.

Discussion followed regarding options the Commission could take, such as: 1) The Commission could recall the rule and change it to conform with the recommendation of the Board of Engineering Examiners; 2) The Commission could leave it the way it is and see what the Legislative Rules Review Committee does with it; 3) Another totally separate rulemaking action could be initiated to address these issues.

The Administrative Rules Review Committee could delay it for 45 days into the legislative session and it would then be referred to a legislative committee who might recommend legislation and the rules could be rescinded by legislation. They could also pass a law that expressly states what they want in regards to the rules.

STATUS OF THE ONE-TIME PESTICIDES AND SYNTHETIC ORGANIC CHEMICAL MONITORING ACTIVITY

Allan Stokes, Division Administrator, Environmental Protection Division, presented the following item.

A brief status report will be presented on the current status of the pesticides and synthetic organic chemical monitoring activity.

Sampling activities began November 1, 1986 and will continue until November 1, 1987. Upon completion of the sampling and analytical activities, a report will be completed and distributed to the General Assembly by April 1, 1988.

SUMMARY OF UF2303 MONITORING RESULTS
Compiled July 29, 1987

*560 Public Water Supply results received. Approximately 900 public water supplies are included in this study.

80 systems tested positive for one or more pesticides. The pesticides most commonly found are Atrazine, Bladex, Lasso, Dual and Sencor.

357 systems tested positive for one or more synthetic organic chemicals. The most commonly found chemicals belong to a group of synthetic compounds called trihalomethanes (THMs). THMs are formed during disinfection when chlorine reacts with organic matter in the water. 335 systems had measurable concentrations of THMs.

No measurable concentrations of pesticides or synthetic organic chemicals were found in 191 systems.

18 systems had concentrations of synthetic organic chemicals (SOCs) high enough to warrant resampling. So far, one contamination problem has been identified at Crosco. The resampling program is in varying stages of completion. No systems have had pesticide concentrations high enough to warrant resampling.

*The following provides a summary of results based on the characteristics of the system's primary source of water:

Surface water systems:
- Number of systems sampled 30
- Systems testing positive for pesticides 17
- Systems testing negative for pesticides 13
- Systems testing positive for SOCs 29
- Systems testing negative for SOCs 1
- Systems testing positive for both pesticides and SOCs 16
- Systems testing negative for both pesticides and SOCs 0

Systems with wells '100 feet deep:
- Number of systems sampled 141
- Systems testing positive for pesticides 23
- Systems testing negative for pesticides 118
- Systems testing positive for SOCs 106
- Systems testing negative for SOCs 35
- Systems testing positive for both pesticides and SOCs 20
- Systems testing negative for both pesticides and SOCs 32

Systems with wells '100 or '500 feet deep:
- Number of systems sampled 217
- Systems testing positive for pesticides 12
- Systems testing negative for pesticides 205
- Systems testing positive for SOCs 124
- Systems testing negative for SOCs 93
- Systems testing positive for both pesticides and SOCs 4
- Systems testing negative for both pesticides and SOCs 85

Systems with wells '500 or '1,000 feet deep:
Number of systems sampled 50
Systems testing positive for pesticides 3
Systems testing negative for pesticides 47
Systems testing positive for SOCs 20
Systems testing negative for SOCs 30
Systems testing positive for both pesticides and SOCs 1
Systems testing negative for both pesticides and SOCs 28

Systems with wells '1,000 feet deep:
Number of systems sampled 72
Systems testing positive for pesticides 3
Systems testing negative for pesticides 69
Systems testing positive for SOCs 31
Systems testing negative for SOCs 41
Systems testing positive for both pesticides and SOCs 2
Systems testing negative for both pesticides and SOCs 40

Consecutive water systems. Purchase water from another system. Source may be surface or ground.
Number of systems sampled 49
Systems testing positive for pesticides 22
Systems testing negative for pesticides 27
Systems testing positive for SOCs 45
Systems testing negative for SOCs 4
Systems testing positive for both pesticides and SOCs 21
Systems testing negative for both pesticides and SOCs 3

HF2303 CONTAMINANT LIST
08/17/87

SYNTHETIC ORGANIC COMPOUNDS

Total Trihalomethanes
Chloroform
Bromodichloromethane
Dibromodichloromethane
Bromoform
Ethylbenzene
Carbon Tetrachloride
1,1,1-Trichloroethane
o-Dichlorobenzene
1,1-Dichloroethane
Tetrachloroethylene
Trichloroethylene
o-Xylene
p+ -Xlene
1.2-Dichloroethane
Benzene
Chlorobenzene
Methylene Chloride
Toluene
p-Dichloroethane

PESTICIDES

Atrazine
Lasso
Dual
_____ (soil sterilizer; new, haven't found before)
Bladex
Sencor
2,4-D

HF2303 RESAMPLERS
8/19/87

PWS	Contaminant	Status
Albia	TTHM 125PPB	1st Resample 4PPB
Bloomfield	TTHM 139PPB	1st Resample 172PPB
Centerville	TTHM 153PPB	1st Resample 213PPB
Central Water System	TTHM 149PPB	
Chariton	TTHM 152PPB	
Clarke Rural Water	TTHM 217PPB	Purchases water from Osceola
Corning	TTHM 175PPB	1st Resample 86PPB
Corydon	TTHM 105PPB	1st Resample 57PPB
Cresco	Tetrachloroethylene 32PPB	Took contaminated well off line
Danville	TTHM 109PPB	
Drakesville	TTHM 315PPB	Purchases water from Bloomfield
Ellston	TTHM 120PPB	Purchases water from Sun Valley
Greenfield	TTHM 126PPB	1st Resample 114PPB
Hopkinton	1,1,1-Trichloroethane	Couldn't reproduce this concentration; possible sampling error.
Kellerton	TTHM 158PPG	Purchases water from Sun Valley
Leon	TTHM 253PPG	
McGregor	1,1,1-Trichlorethane 76PPB	Couldn't reproduce these concentrations; possible sampling error
Orient	TTHM 110PPB	
Osceola	TTHM 175PPB	
Sun Valley RWA	TTHM 142PPB	1st Resample 32 PPB
Williams	TTHM 125PPB	
Blockton	TTHM 431PPB	

In most cases, we only required the seller to resample when high TTHMs were found. One of the samples the seller collects is within purchaser's system.

REVISIONS TO CHAPTERS 40 AND 41 -- WATER SUPPLY RULES

Allan Stokes, Division Administrator, Environmental Protection Division, presented the following item.

Attached is a revised copy of revisions to Chapters 40 and 41--Water Supply Rules. The proposed revisions reflect the input from departmental staff and the Administrative Rules Review Committee. We are requesting the Commission's approval of the proposed rules.

The revisions to Chapters 40 and 41--Water Supply Rules were sent for public comment to various interested and affected groups, including all community water supplies with fluoride levels in excess of 2.2 mg/l, the Iowa Chapter of the American Water Works Association, the League of Municipalities, university professors, the Department of Health, the State Hygienics Laboratory, DNR field offices and EPA Region 7. In addition, a general news release regarding the proposed revisions was made.

Four minor changes have been made to the revisions. The words "such as" in 41.4(3)"f."(3)4 has been replaced with the word "include" and the word "such" in 41.4(3)"f"(4) has been replaced with the word "this" to improve the

readability of the rules. A minor wording modification has been made to 41.4(3)"f"(5) to clarify that the laboratory must be certified as prescribed in 41.4(1). A typing error was noted in 41.4(3)"f"(5). The figure +10% was changed to ±10%.

On May 20, 1987, the Commission approved a Notice of Intended Action to hold three public hearings and receive comments on the proposed revisions. The public hearings were held on July 7, July 8 and July 10, 1987, and the written comment period closed on July 20, 1987. No oral comments were made at the public hearings, and no written comments were received.

ENVIRONMENTAL PROTECTION COMMISSION [567]
Adopted Rule

Pursuant to the authority of Iowa Code sections 455B.105 and 455B.173, the Environmental Protection Commission of the Department of Natural Resources amends 567--Chapters 40 and 41 Iowa Administrative Code, pertaining to the maximum contaminant level of fluoride in community drinking water systems.

The Notice of Intended Action was filed by the Environmental Protection Commission and published in the June 18, 1987 Iowa Administrative Bulletin as ARC 7681. Public hearings were held on July 7, 1987, July 8, 1987 and July 10, 1987. The amendments were adopted on August 19, 1987. Four minor changes to the amendments to Chapters 40 and 41 proposed in the Notice of Intended Action have been made as a result of input from departmental staff and the Administrative Rules Review Committee. The words "such as" in 41.4(3)"f"(3)4. have been replaced with the word "include" and the word "such" in 41.4(3)"f"(4) has been replaced with the word "this" to improve the readability of the rules. A minor wording modification has been made to 41.4(3)"f"(5) to clarify that the laboratory must be certified as prescribed in 41.4(1). A typing error was noted in 41.4(3)"f"(5). The figure +10% was changed to ±10%.

No oral comments were made at the public hearings, and no written comments were received.

These rules are intended to implement Iowa Code chapter 455B, division III, part I. These rules are intended to become effective October 14, 1987 after filing with the Administrative Rules Coordinator and publication in the Iowa Administrative Bulletin.

ITEM 1. Amend rule 40.2(455B) by adding in alphabetical sequence the following definition:

"Performance evaluation sample" means a reference sample provided to a laboratory for the purpose of demonstrating that a laboratory can successfully analyze the sample within limits of performance specified by the department. The true value of the concentration of the reference material is unknown to the laboratory at the time of analysis.

ITEM 2. Amend subrule 41.3(1), paragraph "b," "Fluoride," as follows:

41.3(1) Inorganic chemicals.

b. *Fluoride 2.2 4.0

ITEM 3. Amend subrule 41.4(3), by adding a new paragraph "f" as follows:

"f." Fluoride. In addition to complying with paragraphs "a" through "e" of this subrule, systems monitoring for fluoride must comply with the requirements of this paragraph.

(1) Where the system draws water from more than one source, the system must sample each source at the entry points to the distribution system.

(2) If the system draws water from more than one source and the sources are combined before distribution, the system must sample at an entry point to the distribution system during periods representative of the maximum fluoride levels occurring under normal operation conditions.

(3) The department may alter the frequencies for fluoride monitoring as set out in paragraph "a" of this subrule. Any increase or decrease in monitoring under this subparagraph will be designated in an operation permit or administrative order. To increase or decrease such frequency, consider the following factors:

1. Reported concentrations from previously required monitoring,
2. The degree of variation in reported concentrations,
3. Blending or treatment processes conducted for the purpose of complying with the MCL, and
4. Other factors which may affect fluoride concentrations include changes in pumping rates in groundwater supplies or significant changes in the system's configuration, operating procedures, source of water and changes in stream flows.

(4) Monitoring may be decreased from the frequencies specified in paragraph "a" of this subrule upon application in writing by water systems, if the state determines the system is unlikely to exceed the MCL, considering the factors listed in subparagraph (3) of paragraph "f" of this subrule. This determination shall be in writing and set forth the basis for determination. In no case shall monitoring be reduced to less than one sample every ten years. For systems monitoring once every ten years, the state shall review the monitoring results every ten years to determine whether more frequent monitoring is necessary.

(5) Effective October 2, 1987, analysis for fluoride under this subrule shall only be used for determining compliance if conducted by a certified laboratory as prescribed in 41.4(1) that has analyzed Performance Evaluation samples to within ±10% of the reference value at fluoride concentrations from 1.0 mg/l to 10.0 mg/l within the last 12 months.

_____

Date

_____

Larry J. Wilson, Director

Motion was made by Richard Timmerman to approve Final Rule--Chapters 40 and 41, Water Supply Rules. Seconded by Charlotte Mohr. Motion carried unanimously.

RECESS

Chairman Schlutz recessed the meeting at 4:40 p.m. Wednesday, August 19, 1987.

MEETING RECONVENES 8:30 A.M. AUGUST 20

REVISION OF CHAPTER 23, "EMISSION STANDARDS FOR CONTAMINANTS"

Allan Stokes, Division Administrator, Environmental Protection Division, presented the following item.

The Department requests Commission approval of the proposed amendments to the Chapter 23 rules.

On April 21, 1987, the Commission approved a notice of intended action to amend the rules to adopt the federally enforceable standard of 5.0 lbs. SO_2 per million Btu input for existing solid fuel burning sources located in 89 counties (other than Black Hawk, Clinton, Des Moines, Dubuque, Jackson, Lee, Linn, Louisa, Muscatine and Scott Counties).

Public hearings were held in July in Des Moines, Iowa City and Council Bluffs. No comments were received at these hearings. Written comments were received from three persons. The Department's responsiveness summary is attached.

If the Commission approves the Chapter 23 rule amendments in August, the amended rules will become effective October 14, 1987.

ENVIRONMENTAL PROTECTION COMMISSION (567)
Adopted Rule

Pursuant to the authority of Iowa Code section 455B.133, the Environmental Protection Commission hereby adopts amendments to Chapter 23, "Emission Standards for Contaminants," Iowa Administrative Code, by revising the sulfur dioxide emission standards for solid fuel (coal) burning stationary sources (principally coal-fired industrial and utility boilers and cement kilns) that are not subject to the federal new source performance standards.

Background

In 1972, the state of Iowa first submitted to the United States Environmental Protection Agency (EPA) a state implementation plan for meeting federal ambient air quality standards for sulfur dioxide (SO_2). That plan contained an SO_2 emission limit of 6 lbs. of SO_2 per million British thermal units (Btu) of heat input for all solid fuel burning sources in Iowa. The plan also provided for the reduction from 6 lbs. to 5 lbs. per million Btu from all sources by January 1975. These limits were approved by the EPA on May 31, 1972 (37 FR 10865).

In 1974, the state adopted new rules providing for a delay of the reduction to 5 lbs. per million Btu from January 1975 to July 1978. This proposal was submitted to the EPA on July 17, 1975. On October 1, 1976, EPA published notice that no approval or disapproval action would be taken on the July 1975, submittal because the state had adopted subsequent revisions to the affected rules.

The existing subrule 23.3(3), Iowa Administrative Code, was adopted on April 15, 1976, and became effective July 19, 1976. This subrule provides that for ten eastern Iowa counties, the eight bordering Illinois plus Black Hawk and Linn Counties, all solid fuel burning sources are limited to 6 lbs. per million Btu. (This is unchanged from the original 1972 plan.) In the remaining 89 counties, no emission limits are specified for existing sources with less than 500 million Btu heat input per hour. In these 89 counties, emissions from existing sources with more than 500 million Btu of heat input per hour are limited to 8 lbs. per million Btu. Throughout the state, new sources of less than 250 million Btu are limited to 6 lbs. per million Btu;

for new fossil fuel burning sources greater than 250 million Btu input the new source performance standards apply.

On June 1, 1977 (42 Fed. Reg. 27892), the Environmental Protection Agency formally determined that the proposed revisions to the SO_2 emission limits, other than the 6 lb. limit for the ten eastern counties and the new sources which have a capacity of 250 million Btu or less per hour heat input, were inadequate to maintain the National Ambient Air Quality Standards for sulfur dioxide. The approval of only a portion of the emission limitations adopted by Iowa resulted in a dual set of standards. The state and federal standards for the ten eastern counties and for new sources with capacities of 250 million Btu or less are consistent. However, the state and federal standards for the remaining 89 counties are significantly different. As they currently exist, the state standard for sources over 500 million Btu is 8 lbs. per million Btu and for those sources of 500 million Btu or less, there is no limit prescribed. The federal standard limits SO_2 emissions to 5 lbs. per million Btu for all solid fuel burning sources located in these 89 counties. (A more complete history of this rule is found in the IAB Volume 5, Number 26 published on June 22, 1983, as ARC 3813.)

The present rules were promulgated by the Iowa Department of Environmental Quality on April 15, 1976, and have only been approved in part by the Federal Environmental Protection Agency. In order to eliminate the dual standards which presently exist because of this EPA action, to provide a clear direction for Iowa industries and utilities, and to provide for the minimum short-term impact to Iowa's economy while preserving the existing air quality the Commission revises the rules as follows:

1. To simplify and clarify this subrule, former subrule 23.3(3)"a"(2) is revised and is renumbered as 23.3(3)"a"(1). The emission limitation set by the subrule for the ten eastern Iowa counties specifically listed was approved by the Environmental Protection Agency on June 2, 1977, and remains in its entirety.

2. Subparagraph (23.3(3)"a"(1) is renumbered as 23.3(3)("a"(2) and is revised to set new emission limitations for the existing solid fuel burning units in the remaining 89 counties in Iowa. The rule which was promulgated by the DEQ limiting these sources to 8 lbs. of SO2 per million Btu was not approved by the EPA. To conform to the existing federally approved standard, a previously proposed DEQ emission limitation of 5 lbs per million Btu for existing sources is now adopted. The standards for new sources with a capacity of 250 million Btu or less per hour heat input are not affected by this revision.

3. Subparagraph 23.3(3)"a"(5) is repealed in its entirety. The Environmental Protection Agency refused to approve this standard because it failed to provide for compliance with the National Ambient Air Quality Standards.

The rule which is adopted at this time is nearly identical to the rule making that was proposed in 1983. The Notice of Intended Action was published in the June 22, 1983, Iowa Administrative Bulletin as ARC 3813.

The Notice of Intended Action for this amendment was published in the Iowa Administrative Bulletin on June 17, 1987, as ARC 7680. Hearings were held in Iowa City, Des Moines and Council Bluffs to receive comment on the proposal. Two commentors wrote statements in support of the proposed amendments. One commentor, an affected utility, submitted adverse comments. The utility has a large supply of coal on hand that may not meet the 5.0 lb. SO_2/mm Btu heat input emission standard. The commentor contends that the cost of purchasing additional low sulfur coal for blending is unjustifiable. The commentor

requested special allowance for their plants until their higher sulfur coal is consumed.

Since all existing sources in the 89 counties are subject to federal enforcement of the 5.0 lb. SO_2 standard, an exclusion in the state rule for certain sources would have little meaning or effect. In addition the purpose of the rule amendment is to reconcile state rules with those which have already been approved by EPA. To adopt exclusions in the final rule would be contrary to the elimination of dual standards in the 89 counties. No changes have been made to the rule that was proposed.

This rule amendment is intended to implement Iowa Code section 455B.133, and will become effective October 14, 1987.

The following amendment is adopted:

Subrule 23.3(3), paragraph "a" is amended by striking subparagraphs (1) and (2) and inserting in lieu thereof the following:

(1) No person shall allow, cause, or permit the emission of sulfur dioxide into the atmosphere from an existing solid fuel-burning unit, (i.e., a unit which was in operation or for which components had been purchased, or which was under construction prior to September 23, 1970), in an amount greater than 6 pounds, replicated maximum two-hour average, per million Btu of heat input if such unit is located within the following counties: Black Hawk, Clinton, Des Moines, Dubuque, Jackson, Lee, Linn, Louisa, Muscatine and Scott.

(2) No person shall allow, cause, or permit the emission of sulfur dioxide into the atmosphere from an existing solid fuel-burning unit, (i.e., a unit which was in operation or for which components had been purchased, or which was under construction prior to September 23, 1970), in an amount greater than 5 pounds, replicated maximum two-hour average, per million Btu of heat input if such unit is located within the remaining 89 counties of the state not listed in subparagraph 23.3(3)"a"(1).

Further amend subrule 23.3(3), paragraph "a," by striking subparagraph (5).

_____

Date

_____

Larry J. Wilson, Director

Mr. Stokes stated that we have been in the dual standards situation since 1975 and this rule would change state standards to bring them in conformance with federal standards. It would change the current 8 lbs. per million Btu unlimited to a 5 lbs. per million Btu standard for 89 counties. The ten most industrialized counties would be at a 6 lbs. per million Btu standard.

Nancylee Siebenmann expressed concern that some people in the state are allowed 6 lb. standards while others are not.

Discussion followed regarding variances.

Mr. Stokes suggested that they not attempt to address differences through the rulemaking process, but instead, adopt the proposal then work with variances through normal procedures at staff level.

Motion was made by Richard Timmerman to approve Final Rule--Revision to Chapter 23, Emission Standards for Contaminants (SO2). Seconded by Charlotte Mohr.

Further discussion took place regarding the inequity of dual standards for various parts of the state.

Nancylee Siebenmann offered an amendment as follows: with due consideration during the transition phase for those facilities in which this poses a particular hardship.

Discussion followed and Commissioner Siebenmann withdrew the amendment.

Chairman Schlutz requested a roll call vote. "Aye" votes were cast by Commissioners Mohr, Siebenmann, Timmerman, Uhl, Yeager and Schlutz. "Nay" vote was cast by Commissioner Priebe. Motion carried 6 to 1.

EMISSIONS OF ACRYLONITRILE AT MONSANTO, MUSCATINE

Allan Stokes, Division Administrator, Environmental Protection Division, presented the following item.

The department has issued a technical report which provides information about emissions of acrylonitrile and 1,3 butadiene. Acrylonitrile is classified as a known carcinogen and 1,3 butadiene as a suspected carcinogen. The report shows the reductions in public health risks that will occur as a result of Monsanto's plan to control acrylonitrile emissions.

A public hearing will be held September 9, 1987 at 7:00 p.m. in the Muscatine City Hall to receive comments on a preliminary decision to permit this project. Best available control technology will be required for the control of these potentially carcinogenic emissions.

EPA provided contractor assistance to review Monsanto's first control plan and to conduct human exposure modeling. DNR solicited comments on the draft report from the Department of Public Health and University of Iowa's Medical School.

Mr. Stokes explained that acrylonitrile is a relatively volatile organic liquid that is used principally as a raw material feed stock in making several major kinds of synthetic fibers and plastics. Mr. Stokes gave a history of testing, assessment and findings by various groups. There are about 25 facilities in 14 states that are sources of acrylonitrile emissions. Due to the limited amount of sources, EPA decided against a national regulatory program. Regulation was given to state and local controls, as it allows for tailoring of individual regulations of any public health problem, and will likely result in more efficient regulation of acrylonitrile sources than if EPA would have to go through the national standards adoption process. EPA decided to test this approach on a limited basis.

Mr. Stokes stated that in Iowa there is one source of acrylonitrile which is the Monsanto Corporation in Muscatine.

Mr. Stokes distributed a copy of the department's report on this project and discussed it in depth.

Mr. Stokes stated that the department is proposing to issue a permit to Monsanto to allow them to construct the new facility that would control the acrylonitrile to levels shown in their proposal. Also, Monsanto would be required to give the department a proposal for the control of 1,3 butadiene by May 1, 1988.

A public hearing to receive comments will be held on September 9, 1987 at 7:00 p.m. in the Muscatine city hall.

REFERRALS TO THE ATTORNEY GENERAL

James Combs, Division Administrator, Coordination and Information Division, presented the following item.

The Director requests the referral of the following to the Attorney General for appropriate legal action. Litigation reports have been provided to the Commissioners and are confidential pursuant to Iowa Code Section 22.7(4).

Bill and Shirley Shields -- Floodplain
King Management, et al -- Floodplain
Rhinehart Construction -- Penalty Collection
Moore Oil Co. -- Penalty Collection

Moore Oil Co. has settled and should be deleted.

King Management -- Mr. Combs stated that this was previously tabled and needs to be removed from the table.

Motion was made by Nancylee Siebenmann to remove the James C. and Julia King referral from the table. Seconded by Clark Yeager. Motion carried unanimously.

Randall Clark of the Legal Bureau presented a history of this case. He stated that the channel change took place on Otter Creek in Warren County. Otter Creek dumps into the South River which drains into the Des Moines River. Mr. Clark pointed out the affected area on a topographic map and presented a series of slides showing the channel change. Photos revealed the old as well as the new channels; some pilot channels were also shown.

There was a discussion regarding King Management Corporation and Mr. Clark explained that there was no Corporation at the time the Administrative Order was issued to James C. and Julia King. There was no corporate interest ownership until May of 1987.

APPOINTMENT

William Wimer, Attorney for the King family, stated that he is seeking an evidentiary hearing in the form of a contested case. He added that the Kings

did not file their appeal until four or five days after the deadline because the fifth page of the administrative order, which advised them of the procedure for appeal, was missing when they received the order. Mr. Wimer stated that he feels a useful purpose could be served by giving Mr. King his day in court. He further stated that the evidence can be taken and that they will live with the results of it. Mr. Wimer stated that he has aerial photos which show that the southernmost pilot channel was in place prior to 1975 before the Kings bought this property. He stated that they would like to combine the King hearing on the same day as the Heuberlin hearing.

Mr. Wimer left after his presentation.

Mr. Clark stated that within a week after the administrative order, Mr. Schneider who was then representing the King interests, called him and asked about the appeal procedure. Mr. Clark informed him that he simply needed to send a letter stating that he was appealing and identifying the order which was being appealed. Mr. Clark stated that they discussed the time deadline, and he expected to receive an appeal shortly thereafter. The Department did not hear from Mr. Schneider until sometime in January, after the appeal period had passed. Mr. Clark stated that after the appeal period is past, the Department does not have jurisdiction to entertain a contested case.

Mr. Clark stated that Mr. Schneider phoned him after the appeal was denied and told him of the missing Page 5. Mr. Clark added that the order was mailed to Mr. Schneider, to King Management Company, and to James C. and Julia King.

Keith Uhl suggested that, in the future, some type of certification be devised to prove receipt of the complete order by the people involved.

Discussion followed regarding ownership of the property, the alleged missing Page 5, a channel change without authorization, and possibly issuing a new administrative order.

Richard Timmerman stated that it is not the role of the Commission to investigate every possible legal ramification and if an environmental problem occurs there is a need to have it investigated further.

Motion was made by Charlotte Mohr for referral to the Attorney General's Office. Seconded by Keith Uhl. Motion carried unanimously.

Bill and Shirley Shields

Randall Clark of the Legal Bureau stated that, after inspection by staff member Dave Allen, a notice of violation was sent to Mr. and Mrs. Shields. They responded that they wanted to receive after-the-fact approval and agreed to restoration. Between January and July of 1986, Mr. Allen wrote several letters to the Shields seeking to find out when the work would be done. He received no response to any of the letters, and an administrative order was issued on November 25, 1987. A restoration plan was received from the Shields in January of 1987. The Department accepted it on March 4, 1987 and, at that time, reminded them that the work must be completed by May 15, 1987. Mr. Shields has maintained that it has been too wet to do the work. Mr. Clark

stated that it is now three months past the deadline and it is time to proceed with the referral.

APPOINTMENT

Harold W. Johnson, Attorney for Mr. Bill Shields, distributed a letter from the earth-moving contractor who was hired to do the work stating that it has been too wet to do the work. He also distributed a climatological report regarding the excessive rainfall in the area of Otter Creek. Also distributed was a letter from the Warren County Engineer stating that the channel change on Otter Creek has been beneficial in that it has alleviated flooding on a segment of County Line Road.

A lengthy discussion took place regarding the Commission's role and authority in referrals.

Mr. Johnson asked the Commission to direct the staff to check with the Warren County Engineer to see if there is any merit to his contention. He stated that they would like the referral delayed for 60 to 75 days to allow Mr. Shields to make a good effort to restore the creek to its original channel.

Mr. Shields stated that he has lived in the area for 20 years and the last few years have been extremely high-water years. Normally, the creek dries up around mid-July to September, but this has been a very wet year. He stated that he has been trying to get the work done but it has been too wet. He added that he might be able to get to it in a few weeks if it does not rain again. He stated that he fully intends to install the block.

Richard Timmerman stated that if the Commission was in a position to do something to get the problem solved he would certainly be in favor of it, but as a practical matter the Commission is not in a position to resolve the problem. He stated that the situation is regarding mitigation which the Commission is not in a situation to judge and the Attorney General's Office can judge. Additionally, all of the issues brought out here today would be taken into consideration at the Attorney General's Office.

Motion was made by Richard Timmerman for referral to the Attorney General's Office. Seconded by Charlotte Mohr.

Keith Uhl stated that this Commission, over the years, has balanced common sense to practicality so that one would have the opportunity to wait for a little dry weather to work out the situation without exposing themselves to additional legal fees and litigation. He added that some are interpreting the changes in the law section 455B.12 to usurp the powers of this Commission. They interpret that to say that the Attorney General does not represent the Commission any more, but can do whatever he wants--even though this Commission votes against the referral. That law was passed by the legislature, and until an Iowa District Court interprets that to the contrary, that he does represent the Commission, we are in no position to continue to attempt to protect the citizens of the state of Iowa by looking at good judgment and fair play. It appears that if there is a mere probable cause without the collective wisdom of the farmers or businessmen, the cases are going to be referred.

Clark Yeager asked John Sarcone of the Attorney General's Office if the Commission would have any assurance that the three cases along Otter Creek will be handled together.

Mr. Sarcone stated that this is one situation where a contested case is presently taking place and it might slow the process but that they will look at all of the factors. He stated that they will review the cases together if possible, depending on where the cases are at that time, and will take the reasonable approach.

He stated that the Attorney General's Office does not disregard what the Commission says, contrary to Mr. Uhl's thinking that our office is so unreasonable and that the Commission is the only repository for reasonableness, and the Attorney General will consider everything. Mr. Sarcone added that he has heard the discussion today and is not going to disregard what Mr. Johnson had to say but that they will look at all of the factors.

Mr. Sarcone stated that he thinks that the people are being misled when someone says that the Attorney General's Office does not represent this Commission and that they are usurping powers. He further stated that they are not doing that at all and it is unfair to the Attorney General's Office and to the staff who work very hard in preparing these cases, trying to get all the facts they can under the limited circumstances in which they operate.

Mr. Sarcone stated that to say that the Attorney General's Office overfiles on the Commission is wrong. He stated that they respect what the Commission has to say, but they may not always agree. He added that sometimes there are cases where more information is discovered after the referral process but their office does respect what the Commission says, and they are not saying that this Commission is irrelevant. All factors are considered, especially at the point of settlement.

Clark Yeager asked if the motion could be tabled to give Mr. Shields 30 to 60 days to get the work done.

Nancylee Siebenmann stated that she agrees that the party should be given more time and is in favor of tabling the motion.

Chairman Schlutz stated that there is a motion on the floor and requested a roll call vote on Richard Timmerman's motion for referral to the Attorney General's Office. "Aye" votes were cast by Commissioners Timmerman and Uhl. "Nay" votes were cast by Commissioners Mohr, Priebe, Siebenmann, Yeager and Schlutz. Motion failed 5 to 2.

Chairman Schlutz directed staff to work with Mr. Shields for the next 45 days; and if the work is not completed at that time, the case should again be brought before the Commission.

Rinehart Construction Company

Mike Murphy stated that Mr. Rinehart was present earlier to address the Commission but is not present at this time.

Mr. Murphy further explained details of this case.

Motion was made by Nancylee Siebenmann for referral to the Attorney General's Office. Seconded by Richard Timmerman. Motion carried unanimously.

Charlotte Mohr stated that when people are present to speak to the Commission, every effort should be made to enable them to give testimony at their scheduled time.

SAYLORVILLE HYDRO DEVELOPMENT CONTRACT APPROVAL

Allan Stokes, Division Administrator, Environmental Protection Division, presented the following item.

Approval is requested to enter the Department into an agreement with Saylorville Hydro Partners.

Saylorville Hydro Partners, a Minnesota, LTD. Partnership, is seeking a license from the Federal Energy Regulatory Commission (FERC) for the purpose of developing hydropower generating facilities at Saylorville Dam. State Section 401 water quality certification from this department is a requirement for obtaining the FERC license. The developer's license application was insufficient at addressing and assessing environmental concerns resulting from hydropower development. To ensure that the state's water resources will not be adversely impacted, a conditional Section 401 water quality certification has been developed and incorporated into the agreement. The agreement binds the developer to the conditions of the Section 401 water quality certification. Although the conditional Section 401 water quality certification will become part of the FERC license, this agreement would allow the department to enforce these conditions through the state courts rather than relying in the FERC for total enforcement capability.

AGREEMENT

This Agreement entered into this ____ day of _____, 1987, by and between the Iowa Department of Natural Resources (the "Department"), and Saylorville Hydro Partners, a Minnesota Limited Partnership consisting of HRM Partners, General Partner and Independent Hydro Developers, a Minnesota Limited Partnership, as Limited Partner (the "Developer").

WHEREAS, The Developer proposes to construct a hydroelectric generating facility (the "Project") at Saylorville Reservoir Dam on the Des Moines River and has applied for a license from the Federal Energy Regulatory Commission ("FERC") to construct the project; and

WHEREAS, as part of the license application the Department has been requested to issue a Water Quality Certification under Section 401 of the Clean Water Act (33 USC 1341) and will issue a conditional Water Quality Certification (the "Conditional Section 401 Certification") as set forth

therein, a copy of which is attached hereto as Exhibit A and the provisions and duties of which are incorporated herein by this reference; and

WHEREAS, the Developer recognizes the Department's duty to maintain and improve the quality of the Des Moines River and the necessity of complying with Iowa's water quality standards (Chapter 567--61, IAC) and is desirous that the Conditional Section 401 Certification be issued by the Department to facilitate the granting of the license by FERC and in consideration of the issuance by the Department of the conditional Section 401 Certification has agreed to be bound and abide by the Conditions and has agreed to fully minimize and mitigate adverse environmental impacts from the project and to be at all times in compliance with Iowa's water quality standards; and

WHEREAS, one of the Conditions of the Conditional Section 401 Certification is that the Department and the Developer enter into this Agreement to bind the parties to the Conditions and to provide for the separate enforcement of the Conditions by the Department or the Environmental Protection Commission.

NOW, THEREFORE, in consideration of the mutual promises and agreements made herein, the Department and the Developer agree as follows:

SECTION 1. The Department will, immediately upon execution of this Agreement, forward to FERC a Conditional Section 401 Certification, a copy of which is attached hereto as Exhibit A.

SECTION 2. The Department will not intervene or attempt to intervene in the proceedings before FERC relating to the Project for the purpose of requesting the preparation of an environmental impact statement ("EIS") by FERC or otherwise cause or attempt to cause any person, agency or entity to request an EIS relating to the Project. If for any reason, the Developer fails at any time to fulfill its responsibilities under this Agreement, this section shall not be binding on the Department.

SECTION 3. The Developer agrees to be bound by the Conditional Section 401 Certification and the Conditions set forth therein and to observe and perform all acts, duties and obligations, required to be observed or performed by it by the Conditional Section 401 Certification, its Conditions and the terms of this Agreement. This Agreement is a separate and independent contract among the Developer and the Department to ensure compliance with Iowa's water quality standards and the Conditions. The Developer's agreements herein are unconditional and shall not be altered or diminished by FERC with respect hereto. Provided, however, that in no event shall this Agreement be construed to require Developer to violate federal laws or regulations.

SECTION 4. Decisions and orders of the Director of the Department concerning all the requirements of the Conditional Section 401 Certification including but not limited to all conditions and requirements for minimizing of impacts and for any mitigation of impacts shall be final unless appealed pursuant to procedures contained in Chapter 17A, Iowa Code, and chapter 900-7, Iowa Administrative Code. All decisions and orders of the Department shall be effective immediately unless a stay would be requested and granted.

Section 5. The Developer agrees to pay all charges, fees and taxes necessary to the due and lawful performance of its obligations under this

Agreement and the costs of all studies, consultants, reports, plans and minimizing and mitigation efforts required by the Conditional Section 401 Certification and compliance with its terms. Nothing herein shall require the Developer to reimburse the Department for charges, fees, taxes, costs, or attorneys' fees attributable to performance or enforcement of this Agreement by the agencies.

Section 6. The parties agree to coordinate activities and requirements of this Agreement with FERC, the U.S. Fish and Wildlife Service, the U.S. Environmental Protection Agency and the U.S. Army Corps of Engineers (the"Federal Agencies"). Even though the duties imposed by this Agreement and the Conditions upon the Developer may be greater than those imposed upon the Developer by any of the Federal Agencies including FERC, the Developer agrees to comply with the requirements of this Agreement and the Conditions. The Developer agrees not to seek provisions in its FERC license or its Agreement with the U.S. Army Corps of Engineers which are inconsistent with the provisions of this Agreement. In the event that this Agreement or the Conditions attached might be construed to authorize the Department to impose requirements on the Developer that are inconsistent with the Conditions in the Developer's FERC license or its Agreement with the U.S. Army Corps of Engineers, the Department agrees to attempt to resolve such inconsistencies, however, in no event shall Iowa's Water Quality Standards be violated.

Section 7. The Developer agrees to develop and construct recreational facilities adjacent to the outlet area of the hydropower facility in accordance with the plans to be submitted to and approved by the Department. The plans shall include but not be limited to:

a. provide a 130 car parking lot;
b. construct an access walkway to the riprap areas of the outlet (tailrace);
c. construct a public rest room that will accommodate the handicapped;
d. provide five (5) picnic tables and park benches each in the outlet area;
e. the licensee will riprap the outlet (tailrace) for a distance of 300 feet on the east bank and 450 feet on the west bank and;
f. developer is of the opinion that the new discharge channel will not affect the fishing pier at the Cottonwood Recreation Area or other downstream recreational facilities. If impacts do occur to these recreational facilities, the Developer will be responsible to mitigate these impacts and mitigation must be approved by the Section 401 Coordinator of the Department.

Section 8. The Developer agrees that the hydropower facility will operate in accordance with the Army Corps of Engineers operating plan and will mitigate fish stocked by the Iowa Fish and Wildlife Division at current costs as follows:

13 percent of the walleye, hybrid stripped bass and northern pike fry and 7 percent for largemouth bass fingerlings stocked at the Saylorville Reservoir.

Annual costs in recent years would not have exceeded $1075. Future costs would vary according to the fish species stocked and the number stocked. Escalated costs above this value would be the result of increased production costs and for an increase in the number of fish stocked.

Section 9. The Department shall have the right of entry to the Project at any reasonable time with reasonable notice for the purpose of monitoring compliance with this Agreement.

Section 10. Unless terminated or cancelled by mutual agreement of the parties, this Agreement shall be in effect from the date hereof and for so long as the Project (as originally constructed or modified) is in physical existence, and shall be binding on the parties hereto, their successors-in-interest and assigns. Provided, however, that the Developer may convey the Project and be released from this Agreement if the successor is acceptable to the Department and the successor agrees to assume all the obligations of this agreement. If Developer cancels, terminates or abandons the Project for any reason before beginning construction, the Developer's obligation to conduct the studies required as a condition of the Conditional Section 401 Certification is terminated upon reasonable notice to the Department, and the Developer's only obligation pursuant to this Agreement and the Conditions shall be to provide the Department with all study results obtained prior to termination. If the Developer cancels, terminates or abandons the Project after beginning construction for any reason, the Developer agrees subject to Section 4 to take all actions determined by the Department to be necessary to ensure that no negative environmental impact will occur as a result of such cancellation, termination or abandonment.

Section 11. The Developer shall indemnify, hold harmless and protect the Department and the State of Iowa, their representatives, officers, employees, successors and assigns, from all suits, actions or claims of any character brought because of any injuries or damage received or sustained by any person or property, personal or otherwise, on account of any negligent act, omission or misconduct of the Developer, its representatives, officers, employees or agents in connection with the construction, operation and maintenance of the Project, and compliance with the terms of this Agreement, any law, regulation, injunction, ordinance, order or decree.

Section 12. It is understood that in no circumstances whatsoever shall the Department or the State of Iowa be liable to the Developer or any other party for damages, including but not limited to lost profits or for any costs incurred except as may be allowed by law for Breach of this Agreement.

Section 13. All General partners comprising the Developer shall be jointly and severally liable for all obligations of the Developer under this Agreement.

Section 14. All notices or other communications hereunder shall be in writing and shall be deemed if delivered in person or by first-class mail addressed as follows:

If to the Department: Iowa Department of Natural Resources
Wallace State Office Building
Des Moines, Iowa 50319
Attention: Darrell McAllister

If to the Developer: Charles N. Lucas or Ingolf Hermann
c/o Independent Hydro Developers
2000 Plymouth Road, Suite 380

Minnetonka, Minnesota 55343
Phone: 612/546-5110

Section 15. This Agreement shall be governed by the laws of the State of Iowa in all respects. Nothing herein precludes the application of any future laws to the Project and this Agreement. The Developer agrees to maintain a registered agent in the State of Iowa upon whom service of process may be served in any action or proceeding arising from matters relating to this Agreement.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by their duly authorized officers as of the date and year indicated.

IOWA DEPARTMENT OF NATURAL RESOURCES

By: _____ Date: _____
Larry J. Wilson, Director

SAYLORVILLE HYDRO PARTNERS, A Minnesota Limited Partnership

By: _____ Date: _____

Motion was made by Richard Timmerman to approve the contract with Saylorville Hydro Partners to develop hydroelectric generating facilities at Saylorville Dam. Seconded by Nancylee Siebenmann. Motion carried unanimously.

DISCUSSION OF BOD TESTING STANDARDS

Chairman Schlutz recognized Dr. Richard Dague who requested to address the Commission.

Chairman Schlutz stated that since the possibility existed that the discussion could pertain to businesses in his home town, he would yield the chair to Vice-Chairman Richard Timmerman.

Dr. Dague stated that his presentation does apply to IBP at Columbus Junction as well as all other industrial wastes in the United States in terms of assessing the impact.

Dr. Dague stated that he would like to point out some of the major problems with trying to assess the oxygen impact on streams, in terms of the oxygen demand, if the nitrogenous part is not separated from the carbonaceous part.

He gave a history on EPA technical staff advising states to use carbonaceous BOD. He added that an attorney, by the name of Rogers, wrote an opinion that it was not legal and we are still living with that. He stated that one of the

main points he wants to make is that these two parameters must be separated. He stated that the whole United States should require carbonaceous inhibited BOD as the parameter measuring the impact on streams everyplace in the United States, whether it be a feedlot or whatever it may be. He stated that regulation should be with parameters that can be measured, that are repetitive, and give some degree of idea of what happens in the stream.

Dr. Dague distributed a paper entitled "Inhibition of Nitrogenous BOD in Treatment Plant Performance Evaluation." He stated that this paper gives the technical case on this subject. The main point made by Dr. Dague is that nitrofication must be suppressed in these tests. He stated that if you do not suppress nitrogen you really do not know what you have, you have just a meaningless number. He then gave a history of the Dubuque case.

Dr. Dague stated that he will meet with Director Wilson and staff members tomorrow to go into more detail regarding this. He urged the Commission to see what can be done regarding this item.

Discussion followed regarding CBOD.

Keith Uhl asked if other regions have adopted CBOD rather than total BOD testing.

Dr. Dague stated that one meat packing plant in Minnesota has gone to CBOD.

Allan Stokes stated that the federal standard is still BOD in Minnesota. They do not have any wastewater treatment plants that directly discharge to a receiving body. They have two plants that discharge to a municipal system and one that irrigates their waste rather than discharging to a receiving body. The state of Minnesota has adopted a standard that says, regardless of what or where you discharge, that all facilities will meet the definition of federal standards secondary under their new redefinition where four municipalities they have zeroed in on CBOD. Therefore, they have placed on that limitation, over and above the fact, that they are not discharging to the waters of the state. In that spot instance EPA is considering that to be a standard that is more stringent than what the federal standards would be. Mr. Stokes added that we have no information that the federal government, on a national basis, has carte blanche approved the use of CBOD.

Further discussion took place on CBOD testing and BOD testing and technicalities regarding same.

Mr. Stokes stated that we probably should end up with CBOD, as well as looking at adding ammonia limits; the CBOD number would probably be a lower number than the BOD. The reason we have not reached that point, in terms of national standards, is EPA does not think there is enough information yet to document what the CBOD number should be for the appropriate categories of industry. Apparently, the administrator of the U.S. EPA does not feel that his technical staff has given him enough information to where he will move forward with a rule change.

Dr. Dague asked the Commission to support the DNR technical staff and urge them to do whatever they can to study this. He added that he would certainly be happy to help.

Richard Timmerman stated that the action the Commission might want would be to urge EPA in Kansas City, in written form, to investigate and proceed in this subject.

Allan Stokes stated that he has no problem with sending a letter to EPA encouraging them to accelerate their efforts towards visiting whether or not BOD is the appropriate standard for industries, and to adopt the appropriate CBOD standards to bring it into line in consistence with what they have done in the municipal areas. If the Commission wishes, we could begin at the staff level efforts of trying to put together a program to change state standards predicated on the notion that we are going to have to prove to EPA that, until they change theirs, we are at least as stringent as they are.

Motion was made by Keith Uhl that the Commission write a letter to the regional and national EPA offices suggesting a more vigorous and accelerated review of the positioning between CBOD and BOD as the appropriate testing mechanism for industries. Also, that we further at the state level, initiate at a preliminary stage, an inquiry into what we believe our state rules should be which would encompass a preliminary study of what is happening in adjacent states, and what various experts and literature have in this area. Seconded by Nancylee Siebenmann. Motion carried 6 to 0.

Chairman Robert Schlutz abstained from voting due to a conflict of interests.

NOTICE OF INTENDED ACTION--CHAPTER 152, CRITERIA FOR SITING LOW-LEVEL RADIOACTIVE WASTE DISPOSAL FACILITIES

Allan Stokes, Division Administrator, Environmental Protection Division, presented the following item.

A notice of intended action is attached for proposed rules for siting low-level radioactive waste disposal facilities. The procedure for identifying suitable sites for storage or treatment of low-level radioactive wastes is described in the proposed Chapter 142 rule and the "Low-Level Radioactive Waste Disposal Facilities Siting Criteria and Methodology." These documents are attached.

ENVIRONMENTAL PROTECTION COMMISSION [567]
Notice of Intended Action

Pursuant to Iowa Code section 455B.485, the Environmental Protection Commission proposes to adopt a new 567--Chapter 152, "Criteria for Siting Low-Level Radioactive Waste Disposal Facilities," Iowa Administrative Code.

In accordance with Iowa Code section 455B.485 paragraph 2, the Commission shall adopt rules establishing criteria for identification of sites which are suitable for the operation of low-level radioactive waste disposal facilities. In accordance with this authority, the Commission proposes to adopt rules which are similar to the existing rules in 567--Chapter 151, "Criteria for Siting Hazardous Waste Management Facilities." These rules provide exclusionary and quantitative criteria for site selection and the method to be used by the waste management authority for applying these criteria. These

criteria are to be applied to facilities which are owned or operated by the state of Iowa and privately owned by the state of Iowa which are used for low-level radioactive waste disposal pursuant to 455B.485.

These amendments may impact small business.

Any interested person may file written comments on the proposed rules through October 15, 1987. Persons are also invited to attend public hearings on October 1, 1987 at 1:00 p.m. in the Trowbridge Hall Conference Room, Room 115B, Geological Survey Bureau, 123 North Capitol Street, Iowa City, Iowa; on October 2, 1987 at 1:00 p.m. in the fifth floor conference room, Wallace State Office Building, 900 East Grand Avenue, Des Moines, Iowa; and on October 6, 1987 at 11:00 a.m. in Room 006, Continuing Education Building, Iowa Western Community College, 2700 College Road, Council Bluffs, Iowa.

Chapter 152
CRITERIA FOR SITING LOW-LEVEL RADIOACTIVE WASTE DISPOSAL FACILITIES

567--152.1(455B) Authority, purpose and scope.

152.1(1) Authority. This chapter is authorized in the 1986 Iowa Code section 455B.485 paragraph 2, which relates to the siting of low-level radioactive waste disposal facilities.

152.1(2) Purpose. These regulations establish criteria for identifying sites which are suitable for operation of low-level radioactive waste disposal facilities. The waste management authority will apply these criteria to identify and recommend to the commission sites suitable for locating these facilities.

152.1(3) Scope. These regulations apply only to facilities which are owned or operated by the state of Iowa and privately owned or operated facilities which are located upon land owned by the state of Iowa which are used for low-level radioactive waste disposal pursuant to Iowa Code section 455B.485 paragraph 2.

567--152.2(455B) Definitions. In addition to the definitions in Iowa Code section 455B.481, the following definitions apply to this chapter:

"Aquifers" means water-bearing geological formations, group of formations, or part of a formation that is capable of yielding significant amounts of groundwater for beneficial use.

"Conservation area" means any park, recreation area, wildlife area, forest, prairie, preserve, natural area, scenic area owned, managed, or under control of any government agency or organized conservation group on or before the date of enactment of these rules.

"Criterion" means a test, rule, measure, or model by which judgment will be made.

"Critical wildlife habitat" means any areas known to be inhabited on a seasonal or permanent basis by, or to be critical at any stage of the life cycle of any wildlife or vegetation identified as "rare," "threatened," or "endangered" by official federal or state lists of species, or is under active consideration for listing.

"Cultural area" means any known property of recognized archaeological, architectural, cultural or historical significance as listed in or eligible for the National Register of Historic Places, the significant State Site records of the Office of Historic Preservation, the Office of the State Archaeologist, or is under active consideration for listing. Archaeological property shall include, but is not limited to, ancient mortuary sites.

"Dam hazard area" means any area identified as areas of dynamic flooding below a dam (the inundation zone) or areas of static flooding above a dam (flood pool). The inundation zone includes the area that would be flooded by a flood wave generated by dam failure during a one hundred (100)-year flood. The static flooding zone is equal to the pool level reached during a one hundred (100)-year inflow flood, or the top of the dam, whichever is greater.

"Drinking water source" means the groundwater or surface water intake of drinking water used for human consumption.

"Facility" means any hazardous waste management facility including land and structures, appurtenances, improvement and equipment for handling, treatment, storage or disposal of hazardous wastes.

"Floodplain" means the land adjacent to a stream which has been or may be inundated by a flood having the magnitude of the regional one hundred (100)-year flood.

"Geological hazard structures" means any faults, fracture zones, or other structures that may provide pathways to groundwater.

"Karst areas" means a type of topography or surface area covered by alluvial or colluvial sediments that may form over limestone, dolomite, or gypsum formations by dissolving or solutions, and that are characterized by closed depressions or sinkholes, caves, and underground drainage.

"Mineral and energy resources" means minerals, construction materials, metals, coal, gas, and oil.

"Mining activity" means any area of past or present underground or surface mining, mineral extraction, or major exploration or production drilling for oil, gas, or mineral resources, and any area likely to be influenced by mining activity through subsidence or surface deformation.

"Nonattainment area" means any area not attaining the National Ambient Air Quality Standards as defined in Part D of the Clean Air Act.

"Population area" means any commercial, school, church, social, medical facility, elderly housing, correctional facility, mobile home park, or incorporated residential area.

"Prevention of significant deterioration" is defined in Part C of the Clean Air Act.

"Prime farmland" means any area identified as such by the United States Department of Agriculture, Soil Conservation Service.

"Protected basins" means any portion of the drainage basin of protected water areas within two (2) miles of the water area. Protected water areas are those classified as such pursuant to Iowa Code chapter 108A, or high-quality waters, high-quality resource waters or Class "C" waters designated in Chapter 61 of the department's rules.

"Proximity to major generators" means within fifty (50) miles of the central point of generation based on the latest available RCRA biennial report on hazardous waste generation in Iowa.

"Seismic risk" means the relative geologic stability of the site based on the likelihood of structural damage due to seismic events. Seismic risk categories, as developed by the National Oceanographic and Atmospheric Administration, will be used to rate relative stability.

"Site" means the land area upon which a facility is, or is proposed to be, physically located, including but not limited to adjacent land use for utility systems such as repair, storage, processing, or other areas incident to the facility or operation.

"Siting authority" means the party with the specific authority to select sites for facilities.

"Transportation routes" means any public all-weather hard-surfaced road with adequate capacity to carry the type and volume of commercial vehicular traffic serving the facility for the entire year with no embargoes, special permits or other restrictions on roads, overpasses or bridges that would prevent transportation to the facility.

"Utilities and services" means electricity, gas, water and sewer utilities, and police, fire protection, and emergency medical services.

"Wetlands" means any area inundated by surface or groundwater with a frequency sufficient to support, under normal circumstances, a prevalence of vegetation or wildlife requiring saturated or seasonally saturated soil conditions for growth or reproduction. These areas include swamps, marshes, bogs, sloughs, wet meadows, mudflats, sandflats, ponds, lakes, and similar areas.

567--152.3(455B) Siting criteria. The siting authority shall use the following criteria in selecting sites for facilities.

151.3(1) Exclusionary criteria. No facility shall be sited within:

a. An area of seismic risk category of four (4) or greater;

b. A one hundred (100)-year floodplain;

c. A dam hazard area;

d. An area with less than one hundred (100) feet of aquitard between the base of operation and the subjacent aquifer;

e. One (1) mile of a geologic hazard structure;

f. One (1) mile of a karst area;

g. One (1) mile of an area of past or present surface or underground mining activity;

h. One (1) mile of wetland;

i. Any protected basin; or

j. Ten (10) miles of any nuclear power plant.

152.3(2) Quantitative criteria. The quantitative criteria and corresponding values which are to be applied are in Table 1 as follows:

Table 1

	Value Assigned		
	5 points	2 points	Excluded
Mineral and Energy Resources	No significance present within one mile	Significant presence with perpetual ban on recovery	---
Drinking Water Sources	No sources within one mile	Source permanently closed and alternative water source provided	---
Critical Wildlife Habitats	No habitat within one mile	Permanent buffer and no interference	Interference
Conservation Areas	No area within one mile	Permanent buffer and no interference	Interference
Cultural Areas	No area within one mile	Permanent buffer and no interference	Interference

Population Areas	No area within one mile	Permanent buffer and no interference	Interference
Prime Farmland	Less than 25% prime farmland	More than 25% prime farmland	---
Nonattainment With NAAQS	No significant impact predicted	Little significant impact predicted	---
Prevention of Significant Deterioration	Good data available and sufficient increments	Little data available but increment available	---
Transportation Routes	Within 5 miles of major highway, 10 miles of a rail line, and 50 miles interstate highway	Beyond 5 miles from major highway, 10 miles of a rail line, or 50 miles from interstate highway	---
Proximity to Major Generators	Within 50 miles major generators	Beyond 50 miles from generators	---
Utilities and Services	Accessible services available	Sites needing services extended	---

152.3(3) Methodology. The methodology to be used by the siting authority in applying these criteria is contained in the report "Low-Level Radioactive Waste Disposal Facility Siting Criteria and Methodology" which is adopted by reference. The criteria listed in this rule shall be applied in three steps as follows:

a. Step 1. The exclusionary criteria shall be applied to the entire state. Step 2 shall be applied to those areas remaining.

b. Step 2. The quantitative criteria shall be applied to the nonexcluded areas identified in step 1. The values in table 1 shall be applied and the potential sites ranked in order of priority.

c. Step 3. The top rated potential sites shall be subject to detailed evaluation. The best site for the facility shall be selected.

Mr. Stokes stated that these rules are identical to the rules that appeared in Chapter 151 concerning the siting criteria for hazardous waste disposal facilities. The same mechanisms, procedures, and rating requirements were used as in Chapter 151 with the references to hazardous waste being changed to low level radioactive waste. Similarly, these changes were made in the methodology booklet which goes with the rule.

Motion was made by Charlotte Mohr to approve Notice of Intended Action--Chapter 152, Criteria for Siting Low-Level Radioactive Waste Disposal Facilities. Seconded by Gary Priebe. Motion carried unanimously.

DRAFT RULE FOR AMENDMENTS TO CHAPTER 135, UNDERGROUND STORAGE TANK RULES

Allan Stokes, Division Administrator, Environmental Protection Division, presented the following item.

Draft rules for underground storage tanks are included for your information and review. These changes are mandated by the Groundwater Protection Act. The requirements in the draft proposal mirror the requirements in the Groundwater Protection Act. The proposal has been discussed with members of the petroleum industry and environmental interest groups. The Commission will be asked to take action at the next Commission meeting.

ENVIRONMENTAL PROTECTION COMMISSION [567]
Emergency Adopted Rule

Pursuant to Iowa Code section 455B.471 and 455B.479, the Environmental Protection Commission emergency adopts amendments to Chapter 135, "Underground Storage Tanks," Iowa Administrative Code. These amendments relate to fees for registering underground storage tanks with the state and annual management fees for tanks over eleven hundred gallons in size. The rule also establishes requirements for farm and residential tanks that previously were excluded from the rules.

Emergency adoption and immediate implementation is necessary to protect the public health and environment and to meet legislative deadlines for the effectiveness of those rules.

ITEM 1. Amend 135.3 Notice requirements, as follows:

Modify 135.3(5) by deleting five dollars ($5) and inserting ten dollars ($10).

Add "135.3(8) It is unlawful to place a regulated substance into a tank that has not been registered with the department."

Add "135.3(9) When a supplier or deliverer of a regulated substance reports an unregistered tank to the department, the owner or operator of that tank has fifteen days to register the tank with the department. If the owner or operator fails to notify in fifteen days, the registration fee will be twenty-five dollars ($25).

ITEM 2. Add:

135.4 Farm and Residential Tanks

135.4(1) The owner or operator of a farm or residential tank of one thousand one hundred (1,100) gallons or less capacity used for storing motor fuel for noncommercial purposes is subject to the requirements of this rule.

135.4(2) Tanks under this rule installed before July 1, 1987 must report the tank on a notification form by July 1, 1989, but are not required to pay a registration fee.

135.4(3) Tanks under this rule that were installed on or after July 1, 1987 must comply with all the underground storage tank regulations.

ITEM 3. Add:

135.5 Registration tags and annual management fee.

135.5(1) Tanks of one thousand one hundred (1,100) gallons or less capacity that have registered with the department will be issued a permanent registration tag.

135.5(2) Tanks that are over one thousand one hundred (1,100) gallons must submit a tank management fee of fifteen dollars ($15) per tank each year by January 1. A one-year registration tag will then be issued for the period from April 1 to March 31. The first fee is due January 1, 1988.

135.5(3) The owner or operator shall affix the tag to the fill pipe of the underground storage tank where it will be readily visible.

135.5(4) A person who conveys or deposits a regulated substance shall inspect the underground storage tank to determine the existence or absence of

the registration tag. If the tag is not affixed to the fill pipe, the person may deposit the substance in the tank but must then notify the owner or operator of the registration requirement and notify the department of the unregistered tank.

ITEM 4. Revise 135.11 to reflect the effective date as the date of rule adoption for the new sections.

ITEM 5. Renumber existing sections 135.4 through 135.11.

_____

Date

_____

Larry J. Wilson, Director

Chairman Schlutz asked if all of the registration tags are now distributed.

Mr. Stokes stated that staff is still working on the final proposal for the permanent tags, or the annual tags. The owners of the tanks that are registered are sent a temporary registration certificate which acknowledges that their tank is registered. Mr. Stokes circulated a sample aluminum tag which the Department is considering using and stated that it would be wired around the fill tank. Tanks under 1,100 gallons would receive one permanent tag, while tanks requiring annual registration would receive a new tag of a different color each year.

Nancylee Siebenmann stated that there may be potential for confusion between 135.3(8) and 135.5(4) without modifying the language in the first part.

Mr. Stokes responded that staff will certainly double check the language used there.

Charlotte Mohr stated that some type of information should be dispersed notifying a segment of society such as farmers, homeowners, and developments where an underground tank is present, of this new requirement.

James Combs stated that several news releases have gone out regarding the registration requirement. He also stated that some thought is being given to providing public service announcements to the radio and television stations in both this area and the household hazardous materials area.

FY 88 CONSTRUCTION GRANTS STATE PROJECT LIST

Allan Stokes, Division Administrator, Environmental Protection Division, presented the following item.

It is recommended that the Commission adopt the attached FY88 Construction Grants State Project List.

A public hearing was held in Des Moines on June 30, 1987 to receive comments on the proposed FY88 Construction Grants State Project List. The Project List was developed in accordance with provisions contained in the Priority System which is part of departmental rules 567--91 (455B) Iowa Administrative Code.

Copies of the proposed list and notice of intended action were mailed to all facilities on the list; to EPA Kansas City; and the notice also appeared in the Des Moines Register, all at least 30 days prior to the hearing date.

Opening comments were presented by Wayne Farrand. The procedures used in the development of the Project List were explained. The scores assigned to each facility were unchanged from the previous year; however, the funding portion of the list does contain new projects based on the premise that federal funding will remain at approximately $33.0 million for FY88 and upon the premise that Iowa will receive the remaining FY87 appropriated funds. If these anticipated funds are not received, the funding list may have to be changed significantly. Wayne also explained the conditions of the Clean Water Act amendments calling for the phase-out of the Construction Grant Program. Also explained were the provisions of the amendments calling for the appropriation of funds in FY89 to be used to set up state revolving fund loan programs. It was explained that these amendments also allowed states to appropriate up to 50 percent of FY87 and 75 percent of FY88 funds into this revolving loan program. Iowa has not proposed to establish a loan program for FY88 and the projects showing on the funding list are proposed to use their phase-out and the start of a revolving loan program, it was explained that the FY89 priority system and list development would probably create interest during the public participation period.

The only oral comment received was from Harris F. Siedel, Director, Ames Water and Pollution Control, who on behalf of the city of Ames and Iowa State University expressed their appreciation for their past and planned future grant funding. There were a few general questions following the comment period to which Wayne directed answers, such as how a facility gets on the list; did all facilities on the list express such a desire; and in what order are facilities placed on the funding list? Wayne's closing comments indicated his appreciation for the public interest shown and that a list would soon be taken before the Commission for final adoption. One written comment was received following the hearing, that being from Mayor Frank Young of the city of Waucoma. His letter noted the city's intention to pursue their proposed FY88 Step 4 grant funding enroute to an approved sewer system completion.

Motion was made by Charlotte Mohr to adopt the FY88 Construction Grants State Project List. Seconded by Clark Yeager. Motion carried unanimously.

STATE CONSTRUCTION GRANT STATUS

Allan Stokes, Division Administrator, Environmental Protection Division, presented the following item.

Faced with the potential of a shortage of state funds in the Sewage Works Construction Fund which traditionally has provided five percent state grants to projects receiving federal grant assistance, it is appropriate to consider options for the administration and distribution of limited funds. It is important that the Commission be aware of state grant needs and administrative options, especially where rule revisions may be necessary.

Three general alternatives for state grant administration that address grant fund shortages follow:

Option 1: State grant contracts would be provided to projects in the order in which federal grant actions occur. State grants would only be made for a project if there were sufficient state funds available to make the full five percent grant. Should there not be sufficient funds to provide the full five percent for a project, the funds would be made available to the next project. A bypassed project would receive a state grant when sufficient funds become available to provide the full five percent grant. This option provides state grants to any projects on the federally fundable list in the order in which they meet federal requirements and as state funds are available.

Option 2: State funds would be reserved for and granted to projects required to appear on the federally fundable list in priority order as state funds are available. Annual state appropriations would be granted to the highest priority projects on a specific fundable list when they receive federal grants. Specific state grant recipients could be identified on each year's priority list when a state appropriation was made for that year. Should there be insufficient state funds to supply grants to all federally fundable projects on any year's list, lowest priority projects on that list would not receive state grants. If the appropriation is greater than necessary to supply state grants to all federally fundable projects on any year's list, the excess funds could be used to provide state grants to federally funded projects from the previous year which have not yet received a state grant, or if no previous needs exist, the subsequent year's projects.

Option 3: State grants would be made as in Option 1 to projects in the order in which federal grant actions occur. State grants would be five percent of eligible costs, subject to available state funds. Should there be insufficient funds to provide a five percent grant to the next project need, the available funds would be granted to the project and additional funds provided up to five percent when they were available.

Mr. Stokes stated that this is follow-up to a presentation made to the Commission last month dealing with instances where there is not enough five percent match money to reach everyone. He explained three options staff prepared which might be used in the distribution of the five percent match money, and asked for the Commission's approval of one of the options.

A lengthy discussion followed regarding bypassing communities, pro rata funding, communities possibly never receiving funds, the length of time a project could carry over, priority list, and the various options.

Mr. Stokes stated that the cleanest way to distribute funds is to pay in the order in which a community was federally funded, as state money is available. If there is not enough money to fund a full project or a full segment, then move down and fund projects that could be fully funded, and later when state monies become available go back up and fund the project that was leaped over.

Keith Uhl stated that it would be okay to handle it that way as long as bypassing does not take place.

Mr. Stokes stated that this would be a modified version of Option 1 and it could be done that way.

Keith Uhl stated that he is concerned that a community may wait for the state money to come in and the project won't be completed.

Mr. Stokes stated that when a community signs a federal grant they are agreeing to a schedule and to completing the project whether or not they receive the five percent.

Keith Uhl stated that the Department should build into the rules that a community may have to bond the whole project up-front, so a community does not end up with projects 90 percent completed and the five percent money never coming in.

Mr. Stokes suggested that, rather than tying it to bonding, language be developed with a commitment to complete the project with the ability to pay without the five percent funds.

Motion was made by Richard Timmerman to approve Option 3 with language built in pertaining to the proof of financial responsibility. Seconded by Gary Priebe. Motion carried unanimously.

RECENT U.S. SUPREME COURT DECISIONS

Mike Murphy, Bureau Chief, Coordination and Information Division, presented the following item.

Mr. Murphy briefed the Commission on recent United States Supreme Court decisions relating to issues of inverse condemnation and "regulatory takings." By way of background, he explained the broader concepts of eminent domain and "police power" (regulation) and how the courts have generally ruled when property owners sought compensation from the government when actions the government takes adversely affect their use of property. Generally, government regulation, as opposed to true condemnation, does not entitle a property owner to compensation.

Mr. Murphy reported that the "First English" case was significant in that it determined that compensation is appropriate when a court determines that a regulation does amount to a taking of property. However, the decision did not that reasonable government regulation would entitle a property owner to compensation. The "Keystone Bituminous Coal" case upheld a Pennsylvania law that restricted mining activities, saying that the law furthered important governmental interests in safety, environment and fiscal economy, and thus was a reasonable regulation. The "Nollan" case was also pertinent to DNR's activities. The permit restriction in a California Coastal Commission building permit was ruled to be an unreasonable taking of property. However, the reasoning of the decision also supports the view that regulations reasonably designed to further legitimate governmental interests will not entitle a property owner to compensation, even if the regulation restricts the use of property.

Mr. Murphy next discussed how these matters related to Iowa and DNR in particular. The Iowa Supreme Court has employed the precise reasoning recently used by the U.S. Supreme Court. This department's flood plain regulations have been upheld. Mr. Murphy concluded by stating that the courts have generally considered the matters within DNR's jurisdiction to be very

important police power functions, and as long as we rationally relate our policies and implementation of those policies to the goals set out in our enabling statutes, we should not be inhibited in our actions by a fear of lawsuits spurred by these recent court decisions.

PROPOSED CONTESTED CASE DECISION--DES MOINES METRO SOLID WASTE AGENCY

James Combs, Division Administrator, Coordination and Information Division, presented the following item.

The Department issued an administrative order on April 30, 1987 to Des Moines Metro East Sanitary Landfill concerning several violations involving the operation of the sanitary landfill and imposing a $1,000 penalty. The order was appealed, and a contested case hearing was held on July 16-17, 1987. The proposed decision of the hearing officer affirming the Department's order in part but reversing that portion which assessed the $1,000 penalty is attached.

Des Moines Metro Solid Waste Agency or the Department may appeal this proposed decision to the Commission. In the absence of an appeal, the Commission may decide on its own motion to review the proposed decision. If there is no appeal or review of the proposed decision, it automatically becomes the final decision of the Commission.

Motion was made by Clark Yeager that the Commission review this case. Seconded by Charlotte Mohr. Motion carried unanimously.

Clark Yeager stated that he has a problem with the fact that there were repeated violations in this case and Des Moines Metro Solid Waste Agency does not have to pay any penalty.

Keith Uhl stated that he has two areas of concern when the Commission reviews this case. He explained that the whole concept of passing the Administrative Penalty process was to attempt to ease the burden on people and try to get cases worked out without litigation. He added that this is now being used against the department as Des Moines Metro Landfill is trying to make our legal staff prove why the department fined them only $1,000. He stated that the whole idea was flipped and what was a gratuitous thing is now being used against the department.

Mr. Uhl inquired as to what would happen if the Commission feels that the department did not go far enough. Also, if the Commission has the authority to review this case, do they also have the authority to say that not only is the penalty not sufficient but the department did not go far enough and this is one case that should have gone over to the Attorney General's Office so we could put this agency under injunctive relief and then have court protection in case they ever repeated the violation. He further asked if the Commission has authority on their own motion to refer this case.

Mike Murphy stated that he cannot comment at this time, but legal staff will consider Mr. Uhl's questions and comments.

DISCUSSION OF COMMISSION'S ROLE REGARDING LITIGATION

Chairman Schlutz reviewed several cases where the Attorney General's office filed over the decision of the Commission.

Keith Uhl stated that, as he sees it, the language of 455B.112 does not give the Office of the Attorney General the authority, whenever that Office wants, without interfacing with the Commission, or the Governor's Office, or the Director of the Department, to initiate litigation to enforce environmental penalties in the state.

Added statements were made regarding probable cause, and the Commission acting as a buffer for individuals who come before them.

Keith Uhl stated that it is premature for the Commission to put burdens on the staff until it is known, whether or not the clause in 455B.112 which is inconsistent with the teachings of Motor Club of Iowa vs. the Department of Transportation which expressly states that the Attorney General has no authority to continue prosecution against the wishes of a department, whether or not that clause has modified that Iowa Supreme Court opinion or whether or not the interpretation given to 455B.112 is proper. He added that he can see nowhere in the reorganization bill, or any place else, that gives the Attorney General authority to pursue an action on behalf of this department against the express wishes of this Commission, particularly when the express wishes are that the action should not be pursued.

Additionally, Keith Uhl stated that if it cannot be resolved informally, the Commission should determine by declaratory judgment or otherwise, what authority they have and whether or not the Attorney General is the Commission's lawyer. It should be determined just who does have the authority to decide when a prosecution should be made.

Richard Timmerman asked Keith Uhl how he proposes to make these determinations. Keith Uhl stated that he is considering asking the Attorney General's office for an opinion. This way the Commission can at least get clarified formally, in writing, what the Attorney General's office believes their powers are.

John Sarcone of the Attorney General's office stated that he did not know if their office could do the opinion process. It would have to be looked into. Mr. Sarcone stated that he would express the Commission's concerns to the proper people and if an opinion process is possible Director Wilson can request it.

Mr. Sarcone added that good faith is an important part of the relationship here. He stated that the present statute has been in effect for one year and in the cases that have been referred and settled throughout this one-year period the penalty guidelines have been observed. That has always been done, unless there were further violations after the time the referral had taken place. He stated that there is not an investigative arm in the Attorney General's office, the investigative arm that clicks into environmental matters is the DNR staff. He added that there is a good working relationship between the Attorney General's office and Commission staff, and unless something would come forward to change the staff position, the Attorney General's office supports the staff's position.

Chairman Schlutz asked Director Wilson to write a letter to the Attorney General's office requesting an opinion in regards to 455B.112.

DISCUSSION OF LEGISLATION ITEMS

Richard Timmerman reported that the Legislative Committee has not met.

The Commissioners mentioned the following items for proposed legislation:

1. Development of a Consultation Committee whereby a person could call and get information on any part of the environmental rules and help in meeting those rules.

2. Request supplemental appropriations for FY-88 regarding the 5% match money for construction grants.

3. Ruling on 455B.112.

4. Establish a requirement within the Department (if the state establishes funding) to evaluate budgetwise what downside risk is in costs pertaining to underground tanks and hazardous waste sites, environmental threats, etc.

5. Eliminate the EPC and NRC Commissions and establish one commission for the whole department.

6. Follow-up program on worst cases of water sampling for public water supplies.

ADDRESS ITEMS FOR NEXT MEETING

1. Contamination level on underground storage tanks.

2. Legislation.

NEXT MEETING DATES

September 21-22, 1987
October 19-20, 1987
November 16-17, 1987

ADJOURNMENT

With no further business to come before the Environmental Protection Commission, Chairman Schlutz adjourned the meeting at 5:45 p.m., Thursday, August 20, 1987.

Larry J. Wilson, Director

Charlotte Mohr, Secretary

(8-87.MIN/sc)

ADM-1-1-1
August 1987

MEETING AGENDA
ENVIRONMENTAL PROTECTION COMMISSION
WALLACE STATE OFFICE BUILDING
August 19-20, 1987

Meeting Convenes at 1:00 p.m., August 19, 4th floor conference room and reconvenes on August 20, 8:30 a.m.

Appointment:

Lyle Teekippe, Oran Sanitary District	2:00 p.m.
Break	3:00 p.m.
Public Participation	3:30 p.m.

Meeting Reconvenes 8:30 a.m. August 20

Appointment:

Bill Wimer, James and Julia King Referral	9:00 a.m.
Bill Shields	9:30 a.m.
Break	10:00 a.m.
Richard Rinehart, Rinehart Construction	10:15 a.m.

1. Approval of Agenda.

2. Approval of Minutes of July 20-21, 1987.

3. Director's Report. (Wilson) Informational.

4. DNR Budget Request, Major Issues and Capital Schedules. (Kuhn) Informational.

5. Approval to Purchase Air Quality Monitoring Equipment. (Kuhn) Decision.

6. Monthly Reports. (Stokes) Informational.

7. Status of One-Time Testing Public Water Supplies for Pesticides and Synthetic Organic Compounds. (Stokes) Informational.

8. Final Rule--Chapters 40 and 41, Water Supply Rules. (Stokes) Decision.

9. Final Rule--Revision to Chapter 23, Air Quality Rules-SO_2 Standards. (Stokes) Decision.

10. Report on Acrylonitrile Project. (Stokes) Informational.

11. Saylorville Hydro Development Contract Approval. (Stokes) Decision.

12. Notice of Intended Action--Chapter 152, Criteria for Siting Low-Level Radioactive Waste Disposal Facilities. (Stokes) Decision.

13. Draft Rule for Amendments to Chapter 135, Underground Storage Tank Rules. (Stokes) Informational.

14. FY-88 Construction Grants State Project List. (Stokes) Decision.

15. State Construction Grant Status. (Stokes) Informational.

16. Recent U.S. Supreme Court Decisions. (Combs) Informational.

17. Referrals to Attorney General's Office. (Combs) Decision.
17A. Proposed Contested Case Decision -- D.M. Metro Solid Waste Agency.
18. Discussion of Commission's Role Regarding Litigation.

19. Discussion of Legislation Items.

20. Discussion of B.O.D. Testing Standards.

21. Address Items for Next Meeting.

NEXT MEETING DATES
September 21-22, 1987
October 19-20, 1987
November 16-17, 1987

ENVIRONMENTAL PROTECTION COMMISSION

Wednesday, August 19, 1987

NAME	COMPANY OR AGENCY	CITY
(Please print)		
Donald Jenison	Corn Belt Power	Humboldt IA
Robert Wattenbarger	Amana Reg. Inc	Amana
Don Torney	Iowa Co Engr Assoc.	Marengo
Chuck Bullard	Des Moines Register	
Tim Rollinger	Iowa Public Service	Sioux City
Les Fritz	Hygienic Lab	Des Moines
Marjorie Dennison	Cedar Rapids Gazette	D M Bureau
Peter F. Hunter	Iowa Retail Fed.	DSM
Keith Luckstead	Iowa Grocers Assoc Dealers	DSM
Kelly Ackerman	WHO TV 13	DSM
Steve Carnes	" "	" "
D Braga	TRIB Nets	"
Kay Henderson	Radio IA	DSM
Steve Oswald	ICCI	"
Keith Chamberlain	Hygienic Lab	Iowa City
Danny West	Growmark, Inc.	Bloomington, IL

ENVIRONMENTAL PROTECTION COMMISSION

Friday, August 20, 1987

NAME	COMPANY OR AGENCY	CITY
(Please print)		
Marjorie Dennison	Cedar Rapids Gazette	D. M. Bureau
Dayton Countryman		Nevada Ia
Bruce Reeves	WOI-TV	DSM.
Beverly Fisher	WOI-TV	DSM
Tim Rollinger	Iowa Public Service	Sioux City
Cindy Hildebrand	Iowa Audubon Council	Ames
Jack Sommer	IA Assoc Business & Ind	DM.

ENVIRONMENTAL PROTECTION COMMISSION

ITEM 4 INFORMATIONAL

DNR Budget Request, Major Issues and Capital Schedules

Within the next several months, the Environmental Protection Commission and the Natural Resource Commission will be requested to approve the FY88 budget and the FY89 budget request. The purpose of this item is to review major issues facing the DNR and to invite comments, questions and suggestions from the commissions.

SUPPLEMENTAL APPROPRIATIONS

1. Low-Level Radio Active Waste Compact. Because the G.A. appropriated the $60,000 participation fee for FY88 from FY87, it was vetoed. In order for Iowa to remain an active member, it will be necessary to appropriate the above amount from the proper fiscal year.

2. Union Grove Restoration Project. The DNR requested $500,000 from the General fund to match an equal amount from the E.P.A. to complete this project. The G.A., instead, provided $250,000 from lottery funds. While this will allow some of the work to proceed, only a small contract can be let this winter to dredge a portion of the lake. It will be more cost-effective to let the complete dredging contract at one time, but this will require an additional $250,000 to be available for obligation by late winter.

3. 5% Sewage Works Matching Grants. Recent previous appropriations have not been sufficient to continue the state's previous practice of matching all federal grants. $2.5 million is needed for FY88 projects.

4. Rivers Basin Management

FUNDING OF CONSTRUCTION OF SEWAGE TREATMENT PLANTS

The E.P.A. intends to change funding assistance from the federal government from a 75% cost-share program to assisting states with the establishment of a state revolving fund for loans to local government. This would require an estimated 20% match from the state to establish the loan revolving fund. The state match for the FY89 capitalization grant is estimated at $3.2 million. Also for FY89, an estimated $3.0 million is required to meet the 5% commitment to the regular sewage works cost-share program.

FACILITY MAINTENANCE AND EQUIPMENT REPLACEMENT, STATE PARKS, STATE RECREATION AREAS, AND STATE FORESTS

Due to limited budgets, routine facility maintenance and replacement of equipment has been deferred for a number of years. Current budget levels for facility maintenance are barely adequate for routine operating supplies like trash bags and toilet paper, much less routine facility repairs. Replacement of equipment has been limited to situations where the existing piece of equipment cannot be repaired.

Park User fees are appropriated "solely for renovation and replacement of existing park facilities." It was the intent of the G.A. to use fees for upgrading park facilities, not as a replacement of General fund support for routine maintenance. However, since there is no other source of funds to turn to, there is sometimes no choice but to use User fees for repairs that should be handled by the normal operating budget.

STAFFING LEVELS, STATE PARKS, STATE RECREATION AREAS AND STATE FORESTS

Season staffing has been reduced significantly in response to limited budgets. Season wage rates are significantly lower, $4.48, than the bottom step for the pay grade, and IDOP is insisting that the DNR raise pay rates to the level indicated in the pay plan.

Likewise, many maintenance positions have been held vacant for months at a time in order to stay within the budget. The lack of staff has also contributed to decreased area facility maintenance.

The budget for FY87 and the current budget for FY88 are not sufficient to fund the park, recreation area and forest maintenance positions that were approved in the DNR reorganization plan. Additionally, newly developed recreation areas like Pleasant Creek, and newly acquired areas like the Western Iowa Forest will require staff for operations and maintenance.

TOURISM SUPPORT

In addition to providing quality outdoor areas through adequate maintenance, the DNR is expected to support tourism promotional efforts by DED through the production of adequate quantities of brochures, guides, maps, etc. Direct mail promotion, such as was accomplished last year by DED relative to non-resident hunting, can have a positive effective relative to tourism. A higher level of promoting Iowa's resources at in and out-of-state sports shows can result in more tourists. The DNR's current efforts in these areas are minimal due to limited resources.

CAPITAL ACQUISITION AND DEVELOPMENT

Due to the limited General fund budget, virtually all of the capital acquisition and development, in recent years, has depended on earmarked revenue sources: lottery, Park User fees, Fish and Wildlife licenses, and Marine Fuel taxes. There are a number of capital projects and programs that cannot be readily funded from the above sources. These include the Protected Water Area program, capital development in state forests, etc. The DNR will need either increased allocations for capitals from the lottery revenues, or support from the General fund for these projects and programs.

A better mechanism is needed for establishing long-term priorities for major capital acquisition and development projects. Too often, what is high priority one session is ignored by the G.A. the next session. Completely new projects are appended to the appropriations

bill during the last weeks of the session without any significant planning or design work by the DNR. Initiation and carrying out of major development projects needs to occur in a planned, systematic manner.

Attached to this item are various capital program schedules. The FY88 capital schedules reflect closely the current DNR plans. The commissions will be asked to approve the detailed FY88 capitals as part of the over-all budget package within the next several months. The FY88 projects are presented for information at this time, but the commissioners should raise any questions or make any comments or suggestions they might have as soon as possible in order to avoid problems at the point contracts are presented for approval. The FY89 capital request will be revised and placed in priority order, and also be presented to the commissions for approval within the next two months.

PROPERTY TAX REPLACEMENT FUNDING RELATIVE TO DNR LANDS

While the acquisition of land for DNR purposes has generally been supported by the G.A., the legislators are frequently concerned about the loss of property tax revenue to local taxing bodies. The G.A. has addressed this issue in a piecemeal manner, and the current situation is confused, to say the least.

1. The 1987 G.A., H.F. 620, mandates that the DNR pay property taxes on all "open spaces" lands acquired after January 1, 1987. However, the term "open spaces" is not defined.

2. All land acquired under the Wildlife Habitat program and the Non-Game checkoff program is assessed full property taxes. This currently amounts to approximately $30,000 per year and is paid by Wildlife Habitat stamp and checkoff revenues.

3. The Protected Water Area legislation established a "Standing Unlimited" General fund appropriation to pay all property taxes of lands acquired, either by easement or fee, under this program. No payments have been made to date because the state only recently acquired three donated easements.

4. Up to FY87, the G.A. has appropriated approximately $40,000 from the General fund, each year, to pay school taxes related to lands bought under a variety of "open spaces" programs (General fund appropriations) throughout the 1970's.

5. The federal government pays local governments an "in lieu of" payment for most federal lands in Iowa. However, such payments are generally less than comparable property taxes.

6. No taxes are paid on most DNR fish and wildlife lands, park lands, state forest lands, and recreational area lands, even though the character of these lands is exactly the same as the "open spaces", "wildlife habitat", "non-game" and "protected water areas" lands referred to previously.

As demonstrated above, the G.A. is addressing this issue, generally, on a piecemeal basis. It would seem that a general state policy regarding property taxes on all state lands would be desirable.

GROUND WATER PROTECTION

H.F. 631 contains appropriation authorizations for FY88, FY89, and beyond. Therefore, the DNR will show expected revenues, expenses and staffing as part of the budget request, but it will not be necessary to request additional funds. However, as planning for implementation proceeds, as legal interpretation issues are settled, and as better revenue and expense estimates are prepared, it may be necessary to request legislative and budgetary changes to better implement the intent contained in the bill.

As part of the budget process, a Ground Water Protection budget will be presented to the commissions. Staffing related to this bill is estimated at 51 positions for FY88 and an additional ten in FY89.

WASTE MANAGEMENT AUTHORITY DIVISION

This new division, established under authority of S.F. 396 will have approximately eleven authorized positions. In addition to various waste management programs, this division will have responsibility for toxic waste clean-up days. Detailed budgets will be presented to the commissions for this division as part of the budget process. Funding will come from solid waste fees and Ground Water Protection sources as appropriate.

LICENSE INCREASES

At this point, it does not appear to be necessary to request approval for any major license fee increases. However, the staff has not yet completed projections related to the Fish and Wildlife Trust fund. Accurate salary projections for FY88 are not yet available. Additionally, it is necessary to carefully consider the effect of the major increase in fisheries related capital programs before a final recommendation can be made regarding hunting and fishing license fees.

FUTURE BUDGET ACTIONS

The budget request will be presented to the commissions for review and final approval in a manner similar to that of last year. As budget recommendations are formulated, they will be presented for comment. The final budget request document will include revenue projections for each fund; an expense schedule for each division showing actual FY87 expenses and staffing, proposed FY88 expenditures and staffing, and recommended FY89 expenses and staffing.

The state is, once again, using the 75% modified zero-based budget approach. For each division, a "base" is established which is defined as 75% of the previous budget. In this case, the "base" for the FY89 request is, simply, 75% of the FY88 budget. The "base" is supposed to be a logical package. In other words, the

division could be expected to function at the "base" level if only the "base" were approved by the General Assembly.

In addition to the "base" request for each division, Decision Packages will be presented, arrayed in priority order. The total of the "base" and all "decision packages" constitute the total budget request for each division. Each decision package is a logical addition to a division's program. For example, a decision package might involve the staff, equipment and supplies necessary to initiate operations at the Western Iowa Forest. Another decision package might related to the replacement of equipment at the Nursery.

In theory, the Governor recommends, and the G.A. funds the decision packages they believe warrant funding. However, in recent years, the Governor and the G.A. have held very closely to simply continuing funding at the previous year's level instead of carefully considering the various bases and decision packages.

Capital requests are simply arrayed, by separate funding source, in priority order, project by project.

Agencies do not request salary adjustments as part of the budget request. The salaries that will be shown in the staff's recommendations are simply the current FY88 salary levels.The Governor recommends and the G.A. approves a separate salary adjustment appropriation bill, and the adjustment is, later, prorated to the various agency appropriations. In FY89, the salary adjustment bill, in addition to funding COLA's and merit raises, will include an additional amount to fund the 27th payroll. Because the state is on a bi-weekly pay system, every so often it is necessary to added a 27th payroll to catch up and compensate for the fact that each year contains one day (and sometimes two) more than 26 payrolls times 14 days.

We expect to complete action by the commissions on the budget request by September or early October. The law requires the request to be submitted by September 1st, but it is not uncommon to complete agency budget action several weeks later. Usually, major changes to the request can be made into early October.

During the later part of November and early December, the Governor holds formal budget hearings, formulates his recommendations and presents a budget recommendation to the G.A. in January.

Comments, questions, and suggestions from the commissioners are invited. Please make them as early as possible so they can be properly considered in the budget process.

Stan Kuhn

IOWA DEPARTMENT OF NATURAL RESOURCES
IOWA PLAN (LOTTERY) PROJECTS
FY88

PROJECT DESCRIPTION	AMOUNT
1. County Conservation Recreation-Tourism Grants	$250,000
2. Western Iowa Historical Trails Center (To be used only if matching federal funds are available.)	250,000
3. Green Castle Lake Dam Renovation, Marshall Cty	165,000
4. Maquoketa Caves Park Acquisition	35,000
5. Iowa River Greenbelt Corridor Trail Plan	15,000
6. Backbone State Park CCC Museum	100,000
7. A.A. Call State Park, Renovation Projects	40,000
8. Union Grove Lake Restoration	250,000

The first eight projects were line-itemed by G.A. action. The order listed does not denote a priority recommendation.

Western Iowa Loess Hills Forest, Recreation Area Development:	Continue acquisition	400,000
	LAWCON	
Templar Point	$74,000	74,000
Lighthouse Point	91,000	91,000
Gull Point	85,000	85,000
Pikes Peak	188,000	188,000
Project Contingencies		57,000
TOTAL	438,000	2,000,000

The proposed LAWCON cost-share is dependent upon Congressional action and the above state projects being selected through the State Open Project Selection process. Thus, the availability of the cost-share funds will be in doubt until this coming winter. The lottery revenue amount of $2,000,000 is contingent upon sufficient lottery receipts.

IOWA DEPARTMENT OF NATURAL RESOURCES
PARK USER FEE FUND
FY88

1.	Lewis and Clark Beach Facility	$ 85,000
2.	SpringBrook Group Camp Renovation	40,000
3.	Lake MacBride Beach Facility/Boathouse	130,000
4.	Lake Wapello Beachhouse Renovation	40,000
5.	Lake Ahquabi Lodge Renovation	40,000
6.	Gull Point Shower & Toilet Building	100,000
7.	Clear Lake Shower & Toilet Building	100,000
8.	Honey Creek Shower & Toilet Building	100,000
9.	Honey Creek Lagoon/Wastewater System Renovation	50,000
10.	Fairport Shower & Toilet Building	150,000
11.	Lake Keomah Campground Latrine	25,000
12.	Lake Keomah Sewage System Renovation	15,000
13.	Trail Construction, Continue Mines of Spain and other park and recreation areas	25,000
14.	Lake Ahquabi Pit Vault Latrine	25,000
15.	Prairie Rose Water System Renovation	75,000
16.	Wapsipinicon Horseshoe Picnic Area Modern Latrine	50,000
17.	Lacey-Keosauqua Shower & Toilet Building	100,000
18.	Lake of Three Fires Water and Wastewater system renovation	150,000
19.	Lake of Three Fires Beachhouse Renovation	50,000
20.	Springbrook Spillway Renovation	100,000
21.	Minor Renovation Projects	100,000
TOTAL		1,550,000

The first five projects and the Mines of Spain trail work are carry-over projects from FY87. The listing does not denote project priority.

IOWA DEPARTMENT OF NATURAL RESOURCES
PARK USER FEE FUND
FY89

1.	Black Hawk Shower & Toilet Building	$ 100,000
2.	Red Haw Shower & Toilet Building	100,000
3.	Walnut Woods Shower & Toilet Building	100,000
4.	Lacey-Keosauqua Cabin Foundation Renovation	45,000
5.	Geode Campground Electrical System Renovation	20,000
6.	MacIntosh Woods Pit Latrine	25,000
7.	Emerson Bay Modern Latrine	50,000
8.	Springbrook Group Camp Renovation	160,000
9.	Palisades Kepler Shower & Toilet Building	100,000
10.	Lake Wapello Shelter	40,000
11.	Lake Wapello Shower & Toilet Building	100,000
12.	Palisades Kepler Lodge Well Replacement	5,400
13.	Lake Wapello Campground Renovation	170,000
14.	Trail Renovation, unspecified areas	25,000
15.	Green Valley Pit Latrine	25,000
16.	Backbone, Replace Four Cabins	50,000
17.	Minor Renovation Projects	100,000
TOTAL		$1,215,400

IOWA DEPARTMENT OF NATURAL RESOURCES
MARINE FUEL TAX CAPITAL PROJECTS
FY88

	Project Description	Amount
1.	Meadow Lake Boat Ramp, Adair County	$ 20,000
2.	Frasier Boat Ramp, D.M. River, Boone County	20,000
3.	Plainfield Access, Boat Ramp, Cedar River Bremer Cty	20,000
4.	Troy Mills, Boat Ramp, Buchanan County	10,000
5.	Lost Island Lake-Barranger Slough, Water Control Structure, Clay County	100,000
6.	Volga River, Grannis Creek Canoe Access, Fayettee Cty	10,000
7.	Springbrook Boat Ramp, Raccoon River, Guthrie Cty	20,000
8.	Boone Forks, Boone River Boat Ramp, Hamilton Cty	20,000
9.	Crystal Lake, Boat Ramp/Jetty, Hancock Cty	25,000
10.	Rock Creek Park, Boat Ramp/Jetty, Jasper Cty	25,000
11.	Lake MacBride, Boat Ramp, Johnson Cty	20,000
12.	Miami Lake, Boat Ramp, Monroe Cty	30,000
13.	Viking Lake Park, Boat Ramp, Montgomery Cty	20,000
14.	Silver Lake, Boat Ramp, Palo Alto Cty	25,000
15.	LeClaire Access, Boat Ramp, Mississppi River, Scott Cty	35,000
16.	Helmke Access, Canoe Access, Boone River, Wright Cty	10,000
17.	Lakeside Demolition, Storm Lake, Buena Vista Cty	10,000
18.	Diamond Lake Access Road, Dickinson Cty	20,000
19.	Elk Lake Water Control Structure, Clay Cty	20,000
20.	McKain's Access, Rip-Rap Ramp, Skunk River, Washington Cty	5,000
21.	12 Mile Lake Boat Ramp, Emmett Cty	20,000
22.	Hardfish Access, Well, Mississippi River, Scott Cty	1,000
23.	Heytman's Boat Channel Clean-out, Mississippi River, Allamakee Cty	8,000
24.	Blue Lake, East Access Boat Ramp, Monona Cty	35,000
25.	Minburn Access, Hiway 31 Boat Ramp, Raccoon River, Dallas Cty	20,000
26.	Saylorville WMA Boat Ramp, Des Moines River, Dallas Cty	45,000
27.	Templar Point, Double Ramp and Parking, Spirit Lake, Dickinson Cty, (See Lottery Projects Also)	130,000
28.	Correctionville Boat Ramp, Little Sioux River, Woodbury	25,000
29.	Water Access Acquisition, unspecified locations	200,000
30.	Water Access Acquisition and Development, Local Gov't Cost-Share program	200,000
31.	Water Access Renovation, Minor Projects	100,000
TOTAL		$1,249,000

Qualified access projects will be cost-shared with federal boating safety funds when possible.

IOWA DEPARTMENT OF NATURAL RESOURCES
MARINE FUEL TAX CAPITAL PROJECTS
FY89

Project Description	Amount
1. Unspecified construction of new boat ramps, replacement or renovation of existing ramps, etc.	$500,000
2. Water Access Acquisition, unspecified sites	200,000
3. Water Access Acquisition and Development, Local Gov't Cost-Share Program	200,000
4. Minor Access Renovation projects	100,000
TOTAL	$1,000,000

Projects will be cost-shared with Federal Boating Safety funds when available.

IOWA DEPARTMENT OF NATURAL RESOURCES
FISH AND WILDLIFE TRUST FUND, CAPITAL IMPROVEMENTS
FY88

Project Description	Fed Aid	State	Total
Wildlife Habitat Program			
State Habitat Acquisition	$ ---	$ 210,000	$ 210,000
Habitat Enhancement cost-share programs	---	100,000	100,000
Property Taxes, State	---	40,000	40,000
County Cost-Share Program	---	350,000	350,000
Total	---	$ 700,000	$ 700,000
Waterfowl Program			
Green Island, Dikes, Pump Station, Parking, etc.	375,000	125,000	500,000
Shimon Marsh, Water Control Structure	15,000	5,000	20,000
Princeton Pump House	---	8,000	8,000
Otter Creek Marsh, Water Control Structure	---	15,000	15,000
Sweet Marsh, Dike Renovation	---	6,000	6,000
Colyn Spillway Renovation	---	15,000	15,000
Otter Creek Marsh, Channel	---	10,000	10,000
Big Marsh, West Fork Control Structure	---	12,000	12,000
Weise Slough, Water Control Structure	---	5,000	5,000
Big Marsh, Middle Pool Spillway Extension	---	14,000	14,000
D.U. Grant	---	215,000	605,000
Total	390,000	245,000	635,000
Wildlife Area Development			
Mt. Ayr Storage Bldg.	---	17,000	17,000
Sand Creek Bridge	---	10,000	10,000
Sweet Marsh, Service Bldg Remodeling/Renovation	---	20,000	20,000
McPaul Access, Bank Stablization	---	25,000	25,000
Fox Hills, Residence and Service Bldg.	---	120,000	120,000
Total	---	192,000	192,000
Non-Game Program			
Windbreak Cost-Share	---	25,000	25,000
Fisheries			
Acquisition and Development			
Decorah Hatchery Renovation (FY88 portion only)	375,000	125,000	500,000
Rathbun Hatchery, Intake	93,750	31,250	125,000
Beaver Lake, Land Acq.	37,500	12,500	50,000
Four Lakes, Acquisition	300,000	100,000	400,000
Trout Stream Acquisition	150,000	50,000	200,000
Lake Icaria, Fishing Jetties			

C-1

and Sediment Trap	187,500	62,500	250,000
Lake Icaria, Rip-Rap	---	100,000	100,000
Big Creek Fishing Pier	75,000	25,000	100,000
Unspecified Lakes, Habitat Improvement	37,500	12,500	50,000
Marble Beach, Fishing Cleaning Station	18,750	6,250	25,000
Lake Manawa, Fish Cleaning Station	18,750	6,250	25,000
Guttenberg Boat Harbor Renovation-Hatchery	---	80,000	80,000
Blackhawk Lake, Fish Barrier	15,000	5,000	20,000
Spirit Lake, Fish Barrier	15,000	5,000	20,000
Fairport Hatchery, Design, Holding Facility	26,250	8,750	35,000
Decorah Hatchery, Renovate Office Bldg.	---	40,000	40,000
Spirit Lake Hatchery, Security Fence	---	8,000	8,000
Total	1,350,000	678,000	2,028,000
TOTAL, ALL	$1,740,000	1,810,000	3,550,000

Additional projects will be cost-shared when possible. The amount budgeted for the Decorah Hatchery Renovation relates only to the estimated work to be accomplished in FY88. The remainder of the work will be reflected in the FY89 budget. However, the DNR intends to let the contracts for all the work at the same time, and not split contracts in each fiscal year.

The above listing may be revised extensively depending upon state and federal revenue estimates relating to these projects to be completed this summer.

IOWA DEPARTMENT OF NATURAL RESOURCES
FISH AND WILDLIFE TRUST FUND, CAPITAL IMPROVEMENTS
FY89

Project Description	Fed Aid	State	Total
Wildlife Habitat Program			
State Habitat Acquisition	$ ---	$ 210,000	$ 210,000
Habitat Enhance Cost-Share	---	100,000	100,000
Property Taxes, State	---	40,000	40,000
County Cost-Share Program	---	350,000	350,000
Total	---	700,000	700,000
Waterfowl Program			
Lake Odessa, Water Control Structures	---	50,000	50,000
Fallow Marsh, Water Control Structure	---	8,000	8,000
Green Island Levee Rip-Rap	37,500	12,500	50,000
Klum Lake, Water Control Structure	---	7,000	7,000
Cone Marsh, Water Control Structure	---	7,000	7,000
Otter Creek, Water Control Structure	---	4,000	4,000
D.U. Habitat Grant	---	30,000	30,000
Waterfowl Habitat Acquisition, Unspecified Locations	127,500	42,500	170,000
D.U. Marsh Acq and Dev	63,750	21,250	85,000
Total	228,750	182,250	411,000
Wildlife Area Development			
Bays Branch, Storage Bldg	---	17,000	17,000
Tyrone Area, Fence	---	8,000	8,000
Fox Hills, Fence	---	7,000	7,000
Klum Lake, Road Resurface	---	7,000	7,000
Ryan Lake, Fence	---	10,000	10,000
East Swan Lake, Fence	---	8,000	8,000
Total	---	57,000	57,000
Non-Game Program	---	25,000	25,000
Fisheries			
Acquisition and Development			
Decorah Hatchery Renovation, (Continued from FY88)	600,000	200,000	800,000
Beaver Lake Dam	450,000	150,000	600,000
Lake MacBride Fishing Jetties	45,000	15,000	60,000
Lake Darling Fishing Jetties	45,000	15,000	60,000
Lake Manawa Fishing Pier	37,500	12,500	50,000
McIntosh Woods, Fish Cleaning Station	18,750	6,250	25,000
Bussey Lake, Fish Cleaning Station	22,500	7,500	30,000
Little Sioux River, Silver Access, Fishing Riffle	7,500	2,500	10,000
Henderson Park, Raccoon River,			

C-9

Fishing Riffle	15,000	5,000	20,000
D.M. River, Fishing Riffle	7,500	2,500	10,000
Manchester Hatchery, Waste Water Lagoon	37,500	12,500	50,000
Rathbun Hatchery, Research Facility Design	15,000	5,000	20,000
Lacey-Keosauqua, Aeration System	15,000	5,000	20,000
Four Fishing Lakes, Continue Land Acquisition	300,000	100,000	400,000
Trout Stream Acquisition	75,000	25,000	100,000
Rathbun Hatchery Strg Bldg	---	50,000	50,000
Total	1,691,250	613,750	2,305,000
Other Projects			
Upper Iowa Lower Dam Renovation	---	30,000	30,000
Boone Research Station, Office Replacement	---	150,000	150,000
Total		180,000	180,000
TOTAL, ALL	1,920,000	1,758,000	3,678,000

Additional projects will be cost-shared when possible. The above listing may be revised extensively depending upon completion of state and federal revenue estimates related to funding these projects.

IOWA DEPARTMENT OF NATURAL RESOURCES
OTHER CAPITAL PROGRAMS AND PROJECTS
FY89

The following described projects would normally be funded from a General Fund appropriation or through the Iowa Plan (lottery). The lottery funds were originally intended for projects which would promote economic development and tourism; while the General fund was used as a potential source of funding for all projects that did not fit the criteria under the various earmarked sources of funding such as Fish and Wildlife, MFT, Lottery, etc. However, during the last session, the "line" between lottery funds and the General fund was blurred by the Governor, in his budget recommendations and by the G.A. in their appropriation actions. One of the decisions facing the DNR is what is the most appropriate source of funding to request for these projects.

The following list includes current on-going projects that require additional funding, projects that have been requested in previous budgets, but were not funded, and some new initiatives. Input from the Commission is requested regarding project priority, level of funding, etc. Also, Commissioners should take this opportunity to suggest additional capital projects that should be considered.

1. Western Iowa State Forest. The current lottery budget is funding acquisition at the rate of $400,000. It would be reasonable to expect this to continue.

2. County Conservation Boards Recreation/Tourism Grants. The original lottery legislation authorized up to $750,000 per year for this program. However, lottery revenue has been insufficient to completely fund the authorization. The FY88 Iowa Plan requires that "at least" $250,000 be made available to counties. It is reasonable to assume this program will continue to be funded by lottery revenues.

3. Public/Private Cost-Share for the Purchase of Unique Natural Areas. This program is authorized at $500,000 per year, but has never been funded at that level. The FY88 budget contains no funds for this program.

4. Development of Park and Recreation Areas. Originally, the lottery legislation authorized the use of the "remainder" for major development or redevelopment of state parks and recreation areas. This was based on the concept that such development would generate or support significant tourism activity. Initial development has been funded at Lake Manawa and Pleasant Creek. The current FY88 budget proposes development at Gull Point, Lighthouse Point, Templar Point, and Pikes Peak. Major development is planned for Volga River, Brushy Creek, and Maquoketa Caves. See current staff proposals relating to this issue elsewhere.

5. Preserves Acquisition. $150,000 was given the highest priority in the last budget request for General fund capitals. This was to be used for acquisition of various preserves. This was strongly supported by the Preserves Board, the Sierra Club, the Audubon

Society, etc. The Governor recommended funding through lottery funds. The G.A. did not appropriate funds.

6. Boone River Protected Water Area. Also a high priority in the General fund budget request, this was recommended by the Governor from lottery funds. $200,000 was requested. The G.A. did not appropriate any funds.

7. Pine Lake Park, Renovation of the Upper and Lower Dams. The DNR, again, requested $1,500,000. Renovation is needed because the dams are hazardous. The Governor did not recommend funds last year. During the session, Senator Taylor and Representative Fuller raised the issue of increasing the height of the dam/s (deeper lake, better fishing, etc) as an alternative to simply renovating the existing dams. They were successful in obtaining a $40,000 appropriation so the DNR could contract for aerial topography and core borings in order to better evaluate the suggested alternative. It does not seem reasonable to make a major request, again, until the issue raised by Senator Taylor and Rep. Fuller is answered one way or the other. A small amount of funds may be desirable to better complete the feasibility study.

8. Geode Park Water System Renovation. $400,000 was requested last year from the General fund--a repeat of a similar request of previous years. There was no action from the Governor or the G.A. This could be done as a Park User project. However, the high cost would knock some of the other projects off of the PUP LIST. Water quality (taste) and quantity is a serious problem in this park as documented by a study completed in 1979.

9. Shimek State Forest, Phase II, Service Building. This was also requested last year from the General fund for $32,000 with no success. As a state forest, there is no earmarked source of funds available for general maintenance and minor development needs in existing state forests.

10. Maquoketa Caves State Park Erosion Control. Funds are needed to construct erosion control structures in the watershed above the park in order to protected against flood damage to the cave system during periods of high water flow. $50,000 was requested with no success. This could also be done as a lottery project as part of the redevelopment of the park.

11. Yellow River Forest Fabrication Building. This building would be used during inclement weather for the construction of various wood products by prisoners. Again, $60,000 was requested with no success.

12. Stephens Forest/Nursery Chemical Storage Facilities. $30,000 is needed to construct chemical storage facilities that fully meet safety standards at this areas. This request was made last year with no success.

13. Union Grove Restoration. $500,000 was requested from the General fund to complete this project. The G.A. appropriated $250,000,

C-12

instead, from lottery funds. An additional $250,000 from state sources is needed to complete this project.

14. Pammel State Park Water System. $100,000 was requested last year, with no success, to improve the water system at Pammel.

15. Mines of Spain Recreation Area. $1,000,000 is requested to begin major development of this recreation area. $1,000,000 was requested last year, but was not viewed favorably by either the Governor or the G.A.

16. Wilson Island Recreation Area, Water and Waste System Improvements. This area has extremely poor quality water and a marginal sewage system. An appropriation of approximately $300,000 has been requested for a number of years, with no success, for this purpose.

17. Brushy Creek Recreation Area. If the Commission approves the current lake concept, the next logical step would be construction design. It might also be desirable to proceed with design and construction of some recreation facilities that are needed, regardless of the lake, question. Ballpark estimates are currently $2,000,000 for facilities, $4,000,000 for lake construction, and $50,000 for erosion control.

18. Pleasant Creek Recreation Area. Currently, there are no residences for staff on site. The staff is proposing two residences, similar to other major state parks and recreation areas, at a cost of $160,000. This could be considered along with the current development and be funded from lottery funds.

19. Other Parks/Recreation Area Projects. The division is also considering a request from lottery or general funds for remodeling the Stone Park attendant's residence--$15,000; Big Creek sewage system renovation--$75,000; Green Valley campground electric--$25,000; Red Haw campground electrical system--$25,000; Nine Eagles water treatment system--$30,000; and water system improvements for the lodge at Walnut Woods--$10,000. It would be possible to also budget these projects under the Park User Fee program, but that would reduce funds currently budgeted for higher priority projects.

20. Cedar Falls-Waterloo Lakes Proposal. The staff is not currently considering requesting funds this session to proceed with this concept. At this point, it appears that more planning is required by the involved organizations before a request for state funding is considered.

21. Des Moines River Greenbelt. Many of the projects in this program will require matching funds by either state or local government. The staff is not considering requesting funds at this point.

Input is invited from the Natural Resource Commission regarding these and possible other capital project proposals. By approximately Sept. 1st, the DNR is required to submit its official budget request for capitals as part of the overall budget submission. Based on

C-

input received from interested parties and the Commission, the staff will proceed to formulate a capital budget request for consideration of the Commission by the end of August, or in September.

ENVIRONMENTAL PROTECTION COMMISSION

ITEM 5 DECISION

AIR MONITORING EQUIPMENT UPGRADING

The Department requests approval to purchase the equipment and services listed below. The purchases are to be made in order to upgrade and expand the Department's computer capabilities as well as expansion in the SO2 monitoring network to address areas of particular concern for which there is no current data. These items are 100% federally funded from otherwise anticipated carryover in the current federal fiscal year and from an EPA supplemental grant specifically to expand the SO2 network.

Equipment to be Purchased

Cost	Description
$ 843	Purchase 1 terminal
3,365	Purchase 1 personal computer
1,680	Purchase 3 mice and 2 emulators for this and two existing computers
9,900	Purchase 1 large scale plotter
7,779	Purchase 1 large scale digitizer
274	Purchase math computer upgrade for IDNR
17,400	Purchase 6 enclosed monitor trailers
10,000	Refurbish 10 SO2 monitors
3,150	Purchase 9 modems
17,775	Purchase 9 data loggers
4,080	Purchase 6 wind speed/direction sensors
$ 76,246	

Stan Kuhn
August 3, 1987

ENVIRONMENTAL PROTECTION COMMISSION

ITEM 6 INFORMATIONAL

MONTHLY REPORTS

The following monthly reports are enclosed with the agenda for the Commission's information.

1. Rulemaking Status Report

2. Variance Report

3. Hazardous Substance/Emergency Response Report

4. Enforcement Status Report

5. Contested Case Status Report

Members of the department will be present to expand upon these reports and answer questions.

Allan Stokes
August 4, 1987

IOWA DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION COMMISSION
RULEMAKING STATUS REPORT
AUGUST 1, 1987

PROPOSAL	DRAFT TO COMMISSION	NOTICE PUBLISHED	RULES REVIEW COMMITTEE	HEARING	SUMMARY OF COMMENTS & RECOMMENDATIONS TO COMMISSION	RULES ADOPTED	RULES PUBLISHED	RULE EFFECTIVE
1. Ch. 23 - SO_2	5/20/87	6/17/87	7/08/87	7/07/87 7/08/87 7/10/87				
2. Ch. 40, 41 - Fluoride MCL	5/20/87	6/17/87	7/08/87	7/07/87 7/08/87 7/10/87		*8/19/87	*9/09/87	*10/14/87
3. Ch. 50 - 52 Water Allocation (Conservation)	5/20/87	6/17/87	7/08/87	7/07/87 7/08/87 7/10/87				
4. Ch. 62 - Effluent Standards	7/21/87					*7/21/87	*8/12/87	*9/16/87
5. Ch. 65 - Feedlots	11/12/86	12/03/87	1/06/87 7/08/87	12/23/86 12/30/86 1/05/87	5/20/87	5/20/87	6/17/87	7/22/87
6. Ch. 100, 103 - Landfill Groundwater Monitoring	3/16/87	5/20/87	6/10/87	6/09/87 6/10/87 6/11/87		*8/19/87	*9/09/87	*10/14/87
7. Ch. 135 - Underground Tank Monitoring	12/15/86	1/14/87	2/10/87 6/10/87	2/03/87 2/05/87 2/10/87	4/21/87	4/21/87	5/20/87	Delayed
8. Ch. 143 - Used Oil	6/17/87	*8/12/87						
9. Ch. 152 - Criteria for Siting Low - Level Rad Waste Facilities	8/19/87	*9/09/87		10/01/87 10/02/87 10/06/87				

*Projected

ML:bag/CII211L06.03

MONTHLY VARIANCE REPORT 07/31/87

No.	Facility Name	Program	Engineer	Subject	Decision	Date
1	Brink Roaster, Inc.	Air Quality		Equipment Test	approved	07/10/87
2	John Deere-Waterloo Wk	Air Quality		Equipment Malfunction	approved	07/10/87
3	Manning, City of	Air Quality		Landscape Waste	denied	07/15/87
4	Onawa, City of	Air Quality		Landscape Waste	denied	07/15/87
5	Gene Vorwald&Sons Cons	Air Quality		Landscape Waste	approved	07/17/87
6	Riverview Estates II	Wastewater Const.	Hawkeye Engr. Co.	Site Separation	denied	07/17/87
7	DeWitt, City of	Wastewater Const.	Beling Consultants	Sewer Grade	approved	07/27/87
8	West Branch MainStBrdg	Flood Plain	NWW, Inc.	Freeboard	approved	07/11/87
9	Logan, City of	Wastewater Oper.		Sample Type	denied	07/01/87
10	Lake Mills	Wastewater Oper.		Effluent Limit	approved	07/02/87

REPORTS OF HAZARDOUS CONDITIONS

During the period of July 1, 1987 through July 31, 1987, reports of 74 hazardous conditions were forwarded to the Central Office. Two incidents are highlighted, followed by a general summary and the number per field office.

Date Reported and County	Description: Material, Amount, Date of Incident, Cause, Location, Impact	Responsible Party	Response and Corrective Actions
7/1/87 CLINTON	About 200 pounds of phosphoric acid leaked from a valve on an above ground tank at 2200 Manufacturing Drive in Clinton, Iowa on July 1, 1987. The material was contained in an area by railroad tracks.	Ralston Purina 2200 Manufacturing Drive, Clinton, Iowa 52732	The material was diluted by water until a neutral pH was attained.
7/27/87 DES MOINES	A vapor hose ruptured on an 80-ton railcar and caused a release of about 4.4 tons of ammonia about three miles south of Burlington, Iowa on July 25, 1987.	Agri-Basic Fertilizer, P.O. Box 841, Burlington, Iowa 52601	Nearby residents were evacuated. An employee of the responsible party borrowed a self-contained breathing apparatus from the fire department and shut off the valve that supplied the hose.

RK:bkp/I216P01.02

Numbers in Parentheses Represent Reports for the Same Period in Fiscal Year 1986

		Substance Type				Mode				
Month	Total # of Incidents	Petroleum Product	Agri. Chemical	Other Chemicals and Substances	Handling and Storage	Pipeline	Highway Incident	RR Incident	Fire	Other
Oct	79	45	0	34	53	0	18	2	0	6
Nov	24	12	3	9	17	0	5	1	0	1
Dec	43	36	1	6	24	1	14	1	0	3
Jan	48	32	3	13	37	0	9	0	1	1
Feb	41	25	1	15	30	1	5	1	2	2
Mar	55	35	5	15	37	0	12	4	1	1
Apr	78	32	25	21	51	3	16	3	2	3
May	74	24	29	21	39	0	24	2	6	3
Jun	73	34	11	28	47	1	14	1	2	8
Jul	74(62)	26(22) UST-16	10(11)	38(29)	50(48) UST-16	1(0)	13(6)	3(1)	1(1)	6(6)

Total # of Incidents Per Field Office This Period

01	02	03	04	05	06
11	10	14	6	22	11

bkp/ERI216P01.01

August 4, 1987

TO: EPC

FROM: Mike Murphy

RE: Enforcement Report Update

The following new enforcement actions were taken last month:

Name, Location and Field Office Number	Program	Alleged Violation	Action	Date
Osage River City Egg, Inc. Mason City (2)	Wastewater	Compliance schedule, improper discharge	Order/Penalty	7/01/87
City of Breton (3)	Wastewater	Plan of action	Order/Penalty	6/30/87
City of Inwood (3)	Wastewater	Plan of action	Order/Penalty	6/30/87
Bill Boell, Carroll (4)	Drinking Water	False reporting	Order/Penalty	7/07/87
Cattleman's Steak and Provisions LTD. Belmond (2)	Drinking Water	Failure to monitor bacteria	Order/Penalty	7/07/87
Mt. Vernon Steel and Wire Company Mt. Vernon (1)	Wastewater	Compliance schedule/ pretreatment plan	Order/Penalty	7/13/87
New Hampton Farmer's Cooperative (1)	Hazardous Condition	Abandoned sites	Order/Penalty	7/13/87
Clarion Farmers Elevator Cooperative	Wastewater	Prohibited discharge	Order/Penalty	7/16/87
Great Rivers Coop. Libertyville (6)	Hazardous Condition	Failure to notify - abandoned site	Order/Penalty	7/16/87
Poweshiek Rural Water (5)	Drinking Water	Operational violation	Order/Penalty	7/16/87

ML:bag/CIW215L02.01

August 4, 1987

TO: EPC

FROM: Mike Murphy

RE: Enforcement Report Update

The following new enforcement actions were taken last month:

Name, Location and Field Office Number	Program	Alleged Violation	Action	Date
Big Rock Tap, Big Rock (6)	Drinking Water	Operating w/o permit Failure to monitor bacteria.	Order/Penalty	7/16/87
Lloyd Mathews, Allamakee Co. (1)	Wastewater	Prohibited discharge	Order/Penalty	7/16/87
Bremer Utilities (1)	Drinking Water	Failure to monitor bacteria.	Order/Penalty	7/24/87
Kountry Manor Garnavillo (1)	Drinking Water	Failure to monitor bacteria.	Order/Penalty	7/24/87
City of Doon, (3)	Drinking Water	Failure to monitor nitrates.	Order	7/24/87
River Road Golf Club, Algona (2)	Drinking Water	Failure to monitor bacteria.	Order/Penalty	7/24/87
Squaw Valley South Subsid. (5) Ames	Drinking Water	Failure to monitor bacteria.	Order/Penalty	7/24/87
Rich Metals Co., Davenport (6)	Air Quality	Open burning.	Order/Penalty	7/27/87
City of Jewell (2)	Wastewater	Effluent violations.	Order	7/27/87
Village Oaks Homeowners Assoc., Blue Grass (6)	Drinking Water	Failure to monitor bacteria. MCL - bacteria.	Order/Penalty	7/27/87

ML:bsg/CIW215L02.02

August 4, 1987

TO: EPC

FROM: Mike Murphy

RE: Enforcement Report Update

The following new enforcement actions were taken last month:

Name, Location and Field Office Number	Program	Alleged Violation	Action	Date
City of Dixon (6)	Drinking Water	Failure to monitor organics	Order/Penalty	7/29/87
City of Donnellson (6)	Wastewater	Municipal improvement plan	Order	7/29/87
City of Albert City (3)	Wastewater	Municipal improvement plan	Order	7/29/87
City of Moville (3)	Wastewater	Municipal improvement plan	Order	7/29/87
City of Dike (2)	Wastewater	Municipal improvement plan	Order	7/29/87
Linwood Mining and Minerals Davenport (6)	Air Quality	Fugitive dust	Order/Penalty	7/29/87

ML:bsg/CIW215L02.03

M E M O R A D U M

DATE: August 1, 1987

TO: Environmental Protection Commission

FROM: Mike Murphy

SUBJECT: Summary of Administrative Penalties

The following administrative penalties are due:

NAME/LOCATION	AMOUNT	DUE DATE
*Shelter Shield (Buffalo Center)	$1,000	12-03-86
*Lawrence Payne (Ottumwa)	700	12-05-86
*Cedar Hills Apartments (Dubuque)	1,000	12-29-86
*Chico's Supper Club (Burr Oak)	863	2-10-87
*City of Dysart	400	3-13-87
*OK Lounge (Marion)	448	3-29-87
Rhinehart Construction Co. (N. Dallas SLF)	800	5-15-87
Giese Construction Co. (Eagle Grove)	1,000	5-25-87
The Moore Oil Co. (West Branch)	336	6-09-87
City of Swan	530	7-01-87
**K & K Truckstop (Lenox)	162	7-01 87
Ken Turner (Fort Madison)	200	7-15-87
Elings/Catron/Frey (Des Moines)	1,000	7-18-87
Orrie's Supper Club (Hudson)	336	7-21-87
Frederika's Tap (Frederika)	50	8-01-87
Country Corner Cafe (Pacific Junction)	451	8-05-87
JTM Indust./MacDade/Leamer (Pleasant Valley)	1,000	8-12-87
Glen Mark Subdivision (Burlington)	436	8-19-87
McFedries (Davenport)	1,000	6-19-87
Wilson/Pingel (Fort Dodge)	500	8-19-87
Trausch Co. (Carroll)	1,000	8-19-87
Trausch Co. (Carroll)	1,000	8-19-87
City of Shenandoah	500	8-21-87
Golden Slipper (Dunlap)	250	8-21-87
City of Toledo	500	9-01-87
Osage River City Eff (Mason City)	500	9-06-87
City of Ireton	500	9-06-87
City of Inwood	400	9-07-87
Cattlemen's Steak...(Belmond)	324	9-08-87
Mt. Vernon Steel and Wire	1,000	9-12-87
Clarion Farmer's Coop	750	9-18-87
Great Rivers Coop (Atavia)	1,000	9-18-87
Lloyd Matthews (Allamakee Co.)	500	9-18-87
New Hampton Farmer's Coop	1,000	9-19-87
Poweshiek Rural Water	500	9-20-87
Big Rock Top	660	9-21-87
Bremer Utilities	262	9-21-87
Kountry Manor (Garnavillo)	312	9-26-87

* Referred to the Attorney General
** On Payment Schedule

MPM:rag/I122N01.01

Administrative Penalties Due (Continued)

NAME/LOCATION	AMOUNT	DUE DATE
River Road Golf Club (Algona)	$ 274	9-26-87
Squaw Valley South Sub. (Ames)	212	9-26-87
Rich Metals (Davenport)	1,000	----
Village Oaks Homeowners Ass'n (Blue Grass)	424	----
City of Dixon	200	----
Linwood Mining (Davenport)	1,000	----
City of Wapello	500	----
City of Newell	500	----

The following administrative penalties have been appealed:

NAME/LOCATION	AMOUNT
Kula and Bona (Martelle)	$1,000
Handi-Klasp, Inc. (Webster City)	1,000
Munn and Traum (Davenport)	100
Scotty's Auction Service (Davenport)	100
Des Moines Metro SLF	1,000
Iowa City Regency MHP	1,000
Bianchi Meyrat Lagoon (Des Moines)	600
Thomas E. Lennon (Barnum)	700
Larsen/O'Donnell (Humboldt)	500
Trausch Co., Inc. (Carroll)	1,000
Trausch Co., Inc. (Carroll)	1,000
Trausch Co., Inc. (Carroll)	1,000
The Bank (Turin)	212

The following administrative penalties were paid in July:

NAME/LOCATION	AMOUNT
*Country Corner Cafe (Pacific Junction)	$ 400
Chicago Central & Pacific RR (Fort Dodge)	500
The Midway (Holy Cross)	100
Fox Roller Rink (Camanche)	50
Telegrove Water Assn. (Davenport)	50
Country Living MHP (Altoona)	400
Monti-View MHP (Monticello)	200
Marion County Care Facility	100
Huegerich Homes of Carroll	1,000
Winnebago Industries, Inc.	600
E.J. Rath, Inc. (Missouri Valley)	50
*Finlan Landfill (Chickasaw County)	1,000
Lakewood Sanitary District	1,000
Regional Environmental Imp. Comm. (Marengo)	1,000
Bill Buell (Carroll)	100

Penalties were rescinded for Sport Wade, Inc. (Weldon) and Besch/Ralston (Fort Dodge).

* Referred to the Attorney General
** On Payment Schedule

MPM:rag/I122N01.01

DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION COMMISSION
CONTESTED CASES
AUGUST, 1987

DATE RECEIVED	NAME OF CASE	ACTION APPEALED	PROGRAM	ASSIGNED TO	STATUS
9/14/84	Balmond, et. al.	Administrative Order	HC	Landa	Proposed decision 11-4-85; appealed.
10/17/85	City of Bevington	Administrative Order	WW	Hansen	Hearing continued.
1/23/86	Oelwein Soil Service	Administrative Order	WW	Landa	Hearing continued.
6/12/86	AIM - Clinton	Administrative Order	Air	Landa	Hearing continued.
7/30/86	IBP - Columbus Junction	NPDES Permit	WW	Hansen	Proposed decision 7-9-87
9/10/86	Kula and Boga	Administrative Order	SW	Landa	Negotiating before filing. Removal started.
10/27/86	Union County/Wittstock	Permit Issuance	FP	Clark	Remanded by District Court.
10/28/86	Lamoni Municipal Utilities	Administrative Order	WW	Hansen	Negotiating before setting hearing.
10/29/86	Handi-Klean Company, Inc.	Administrative Order	AQ/WW SW	Landa	Hearing continued.
11/14/86	Gale Conrad	Permit Condition	FP	Clark	Proposed decision 6-18-87.
12/03/86	City of Waukee	Administrative Order	WS	Hansen	Hearing continued.
12/11/86	Eloise Reese	Permit Condition	FP	Clark	Hearing continued.
12/24/86	Francis Haeberlin	Administrative Order	FP	Clark	Hearing continued.
2/ /87	Agpro, Inc.	Administrative Order	AQ	Landa	Hearing set for 7-9-87.

mm:bag/CTI211L06.02

DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION COMMISSION
CONTESTED CASES
AUGUST, 1987

DATE RECEIVED	NAME OF CASE	ACTION APPEALED	PROGRAM	ASSIGNED TO	STATUS
3/10/87	Lakewood Sanitary District	Administrative Order	WW	Hansen	Proposed decision 7-13-87.
3/16/87	Deere and Company	Administrative Order	WW	Murphy	Negotiating before filing.
3/18/87	Greiner	Administrative Order	FP	Clark	Hearing held 6-30-87; Mayer/Vogel withdrew.
3/19/87	City of Mt. Pleasant	Administrative Order	WW	Hansen	Negotiating before filing.
3/25/87	City of Long Grove	Design Denial	WW	Hansen	Hearing set for 7-15-87
3/25/87	Traum and Munn	Administrative Order	SW	Kennedy	Negotiating before filing.
4/06/87	Scotty's Auction Service	Administrative Order	SW	Kennedy	Negotiating before filing.
5/05/87	Des Moines Metro SLF	Administrative Order	SW	Kennedy	Hearing held 7-16-87.
5/12/87	Iowa City Regency MHP	Administrative Order	WW	Hansen	Hearing continued.
5/28/87	Bianchi-Meyrat Lagoon (Hank Smith)	Administrative Order	WW	Kennedy	Hearing set for 8-5-86.
6/05/87	Trausch Company, Inc.	Administrative Order	AQ	Landa	New case.
6/10/87	City of Toledo	Administrative Order	WW	Hansen	Appeal dismissed 7-15-87.
6/11/87	Thomas Lennon	Administrative Order	FP	Clark	New case.
6/15/87	Robert O'Donnell	Administrative Order	SW	Kennedy	New case.
7/30/87	Trausch Company, Inc.	Administrative Order	HC	Landa	New case.
7/30/87	Trausch Company, Inc.	Administrative Order	WW	Landa	New case.

MPM:bag/CII211L06.01

STATE OF IOWA

TERRY E. BRANSTAD, GOVERNOR

DEPARTMENT OF COMMERCE

KEITH HEFFERNAN, DIRECTOR

July 29, 1987

Allen E. Stokes, Administrator
Environmental Protection Division
Department of Natural Resources
Wallace State Office Building
Des Moines, Iowa 50319

Dear Mr. Stokes:

At its meeting on July 24, 1987, the Iowa Engineering and Land Surveying Examining Board reviewed your letter of July 9, 1987, concerning rules adopted by the Department of Natural Resources relating to underground storage tanks.

In response to your question number 2, the board's position is that the preparation of as-built plans of new tank installations does constitute "professional engineering," the practice of which requires the services of a professional engineer. This position is based upon Code Chapter 114.2, third paragraph:

> The practice of "professional engineering" within the meaning and intent of this chapter includes any professional service, such as consultation, investigation, evaluation, planning, designing, or responsible supervision of construction in connection with structures, buildings, equipment, processes, works, or projects, wherein the public welfare, or the safeguarding of life, health or property is or may be concerned or involved, when such professional service requires the application of engineering principles and data.

The board recommends that 135.9(4) be amended by placing a period after the words "professional engineer" and deleting the rest of that sentence. The rule should retain the sentence "All elevations shall be referenced to a local benchmark(s)," but the rest of the paragraph should be deleted. The rule would then read as follows:

> 135.9(4) Each facility shall maintain as-built plans of any new tank installation. These plans shall be certified by a professional engineer. All elevations shall be referenced to a local benchmark(s).

The definition of "company engineer" then becomes moot.

If you have questions about this, or need more information, please don't hesitate to write or call me at this office. The board appreciates having this opportunity to comment on these rules, and feels strongly that in order

1918 S.E. HULSIZER AVE. / ANKENY, IOWA 50021 / 515-964-6800

to protect the public safety and welfare in conformance with the requirements of Code Chapter 114 the rules should be revised as shown above.

Sincerely,

Patricia Peters

Patricia Peters
Executive Secretary
Engineering and Land Surveying
Examining Board
Phone: 515/281-5602

cc: Board Members

ENVIRONMENTAL PROTECTION COMMISSION

ITEM 7

INFORMATION

STATUS OF THE ONE-TIME PESTICIDES AND SYNTHETIC ORGANIC CHEMICAL MONITORING ACTIVITY

A brief status report will be presented on the current status of the pesticides and synthetic organic chemical monitoring activity.

Sampling activities began November 1, 1986 and will continue until November 1, 1987. Upon completion of the sampling and analytical activities, a report will be completed and distributed to the General Assembly by April 1, 1988.

Dennis Alt
July 31, 1987

(I06.MIN/sc)

SUMMARY OF HF2303 MONITORING RESULTS
Compiled July 29, 1987

* 560 Public Water Supply results received. Approximately 900 public water supplies are included in this study.

  80 systems tested positive for one or more pesticides. The pesticides most commonly found are Atrazine, Bladex, Lasso, Dual and Sencor.

  357 systems tested positive for one or more synthetic organic chemicals. The most commonly found chemicals belong to a group of synthetic compounds called trihalomethanes (THMs). THMs are formed during disinfection when chlorine reacts with organic matter in the water. 335 systems had measurable concentrations of THMs.

  No measurable concentrations of pesticides or synthetic organic chemicals were found in 191 systems.

  18 systems had concentrations of synthetic organic chemicals (SOCs) high enough to warrant resampling. So far one contamination problem has been identified at Cresco. The resampling program is in varying stages of completion. No systems have had pesticide concentrations high enough to warrant resampling

* The following provides a summary of results based on the characteristics of the system's primary source of water:

Surface water systems:
- Number of systems sampled 30
- Systems testing positive for pesticides 17
- Systems testing negative for pesticides 13
- Systems testing positive for SOCs 29
- Systems testing negative for SOCs 1
- Systems testing positive for both pesticides & SOCs 16
- Systems testing negative for both pesticides & SOCs 0

Systems with wells <100 feet deep:
- Number of systems sampled 141
- Systems testing positive for pesticides 23
- Systems testing negative for pesticides 118
- Systems testing positive for SOCs 106
- Systems testing negative for SOCs 35
- Systems testing positive for both pesticides & SOCs 20
- Systems testing negative for both pesticides & SOCs 32

Systems with wells >100 or <500 feet deep:
- Number of systems sampled 217
- Systems testing positive for pesticides 12
- Systems testing negative for pesticides 205
- Systems testing positive for SOCs 124
- Systems testing negative for SOCs 93
- Systems testing positive for both pesticides & SOCs 4
- Systems testing negative for both pesticides & SOCs 85

Systems with wells >500 or <1,000 feet deep:

Number of systems sampled 50
Systems testing positive for pesticides 3
Systems testing negative for pesticides 47
Systems testing positive for SOCs 20
Systems testing negative for SOCs 30
Systems testing positive for both pesticides & SOCs 1
Systems testing negative for both pesticides & SOCs 28

Systems with wells >1,000 feet deep:

Number of systems sampled 72
Systems testing positive for pesticides 3
Systems testing negative for pesticides 69
Systems testing positive for SOCs 31
Systems testing negative for SOCs 41
Systems testing positive for both pesticides & SOCs 2
Systems testing negative for both pesticides & SOCs 40

Consecutive water systems. Purchase water from another system. Source may be surface or ground.

Number of systems sampled 49
Systems testing positive for pesticides 22
Systems testing negative for pesticides 27
Systems testing positive for SOCs 45
Systems testing negative for SOCs 4
Systems testing positive for both pesticides & SOCs 21
Systems testing negative for both pesticides & SOCs 3

HF2303 RESAMPLERS (as of 08/19/87)

PWS	CONTAMINANT	STATUS
Albia	TTHM 126 PPB	1st resamp 4 PPB
Bloomfield	TTHM 139 PPB	1st resample 172 PPB
Centerville	TTHM 153 PPB	1st resample 213 PPB
Central Water System	TTHM 147 PPB	
Chariton	TTHM 152 PPB	
Clarke Rural Water	TTHM 217 PPB	Purchases water from Osceola
Corning	TTHM 175 PPB	1st resample 86 PPB
Corydon	TTHM 105 PPB	1st resample 57 PPB
Cresco	Tetrachloroethylene 32 PPB	Took contaminated well off-line
Danville	TTHM 107 PPB	
Drakesville	TTHM 315 PPB	Purchases water from Bloomfield
Elkton	TTHM 120 PPB	1st resample 32 PPB Purchases water from Sun Valley
Greenfield	TTHM 126 PPB	1st resample 114 PPB
Hopkinton	1,1,1-Trichloroethane	Couldn't reproduce this concentration. Possible sampling error
Kellerton	TTHM 158 PPB	Purchases water from Sun Valley
Leon	TTHM 253 PPB	
McGregor	1,1,1 Trichloroethane 76 PPB Carbon Tet 95 PPB	Couldn't reproduce these concentrations. Possible sampling error
Orient	TTHM 110 PPB	
Osceola	TTHM 175 PPB	
Sun Valley RWA	TTHM 142 PPB	1st resample 32 PPB
Williams	TTHM 125 PPB	1st resample 24 PPB
Blockton	TTHM 431 PPB	

In most cases, we only required the seller to resample when high TTHMs were found. One of the samples the seller called to is within purchaser's system.

HF 2303 CONTAMINANT LIST
08/17/87

SYNTHETIC ORGANIC COMPOUNDS

TOTAL TRIHALOMETHANES
CHLOROFORM
[illegible]
DIBROMOCHLOROMETHANE
[illegible]
ETHYLBENZENE
CARBON TETRACHLORIDE
1,1,1-TRICHLOROETHANE
o-DICHLOROBENZENE
1,1-DICHLOROETHANE
TETRACHLOROETYLENE
TRICHLOROETHYLENE
o-XYLENE
p+m-XYLENE
1,2-DICHLOROETHANE
BENZENE
CHLOROBENZENE
METHYLENE CHLORIDE
TOLUENE
p-DICHLOROETHANE

PESTICIDES

ATRAZINE
LASSO
[illegible]
[illegible]TON (soil sterilizer
News - haven't found before)
BLADEX
SENCOR
2,4-D

ENVIRONMENTAL PROTECTION COMMISSION

ITEM 8 DECISION

REVISIONS TO CHAPTERS 40 AND 41 -- WATER SUPPLY RULES

Attached is a revised copy of revisions to Chapters 40 and 41--Water Supply Rules. The proposed revisions reflect the input from departmental staff and the Administrative Rules Review Committee. We are requesting the Commission's approval of the proposed rules.

The revisions to Chapters 40 and 41--Water Supply Rules were sent for public comment to various interested and affected groups, including all community water supplies with fluoride levels in excess of 2.2 mg/l, the Iowa Chapter of the American Water Works Association, the League of Municipalities, university professors, the Department of Health, the State Hygienics Laboratory, DNR field offices and EPA Region 7. In addition, a general news release regarding the proposed revisions was made.

Four minor changes have been made to the revisions. The words "such as" in 41.4(3)"f."(3)4 has been replaced with the word "include" and the word "such" in 41.4(3)"f"(4) has been replaced with the word "this" to improve the readability of the rules. A minor wording modification has been made to 41.4(3)"f"(5) to clarify that the laboratory must be certified as prescribed in 41.4(1). A typing error was noted in 41.4(3)"f"(5). The figure +10% was changed to ±10%.

On May 20, 1987, the Commission approved a Notice of Intended Action to hold three public hearings and receive comments on the proposed revisions. The public hearings were held on July 7, July 8 and July 10, 1987, and the written comment period closed on July 20, 1987. No oral comments were made at the public hearings, and no written comments were received.

Roy Ney
July 27, 1987
r
(I04.MIN/sc)

ENVIRONMENTAL PROTECTION COMMISSION [567]
Adopted Rule

Pursuant to the authority of Iowa Code sections 455B.105 and 455B.173, the Environmental Protection Commission of the Department of Natural Resources amends 567--Chapters 40 and 41 Iowa Administrative Code, pertaining to the maximum contaminant level of fluoride in community drinking water systems.

The Notice of Intended Action was filed by the Environmental Protection Commission and published in the June 18, 1987 Iowa Administrative Bulletin as ARC 7681. Public hearings were held on July 7, 1987, July 8, 1987 and July 10, 1987. The amendments were adopted on August 19, 1987. Four minor changes to the amendments to Chapters 40 and 41 proposed in the Notice of Intended Action have been made as a result of input from departmental staff and the Administrative Rules Review Committee. The words "such as" in 41.4(3)"f"(3)4. have been replaced with the word "include" and the word "such" in 41.4(3)"f"(4) has been replaced with the word "this" to improve the readability of the rules. A minor wording modification has been made to 41.4(3)"f"(5) to clarify that the laboratory must be certified as prescribed in 41.4(1). A typing error was noted in 41.4(3)"f"(5). The figure +10% was changed to ±10%.

No oral comments were made at the public hearings, and no written comments were received.

These rules are intended to implement Iowa Code chapter 455B, division III, part I. These rules are intended to become effective October 14, 1987 after filing with the Administrative Rules Coordinator and publication in the Iowa Administrative Bulletin.

ITEM 1. Amend rule 40.2(455B) by adding in alphabetical sequence the following definition:

"Performance evaluation sample" means a reference sample provided to a laboratory for the purpose of demonstrating that a laboratory can successfully analyze the sample within limits of performance specified by the department. The true value of the concentration of the reference material is unknown to the laboratory at the time of analysis.

ITEM 2. Amend subrule 41.3(1), paragraph "b," "Fluoride," as follows:

41.3(1) Inorganic chemicals.

b. *Fluoride 2.2 4.0

ITEM 3. Amend subrule 41.4(3), by adding a new paragraph "f" as follows:

"f." Fluoride. In addition to complying with paragraphs "a" through "e" of this subrule, systems monitoring for fluoride must comply with the requirements of this paragraph.

(1) Where the system draws water from more than one source, the system must sample each source at the entry points to the distribution system.

(2) If the system draws water from more than one source and the sources are combined before distribution, the system must sample at an entry point to the distribution system during periods representative of the maximum fluoride levels occurring under normal operation conditions.

(3) The department may alter the frequencies for fluoride monitoring as set out in paragraph "a" of this subrule. Any increase or decrease in monitoring under this subparagraph will be designated in an operation permit or administrative order. To increase or decrease such frequency, consider the following factors:

1. Reported concentrations from previously required monitoring.
2. The degree of variation in reported concentrations.

3. Blending or treatment processes conducted for the purpose of complying with the MCL, and

4. Other factors which may affect fluoride concentrations include changes in pumping rates in groundwater supplies or significant changes in the system's configuration, operating procedures, source of water and changes in stream flows.

(4) Monitoring may be decreased from the frequencies specified in paragraph "a" of this subrule upon application in writing by water systems, if the state determines the system is unlikely to exceed the MCL, considering the factors listed in subparagraph (3) of paragraph "f" of this subrule. This determination shall be in writing and set forth the basis for determination. In no case shall monitoring be reduced to less than one sample every ten years. For systems monitoring once every ten years, the state shall review the monitoring results every ten years to determine whether more frequent monitoring is necessary.

(5) Effective October 2, 1987, analysis for fluoride under this subrule shall only be used for determining compliance if conducted by a certified laboratory as prescribed in 41.4(1) that has analyzed Performance Evaluation samples to within ±10% of the reference value at fluoride concentrations from 1.0 mg/l to 10.0 mg/l within the last 12 months.

Date

Larry J. Wilson, Director

(EP40-41.RUL)

ENVIRONMENTAL PROTECTION COMMISSION [567]

Adopted Rule

Pursuant to the authority of Iowa Code sections 455B.105 and 455B.173, the Environmental Protection Commission of the Department of Natural Resources amends 567--Chapters 40 and 41 Iowa Administrative Code, pertaining to the maximum contaminant level of fluoride in community drinking water systems.

The Notice of Intended Action was filed by the Environmental Protection Commission and published in the June 18, 1987 Iowa Administrative Bulletin as ARC 7681. Public hearings were held on July 7, 1987, July 8, 1987 and July 10, 1987. The amendments were adopted on August 19, 1987. Four minor changes to the amendments to Chapters 40 and 41 proposed in the Notice of Intended Action have been made as a result of input from departmental staff and the Administrative Rules Review Committee. The words "such as" in 41.4(3)"f"(3)4. have been replaced with the word "include" and the word "such" in 41.4(3)"f"(4) has been replaced with the word "this" to improve the readability of the rules. A minor wording modification has been made to 41.4(3)"f"(5) to clarify that the laboratory must be certified as prescribed in 41.4(1). A typing error was noted in 41.4(3)"f"(5). The figure +10% was changed to ±10%.

No oral comments were made at the public hearings, and no written comments were received.

These rules are intended to implement Iowa Code chapter 455B, division III, part I. These rules are intended to

become effective October 14, 1987 after filing with the Administrative Rules Coordinator and publication in the Iowa Administrative Bulletin.

ITEM 1. Amend rule 40.2(455B) by adding in alphabetical sequence the following definition:

"Performance evaluation sample" means a reference sample provided to a laboratory for the purpose of demonstrating that a laboratory can successfully analyze the sample within limits of performance specified by the department. The true value of the concentration of the reference material is unknown to the laboratory at the time of analysis.

ITEM 2. Amend subrule 41.3(1), paragraph "b," "Fluoride," as follows:

41.3(1) Inorganic chemicals.

b. *Fluoride 2.2 4.0

ITEM 3. Amend subrule 41.4(3), by adding a new paragraph "f" as follows:

"f." Fluoride. In addition to complying with paragraphs "a" through "e" of this subrule, systems monitoring for fluoride must comply with the requirements of this paragraph.

(1) Where the system draws water from more than one source, the system must sample each source at the entry points to the distribution system.

(2) If the system draws water from more than one source and the sources are combined before distribution, the system must sample at an entry point to the distribution system during periods representative of the maximum fluoride levels occurring under normal operation conditions.

(3) The department may alter the frequencies for fluoride monitoring as set out in paragraph "a" of this subrule. Any increase or decrease in monitoring under this subparagraph will be designated in an operation permit or administrative order. To increase or decrease such frequency, consider the following factors:

1. Reported concentrations from previously required monitoring.

2. The degree of variation in reported concentrations.

3. Blending or treatment processes conducted for the purpose of complying with the MCL, and

4. Other factors which may affect fluoride concentrations include changes in pumping rates in groundwater supplies or significant changes in the system's configuration, operating procedures, source of water and changes in stream flows.

(4) Monitoring may be decreased from the frequencies specified in paragraph "a" of this subrule upon application in writing by water systems, if the state determines the system is unlikely to exceed the MCL, considering the factors listed in subparagraph (3) of paragraph "f" of this subrule. This determination shall be in writing and set forth the basis for determination. In no case shall monitoring be reduced to less than one sample every ten years. For systems monitoring once every ten years, the state shall review the monitoring results every ten years to determine whether more frequent monitoring is necessary.

(5) Effective October 2, 1987, analysis for fluoride under this subrule shall only be used for determining compliance if conducted by a certified laboratory as prescribed in 41.4(1) that has analyzed Performance

Evaluation samples to within ±10% of the reference value at fluoride concentrations from 1.0 mg/l to 10.0 mg/l within the last 12 months.

_____
Date

_____
Larry J. Wilson, Director

(EP40-41.RUL)

ENVIRONMENTAL PROTECTION COMMISSION

ITEM 9 DECISION

REVISION OF CHAPTER 23, "EMISSION STANDARDS FOR CONTAMINANTS"

The Department requests Commission approval of the proposed amendments to the Chapter 23 rules.

On April 21, 1987, the Commission approved a notice of intended action to amend the rules to adopt the federally enforceable standard of 5.0 lbs. SO_2 per million Btu input for existing solid fuel burning sources located in 89 counties (other than Black Hawk, Clinton, Des Moines, Dubuque, Jackson, Lee, Linn, Louisa, Muscatine and Scott Counties).

Public hearings were held in July in Des Moines, Iowa City and Council Bluffs. No comments were received at these hearings. Written comments were received from three persons. The Department's responsiveness summary is attached.

If the Commission approves the Chapter 23 rule amendments in August, the amended rules will become effective October 14, 1987.

Allan Stoker
August 3, 1987

(I09.MIN/sc)

ENVIRONMENTAL PROTECTION COMMISSION (567)
Adopted Rule

Pursuant to the authority of Iowa Code section 455B.133, the Environmental Protection Commission hereby adopts amendments to Chapter 23, "Emission Standards for Contaminants," Iowa Administrative Code, by revising the sulfur dioxide emission standards for solid fuel (coal) burning stationary sources (principally coal-fired industrial and utility boilers and cement kilns) that are not subject to the federal new source performance standards.

Background

In 1972, the state of Iowa first submitted to the United States Environmental Protection Agency (EPA) a state implementation plan for meeting federal ambient air quality standards for sulfur dioxide (SO_2). That plan contained an SO_2 emission limit of 6 lbs. of SO_2 per million British thermal units (Btu) of heat input for all solid fuel burning sources in Iowa. The plan also provided for the reduction from 6 lbs. to 5 lbs. per million Btu from all sources by January 1975. These limits were approved by the EPA on May 31, 1972 (37 FR 10865).

In 1974, the state adopted new rules providing for a delay of the reduction to 5 lbs. per million Btu from January 1975 to July 1978. This proposal was submitted to the EPA on July 17, 1975. On October 1, 1976, EPA published notice that no approval or disapproval action would be taken on the July 1975, submittal because the state had adopted subsequent revisions to the affected rules.

The existing subrule 23.3(3), Iowa Administrative Code, was adopted on April 15, 1976, and became effective July 19, 1976. This subrule provides that for ten eastern Iowa counties, the eight bordering Illinois plus Black Hawk and Linn Counties, all solid fuel burning sources are limited to 6 lbs. per million Btu. (This is unchanged from the original 1972 plan.) In the remaining 89 counties, no emission limits are specified for existing sources with less than 500 million Btu heat input per hour. In these 89 counties, emissions from existing sources with more than 500 million Btu of heat input per hour are limited to 8 lbs. per million Btu. Throughout the state, new sources of less than 250 million Btu are limited to 6 lbs. per million Btu; for new fossil fuel burning sources greater than 250 million Btu input the new source performance standards apply.

On June 1, 1977 (42 Fed. Reg. 27892), the Environmental Protection Agency formally determined that the proposed revisions to the SO_2 emission limits, other than the 6 lb. limit for the ten eastern counties and the new sources which have a capacity of 250 million Btu or less per hour heat input, were inadequate to maintain the National Ambient Air Quality Standards for sulfur dioxide. The approval of only a portion of the emission limitations adopted by Iowa resulted in a dual set of standards. The state and federal standards for the ten eastern counties and for new sources with capacities of 250 million Btu or less are consistent. However, the state and federal standards for the remaining 89 counties are significantly different. As they currently exist, the state standard for sources over 500 million Btu is 8 lbs. per million Btu and for those sources of 500 million Btu or less, there is no limit prescribed. The federal standard limits SO_2 emissions to 5 lbs. per

million Btu for all solid fuel burning sources located in these 89 counties. (A more complete history of this rule is found in the IAB Volume 5, Number 26 published on June 22, 1983, as ARC 3813.)

The present rules were promulgated by the Iowa Department of Environmental Quality on April 15, 1976, and have only been approved in part by the Federal Environmental Protection Agency. In order to eliminate the dual standards which presently exist because of this EPA action, to provide a clear direction for Iowa industries and utilities, and to provide for the minimum short-term impact to Iowa's economy while preserving the existing air quality the Commission revises the rules as follows:

1. To simplify and clarify this subrule, former subrule 23.3(3)"a"(2) is revised and is renumbered as 23.3(3)"a"(1). The emission limitation set by the subrule for the ten eastern Iowa counties specifically listed was approved by the Environmental Protection Agency on June 2, 1977, and remains in its entirety.

2. Subparagraph (23.3(3)"a"(1) is renumbered as 23.3(3)("a"(2) and is revised to set new emission limitations for the existing solid fuel burning units in the remaining 89 counties in Iowa. The rule which was promulgated by the DEQ limiting these sources to 8 lbs. of SO2 per million Btu was not approved by the EPA. To conform to the existing federally approved standard, a previously proposed DEQ emission limitation of 5 lbs per million Btu for existing sources is now adopted. The standards for new sources with a capacity of 250 million Btu or less per hour heat input are not affected by this revision.

3. Subparagraph 23.3(3)"a"(5) is repealed in its entirety. The Environmental Protection Agency refused to approve this standard because it failed to provide for compliance with the National Ambient Air Quality Standards.

The rule which is adopted at this time is nearly identical to the rule making that was proposed in 1983. The Notice of Intended Action was published in the June 22, 1983, Iowa Administrative Bulletin as ARC 3813.

The Notice of Intended Action for this amendment was published in the Iowa Administrative Bulletin on June 17, 1987, as ARC 7680. Hearings were held in Iowa City, Des Moines and Council Bluffs to receive comment on the proposal. Two commentors wrote statements in support of the proposed amendments. One commentor, an affected utility, submitted adverse comments. The utility has a large supply of coal on hand that may not meet the 5.0 lb. SO_2/mm Btu heat input emission standard. The commentor contends that the cost of purchasing additional low sulfur coal for blending is unjustifiable. The commentor requested special allowance for their plants until their higher sulfur coal is consumed.

Since all existing sources in the 89 counties are subject to federal enforcement of the 5.0 lb. SO_2 standard, an exclusion in the state rule for certain sources would have little meaning or effect. In addition the purpose of the rule amendment is to reconcile state rules with those which have already been approved by EPA. To adopt exclusions in the final rule would be

contrary to the elimination of dual standards in the 89 counties. No changes have been made to the rule that was proposed.

This rule amendment is intended to implement Iowa Code section 455B.133, and will become effective October 14, 1987.

The following amendment is adopted:

Subrule 23.3(3), paragraph "a" is amended by striking subparagraphs (1) and (2) and inserting in lieu thereof the following:

(1) No person shall allow, cause, or permit the emission of sulfur dioxide into the atmosphere from an existing solid fuel-burning unit, (i.e., a unit which was in operation or for which components had been purchased, or which was under construction prior to September 23, 1970), in an amount greater than 6 pounds, replicated maximum two-hour average, per million Btu of heat input if such unit is located within the following counties: Black Hawk, Clinton, Des Moines, Dubuque, Jackson, Lee, Linn, Louisa, Muscatine and Scott.

(2) No person shall allow, cause, or permit the emission of sulfur dioxide into the atmosphere from an existing solid fuel-burning unit, (i.e., a unit which was in operation or for which components had been purchased, or which was under construction prior to September 23, 1970), in an amount greater than 5 pounds, replicated maximum two-hour average, per million Btu of heat input if such unit is located within the remaining 89 counties of the state not listed in subparagraph 23.3(3)"a"(1).

Further amend subrule 23.3(3), paragraph "a," by striking subparagraph (5).

_____
Date

_____
Larry J. Wilson, Director

I02.MIN

Responsiveness Summary for Proposed Revisions to Sulfur Dioxide Emission Limits for Existing Solid Fuel Burning Sources in the 89 Counties

Public hearings were held in Iowa City, Des Moines and Council Bluffs, July 7th through July 10th. Although five representatives from utilities or associations were in attendance, no comments were made at the hearings. Written comments were received from Interstate Power Company, the Iowa Utility Association and Corn Belt Power Cooperative. Interstate Power and the Iowa Utility Association both issued general statements in support of changing the sulfur dioxide emission limitation as proposed. Elimination of dual standards was mentioned in both letters, and the Utilities Association stated that their facilities have demonstrated that the federal standard can be achieved through coal washing and fluidized bed combustion technology. Corn Belt Power offered adverse comments and they will be treated in greater detail.

Background

Corn Belt Power operates two existing plants which would be affected by the change in the regulation. The company calculates the average sulfur dioxide emission rate to be 5.27 lbs. SO2 at Humboldt and 6.0 lbs. SO2/mmBTU heat input at Spencer. These figures do not include credit for sulfur that may be retained in the boiler. Between both plants they have an inventory of 80,000 tons coal on hand. This is more than enough for any forseeable need to operate these plants. In order to comply with the 5.0 lb. standard, they project that they would need to purchase an additional 20,500 tons of low sulfur Wyoming coal to successfully blend and burn their existing coal piles.

Comment

Corn Belt Power contends that the imposition of the 5.0 lb. standard represents an unreasonable burden and that a special allowance should be made for their plants until the coal pile is consumed.

Staff Response

The commentor has indicated that the standard can be met by blending existing stockpiled coal with low sulfur Wyoming coal. Since the federal enforceable emission standard in the 89 counties is 5.0 lbs. this source is already subject to the lower emission rate. EPA has in the past required stack testing of existing sources which may not be capable of meeting the 5.0 lb. standard.

On the question of special allowances, that is difficult in this case because we are trying to reconcile state rules with previously approved standards. Since there was no special allowance for Corn Belt Power in those previously approved rules, we would have to abandon our original intent of eliminating the dual standard dilemma. Even if we were to make a special allowance for this facility in the state rule, they would still be subject to EPA enforcement.

Recommendation

No changes in the proposed rule are recommended by the staff.

IOWA
UTILITY ASSOCIATION
Suite 300
321 E. Walnut Street P.O. Box 6007
DES MOINES, IOWA 50309-6007
(515) 282-2115

July 20, 1987

Mr. Allan E. Stokes
Administrator
Environmental Protection Division
Department of Natural Resources
Capitol Complex
Des Moines, IA 50319

Dear Mr. Stokes:

We are pleased to enclose written comments filed on behalf of the members of the Iowa Utility Association in the following rule-makings:

1) 567 Chapter 23 "Emission Standard for Contaminants".

2) 567 Chapters 50, 51, 52 "Water Conservation and Priority Allocation Rules"

We appreciate the opportunity to submit comments.

Respectfully submitted,

John M. Lewis
President

bjo

Enclosures

RECEIVED
JUL 20 1987
IOWA DEPARTMENT OF
NATURAL RESOURCES

COMMENTS BY THE IOWA UTILITY ASSOCIATION
TO THE ENVIRONMENTAL PROTECTION COMMISSION
REGARDING PROPOSED AMENDMENTS TO SO_2 EMISSIONS RULES

JULY 20, 1987

The Iowa Utility Association appreciates the opportunity to comment on the Commission's proposed rules to amend Chapter 23, "Emission Standards for Contaminants" (IAC), by revising the sulfur dioxide emission standards for solid fuel (coal) burning stationary sources (principally coal-fired industrial and utility boilers and cement kilns) that are not subject to the federal new source performance standards. The membership of the Association consists of investor-owned electric and gas utilities operating in Iowa. Our members who own and operate electric generating facilities have a significant interest in these rules.

This issue has been before the Commission and its predecessor, the Environmental Quality Commission, on numerous occasions since June 1, 1977, when the actions of the federal Environmental Protection Agency left 89 Iowa counties with dual state and federal standards for SO_2 emissions. We support the staff in its recommendation to adopt the federal standard for the 89 counties. The staff has communicated with our members about the proposed change as they have other interested parties. We have appreciated the willingness of the staff to meet with our members and discuss the impact of the proposed revision.

We have demonstrated through our facilities that the federal standard can be achieved and maintained. We believe technological developments - coal washing and increased use of fluidized bed combustion systems will make these standards achievable for facilities using Iowa coal as a primary fuel or in a fuel blend.

Again, we thank you for the opportunity to comment on these rules and encourage you to adopt them.

Respectfully submitted,

John M. Lewis

John M. Lewis, President
Iowa Utility Association

RECEIVED
JUL 20 1987
IOWA DEPARTMENT OF
NATURAL RESOURCES

MINN.
IOWA
ILL.

GENERAL OFFICE
1900 MAIN STREET
P.O. BOX 769
DUBUQUE, IOWA 52004-0769
319-582-5421

July 13, 1987

Mr. Allan Stokes
Administrator
Environmental Protection Division
Iowa Department of Natural Resources
Wallace State Office Building
900 East Grand Avenue
Des Moines, Iowa 50319-0034

Notice of Intended Action to
Amend Chapter 23 "Emission
Standards for Contaminants"

Dear Mr. Stokes:

Interstate Power Company appreciates the opportunity to comment on the proposed amendments to Chapter 23 "Emission Standards for Contaminants", dealing with modifications of the SO_2 Emission Standards.

We support lowering the SO_2 Standards in the 89 "other" Iowa counties to a level of 5 lbs SO_2 per million BTU.

This will do away with the present dual standard and make Iowa SO_2 Standards in all counties agree with EPA approved standards.

We thank you for this opportunity to comment.

Very truly yours,

E. D. Forslund

E. D. Forslund
Vice President-Power Production

EDF/MRC/lw

COMMENTS TO THE DEPARTMENT OF NATURAL RESOURCES ENVIRONMENTAL PROTECTION COMMISSION BY CORN BELT POWER COOPERATIVE CONCERNING THE NOTICE OF INTENDED ACTION TO ADOPT A 5.0 LB. SULFUR DIOXIDE STANDARD FOR FUEL BURNING SOURCES LOCATED IN 89 COUNTIES WITHIN THE STATE OF IOWA

RECEIVED BY
JUL 20 1987
DIRECTORS OFF.

Corn Belt appreciates the opportunity the Department of Natural Resources Environmental Protection Commission has provided to express its comments regarding the proposed revision of sulfur dioxide standards and thanks the Commission therefore.

Corn Belt Power Cooperative, headquartered at Humboldt, Iowa, is a generation and transmission cooperative supplying power and energy to 12 member distribution cooperatives who serve approximately 30,000 rural Iowa customers in 29 contiguous counties generally located in north central Iowa. This area runs roughly from Cherokee on the West to Waterloo on the East, and from the Minnesota border on the North to Highway 30 on the South.

In addition, Corn Belt participates in power and energy transactions with the North Iowa Municipal Electric Cooperative Association. Corn Belt provides all the power requirements of the City of Webster City, as well as a significant portion of the connected load of 12 additional North Iowa Municipal Electric Member systems.

It is Corn Belt's responsibility to supply a dependable, economical, and adequate power and energy source to these Iowa customers over the long term. This is presently accomplished in

part with Corn Belt's solely owned and operated generating stations located at Humboldt (the Humboldt Station), with a nameplate capacity of 41,500 kilowatts, and Wisdom, located at Spencer with 33,000 kilowatts of nameplate capacity. These units are presently being used as reserve and peaking capacity only.

Corn Belt's base load is normally supplied by its share of Duane Arnold Energy Center, Council Bluffs Unit #3, and Neal Unit #4. Additional hydro-power energy is obtained from the Western Area Power Administration. Two of the base load units are fired with low sulfur western fuel and contribute only relatively small amounts of sulfur dioxide to the atmosphere. Corn Belt's remaining base load is obtained with nuclear fuel and hydro-power generated energy. Both of these sources do not contribute any sulfur dioxide emissions to our atmosphere. At present, these sources provide most of Corn Belt's requirements, leaving very little operation for the Humboldt and Wisdom Stations. This pattern is expected to persist several more years while the Midwestern area's load growth catches up with surplus capacity.

It is the opinion of Corn Belt Power that due to the limited operation of the Wisdom and Humboldt stations, now, and in the foreseeable future, the implementation of 5 lb. sulfur dioxide emission standard for these two stations will have very little, if any effect, in lowering the atmospheric sulfur dioxide loading or to improve the national ambient air quality.

Combined coal consumption at Corn Belt's Humboldt and Wisdom stations totaled 49,000 tons from January 1, 1981 through January 1, 1987. During this period of time (January 1, 1981 to January 1, 1987), some 30 samples of the stockpiled coal was sampled and analyzed for sulfur and BTU content as burned at the Humboldt Station. The average sulfur dioxide emission during this period of time without retention credit is calculated to be 5.27 lb. per million BTU. During this same period of time some 38 samples of the stockpile coal was sampled and analyzed for sulfur and BTU content as burned at the Wisdom Station. The average sulfur dioxide emission during this period of time without retention credit is calculated to be 6.0 lb. per million BTU. The Humboldt Station is only slightly above the proposed 5 lb. sulfur dioxide emission standard. The Wisdom Station is at the 6 lb. sulfur dioxide standard that is a standard for 10 eastern counties. Copies of the coal analysis reports are included for your review. This coal burning produced less than 600 tons of sulfur dioxide emissions on an average yearly basis. Our current projections for operation at Humboldt and Wisdom stations for the next 5 years indicate even a lower volume of coal will be burned and thus even less sulfur dioxide emission is to be expected from these two stations during this period. Until load growth in the Midwest uses up the current excess capacity, this level of sulfur dioxide emissions from the Humboldt and Wisdom stations can be expected to change very little.

Corn Belt believes that existing coal inventories at the Humboldt and Wisdom stations, which total some 80,000 tons, should be exempted from attainment of new, more stringent standards than

existed at the time the inventories were acquired. The cost of replacing existing inventories with a lower sulfur coal or the need for blending of coal is an expense that will add to the already escalating cost of electricity for our members.

If the proposed 5 lb. sulfur dioxide emission standard is adopted for Corn Belt's Humboldt and Wisdom stations and blending of fuel is required, it is estimated that the purchase of approximately 20,500 tons of low sulfur western coal may be necessary. This purchase of low sulfur coal will be needed to dilute the sulfur content of the existing stockpile coal at the Humboldt and Wisdom stations in order to meet the proposed 5 lb. sulfur dioxide emission standard. This will result in an increased cost to our members for their electrical energy. Corn Belt Power Cooperative does not feel this is a justifiable burden to place on its members.

In closing, Corn Belt Power Cooperative believes that the Department of Natural Resources Environmental Protection Commission would be imposing an unjustifiable increase in the cost of energy production from the Humboldt and Wisdom stations by the adoption and implementation a 5 lb. sulfur dioxide emission standard at this time. We ask that your consideration be given to allow the continued operation of the Humboldt and Wisdom stations at the current 8 lb. sulfur dioxide emission standard until such time the 80,000 tons of stockpiled coal has been consumed.

ENVIRONMENTAL PROTECTION COMMISSION

ITEM 10 INFORMATION

EMISSIONS OF ACRYLONITRILE AT MONSANTO, MUSCATINE

The department has issued a technical report which provides information about emissions of acrylonitrile and 1,3 butadiene. Acrylonitrile is classified as a known carcinogen and 1,3 butadiene as a suspected carcinogen. The report shows the reductions in public health risks that will occur as a result of Monsanto's plan to control acrylonitrile emissions.

A public hearing will be held September 9, 1987 at 7:00 p.m. in the Muscatine City Hall to receive comments on a preliminary decision to permit this project. Best available control technology will be required for the control of these potentially carcinogenic emissions.

EPA provided contractor assistance to review Monsanto's first control plan and to conduct human exposure modeling. DNR solicited comments on the draft report from the Department of Public Health and University of Iowa's Medical School.

Jerry Tonnesson
August 4, 1987

I01.min

STATE OF IOWA
TERRY E. BRANSTAD, GOVERNOR
DEPARTMENT OF NATURAL RESOURCES
LARRY J. WILSON, DIRECTOR

NOTICE OF PUBLIC HEARING

EMISSIONS OF ACRYLONITRILE AND 1,3 BUTADIENE FROM Monsanto, Muscatine

Public notice is hereby given that the Iowa Department of Natural Resources, Environmental Protection Division, has made a preliminary decision to permit emissions of acrylonitrile and 1,3 butadiene from the Monsanto Agricultural Products plant near Muscatine. This preliminary decision is based upon control programs and commitments that Monsanto has submitted to the Department. Acrylonitrile is classified as a probable human carcinogen, and 1,3 butadiene is classified as a suspected human carcinogen by the U.S. EPA's Carcinogen Assessment Group. The Department has made the determination that best available control technology should be required for any air pollutants that are either known or suspected carcinogens. Proposals and commitments made by Monsanto Corporation will result in reduced emissions and substantial reductions in public health risks.

A report detailing the changes in emission levels and a discussion of the health effects data has been prepared by the Department. The report is available upon request from the Department at the address given below, or a copy of the report and supporting documentation is available for review in the Muscatine City Clerk's office at City Hall during normal business hours.

A public hearing is scheduled for September 9,1987 at 7:00 pm in the Muscatine City Hall, 215 Sycamore. The purpose of the public hearing will be to receive comments on the preliminary decision to issue permits for equipment and control equipment, which will reduce emissions of acrylonitrile and 1,3 butadiene. Department staff familiar with the project will be available to answer questions about the project and the health risk assessment document. Written comments will be received for an additional ten days after the hearing, and may be addressed to:

Environmental Protection Division
Iowa Department of Natural Resources
900 East Grand Ave.
Des Moines, IA 50319

EMISSIONS OF ACRYLONITRILE
MONSANTO CORPORATION,
MUSCATINE IOWA

The Iowa Department of Natural Resources has entered into an agreement with the U.S. Environmental Protection Agency to review the public health risks associated with emissions of acrylonitrile from the Monsanto facility. This report describes changes in emission levels and changes in public health risks that will occur as a result of process modifications at the ABS resin production facility. Upon consideration of the available control techniques and the resulting health risk reductions, the Department has made the preliminary decision to permit this facility subject to certain conditions which are specified in the final section of this report.

BACKGROUND

The acrylonitrile pilot project was announced in the June 10,1985 Federal Register. This program was envisioned by EPA as an alternative to the rather resource intensive process of regulation under the national emission standards for hazardous air pollutants (NESHAPs) program. Sources of acrylonitrile may not present enough of a national problem to justify federal standard setting under NESHAPs, however there are sufficient health risks for people living in the vicinity of these sources to justify some level of mandated controls. Finally, EPA saw the acrylonitrile pilot project as a way to build the capability of state and local air pollution control agencies to deal with toxic air contaminants.

The Monsanto Corporation produces acrylonitrile butadiene styrene (ABS) plastic by polymerization of acrylonitrile (AN), 1,3 butadiene (BD) and styrene (ST). Acrylonitrile is classified as a probable human carcinogen (cancer causing

substance) by the EPA's Carcinogen Assessment Group. In addition, EPA has published an intent to list 1,3 butadiene as a hazardous air pollutant for potential regulation under Section 112 of the federal Clean Air Act. Styrene is not classified as a carcinogen (cancer causing substance), although exposure to high levels may cause acute adverse health effects. Monsanto has proposed changes to their process and the installation of pollution control equipment which will result in substantial reductions of acrylonitrile emissions. Because of the evidence that exists about the carcinogenic potential of acrylonitrile, the Department of Natural Resources has determined that best available control technology is the minimum acceptable control level for this pollutant.

In order to assist the Department in determining what constitutes best available control technology for acrylonitrile, EPA provided contractor assistance to review Monsanto's proposal of May 29,1986. The initial control program proposed by Monsanto would have resulted in acrylonitrile emissions of 42.5 metric tons per year. The EPA contractor, PEI Associates, Inc., determined that additional controls were available and could be implemented at a reasonable cost. After review of the PEI report, the Department requested that Monsanto provide additional controls of acrylonitrile emissions. Monsanto responded with another control proposal on October 27,1986, that would further reduce emissions of acrylonitrile to 31.0 metric tons per year.

CHANGES IN EMISSION LEVELS

The following table shows the current and proposed emission estimates for acrylonitrile, butadiene and styrene at Monsanto. The current emissions will be drastically reduced by process changes as well as the installation of

pollution control devices. The levels marked PEI proposal represents the level of controls recommended by the EPA contractor. The differences in these estimates will be discussed further in the control technology section of this report.

TABLE 1 (Metric tons/year)

	Acrylonitrile	1,3 Butadiene	Styrene
Current Emissions	391	48.1	323
Monsanto Proposal *	31.0	43.8	19.1
PEI Proposal	27.7	13.8	11.8

* Monsanto proposal of October 27,1986

Acrylonitrile, and 1,3 butadiene are volatile materials. They are gaseous under standard conditions, while styrene is a liquid at room temperature. These compounds may be released from storage vessels, equipment leaks, pumps, valves, compressors, and reaction vessels. Most of the emissions from the process come after the plastic product has polymerized and is ready to be washed and dryed. The reaction takes place in an aqueous environment and this water must be driven off before the product is considered to be in final form. When the water is driven off, some of the volatile ingredients are also flashed off to the atmosphere. At present, these product drying emissions are largely uncontrolled.

CONTROL TECHNOLOGY

There are three predominant control techniques for organic vapors. They are carbon absorption, condensation, and incineration. The difference between the Monsanto proposal and the PEI proposal lies with the type of control technique that was selected. The EPA contractor, PEI, has recommended

ducting of some of the process streams to existing boilers. This would provide for recovery of the heating value of the organic vapors. The company is reluctant to connect the boiler to the ABS plant because of the potential for explosions. As an alternate control method, the company has proposed steam stripping in combination with condensation technology. This will result in slightly higher emission levels for acrylonitrile than are possible with incineration. Incineration can result in control efficiencies in excess of 99% with sufficient combustion temperatures and residence times.

A more detailed discussion of PEI Associates findings is contained in the "Assessment of the Monsanto Acrylonitrile Solution in Muscatine, Iowa" EPA 907/9-86-005 September 1986. A limited number of copies of this report are available upon request from the Department of Natural Resources, 900 East Grand Avenue, Des Moines, Iowa 50319. A copying fee will be charged to anyone requesting this document.

Monsanto, in their October 27,1986, submittal, has proposed additional control of acrylonitrile by combining process vents identified as SGL-15 and SGL-16 and by providing additional passes through steam stripping and spray condensation vessels. The new combined process vent stack will be labeled as SGL-15. The Department has made a preliminary determination that the level of controls proposed for SGL-15 represents an adequate level of control for acrylonitrile from this emission point. The control efficiency obtainable through incineration is 99.5%. The control efficiency proposed by this series approach to steam stripping and condensation is 99.4% for acrylonitrile. Another benefit of Monsanto's proposed control methodology is that acrylonitrile is returned to the process and reused.

A decision to permit this source would be conditioned upon source testing, within 180 days after completion of this project, to confirm compliance with proposed emission rates. The acrylonitrile emission levels proposed by the Company in their permit application will become their emission limits, subject to significant public comments on the issue.

The Department has reservations about the proposed control technology for SGL-15 because the condensers will not capture any 1,3 butadiene. According to PEI, the vapor pressure of 1,3 butadiene is so low that no vapors will be collected even with a -30 degree F refrigerated condenser. Some recently received information regarding the potential health effects of 1,3 butadiene have elevated the importance of controlling this compound. More discussion of this issue is contained in the Public Health Risks portion of this report. Styrene control from SGL-15 is adequate.

The only other significant acrylonitrile emission source is SGL-4. SGL-4, which is mentioned in both Monsanto's permit application and the contractor report previously mentioned, is a building ventilation system outlet which removes fumes from a number of sources within the polymerization process. Monsanto has expressed some uncertainty regarding the reliability of their estimate of 16.6 metric tons per year of acrylonitrile from this emission point. This emission estimate is based upon a relatively short sampling period, where the possibility of double counting emissions due to recirculation of ventilation air could not be discounted. The Department has suggested, and the Company is agreeable to an engineering evaluation of acrylonitrile sources within the polymerization building to be submitted at a later date. The Company has suggested that such studies will take a year to complete. The Department would propose that the results of any such studies should be due by May 1, 1988.

Correspondence regarding this issue dated September 18,1986 from the Department and Monsanto's replies dated October 27,1986 and May 15,1987 are attached. If additional reductions in acrylonitrile can reasonably be achieved, such reductions will be required.

Health Effects Data

The carcinogenic potential of acrylonitrile has been mentioned. In addition to the concern about cancer, this chemical can cause other acute (short term) health effects. The threshold limit value (TLV),time weighted average, for this chemical is 2 parts per million or 4.5 mg/cubic meter for an eight hour period. The level described as the immediate danger to life and health (IDLH) action level is 4000 parts per million. According to the "Health Assessment Document for Acrylonitrile" EPA-600/8-82-007F, October 1983, exposure to concentrations in excess of the TLV can result in irritation of the eyes and nose, weakness, labored breathing, dizziness, impaired judgement, cyanosis, nausea, and convulsions.

The evidence for the carcinogenicity of acrylonitrile is based upon seven rat exposure studies, and ten epidemiologic studies. Statistically significant incidence of central nervous system cancers was reported in all five rat studies where acrylonitrile was administered by drinking water. In the remaining two rat inhalation studies, one study showed clear evidence of carcinogenic effect, and the other showed only a marginal increase in tumor incidence. Four of the ten epidemiological studies resulted in a statistically significant elevation in expected lung cancer cases. The remaining six studies, were criticized for having too short of a follow-up, populations that did not have enough members in the age group (50+) where cancer is more likely to occur, and lack of correlation to job classification and potential

for occupational exposure, ie. office worker versus plant maintenance personnel. On the basis of these human and animal studies, acrylonitrile is classified as a probable human carcinogen.

1,3 Butadiene is classified as a suspected human carcinogen. According to the relative unit risk values assigned to acrylonitrile and 1,3 butadiene, butadiene is a more potent carcinogen than acrylonitrile. The eight hour exposure TLV is 1000 parts per million for protection from acute health effects and 10 parts per million for chronic exposures which could lead to the onset of cancer. The IDLH value is 20,000 parts per million.

The EPA has published a summary of the cancer and mutagenic evidence for 1,3 butadiene in "Mutagenicity and Carcinogenicity Assessment of 1,3 Butadiene" EPA/600/8-85/004F, September 1985. One inhalation study with mice shows clear evidence of carcinogenicity. A similar inhalation study, using rats and higher exposure levels, indicates that 1,3 butadiene is a suspected weak carcinogen. There were six epidemiological studies of workers exposed during the production of styrene butadiene (synthetic) rubber. These studies are inconclusive due to confounding problems such as coexposure to butadiene and styrene. Traces of benzene, classified as a known carcinogen, may be present as an impurity of either styrene or toluene. The studies reported in the health assessment indicate that 1,3 butadiene may be a mutagen as well. The evidence for the carcinogenicity of 1,3 butadiene is insufficient for humans and sufficient for animals. Even though the cancer causation data for 1,3 butadiene is somewhat mixed, the Department has made the determination that sufficient evidence exists to require best available control technology for this potential carcinogen.

Styrene is not classified as a carcinogen, however there is some evidence which suggests that it may cause leukemia. In addition, styrene has been implicated with other adverse health effects, such as peripheral neuropathy, abnormal pulmonary function, liver toxicity, and teratogenicity. Exposures to concentrations above the TLV may cause irritation to eyes, and nose, as well as bring on weakness and drowsiness. The TLV value for an eight hour exposure is 100 parts per million. The 15 minute ceiling value is 200 parts per million, and the 5 minute out of 3 hour peak value allowed is 600 parts per million. A level of 5000 parts per million constitutes immediate danger to life and health. The following table provides a comparison between projected ambient concentrations, and the OSHA standards.

Table 2

	OSHA standard	maximum projected concentration
acrylonitrile	4,500	4.87
1,3 butadiene	22,000	7.25
styrene	430,000	0.90

All values given in micrograms per cubic meter

The concentrations shown for the OSHA values are for eight hour per day exposures, while the projected concentrations are representative of maximum modeled concentrations that occur very close to the Monsanto property boundaries. Even though the values are lower, there is still concern about long term exposure to low levels of probable and suspected carcinogens. The

methodology for examining these low level health risks is explained in the following section.

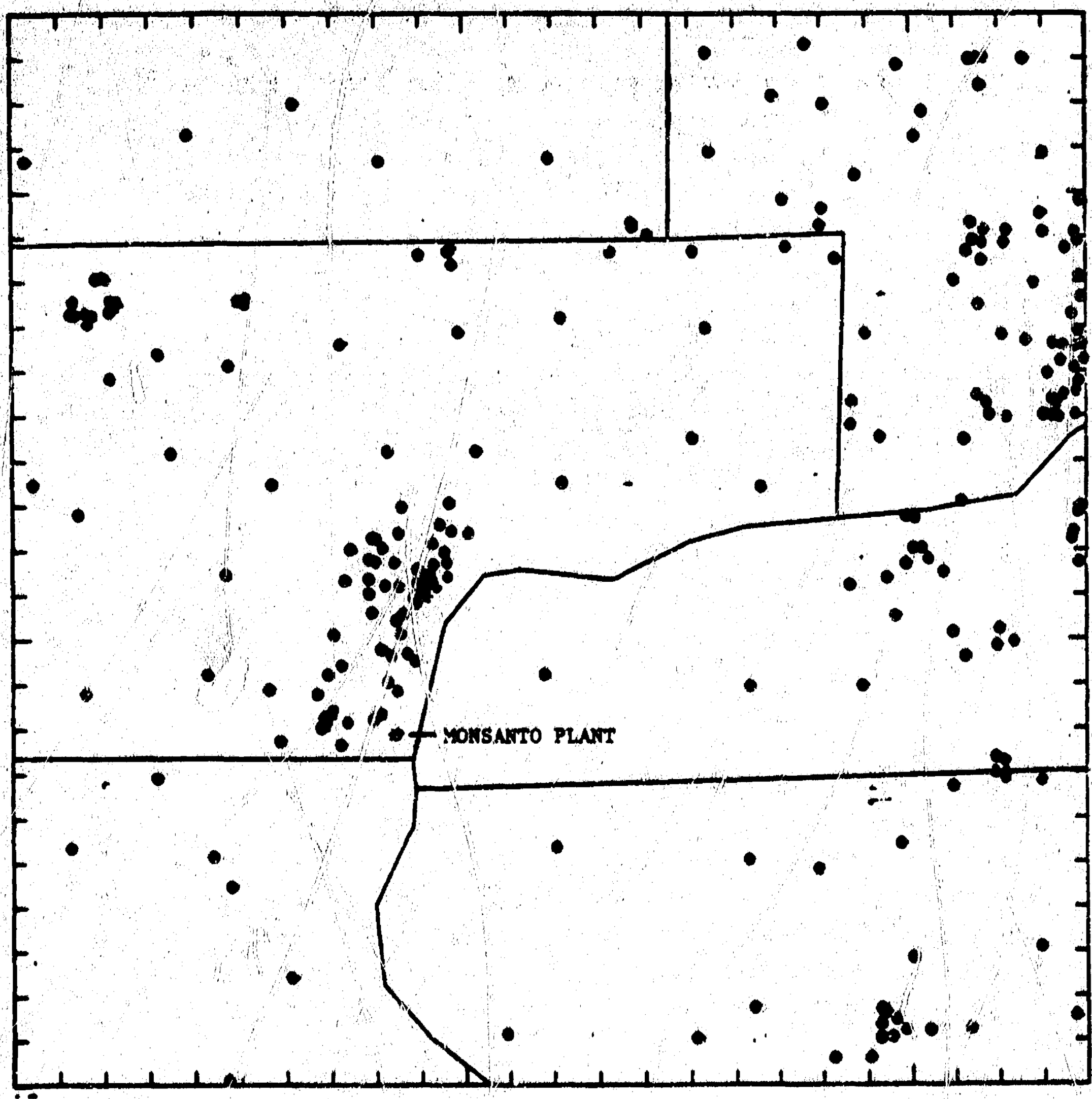
Public Health Risks

The cumulative and maximum human health risks due to exposure to these chemicals can be calculated. For years EPA has used relative risk information to prioritize pollutant and industrial category standard setting projects. Risk assessment is done in other disciplines as well. The EPA air quality risk assessment program is called the Human Exposure Program. This program calculates annual ambient concentrations, within 50 km of a given plant location. These concentrations are compared with U.S Census data at the Enumeration District/Block Group (ED/BG) level. This results in a dosage for each discrete census area (see Figure 1). Unit risk factors derived from animal and epidemiological studies can then be applied to this dosage value to define cumulative or community risks as well as maximum risks for the most exposed individual.

This simplistic model differs from reality in several ways. For instance, the unit risk value is defined as the estimated excess probability of contracting cancer as the result of a constant exposure over a 70-year period to an ambient concentration of 1 ug/cubic meter. Average concentrations are calculated at the population centroid for each census area. If the enumeration district has irregular geometry or uneven distribution of the population, this may skew the dosage values either positively or negatively. For a more detailed discussion of model assumptions and limitations, the reader may refer to "User's Manual for the Human Exposure Model (HEM)" EPA-450/5-86-001, June 1986. Although there are some limitations to the methodology, the human exposure models do provide some valuable information on relative risks for use in risk management.

FIGURE 1

POPULATION CENTROIDS USED IN MUSCATINE AREA EXPOSURE MODELING



The central concept in the risk assessment methodology is the existence of a unit risk factor. The unit risk factor used for acrylonitrile was supplied by EPA's Carcinogen Assessment Group. Two different unit risk factors were used for 1,3 butadiene during this study. The first value that was used was based on work done by Clement and Associates, a contractor to EPA's Carcinogen Assessment Group, and was published in the August 10,1984 edition of the Environment Reporter. This unit risk factor of 4.5 X 10 to the minus 7th was used by PEI Associates in their risk assessment. EPA had subsequently published a unit risk factor of 2.8 X 10 to the minus 4th in their notice of intent to list 1,3 butadiene under Section 112 of the Clean Air Act, published in the October 10,1985 Federal Register. The Department did not notice this discrepancy until receipt of a risk assessment done by EPA's Pollutant Assessment Branch dated January 28,1987. The unit risk value is an indicator of relative cancer causing potency of the individual chemical.

Another factor to be considered, when reviewing risk assessment data, is the relative certainty of the data used to develop the unit risk factor. In the case at hand, acrylonitrile is a probable human carcinogen. 1,3 butadiene is a suspected human carcinogen, and the unit risk factor is based on fewer studies. The cancer evidence surrounding styrene is not compelling enough to list it as a carcinogen. Accordingly, the certainty surrounding the public health risk estimates decreases as we go from acrylonitrile to 1,3 butadiene to styrene. On the advice of EPA's Pollutant Assessment Branch in Research Triangle Park, N. C., unit risk values should not be assigned to styrene, accordingly caution is advised when reviewing the public health risk due to styrene as reported by PEI Associates. Another way of expressing the unit risk factor concept is to characterize it in terms of excess risk of contracting

cancer. In those terms, the excess risk resulting from exposure to one microgram per cubic meter for 70 years can be expressed as follows;

	acrylonitrile	68	chances in a million
1984 EPA value	1,3 butadiene	0.46	chances in a million
1985 EPA value	1,3 butadiene	280	chances in a million

The resulting risk from exposure to a pollutant is due to two factors. One is the concentration of the pollutant in the air, the other is the time of exposure. The product of these two values is the dosage to which one is exposed. By using unit risk factors we can calculate maximum and cumulative community risk estimates. This is done merely by multiplying the dosage times the unit risk factor. For example;

maximum concentration X unit risk factor = maximum individual risk

for the Monsanto proposal for acrylonitrile the maximum concentration for acrylonitrile is predicted to be 4.87 ug/cubic meter, and the unit risk factor is 68 chances per million/ ug/cubic meter exposure, yielding the following

4.87 ug/cubic meter X 68 chances/million= 331 cancers / lifetime/ million people

It must be stated that these results are upper bound estimates, and that the real risk may be lower. The average risk factors, annual cancer incidence, and cancer repeat intervals all take into account the fact that only 314,000 people live within a 50 kilometer radius of the plant, and that people living in different sectors are exposed to a different concentration of the pollutant. These last three values may best be described as cumulative or community

risks. The maximum values apply only to those who live in close proximity to the plant.

The following exposure results summary, Table 3, shows the relative reduction in cancer risk that will occur as a result of Monsanto's control program. The three control scenarios presented are current emissions, PEI's proposed control program and Monsanto's proposal of October 27,1986 proposal. The risk estimates for the current situation and PEI's proposal were prepared by PEI Associates, Inc. with the revised unit risk factor for 1,3 butadiene. The risk estimates for the Monsanto proposal were prepared by EPA's Pollutant Assessment Branch, under the Office of Air Quality Planning and Standards, Research Triangle Park, North Carolina. The exposure summary results have been adjusted to reflect the impact of an additional 6.0 metric tons per year of 1,3 butadiene, that was not considered in the previous studies and has only recently been reported by the company.

The Monsanto proposal would result in a significant reduction in both maximum and community wide risks due to acrylonitrile exposure. Maximum risks and maximum ground level concentrations due to emissions of 1,3 butadiene are projected to increase. This is true even though total emissions of butadiene will decrease. The reason for this apparently discrepant result is due to the fact that the plume from the condensation and steam stripping release point will not be as buoyant as the current configuration. The reduced temperature of the air stream leaving the condensors will reduce the buoyancy of the plume as will the loss of heat due to evaporation of water vapor, which is entrained from the steam stripping.

The change in butadiene unit risk factor has resulted in public health risk estimates far in excess of those anticipated when this project was initiated. There is

TABLE 3

EXPOSURE RESULTS SUMMARY FOR MONSANTO

MUSCATINE, IOWA

	ACRYLONITRILE			1,3 BUTADIENE		
	Current	Monsanto Proposal*	PEI Proposal	Current	Monsanto Proposal	PEI* Proposal
Population exposed, persons	314,000	14,000	314,000	314,000	314,000	314,000
Total emissions, metric tons/yr	391.0	31.0	27.7	48.1	43.8	13.8
Maximum Concentration $\mu g/m^3$	30.2	4.87	3.76	5.11	7.25	1.42
Maximum risk[a], cancers/lifetime/ 10^6 persons	2,050	331	256	1,431	2,030	398
Annual incidence[b], cancers/year	0.034	.0027	0.0025	.018	.017	.00508
Repeat interval, years/cancer	29	370	400	56	59	197
Average risk[c], cancers/lifetime/10^6 persons	7.68	0.59	0.56	4.00	3.79	1.12

[a]Maximum risk is the probability in 10^6 of contracting cancer over a lifetime to the maximum exposed individual.

[b]Annual incidence is cancers per year per lifetime expected to occur over the actual population.

[c]Average risk is the probability in 10^6 of contracting cancer over a lifetime to the average exposed individual.

*The Department is proposing to permit Monsanto's emissions at the levels labeled as the Monsanto proposal of acrylonitrile and the levels labeled as PEI proposal for 1,3 butadiene.

almost a thousand fold increase in this estimate. This is due to the tumorogenic response in the mouse inhalation study, which was completed after the 1984 unit risk factor was published. However, caution is advised due to the fact that the supporting evidence is more limited. Additionally, Monsanto is not that confident in the butadiene emission factors due to the relatively short sample period and other uncertainties [illegible] in the development of acrylonitrile emission estimates. The PEI report shows that additional control of 1,3 butadiene can easily be achieved. The projected public health risks are significant enough to warrant concern. The Department will require additional reductions in butadiene emissions at least equivalent to best available control technology. This would be similar to the level of emission controls recommended by PEI Associates. The proposed permit will require emission reductions for butadiene that will result in public health risks similar to those listed in Table 3 under PEI proposal for butadiene.

Preliminary Determination

In this report, changes in emissions and reductions in public health risks have been explained. The nature of public health risks, and some of the background information regarding cancer risks have been summarized. In addition to Department staff who have prepared and reviewed this report, critical review comments have been solicited from :

Iowa Department of Public Health
University of Iowa Medical School

After opportunity for review and comment on this draft report by the groups listed above, the Department has made this report available to interested parties in the Muscatine area. The comments received are attached as Appendix A.

Public notice of a preliminary decision to permit this source will be published in newspapers for Muscatine and Des Moines. A public hearing will be convened in the Muscatine area on August , 1987 at 7:00 pm in to take any comments on the proposed per .t decision. There will also be an opportunity for written comments as well.

The Department has made the preliminary decision that a permit for Monsanto proposal should be issued for the following reason*;

1. The company is voluntarily installing equipment and control equipment that will change emissions of air contaminants in the Muscatine area. The change in emission of air contaminants makes this project subject to permitting requirements specified in the Iowa Administrative Code, Chapter 567--22(455B).

2. The proposed project will result in substantial emission reductions of potentially harmful air contaminants.

3. The control technology proposed for the main process vent is equivalent to best available control technology, for the control of acrylonitrile.

4. The Department has adopted equipment leak standards for emissions of hazardous air pollutants. Leak detection and repair requirements similar to those contained in national emission standards for hazardous air pollutants (40 CFR, Part 61) will be included in the facility's permit.

5. A requirement to conduct an engineering evaluation of sources within the polymerization building, vented through SGL-4, will be made a condition of the permit. The submittal date for this engineering report is proposed to be May 1,1988.

6. Additionally, control of 1,3 butadiene that will substantially reduce public health risks will be required as a condition of the permit to construct facilities. The PEI report states that emissions totalling no more than 13.8 metric tons per year are reasonably achievable. A program

for the control of 1,3 butadiene, equivalent to best available control technology, must be submitted by May 1, 1988.

7. There will be a substantial reduction in public health risks as a result of this program.

Anyone who has concerns or additional information regarding this preliminary determination is encouraged to comment. All public comments will be considered prior to the final decision on a permit for Monsanto.

Bibliography

1. Letter from Stephen W. Ballou, Ph.D. Executive Director of the Iowa Department of Water, Air and Waste Management, to William A. Spratlin, Director of U.S. EPA Region VII's Air and Toxics Division, dated November 1,1985

2. June 10,1985 Federal Register notice of the acrylonitrile pilot program

3. "Assessment of the Monsanto Acrylonitrile Solution in Muscatine, Iowa" EPA 907/9-86-005 September 1986 prepared by PEI Associates

4. Letter from Rexford A. Walker, Supervisor, Air Quality Section, Environmental Protection Division, Iowa Department of Natural Resources to J. R. Klieve, Monsanto, Muscatine dated September 18,1986

5. Permit application transmittal letter from J. R. Klieve, Monsanto, Muscatine dated October 27,1986

6. October 10,1985 Federal Register notice of EPA's intent to list 1,3 butadiene as a hazardous air pollutant under Section 112 of the Clean Air Act

7. Risk Estimates for Carcinogens, 1,3 butadiene, 12/23/86 DRAFT, Office of Air Quality Planning and Standards (OAQPS), EPA Research Triangle Park, NC

8. Letter to Jerry Tonneson, Iowa Department of Natural Resources from Mike Dusetzina, Environmental Engineer, Pollutant Assessment Branch, OAQPS, EPA Research Triangle Park, NC dated January 28,1987 containing risk assessment data for Monsanto's proposal

Appendix A

1. Comment letter from John A. Eure, Iowa Department of Public Health dated May 26,1987.

2. Comment letter from Jeff Klieve, Monsanto, Muscatine dated June 1,1987.

3. Comment letter from Donald P. Morgan, M.D., Ph. D. University of Iowa, College of Medicine dated June 15,1987.

STATE OF IOWA

TERRY E. BRANSTAD, GOVERNOR

DEPARTMENT OF PUBLIC HEALTH
MARY L. ELLIS, Director

May 26, 1987

Peter R. Hamlin, Chief
Air and Hazardous Waste Bureau
Division of Environmental Protection
Department of Natural Resources
Wallace Building
LOCAL

Dear Mr. Hamlin:

Reference is made to your letter of May 5, 1987, transmitting a draft health assessment document relating to acrylonitrile and 1,3 butadiene emissions from the Monsanto ABS plastic production facility in Muscatine, Iowa. We have reviewed the subject document and have the following comments:

1. We concur that 1,3 butadiene should be considered a human carcinogen. Review test data relating to 1,3 butadiene in the Registry of Toxic Effects of Chemical Substances (RTECS), 1983-84 Supplement, prepared by the National Institute of Occupational Safety and Health (NIOSH) reveals that this chemical has been found to produce cancer in rats as a result of inhalation exposure. Other studies referenced in your report apparently show clear evidence of carcinogenicity in mice. Although we are unaware of any epidemiological studies showing cancer in man, positive evidence of cancer in two different mammalian species is strong evidence that 1,3 butadiene is a human carcinogen.

2. Benzene is definitely considered to be leukemogenic by NIOSH and, therefore, carcinogenic. You may wish to reconsider the term probable carcinogen when referring to benzene in the last paragraph on page 7 of your draft report.

3. Styrene, referenced on page 8, should be revised to state that exposure to styrene has been implicated with other adverse health effects besides leukemia, such as peripheral neuropathy, abnormal pulmonary function, liver toxicity, and teratogenicity.

4. The increase in unit risk factor for 1,3 butadiene by a factor of approximately 600 times higher, as described in the last paragraph on page 9, is apparently due to a reduction in plume buoyancy resulting from steam stripping as explained on page 12. It would enhance your report to discuss the increase in unit risk factor and the cause for this increase in the same paragraph.

5. There appears to be an error in Table 2, on page 11, under the Monsanto Proposal for Acrylonitrile on the last line entry entitled, "Average risk cancers per lifetime per one million persons." Shouldn't the table entry read 0.59 rather than 0.059?

6. It would also be helpful if sample calculations for the various entries of Table 2 were given. For instance, one could show that the maximum risk is the product of the maximum concentration and the unit risk. There appears to be a relationship between the total annual emissions and the average risk. This needs to be explained.

7. I also discussed my above comments relating to your report with Dr. Donald Morgan. He concurs in these comments and also recommends that a map should be incorporated showing where the facility is located in relation to the population. In addition, your report states on page 8 that the concentrations of 1,3 butadiene, acrylonitrile, and styrene are far below their respective threshold limit values. It is important that the actual concentration of these chemicals, as well as benzene, be stated in order to better inform the public with respect to the degree of health hazard.

I hope that these comments are helpful to you in preparing your report. If we can be of any additional assistance or if you have any questions, please do not hesitate to contact me or Brad Cudal at 281-7782.

Sincerely,

John A. Eure

John A. Eure, Chief
Bureau of Environmental Health
(515) 281-4928

JAE:BVC:emb

cc: Mary L. Ellis
Director of Public Health

Dr. Donald Morgan
University of Iowa Medical School

Monsanto

MONSANTO AGRICULTURAL CO.
P. O. Box 473
Muscatine, Iowa 52761
Phone (319) 263-0283

June 1, 1987

Mr. Pete Hamlin
Chief, Air and Hazardous Waste Bureau
Environmental Protection Division
Department of Natural Resources
Wallace State Office Building
Des Moines, Iowa 50319

Dear Mr. Hamlin:

The purpose of this letter is to comment on the Draft Health Assessment Document for acrylonitrile (AN) and 1,3-butadiene (BD) emissions from our Muscatine, Iowa, production facility as submitted to Dr. Don Morgan and John Eure. My comments are as follows:

Page 5, paragraph 1 - Monsanto has provided best engineering estimates of emissions resulting from the installation of the selected control option. The actual emissions should be in the "neighborhood" of the estimates, but actual emissions have a 50% probability of being greater than the estimates, and a 50% probability of being less than the estimates. Therefore, it is not appropriate to establish "emission limits" at estimated emission levels. In the absence of promulgated emission limits, installation of the IDNR approved control option and operation in conformance with IAC 567-24.2(1) should provide reasonable assurance that emissions in the "neighborhood" of engineering estimates will be attained.

Pages 9-13 - It should be noted throughout the Public Health Risks section that unit risk factors cited are 95% upper bound factors representing worst case interpretation of available toxicology and epidemiology data. Actual risks are probably much less severe than stated, and may be zero.

Page 11, * footnote; page 13, paragraph 1; and page 14, item 6 - Discussions of BD emissions abatement should be revised to be consistent with our May 15 submittal. BD abatement should be handled as an issue separate from the AN abatement issue. Implementation of the AN abatement solution should not be conditioned on BD abatement i.e., BD abatement should not be a condition of the AN abatement construction permit.

Page 14, item 1 - We believe an acknowledgment that Monsanto proposed and invested in AN emissions abatement voluntarily is appropriate in the technical document. Item 1 could be restated as follows: "The company has volunteered to install equipment and control equipment that will reduce emissions ..."

Page 14, item 4 - Subpart V of 40 CFR 61 is not applicable since neither AN nor BD are designated hazardous air pollutants pursuant to section 112 of the Federal Clean Air Act.

Page 14, item 5 - Since possible controls on SGL-4 will likely interact with possible BD emissions controls, we propose to submit results of an engineering study of SGL-4 coinciding with the engineering study evaluating BD emission abatement.

We look forward to the scheduling of a public hearing and the issuance of a construction permit for the AN abatement project.

Sincerely,

J. R. Kieve
Environmental Control
Superintendent

/cv

The University of Iowa
Iowa City, Iowa 52242

Institute of Agricultural Medicine and Occupational Health
Department of Preventive Medicine and Environmental Health
College of Medicine, Oakdale Campus

(319) 335-4415

1847

June 15, 1987

Peter R. Hamlin, Chief
Air and Hazardous Waste Bureau
Department of Natural Resources
Wallace Building
900 East Grand Avenue
Des Moines, Iowa 50319

Dear Mr. Hamlin:

Mr. Rex Walker of DNR has asked that I reply in writing to your request to review a document entitled "Emissions of Acrylonitrile Monsanto Corporation, Muscatine, Iowa."

I think readers of this report will want to have some idea of the location of the plant in relation to the population of Muscatine and perhaps other local communities. This might be done with a map.

On page 8, there is the following statement: THE PROJECTED AND MONITORED CONCENTRATIONS OF THESE THREE POLLUTANTS NEAR THE MONSANTO PLANT IS (sic) FAR BELOW THE THRESHOLD LIMIT VALUES GIVEN ABOVE. I think it would be appropriate at this point to elaborate on just what the air concentrations of the target pollutants actually are, not only near the Monsanto plant, but in local neighborhoods where people presumably inhale these pollutants. A part of the standard "risk assessment" procedure is to estimate the approximate <u>dosage</u> (quantity/time) which people are currently absorbing into their bodies. This can be estimated from measured, time-weighted-average air concentrations.

Your letter of May 5, 1987 asks that I comment on the "cancer assessment data for 1, 3-butadiene." I do so reluctantly because I am not an expert in chemical carcinogenesis, and you should take this fact fully into account. I do, however, follow the very extensive contemporary literature on cancer risk assessment and low-dose extrapolation from rodent bioassay information. My own judgement is that these methods for evaluating cancer risk in human populations have no scientific validity. The basis for this judgement is much too detailed to explain in this letter. I would feel very lonely in holding this view were it not for the published works of such eminent scientists as Professor Bruce Ames (Science 236:271-9, April 17, 1987) and others. An interesting insight into the skepticism shared by EPA scientists themselves is offere in Environmental Science and Technology 20(2):111-16, 1986.

I realize that a regulatory agency such as the DNR is not at liberty to make its own judgements of these complex biological issues, and I certainly have no desire to intrude on the decision-making processes which you are required by law to carry through. But since you have specifically requested my opinion, I have offered it.

I hope this is helpful.

Sincerely,

Donald Morgan

Donald P. Morgan, M.D., Ph.D.
Professor

DPM:jr

cc: John Fure, Iowa State Department of Health

ENVIRONMENTAL PROTECTION COMMISSION

ITEM 11 DECISION

SAYLORVILLE HYDRO DEVELOPMENT CONTRACT APPROVAL

Approval is requested to enter the Department into an agreement with Saylorville Hydro Partners.

Saylorville Hydro Partners, a Minnesota, LTD. Partnership, is seeking a license from the Federal Energy Regulatory Commission (FERC) for the purpose of developing hydropower generating facilities at Saylorville Dam. State Section 401 water quality certification from this department is a requirement for obtaining the FERC license. The developer's license application was insufficient at addressing and assessing environmental concerns resulting from hydropower development. To ensure that the state's water resources will not be adversely impacted, a conditional Section 401 water quality certification has been developed and incorporated into the agreement. The agreement binds the developer to the conditions of the Section 401 water quality certification. Although the conditional Section 401 water quality certification will become part of the FERC license, this agreement would allow the department to enforce these conditions through the state courts rather than relying in the FERC for total enforcement capability.

Monica Wnuk
July 29, 1987

M210MJT.1

AGREEMENT

This Agreement entered into this ____ day of _____, 1987, by and between the Iowa Department of Natural Resources (the "Department"), and Saylorville Hydro Partners, a Minnesota Limited Partnership consisting of HRM Partners, General Partner and Independent Hydro Developers, a Minnesota Limited Partnership, as Limited Partner (the "Developer").

WHEREAS, The Developer proposes to construct a hydroelectric generating facility (the "Project") at Saylorville Reservoir Dam on the Des Moines River and has applied for a license from the Federal Energy Regulatory Commission ("FERC") to construct the project; and

WHEREAS, as part of the license application the Department has been requested to issue a Water Quality Certification under Section 401 of the Clean Water Act (33 USC 1341) and will issue a conditional Water Quality Certification (the "Conditional Section 401 Certification") as set forth therein, a copy of which is attached hereto as Exhibit A and the provisions and duties of which are incorporated herein by this reference; and

WHEREAS, the Developer recognizes the Department's duty to maintain and improve the quality of the Des Moines River and the necessity of complying with Iowa's water quality standards (Chapter 567--61, IAC) and is desirous that the Conditional Section 401 Certification be issued by the Department to facilitate the granting of the license by FERC and in consideration of the issuance by the Department of the conditional Section 401 Certification has agreed to be bound and abide by the Conditions and has agreed to fully minimize and mitigate adverse environmental impacts from the project and to be at all times in compliance with Iowa's water quality standards; and

WHEREAS, one of the Conditions of the Conditional Section 401 Certification is that the Department and the Developer enter into this Agreement to bind the parties to the Conditions and to provide for the separate enforcement of the Conditions by the Department or the Environmental Protection Commission.

NOW, THEREFORE, in consideration of the mutual promises and agreements made herein, the Department and the Developer agree as follows:

SECTION 1. The Department will, immediately upon execution of this Agreement, forward to FERC a Conditional Section 401 Certification, a copy of which is attached hereto as Exhibit A.

SECTION 2. The Department will not intervene or attempt to intervene in the proceedings before FERC relating to the Project for the purpose of requesting the preparation of an environmental impact statement ("EIS") by FERC or otherwise cause or attempt to cause any person, agency or entity to request an EIS relating to the Project. If for any reason, the Developer fails at any time to fulfill its responsibilities under this Agreement, this section shall not be binding on the Department.

SECTION 3. The Developer agrees to be bound by the Conditional Section 401 Certification and the Conditions set forth therein and to observe and perform all acts, duties and obligations, required to be observed or performed by it by the Conditional Section 401 Certification, its Conditions and the terms of this Agreement. This Agreement is a separate and independent contract among the Developer and the Department to ensure compliance with Iowa's water quality standards and the Conditions. The Developer's agreements herein are unconditional and shall not be altered or diminished by FERC with respect hereto. Provided, however, that in no event shall this Agreement be construed to require Developer to violate federal laws or regulations.

SECTION 4. Decisions and orders of the Director of the Department concerning all the requirements of the Conditional Section 401 Certification including but not limited to all conditions and requirements for minimizing of impacts and for any mitigation of impacts shall be final unless appealed pursuant to procedures contained in Chapter 17A, Iowa Code, and chapter 900-7, Iowa Administrative Code. All decisions and orders of the Department shall be effective immediately unless a stay would be requested and granted.

Section 5. The Developer agrees to pay all charges, fees and taxes necessary to the due and lawful performance of its obligations under this Agreement and the costs of all studies, consultants, reports, plans and minimizing and mitigation efforts required by the Conditional Section 401 Certification and compliance with its terms. Nothing herein shall require the Developer to reimburse the Department for charges, fees, taxes, costs, or attorneys' fees attributable to performance or enforcement of this Agreement by the agencies.

Section 6. The parties agree to coordinate activities and requirements of this Agreement with FERC, the U.S. Fish and Wildlife Service, the U.S. Environmental Protection Agency and the U.S. Army Corps of Engineers (the"Federal Agencies"). Even though the duties imposed by this Agreement and the Conditions upon the Developer may be greater than those imposed upon the Developer by any of the Federal Agencies including FERC, the Developer agrees to comply with the requirements of this Agreement and the Conditions. The Developer agrees not to seek provisions in its FERC license or its Agreement with the U.S. Army Corps of Engineers which are inconsistent with the provisions of this Agreement. In the event that this Agreement

or the Conditions attached might be construed to authorize the Department to impose requirements on the Developer that are inconsistent with the Conditions in the Developer's FERC license or its Agreement with the U.S. Army Corps of Engineers, the Department agrees to attempt to resolve such inconsistencies, however, in no event shall Iowa's Water Quality Standards be violated.

Section 7. The Developer agrees to develop and construct recreational facilities adjacent to the outlet area of the hydropower facility in accordance with the plans to be submitted to and approved by the Department. The plans shall include but not be limited to:

a. provide a 130 car parking lot;
b. construct an access walkway to the riprap areas of the outlet (tailrace);
c. construct a public rest room that will accommodate the handicapped;
d. provide five (5) picnic tables and park benches each in the outlet area;
e. the licensee will riprap the outlet (tailrace) for a distance of 300 feet on the east bank and 450 feet on the west bank and;
f. developer is of the opinion that the new discharge channel will not affect the fishing pier at the Cottonwood Recreation Area or other downstream recreational facilities. If impacts do occur to these recreational facilities, the Developer will be responsible to mitigate these impacts and mitigation must be approved by the Section 401 Coordinator of the Department.

Section 8. The Developer agrees that the hydropower facility will operate in accordance with the Army Corps of Engineers operating plan and will mitigate fish stocked by the Iowa Fish and Wildlife Division at current costs as follows:

13 percent of the walleye, hybrid stripped bass and northern pike fry and 7 percent for largemouth bass fingerlings stocked at the Saylorville Reservoir.

Annual costs in recent years would not have exceeded $1075. Future costs would vary according to the fish species stocked and the number stocked. Escalated costs above this value would be the result of increased production costs and for an increase in the number of fish stocked.

Section 9. The Department shall have the right of entry to the Project at any reasonable time with reasonable notice for the purpose of monitoring compliance with this Agreement.

Section 10. Unless terminated or cancelled by mutual agreement of the parties, this Agreement shall be in effect from the date hereof and for so long as the Project (as originally constructed or modified) is in physical existence, and shall be binding on the parties hereto, their successors-in-interest and assigns.

or modified) is in physical existence, and shall be binding on the parties hereto, their successors-in-interest and assigns. Provided, however, that the Developer may convey the Project and be released from this Agreement if the successor is acceptable to the Department and the sucessor agrees to assume all the obligations of this agreement. If Developer cancels, terminates or abandons the Project for any reason before beginning construction, the Developer's obligation to conduct the studies required as a condition of the Conditional Section 401 Certification is terminated upon reasonable notice to the Department, and the Developer's only obligation pursuant to this Agreement and the Conditions shall be to provide the Department with all study results obtained prior to termination. If the Developer cancels, terminates or abandons the Project after beginning construction for any reason, the Developer agrees subject to Section 4 to take all actions determined by the Department to be necessary to ensure that no negative environmental impact will occur as a result of such cancellation, termination or abandonment.

Section 11. The Developer shall indemnify, hold harmless and protect the Department and the State of Iowa, their representatives, officers,employees,successors and assigns, from all suits, actions or claims of any character brought because of any injuries or damage received or sustained by any person or property, personal or otherwise, on account of any negligent act,omission or misconduct of the Developer, its representatives, officers, employees or agents in connection with the construction, operation and maintenance of the Project, and compliance with the terms of this Agreement, any law, regulation, injunction, ordinance, order or decree.

Section 12. It is understood that in no circumstances whatsoever shall the Department or the State of Iowa be liable to the Developer or any other party for damages, including but not limited to lost profits or for any costs incurred except as may be allowed by law for Breach of this Agreement.

Section 13. All General partners comprising the Developer shall be jointly and severally liable for all obligations of the Developer under this Agreement.

Section 14. All notices or other communications hereunder shall be in writing and shall be deemed if delivered in person or by first-class mail addressed as follows:

If to the Department: Iowa Department of Natural Resources
Wallace State Office Building
Des Moines, Iowa 50319
Attention: Darrell McAllister

If to the Developer: Charles N. Lucas or Ingolf Hermann
c/o Independent Hydro Developers
2000 Plymouth Rd., Suite 380
Minnetonka, Minnesota 55343
Phone: 612/546-5110

Section 15. This Agreement shall be governed by the laws of the State of Iowa in all respects. Nothing herein precludes the application of any future laws to the Project and this Agreement. The Developer agrees to maintain a registered agent in the State of Iowa upon whom service of process may be served in any action or proceeding arising from matters relating to this Agreement.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by their duly authorized officers as of the date and year indicated.

IOWA DEPARTMENT OF NATURAL RESOURCES

By: _____ Date: _____
Larry J. Wilson, Director

SAYLORVILLE HYDRO PARTNERS, A Minnesota Limited Partnership

By: _____ Date: _____

VMK:rag

EXHIBIT A

STATE OF IOWA

TERRY E. BRANSTAD, GOVERNOR

DEPARTMENT OF NATURAL RESOURCES
LARRY J. WILSON, DIRECTOR

July 16, 1987

Mr. Charles N. Lucas
Independent Hydro Developers
Ridgehill Professional Building
Suite 380
2000 Plymouth Road
Minnetonka, Minnesota 55345

RE: Request for State Section 401 Certification
FERC Project No. 7693
Saylorville Hydro Partners--Saylorville Dam, Iowa

Dear Mr. Lucas:

A request for State Section 401 water quality certification for the above referenced project was received. Since the time of your request, a considerable amount of correspondence and discussion has occurred, most notably: your draft entitled "Response to Issues Related to Section 401 Certification" dated February, 1986; our response to this draft, dated April 28, 1986; and your response to our response, dated June 3, 1986. Effective July 1, 1986, the Iowa Conservation Commission and the Iowa Department of Water, Air and Waste Management have become a part of the Iowa Department of Natural Resources due to state government reorganization. Due to this reorganization and other circumstances, I regret the delay in responding to you. Many water quality issues within the FERC application for the project remain unresolved. To ensure that an adequate environmental assessment is performed by the applicant prior to any construction, the only type of Section 401 certification that will be issued by this Department is conditional and requires the applicant meet the conditions contained below for the Section 401 certification to be valid.

Section 401 Water Quality Certification is hereby granted for the above-referenced project subject to Conditions 1-11 contained below. The state requests that these conditions be incorporated into articles of the FERC license. At the very minimum, the state insists that nothing inconsistent with these conditions be incorporated into the articles of the FERC license.

Conditions

1. The applicant must obtain all necessary wastewater construction permits for wastewater facilities required in conjunction with the hydroelectric project.

2. The applicant must assess environmental impacts resulting from the discharge of the existing Corps of Engineer's sewage lagoon (adjacent to the proposed parking facilities) discharge. Impacts on water quality and water quality uses, e.g. recreation, protection of aquatic life, etc., resulting from discharge must be evaluated by the applicant under the worst case situation of the maximum permitted flow of 25,000 gallons/day during peak summertime usage. Since the impacts of the discharge should have been addressed in the environmental assessment of the application and was not, the applicant must provide to this department for review and approval the above requested information as well as any proposals from the applicant to monitor, minimize or mitigate water quality or aesthetic impacts from the discharge.

3. The applicant is responsible to ensure that the proposed project does not modify water quality, in the area between the existing outlet to the confluence with the proposed hydropower discharge channel, so as to adversely impact the fish in that reach. During periods of minimum releases through the existing outlet, the reduced discharge may result in higher water temperatures, decreased dissolved oxygen levels, and/or restrictions to fish movement. If impacts to fish are observed or reported in this area, the applicant must either: increase discharge flows through the existing channel; increase the water depth in this area; or, submit to this department for approval an alternative to alleviate fishery impacts.

   The applicant must also provide to this department the name and telephone number of an immediate contact person to be reached in case such circumstances arise.

4. The applicant must install automated monitoring equipment for determining the dissolved oxygen (D.O.) concentration in the immediate tailwater area of the power house. D.O. monitoring must also be conducted in the existing outlet discharge when flows less than 200 cfs are being discharged through that outlet. The sites for D.O. monitoring are subject to departmental approval. Instantaneous dissolved oxygen concentrations must be provided to this department upon request. Monitoring equipment must be calibrated on a routine schedule and regularly checked for accuracy against an alternative D.O. detection method acceptable to this department.

   D.O. monitoring reports are to be submitted to the department's Section 401 coordinator. The frequency of report submission and the format of the contents are subject to departmental approval.

   The applicant must also prepare a mitigation plan for departmental approval, to be implemented if dissolved oxygen levels at the existing discharge or hydroplants discharge fall below 5.0 mg/l. This plan of action must include the name and telephone number of the applicant's contact in order for the department to acquire instantaneous readings, discuss reports and other water quality issues, etc.

5. At no time will the dissolved oxygen levels in the water at the existing outlet discharge or the hydroplant's discharge be allowed to fall below 5.0 mg/l. In addition, the dissolved oxygen levels in both the existing discharge channel and the hydroplant's discharge channel shall meet state water quality standards. Measurement of dissolved oxygen levels at the hydroplant's discharge shall reflect the mixing of the turbine discharge and bypass valve discharge.

6. The applicant must coordinate the dewatering behind the cofferdam with the Department's district fisheries biologist (presently Tom Putnam). It will be the applicant's responsibility to remove stranded fish in a manner approved by the fisheries biologist.

   Use of dirt fill with cofferdam construction must be coordinated and approved by the department.

7. The applicant states that the new discharge channel will not affect the fishing pier (at Cottonwood) or other downstream recreational facilities. If unforeseen impacts occur to these recreational facilities (caused by the discharge), the applicant will be responsible to mitigate for these impacts. Mitigation must be approved by the Section 401 Coordinator of the Department.

8. Turbidity and suspended solids are to be monitored at the Corps of Engineers station one mile downstream of the project. The frequency of sampling, monitoring location, analytical methods, reporting, etc., must be approved by the Department prior to sampling. A report comparing pre-project and post-project conditions must be prepared by the applicant six months after use of the discharge channel (and at times thereafter to be specified by the Section 401 Coordinator) and submitted to the Section 401 Coordinator for review. If the findings indicate an increase in solids or turbidity, the report must include measures to be taken by the applicant to reduce suspended solids and turbidity. These measures must be approved by the Section 401 Coordinator of this Department.

9. The study plan contained in the application is insufficient to meet the objective for assessing impacts to aquatic life. The applicant must conduct studies to provide sufficient site-specific information to assess and describe the impacts upon fisheries from hydropower development. In order to make this assessment, both pre- and post-construction/operation studies are required. The pre- and post-studies are to be designed to establish a good understanding of the reservoir and tailwater fisheries and fish movement out of the reservoir; to effectively evaluate changes which have occurred; and to determine the cause of the changes.

   <u>Study Plan</u>

   A detailed study plan to assess impacts to aquatic life must be submitted by the applicant to DNR's Section 401 coordinator for review and approval. The study plan must, at the minimum, address the following:

1. seasonality and intensity of fish movement from Saylorville Reservoir through each outlet;
2. movement related to size of fish;
3. pathway taken during movement (existing outlet, hydropower facility);
4. creel survey (at 90 percent reliability); and
5. assessment of the Saylorville Reservoir fisheries, the existing tailwater fisheries, and the hydropower tailwater fisheries.

The applicant will bear the financial cost of conducting the DNR approved study plan and will be responsible for hiring a consultant to develop and propose the detailed study plan.

Pre-Construction/Pre-Operation Studies

The pre-construction studies are to be conducted by the applicant for a minimum of two years. Pre-operation studies, in lieu of pre-construction studies, will be allowed provided that construction activities do not affect the study(s). Approval for construction must be obtained from DNR's Section 401 coordinator. The decision for requiring additional (continued) baseline studies will be decided by DNR and will be based on the following factors: the quality of the data collected, the variability between the two years of data, and the influence of atypical events and conditions during the period of data collection such as extremes in weather patterns, river flow, reservoir levels, etc.

Post-Operation Studies

A study to evaluate the effects of hydropower operation will commence immediately following operational start-up. A minimum of three years of post operational studies will be required. The decision for additional monitoring requirements will be made by DNR and be based on the same criteria as the pre-construction/operation studies.

Reporting

Annual reports on the required study shall be prepared by the applicant. The annual reports must include: a description of the studies that were conducted; results; discussion of the results; conclusions; results from other past or on-going studies that would provide additional information to support the impact assessment; recommendations to improve the quality of information collected in future studies; and, recommendations to minimize anticipated impacts and fully mitigate all remaining impacts.

The annual reports must be submitted to the DNR for review and be approved by the DNR. Based upon the findings contained in the approved annual reports, the DNR may recommend modifications to the plan of study or work to be conducted in subsequent required studies. These modifications will be submitted to the applicant for implementation.

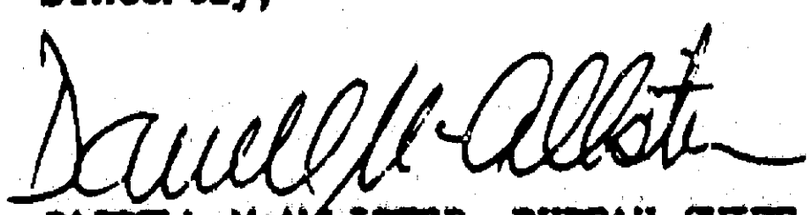
Mitigation

Environmental impacts to fisheries from hydropower operation must be minimized and fully mitigated by the applicant. The licensee must submit a "minimization and full mitigation of impacts" plan to the DNR for review and comment. The DNR will submit to the applicant for implementation requirements to minimize and fully mitigate all impacts. If impacts cannot be reduced to an acceptable level of no violations of water quality standards, a full mitigation plan will be developed by the DNR and submitted to the applicant. The applicant shall be responsible for the implementation of the full mitigation plan approved by the DNR.

10. Water level fluctuations. The hydropower facility must operate in a run-of-river mode. No storage of river flow for peaking power production will be permitted. Water level fluctuations must be minimized from run-of-river power production.

11. The applicant (FERC licensee) shall execute a separate agreement and covenant with the Iowa Department of Natural Resources (DNR) to bind the licensee to these conditions and which will allow for separate (from FERC license process) enforcement of these conditions by DNR. In exchange for the state's issuance of this conditional Section 401 Certification, the licensee will agree to abide by the conditions imposed in this Certification and to submit itself to the jurisdiction of Iowa District Courts for enforcement of this agreement.

Sincerely,



DARRELL McALLISTER, BUREAU CHIEF
SURFACE AND GROUNDWATER PROTECTION

DM:MW:rlt:L004

cc: Kenneth Plumb, FERC
M. Bronowski, EPA
J. Millar, USFWS
Kent Johnson, University of Iowa
Douglas Spaulding, Warzyn Engineering Inc.

ENVIRONMENTAL PROTECTION COMMISSION

ITEM 12 DECISION

A notice of intended action is attached for proposed rules for siting low-level radioactive waste disposal facilities. The procedure for identifying suitable sites for storage or treatment of low level radioactive wastes is described in the proposed chapter 142 rule and the "Low-Level Radioactive Waste Disposal Facilities Siting Criteria and Methodology". These documents are attached.

Allan Stokes

ENVIRONMENTAL PROTECTION COMMISSION [567]
Notice of Intended Action

Pursuant to Iowa Code section 455B.485, the Environmental Protection Commission proposes to adopt a new 567--Chapter 152, "Criteria for Siting Low-Level Radioactive Waste Disposal Facilities," Iowa Administrative Code.

In accordance with Iowa Code section 455B.485 paragraph 2, the Commission shall adopt rules establishing criteria for identification of sites which are suitable for the operation of low-level radioactive waste disposal facilities. In accordance with this authority, the Commission proposes to adopt rules which are similar to the existing rules in 567--Chapter 151, "Criteria for Siting Hazardous Waste Management Facilities." These rules provide exclusionary and quantitative criteria for site selection and the method to be used by the waste management authority for applying these criteria. These criteria are to be applied to facilities which are owned or operated by the state of Iowa and privately owned by the state of Iowa which are used for low-level radioactive waste disposal pursuant to 455B.485.

These amendments may impact small business.

Any interested person may file written comments on the proposed rules through October 15, 1987. Persons are also invited to attend public hearings on October 1, 1987 at 1:00 p.m. in the Trowbridge Hall Conference Room, Room 115B, Geological Survey Bureau, 123 North Capitol Street, Iowa City, Iowa; on October 2, 1987 at 1:00 p.m. in the fifth floor conference room, Wallace State Office Building, 900 East Grand Avenue, Des Moines, Iowa; and on October 6, 1987 at 11:00 a.m. in Room 006, Continuing Education Building, Iowa Western Community College, 2700 College Road, Council Bluffs, Iowa.

Chapter 152
CRITERIA FOR SITING LOW-LEVEL RADIOACTIVE
WASTE DISPOSAL FACILITIES

567--152.1(455B) Authority, purpose and scope.

152.1(1) Authority. This chapter is authorized in the 1986 Iowa Code section 455B.485 paragraph 2, which relates to the siting of low-level radioactive waste disposal facilities.

152.1(2) Purpose. These regulations establish criteria for identifying sites which are suitable for operation of low-level radioactive waste disposal facilities. The waste management authority will apply these criteria to identify and recommend to the commission sites suitable for locating these facilities.

152.1(3) Scope. These regulations apply only to facilities which are owned or operated by the state of Iowa and privately owned or operated facilities which are located upon land owned by the state of Iowa which are used for low-level radioactive waste disposal pursuant to Iowa Code section 455B.485 paragraph 2.

567--152.2(455B) Definitions. In addition to the definitions in Iowa Code section 455B.481, the following definitions apply to this chapter:

"Aquifers" means water-bearing geological formations, group of formations, or part of a formation that is capable of yielding significant amounts of groundwater for beneficial use.

"Conservation area" means any park, recreation area, wildlife area, forest, prairie, preserve, natural area, scenic area owned, managed, or under control of any government agency or organized conservation group on or before the date of enactment of these rules.

"Criterion" means a test, rule, measure, or model by which judgment will be made.

"Critical wildlife habitat" means any areas known to be inhabited on a seasonal or permanent basis by, or to be critical at any stage of the life cycle of any wildlife or vegetation identified as "rare," "threatened," or "endangered" by official federal or state lists of species, or is under active consideration for listing.

"Cultural area" means any known property of recognized archaeological, architectural, cultural or historical significance as listed in or eligible for the National Register of Historic Places, the significant State Site records of the Office of Historic Preservation, the Office of the State Archaeologist, or is under active consideration for listing. Archaeological property shall include, but is not limited to, ancient mortuary sites.

"Dam hazard area" means any area identified as areas of dynamic flooding below a dam (the inundation zone) or areas of static flooding above a dam (flood pool). The inundation zone includes the area that would be flooded by a flood wave generated by dam failure during a one hundred (100)-year flood. The static flooding zone is equal to the pool level reached during a one hundred (100)-year inflow flood, or the top of the dam, whichever is greater.

"Drinking water source" means the groundwater or surface water intake of drinking water used for human consumption.

"Facility" means any hazardous waste management facility including land and structures, appurtenances, improvement and equipment for handling, treatment, storage or disposal of hazardous wastes.

"Floodplain" means the land adjacent to a stream which has been or may be inundated by a flood having the magnitude of the regional one hundred (100)-year flood.

"Geological hazard structures" means any faults, fracture zones, or other structures that may provide pathways to groundwater.

"Karst areas" means a type of topography or surface area covered by alluvial or colluvial sediments that may form over limestone, dolomite, or gypsum formations by dissolving or solutions, and that are characterized by closed depressions or sinkholes, caves, and underground drainage.

"Mineral and energy resources" means minerals, construction materials, metals, coal, gas, and oil.

"Mining activity" means any area of past or present underground or surface mining, mineral extraction, or major exploration or production drilling for oil, gas, or mineral resources, and any area likely to be influenced by mining activity through subsidence or surface deformation.

"Nonattainment area" means any area not attaining the National Ambient Air Quality Standards as defined in Part D of the Clean Air Act.

"Population area" means any commercial, school, church, social, medical facility, elderly housing, correctional facility, mobile home park, or incorporated residential area.

"Prevention of significant deterioration" is defined in Part C of the Clean Air Act.

"Prime farmland" means any area identified as such by the United States Department of Agriculture, Soil Conservation Service.

"Protected basins" means any portion of the drainage basin of protected water areas within two (2) miles of the water area. Protected water areas are those classified as such pursuant to Iowa Code chapter 108A, or high-quality waters, high-quality resource waters or Class "C" waters designated in Chapter 61 of the department's rules.

"Proximity to major generators" means within fifty (50) miles of the central point of generation based on the latest available RCRA biennial report on hazardous waste generation in Iowa.

"Seismic risk" means the relative geologic stability of the site based on the likelihood of structural damage due to seismic events. Seismic risk categories, as developed by the National Oceanographic and Atmospheric Administration, will be used to rate relative stability.

"Site" means the land area upon which a facility is, or is proposed to be, physically located, including but not limited to adjacent land use for utility systems such as repair, storage, processing, or other areas incident to the facility or operation.

"Siting authority" means the party with the specific authority to select sites for facilities.

"Transportation routes" means any public all-weather hard-surfaced road with adequate capacity to carry the type and volume of commercial vehicular traffic serving the facility for the entire year with no embargoes, special permits or other restrictions on roads, overpasses or bridges that would prevent transportation to the facility.

"Utilities and services" means electricity, gas, water and sewer utilities, and police, fire protection, and emergency medical services.

"Wetlands" means any area inundated by surface or groundwater with a frequency sufficient to support, under normal circumstances, a prevalence of vegetation or wildlife requiring saturated or seasonally saturated soil conditions for growth or reproduction. These areas include swamps, marshes, bogs, sloughs, wet meadows, mudflats, sandflats, ponds, lakes, and similar areas.

567--152.3(455B) Siting criteria. The siting authority shall use the following criteria in selecting sites for facilities.

151.3(1) Exclusionary criteria. No facility shall be sited within:

a. An area of seismic risk category of four (4) or greater;

b. A one hundred (100)-year floodplain;

c. A dam hazard area;

d. An area with less than one hundred (100) feet of aquitard between the base of operation and the subjacent aquifer;

e. One (1) mile of a geologic hazard structure;

f. One (1) mile of a karst area;

g. One (1) mile of an area of past or present surface or underground mining activity;

h. One (1) mile of wetland;

i. Any protected basin; or

j. Ten (10) miles of any nuclear power plant.

152.3(2) Quantitative criteria. The quantitative criteria and corresponding values which are to be applied are in Table 1 as follows:

Table 1

	Value Assigned		
	5 points	2 points	Excluded
Mineral and Energy Resources	No significance present within one mile	Significant presence with perpetual ban on recovery	---

Drinking Water Sources	No sources within one mile	Source permanently closed and alternative water source provided	---
Critical Wildlife Habitats	No habitat within one mile	Permanent buffer and no interference	Interference
Conservation Areas	No area within one mile	Permanent buffer and no interference	Interference
Cultural Areas	No area within one mile	Permanent buffer and no interference	Interference
Population Areas	No area within one mile	Permanent buffer and no interference	Interference
Prime Farmland	Less than 25% prime farmland	More than 25% prime farmland	---
Mountainment With NAAQS	No significant impact predicted	Little significant impact predicted	---
Prevention of Significant Deterioration	Good data available and sufficient increments	Little data available but increment available	---
Transportation Routes	Within 5 miles of major highway, 10 miles of a rail line, and 50 miles interstate highway	Beyond 5 miles from major highway, 10 miles of a rail line, or 50 miles from interstate highway	---
Proximity to Major Generators	Within 50 miles major generators	Beyond 50 miles from generators	---
Utilities and Services	Accessible services available	Sites needing services extended	---

152.3(3) Methodology. The methodology to be used by the siting authority in applying these criteria is contained in the report "Low-Level Radioactive Waste Disposal Facility Siting Criteria and Methodology" which is adopted by reference. The criteria listed in this rule shall be applied in three steps as follows:

a. Step 1. The exclusionary criteria shall be applied to the entire state. Step 2 shall be applied to those areas remaining.

b. Step 2. The quantitative criteria shall be applied to the nonexcluded areas identified in step 1. The values in table 1 shall be applied and the potential sites ranked in order of priority.

c. Step 3. The top rated potential sites shall be subject to detailed evaluation. The best site for the facility shall be selected.

(EP152.MIN)

LOW-LEVEL RADIOACTIVE WASTE DISPOSAL

SITING CRITERIA

AND METHODOLOGY

August, 1987

Iowa Department of Natural Resources

MLP:rlz/AUS-I212J01

TABLE OF CONTENTS

	Page
Summary	i
Chapter A - Introduction	A-1
Chapter B - Overview of Methodology	B-1
1. Three Stage Exclusionary Approach	B-1
2. Level of Information Needs	B-1
3. Interdisciplinary Approach	B-2
4. Public Participation	B-2
Chapter C - Siting Criteria	C-1
1. Seismic Risk	C-3
2. Geologic Hazard Structures	C-3
3. Karst Areas	C-3
4. Mining Activity	C-3
5. Flood Plains	C-4
6. Dam Hazard Areas	C-4
7. Wetlands	C-5
8. Protected Basins	C-5
9. Aquifers	C-5
10. Nuclear Power Plants	C-6
11. Mineral and Energy Resources	C-6
12. Drinking Water Sources	C-6
13. Critical Wildlife Habitats	C-7
14. Conservation Areas	C-7
15. Cultural Areas	C-7
16. Population Areas	C-8
17. Prime Farmland	C-8
18. Nonattainment Areas	C-9
19. Prevention of Significant Deterioration	C-9
20. Transportation Routes	C-9
21. Proximity to Major Generators	C-10
22. Utilities and Services	C-10
Chapter D - Siting Procedure	D-1
1. Stage I -- Exclusionary Criteria	D-1
a. Approach and Methodology	D-1
b. Exclusionary Criteria	D-3
c. Demonstration of Stage I Screening	D-3
2. Stage II -- Quantitative Criteria	D-3
a. Approach and Methodology	D-4
b. Quantitative Criteria	D-4
3. Stage III -- Final Site and Engineering Analysis	D-5
a. Final Site Analysis	D-5
b. Engineering Analysis	D-5
c. Demonstration of Stage III Screening	D-5
4. Final Site Selection	D-6

SUMMARY

Senate File 396, adopted by the Legislature in 1987, directs the Department to "adopt rules establishing criteria for the identification of sites which are suitable for the operation of low-level radioactive waste disposal facilities." The Act also notes the obligation of the state government to provide for the proper and safe management of low-level radioactive wastes produced within its borders, pursuant to the federal Low-Level Waste Management Policy Act of 1980. The criteria for siting such a facility are included in this report.

Chapter A explains why a low-level radioactive waste management facility and siting criteria are needed.

In Chapter B, the methodology to be used in the siting process is discussed.

The siting criteria for a management facility are discussed in Chapter C.

Using these criteria to screen the state for acceptable sites is explained in Chapter D.

A. INTRODUCTION

In June of 1987, the Iowa Legislature created a waste management authority within the Department of Natural Resources. Management of low-level radioactive wastes was one of the authority's duties. The state government was previously required to provide proper and safe management of low-level radioactive wastes by the federal Low-Level Waste Management Policy Act of 1980. It was also the purpose of the legislature that to the extent possible, the use of environmentally sound waste management practices be used which are alternatives to land disposal.

The state was authorized to acquire property, construct, own, and operate facilities within the state to be used for the proper and safe management of low-level wastes generated in the state. Any facilities acquired, owned or operated by the State of Iowa may be used for regional or multi-state management of these wastes.

The Legislature instructed that the waste management authority establish a plan to address the following items:

1) Determine the need and adequate regulatory controls prior to the initial site selection.
2) The process for selecting a superior site determined to be necessary.
3) Establish a process for a site community to submit or present data, views, or arguments regarding the selection of the operator and the technology that best ensures proper facility operation.
4) The prohibition of shallow land burial of low-level radioactive wastes.
5) The establishment of a regulatory framework for a facility.
6) The establishment of provisions for the safe and orderly development, operation, closure, post-closure, and long-term monitoring and maintenance of the facility.

The waste management authority was also required to adopt rules establishing criteria for the identification of sites which are suitable for the operation of low-level radioactive waste disposal facilities. The authority shall then apply these criteria to identify and recommend to the commission sites suitable for locating disposal facilities.

The criteria that is being used is very similarly to the criteria for siting the hazardous waste management facility. This seems appropriate because safeguards are necessary to properly manage both types of wastes. However, having separate criteria will allow specific conditions to be applied that may be appropriate for only one on the wastes. In the future, the criteria may be modified to address these waste specific criteria.

B. OVERVIEW OF METHODOLOGY

The Department will develop design and operation standards for the storage facility and any other management methods proposed. These standards will mandate emission limits, operating procedures and design standards to provide additional safeguards for protecting public health and the environment. Design and operation standards will be addressed in reports to be prepared later.

The subject of this report will be the siting criteria. These criteria are designed to assure that the facility be located at a site which will (in order of priority):

a. protect public health
b. protect the environment
c. comply with regulations
d. comply with permitting and licensing requirements
e. reduce costs to the state
f. avoid engineering and socioeconomic problems that would prevent the facility from being built

1. Three Stage Exclusionary Approach

In order to consider the entire state and efficiently use existing resources, the Department recommends that the site selection process be carried out in three stages.

In Stage I the entire state would be examined by such broad criteria as geological factors. These criteria are exclusionary: when one or more of the factors are found, the area would be excluded from further consideration. Stage I exclusionary screening would use readily available data to eliminate large areas of the state from further consideration.

Stage II would involve looking at smaller areas remaining after Stage I screening. Readily available data would be applied in closer examination of smaller areas. Stage II criteria are quantifiable; they can be used to assign values to specific sites. By ranking sites according to value, the best sites can be selected.

Stage III would involve looking very closely at a few small sites that have not been excluded by the first two levels of screening. Detailed on-site studies would be applied. Factors that could prevent the facility from being built would be examined. As a result, the best site for a hazardous waste management facility would be selected.

These screening steps are discussed in more detail in Chapter D.

2. Level of Information Needs

This siting criteria proposal is designed in three separate stages. Stage I and II screening would require general and readily available information. Detailed, site-specific information would be needed for Stage III screening.

The following level of information is proposed for each stage:

Stage I -- Exclusionary Criteria. Statewide knowledge of Iowa's geology, mining activities and water resources would be needed. This information is generally available from the Department of Natural Resources (DNR).

Stage II -- Quantitative Criteria. Regional knowledge of Iowa's geology, natural resources, environmental resources, and socioeconomics would be needed. This information is generally available from the DNR, the Department of Cultural Affairs, and the Office of the State Archaeologist.

Stage III - Final Site Analysis. This stage would require site-specific information for a small number of sites. This information could be collected by examining the sites, using existing data, and working with the agencies identified in Stage II.

3. Interdisciplinary Approach

The proposed siting process would be conducted by an interdisciplinary group of scientists and engineers. This group would be made up of individuals with experience and specific knowledge in hydrology, geology, biology, natural resources, history, archaeology, air and water resources, and other relevant disciplines.

The proposed criteria and methodology could be used to recommend sites to the commission. The siting team could be assembled from staff of this Department, from other state agencies, or from private consulting firms.

4. Public Participation

Participation by the public would be essential to the successful siting of a facility. The Department has and will continue to encourage public participation and comment and keep the public informed on low-level radioactive waste activities.

During the implementation stage, the public would be informed of the process through news releases and other public information programs. When the final candidate sites, chosen through the three stage screening process described before, are announced public meetings would be held in those communities.

For each candidate site a temporary commission, the Department's Commission and up to four citizens of the local community would meet. This temporary commission would act on site licensing procedures found in Chapter 567--150 (455B), IAC. All meetings would be open to the public, whose attendance and participation would be encouraged.

C. HAZARDOUS WASTE SITING CRITERIA

The Department proposes the following criteria to eliminate sensitive areas and to locate the safest areas for siting a hazardous waste management facility. These criteria, summarized in Table 1, are discussed in greater detail in the text. The criteria are listed in no particular order of priority.

TABLE 1. LOW-LEVEL RADIOACTIVE WASTE DISPOSAL

Criterion	Favorable	Potentially Favorable	Unfavorable
1. Seismic Risk	NOAA Risk Category 1	NOAA Risk Categories 2 or 3	NOAA Risk Category 4
2. Geologic Hazard Structures	Not present within one mile	---	Within one mile
3. Karst Areas	Not present within one mile	---	Within one mile
4. Mining Activity	Not present within one mile	---	Within one mile
5. Flood Plains	Not in a 100-year flood plain	---	In a 100-year flood plain
6. Dam Hazard Areas	Not in a dam hazard area	---	In a dam hazard area
7. Wetlands	Not within one mile	---	Within one mile
8. Protected Basins	Not within two miles of the water area	---	Within two miles of the water area
9. Aquifers for Radius of One Mile	At least 100 feet of aquitard between base of operation and subjacent aquifer	---	Less than 100 feet of aquitard between base of operation and subjacent aquifer
10. Nuclear Power Plant	Not within ten miles	---	Within ten miles
11. Mineral and Energy Resources	No significant presence within one mile	Significant presence with perpetual ban on recovery	---

TABLE 1. LOW-LEVEL RADIOACTIVE WASTE DISPOSAL
- Continued -

Criterion	Favorable	Potentially Favorable	Unfavorable
12. Drinking Water Sources	No sources within one mile	Source permanently closed and alternative water source provided	---
13. Critical Wildlife Habitats	No habitat within one mile	Permanent buffer and no interference	Interference
14. Conservation Areas	No area within one mile	Permanent buffer and no interference	Interference
15. Cultural Areas	No area within one mile	Permanent buffer and no interference	Interference
16. Population Areas	No area within one mile	Permanent buffer and no interference	Interference
17. Prime Farmland	Less than 25% prime farmland	More than 25% prime farmland	---
18. Nonattainment with NAAQS	No significant impact predicted	Little significant impact predicted	---
19. Prevention of Significant Deterioration	Good data available and sufficient increments available	Little data available but increment available	---
20. Transportation Routes	Within five miles of major highway, ten miles of rail service and 50 miles of interstate highway	Beyond five miles from major highway, ten miles of rail service and 50 miles of interstate highway	---
21. Proximity to Major Generators	Within 50 miles of major generators	Beyond 50 miles from generators	---
22. Utilities and Services	Access to services available	Sites needing services extended	---

1. Seismic Risk

This criterion is related to the seismic stability of a given site. The natural processes affecting such stability should not occur at a frequency or extent that can alter the geological integrity of a site or its ability to isolate contaminants from the groundwater.

Seismic risk is an accepted measure of the likelihood of structural damage resulting from seismic events for specific areas. Seismic risk categories, as developed by the National Oceanographic and Atmospheric Administration (NOAA), include 0 (no risk) to 4 (severe risk). For the purposes of this criterion, a site in risk category 1 would be considered favorable, a site in categories 2 and 3 potentially favorable, and a site in category 4 unfavorable. Areas within 1 mile of category 4 risk factor will be excluded from further consideration.

The information necessary to evaluate sites for this criterion is available from the Iowa Department of Natural Resources (DNR).

2. Geologic Hazard Structures

This criterion is designed to prevent ground water contamination through geologic structures that might serve as avenues of transport. For the purposes of this criterion, "geologic structures" include faults, fracture zones, and other features that provide pathways to or through ground water aquifers.

The protection of ground water is related to the protection of public health. For this reason, no site shall be established within 1 mile of a geologic structure. The 1 mile separation distance was selected as the distance necessary to sufficiently avoid major stressed areas around the structure.

Information about geologic hazard structures criterion is available from DNR.

3. Karst Areas

Karst areas occur where limestone has been partially dissolved to form fractures, caves and sinkholes. These breaks in the bedrock provide potential pathways for ground water contamination.

To protect ground water and thereby protect public health, the Department proposes that no facility be sited within 1 mile of a sinkhole area or within a known or potential karst region with less than 100 feet of overburden material.

Information about Karst areas is available from DNR.

4. Mining Activity

This criterion is designated to prevent ground water contamination in areas of past underground or surface mining, major exploration/production drilling or mineral recovery. Areas where materials have been removed or exploration conducted may present avenues through which

contaminants could be transported from surface to ground water. Contaminants could enter ground water through boreholes, wells, tunnels or areas of structural instability due to mining.

To prevent potential contamination of ground water and therefore protect public health, a site shall not be located within 1 miles of areas of past under ground or surface mining, major exploration/production drilling or mineral recovery.

Information about mining activity is available from DNR.

5. Flood Plains

This criterion pertains to the potential for contamination by means of flooding. It is designed to prohibit siting a facility in a 100-year flood plain, thereby reducing the possibility that flooding would ever occur at the site. Flooding could adversely affect the facility by:

a. interfering with site operation
b. damaging equipment and structures
c. accelerating transport of waste by leaching
d. transporting waste material off-site by flood action

In developing this criterion, some consideration was given to allowing a site in a 100-year flood plain provided that flood control structures (such as dikes, levees, etc.) were designed to protect the site. This consideration was rejected because the facility will be designed and constructed to safely store wastes for hundreds of years. Limited maintenance will be required to maintain the integrity of the site. However, major maintenance would be required for flood control structures. There is no way to guarantee that flood control structures would be properly maintained over the life of the facility. By prohibiting siting in a 100-year flood plain, protecting a facility from flooding could be guaranteed without reliance on human maintenance.

Information about flood plain locations is available from the United State Geological Survey (USGS).

6. Dam Hazard Areas

This criterion also pertains to flooding. Use of this criterion would prohibit siting a facility in a dam hazard area, thus eliminating the possibility of flooding (and resultant water contamination) due to failure of an upstream dam or water impoundment. (The adverse affects of flooding are discussed in Criterion Number 5: Flood Plains.)

As discussed in Criterion Number 5, a facility should be designed and constructed to safely contain hazardous wastes for hundreds of years. There is no way to guarantee the integrity of dams over the long term. By prohibiting siting in dam hazard areas, a facility could be protected from flooding due to dam failure.

The information about dam hazard areas is available from DNR.

7. Wetlands

This criterion is proposed to protect surface and ground water from contamination by prohibiting the siting of a facility in a wetland. For the purposes of the siting process, "wetland" is defined as any swamp, marsh, bog, slough, wet meadow, mudflat, sandflat, pond, lake and similar areas. Wetlands provide a connection between ground and surface waters, therefore contamination of wetlands can lead to contamination of these waters. To prevent adverse impacts to public health and the environment, wetlands must be protected.

The Department proposes that a separation distance of 1 mile be used as a safety factor. One mile should separate the active portion of a facility from the boundary of a wetland. The 1 mile distance should be used as a minimum separation distance for all areas of potential water contamination.

Information about wetlands is available from the DNR.

8. Protected Basins

This criterion is proposed to prevent contamination of protected water areas by prohibiting construction in their watersheds. For the purpose of this criterion, "protected water areas" are those classified as:

a. protected water areas, as designated under the authority of 108A, Code of Iowa

b. Class B, Cold Water (trout streams) as designated in 567--Chapter 61 (455B), Iowa Administrative Code

c. Class C (drinking water supply) as designated in 567--Chapter 61 (455B), Iowa Administrative Code

For the purposes of this criterion, "protected basin" is defined as any portion of a drainage basin of the forementioned protected water areas, including their tributaries, within two miles of the water area.

This criterion is designed to protect public health and the environment by preventing contamination of protected water areas.

Information about watersheds is available from DNR.

9. Aquifers

This criterion is proposed to protect public health and the environment by preventing contamination of major ground water aquifers. No site will be permitted over an aquifer with less than a 100 foot thickness of low-permeability (aquitard) soil or rock material (e.g., glacial till and claystone-shales) between the base of the facility and the subjacent aquifer. Candidate sites must have such a thickness existing for a radius of at least one mile around the location.

Because of concerns with fracture porosity and permeability in soil and rock materials, the above-mentioned thickness was chosen to provide a safety margin for ground water protection.

Information about aquifers is available from DNR.

10. Nuclear Power Plants

This criterion is proposed to minimize the potential disruption to the operation of the facility should an accident occur at a nuclear power plant.

The ten mile distance was selected based on the emergency planning zone distance established by the U.S. Nuclear Regulatory Commission.

Information about nuclear power plants is available from the Iowa Office of Disaster Services.

11. Mineral and Energy Resources

This criterion is proposed to evaluate mineral and energy resources contained in an area considered for a facility. These resources include construction material, coal, petroleum, metals and minerals. The presence of a hazardous waste management facility would forever prevent the recovery or mining of mineral or energy resources at a given site.

This criterion would be used to evaluate mineral and energy resources within 1 miles of a proposed site. The present and projected economic value of these resources and the availability of other sources would be evaluated.

If no critical mineral or energy resources were found within 1 mile of a site, the site would be given a favorable rating for this criteria.

Information about mineral and energy resources is available from DNR.

12. Drinking Water Sources

This criterion pertains to the minimum allowable distance from the boundary of the active portion of a facility to a drinking water source. A distance of 1 mile was selected for this criterion. This distance was selected to assure there would be no adverse affects on a water source from potential ground water contamination from a facility. Obviously, protecting ground water and drinking water sources from contaminants would protect public health.

If no source of drinking water were found within 1 mile of the site, the site would be rated as favorable for this criterion. If a permanent alternative water supply could be provided so a source within the 1 mile distance would no longer be used and the source could be properly sealed, the site would be given a potentially favorable rating for this criterion. A permanent alternative water supply would have to be provided to further consider such a site.

Information about drinking water sources is available from DNR.

13. Critical Wildlife Habitats

This criterion is proposed to protect habitat areas for specific rare, threatened or endangered species of plants and animals and critical habitat areas for all species. Habitat areas include those recognized by federal and state conservation agencies.

The purpose of this criterion is to protect habitat areas and avoid potential problems with getting necessary permits to operate a facility. Any site that is in, or interferes with, a habitat area would be rated as unacceptable and be excluded from further consideration.

A site that is not within 1 mile of a habitat area would be rated as favorable. A site within 1 mile of a habitat area that has sufficient permanent buffer area to prevent interference with the habitat area would be rated as potentially favorable.

Information on critical wildlife areas is available from DNR.

14. Conservation Areas

This criterion is proposed to protect conservation areas. For the purpose of this criterion, "conservation area" means parks, recreation areas, wildlife areas, forests, prairies, natural areas, or scenic areas managed by a government agency or an organized conservation group on or before the date of enactment of these rules. The purpose of this criterion is to protect conservation areas, allow free use by people, and avoid problems in getting the necessary permits to operate a facility.

No site shall be considered that is in, or would interfere with, a conservation area. The active portion of a facility shall not be visible from any conservation area; however, natural screening might be used to shield the facility.

A site that is not within 1 mile of a conservation area would be given a favorable rating for this criterion. A site within 1 mile of a conservation area that has a permanent buffer area of sufficient size to prevent interference with a conservation area, would be rated as potentially favorable. A site located in, or that interferes with, a conservation area, would be excluded from further consideration.

Information on conservation areas is available from DNR.

15. Cultural Areas

For the purpose of this criterion, "cultural area" means any property of recognized archaeological, architectural, cultural or historical significance. "Recognized" is defined as listed in or eligible for the National Register of Historic Places or listed on significant state site records on file at the Office of Historic Preservation or Office of the State Archaeologist. Archaeological property should include, but not be limited to, ancient mortuary sites.

No facility should be sited in, or interfere with, the use of a cultural area. The active portion of a facility should not be visible from a cultural area. However, natural or architectural screening might be used to conceal the view of the facility.

This criterion is proposed to protect cultural areas, to allow free use by people, and to avoid problems with getting the necessary permits to operate a facility.

An area not within 1 mile of a cultural area should be given a favorable rating for this criterion. An area located within 1 mile of a cultural area that has sufficient buffer to permanently shield the area should be rated as potentially favorable. An area located in, or interfering with, a cultural area should be excluded from further consideration.

Information on cultural areas is available from the Department of Cultural Affairs and the Office of the State Archaeologist.

16. <u>Population Areas</u>

For the purpose of this criterion, "populated area" means any commercial facility, school, church, medical facility, elderly housing, correctional facility, mobile home park or incorporated residential area. The purpose of this criterion is to protect people from any nuisance caused by proximity to a facility.

The active portion of a facility should not be located within 1 mile of any populated area or within one-fourth mile of any occupied residence in a non-incorporated area. However, the distance might be reduced with an appropriate buffer area.

Sites located farther than the separation distances should be given a favorable rating for this siting criterion. Sites located closer than the separation distances with a permanent buffer of sufficient size to prevent interference with normal activities, should be given a potentially favorable rating.

Information about population areas can be gathered from maps and site surveys.

17. <u>Prime Farmland</u>

A facility should not be located in prime farmland. The purpose of this criterion is to protect prime farmland from conversion to non-farm uses and to reduce the problems with getting permits to operate a facility.

Prime farmland has been identified by the USDA Soil Conservation Service (SCS) through detailed soil surveys. Areas containing less than 25% prime farmland should be rated favorably. Areas with greater than 25% prime farmland should be rated as less than favorable.

18. Nonattainment Areas

This criterion is proposed to consider the impact of potential air emissions. Air emissions from the planned facility would initially be of little significance. However, an incinerator might be installed and operated at a later date. To assure that permits for an incinerator could be obtained, the impact of an incinerator on the ambient air quality should be considered.

Areas of the country where air contamination exceed air quality standards are designated as nonattainment areas. New sources of air pollutant which locate in nonattainment areas may be subject to stringent permit requirements. The purpose of this criterion is to reduce potential problems involved in getting permits for an incinerator. Therefore, a higher priority should be given to areas where increased emissions would have little impact on air quality.

Sites located in areas where no significant impact on nonattainment areas is predicted should be given a favorable rating for this criterion. Sites located in areas where minimal significant impact on nonattainment areas is predicted should be rated potentially favorable.

Information about air quality is available from DNR.

19. Prevention of Significant Deterioration (PSD)

As stated in Criterion Number 17, the land facility would not be a source of significant amounts of air pollution. The purpose of this criterion is to assure that PSD-allowable increments would be available if an incinerator were constructed at the facility in the future, to facilitate obtaining permits for a facility should an incinerator be installed.

Therefore, sites with sufficient air quality data available and an indication that sufficient increments would be available should be given favorable ratings for this criterion. Sites with minimal air quality data but believed to have sufficient increments available should be rated as potentially favorable.

Information about air quality is available from DNR.

20. Transportation Routes

The purpose of this criterion is to assure proximity of the facility to transportation routes.

For the purposes of this criterion, a transportation route is a public all-weather hard-surfaced road with adequate capacity to carry the type and volume of commercial vehicular traffic necessary to serve the facility year around. There should be no embargoes, special permits or other restrictions on roads, overpasses or bridges that would prevent transportation to the facility.

Sites within five miles of a transportation route, ten miles of rail service, and within 50 miles of an interstate highway should receive a favorable rating for this criterion. Sites beyond the 5/10/50 mile limit should be given a potentially favorable rating, provided sufficient road construction is proposed.

Information about transportation routes is available from the Iowa Department of Transportation (DOT).

21. Proximity to Major Generators

This criterion is proposed to favor sites located near major generators of low-level radioactive wastes in Iowa.

The purpose of this criterion is to reduce the distance wastes must be transported in order to reduce costs and the chance of accidental spills. A distance of 50 miles or less should be considered favorable, and distances of over 50 miles should be rated as potentially favorable.

For the propose of this criterion, distances should be measured from the central point of generation based on waste generation in Iowa.

Information about distances from specific waste generators should be available from DNR.

22. Utilities and Services

This criterion is proposed to favor sites with access to existing utilities and services.

Utilities include electricity, gas, water and sewers. Services include police and fire protection and emergency health care. Those sites having access to existing services should receive a favorable rating. Those sites which would need to have these services extended should be rated as potentially favorable.

Information about utilities and services should be available from maps and surveys.

D. SITING PROCEDURE

The siting procedure proposed by the Department would be carried out in three stages. It is designed to use resources and staff efficiently in applying available information to large areas. The three stages of the screening procedure, as mentioned briefly in Chapter A, are:

1. Stage I -- Exclusionary Criteria

The objective of Stage I is to screen the state to eliminate areas unsuitable for locating an above-ground facility for the long-term storage of hazardous waste. In the process, Stage I screening would identify areas that could be considered further for siting this facility.

a. Approach and Methodology

Stage I screening would be performed by using an overlay mapping technique with existing data. The entire state would be examined and screened for those criteria which would provide for the protection of public health and the environment.

Stage I screening would be used to identify those areas of Iowa with the greatest potential for ground water or surface water contamination. The major concern in waste management is to isolate or neutralize wastes so water is not contaminated. Contaminated water is the primary threat to public health and to the environment. Therefore, Stage I screening should be limited to those criteria directly related to protection of ground water and surface water.

Stage I screening would be used for the entire state by applying existing resource data to overlay maps. The overlay maps would create a composite map of Iowa. Areas covered by overlays would be identified as unsuitable and should be excluded from further consideration. For example, if a site is located in a 100-year flood plain, it would be excluded from further consideration. The overlay map technique is shown in Figures 1 through 3.

Areas not covered by overlays would be considered potentially suitable for siting a facility. Such areas would then be evaluated and ranked in Stage II of the siting process.

For Stage I, the smallest unit of land considered would be the township. Therefore, each area identified for further study would consist of one or more townships. It is expected that Stage I screening would yield at least 20 areas for evaluation in Stage II of the siting process.

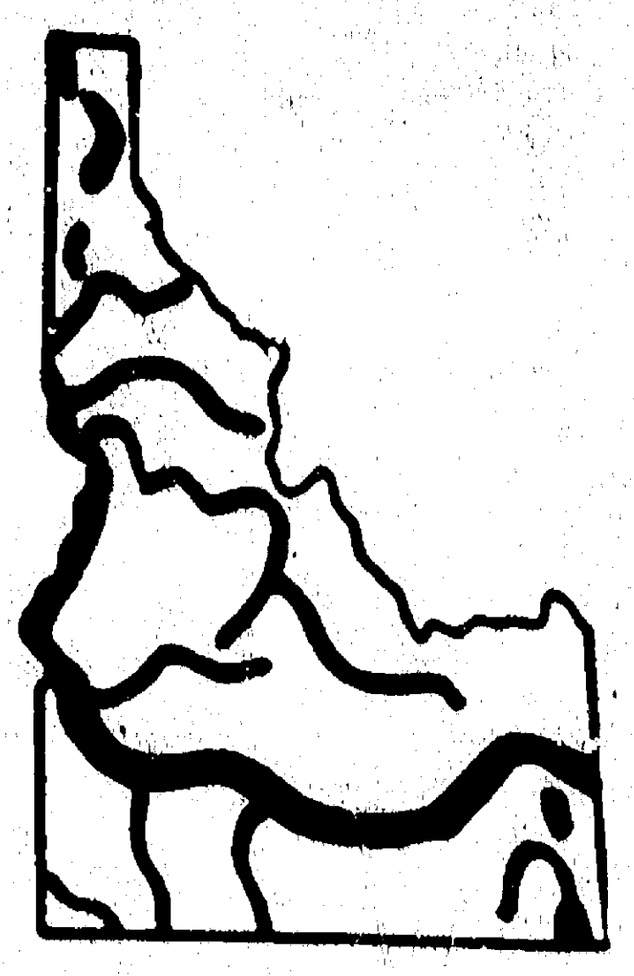


Figure 1. Flood Plains Excluded

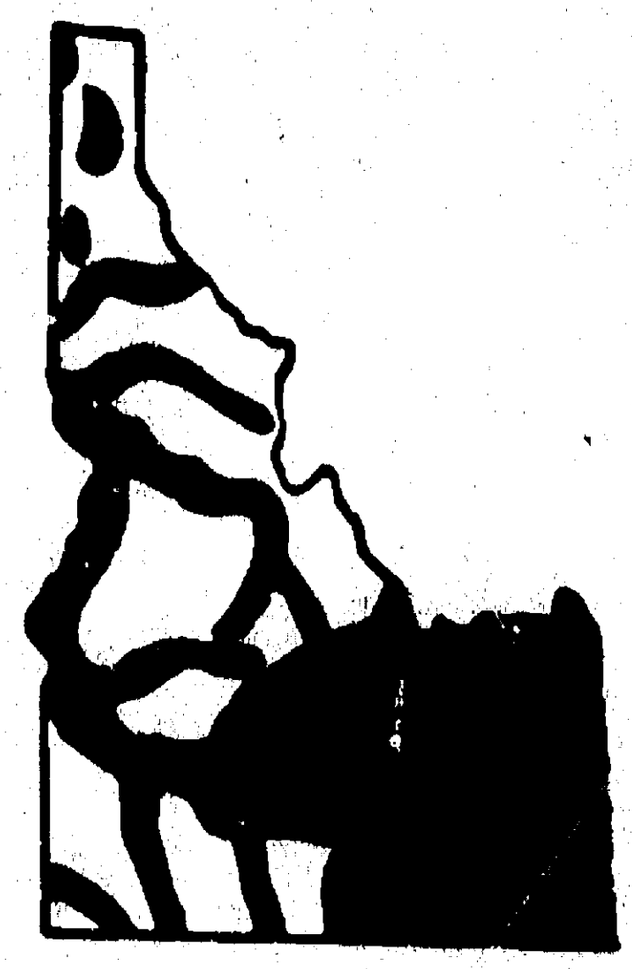


Figure 2. Flood Plains and Seismic Risk Areas Excluded

Figure 3. All Exclusionary Criteria Applied

b. Exclusionary Criteria

The following exclusionary criteria would be used in Stage I screening:

1) seismic risk
2) geologic hazardous structures
3) karst areas
4) mining activity
5) flood plains
6) dam hazard areas
7) wetlands
8) protected basins
9) aquifers
10) nuclear power plants

c. Demonstration of Stage I Screening

A map of Idaho will be used to demonstrate how Stage I screening would be done. This is to avoid speculation on where in Iowa a site might be located.

Figure 1 shows a map of Idaho with flood plain areas identified. For this demonstration, flood plain areas are to be excluded from further consideration. Therefore, all areas that are blacked out will be excluded.

Figure 2 shows a map of seismic risk areas that has been lain over the map of flood plain areas. Seismic risk areas are also to be excluded from further consideration.

Figure 3 shows the end result of Stage I screening. All remaining exclusionary criteria have been mapped and placed over the original map. The blacked-out areas represent areas where the potential for water contamination is greatest. Therefore, these areas are excluded from further consideration.

As this example shows, Stage I screening should be applied to a large area, such as an entire state. By using readily available data, unsuitable areas can be excluded. The remaining smaller areas can then be examined for other factors.

2. Stage II -- Quantitative Criteria

The objective of Stage II of the proposed siting process is to evaluate and rank all the candidate areas selected in Stage I. Stage II screening would also involve the overlay mapping technique. All candidate areas would be examined and screened for the major categories listed under Stage II Criteria.

Stage II screening would use criteria selected to provide for the protection of public health, protection of the environment, reduction of costs to the state, compliance with regulations, and compliance with permit and licensing requirements.

Not all criteria in Stage 11 are designed to protect public health or the environment. For example, the criterion on cultural areas is designed to protect areas of historical interest and to comply with regulations on historical protection.

Sites remaining after Stage II screening would be ranked by the rating values assigned to these quantitative criteria. The highest ranked favorable sites would then be examined in Stage III.

a. Approach and Methodology

For each category, site suitability would be rated according to a three-level rating system with relative values assigned to factors that would restrict or favor siting a facility. The three proposed rating levels are:

1) Favorable. This level meets the criterion so a site could be expected to avoid potential damage to public health and the environment, to reduce costs to the state, and to comply with all regulations and conditions for siting a facility. This level is assigned a value of 5 points.

2) Potentially Favorable. This level would minimally meet the criterion. In certain cases, modifications might be required to meet some criteria, for example, supplying a permanent alternate water supply if the site were within 1 mile of a drinking water source. The potentially favorable level would avoid damage to public health and the environment, and comply with all regulations and conditions for siting a facility. However, some factors may increase the cost or difficulty in siting. Therefore, this level is assigned a value of 2 points.

3) Unfavorable. This level would not meet the criterion. A site given this rating would have significant potential public health risks, environmental risks, or would cause significant difficulty or expense in the process of obtaining necessary permits. An unfavorable ranking would eliminate a given site from consideration.

b. Quantitative Criteria

The following quantitative criteria would be used in Stage II screening:

11) mineral and energy resources
12) drinking water sources
13) critical wildlife habitats
14) conservation areas
15) cultural areas
16) population areas
17) prime farmland
18) nonattainment areas
19) prevention of significant deterioration

20) transportation routes
21) proximity to major generators
22) utilities and services

3. Stage III -- Final Site and Engineering Analysis

The objective of the proposed Stage III screening would be to perform a final evaluation on the 5 highest-ranked sites identified in Stage II. This evaluation would include detailed on-site studies and would determine how well the site could comply with regulations, permit and license requirements. The cost of construction and operation would also be evaluated.

Each of the top 5 sites would have met the health and environmental criteria in Stages I and II. Therefore, each of the sites would be considered a safe and proper location for an above-ground facility for the long-term storage of hazardous waste.

a. Final Site Analysis

The goal of this analysis would be to identify the most preferred site. Site specific analysis would be performed on all 5 candidate sites to determine:

1) potential problems in complying with regulations
2) potential problems in obtaining necessary permit and licenses
3) potential problems in other areas that might delay or prevent the facility from being constructed

The potential problems of each site would be identified and evaluated in relation to the other four sites. The site with the fewest potential problems would be selected.

b. Engineering Analysis

The goal of this analysis would be to identify the most preferred site. Site specific analysis would be performed on all 5 candidate sites to determine:

1) differences in design of facilities
2) differences in construction and operation costs
3) differences in cost to the user

The differences in design and costs would be identified and evaluated in relation to each of the other four sites. The site with the fewest identified engineering difficulties and with the lowest costs would be selected.

c. Demonstration of Stage III Screening

The candidate sites identified in Stage II screening would undergo intensive examination. Detailed maps would be prepared showing all structures within a 1 mile radius of the potential site. On-site investigation, monitoring, and geologic studies would be conducted.

d. Final Site Selection

The analyses of the five candidate sites would then be compared. The site with the greatest potential should be selected as the site for the facility.

NEED HELP? CONTACT:

EMERGENCY ..... Check your local phone directory

UNIVERSITY OF IOWA POISON CONTROL CENTER 1-800-272-6477

To report hazardous substance spills in Iowa regardless of quantity ..... 515-281-8694 (24 hr.)

Toxic substance disposal information 515-281-5145

For information regarding risks associated with exposure to toxic substances. Natural Resources Defense Council 1-800-648-NRDC

Household products safety information can be obtained from your County Extension Service or write Consumer Product Safety, Washington, D.C. 20207

This publication was prepared by the League of Women Voters of Dubuque in cooperation with the League of Women Voters of Iowa.

Modified and printed July, 1987 by the Iowa Department of Natural Resources, Wallace State Office Building, Des Moines, Iowa 50319.

The Iowa Department of Natural Resources offers equal opportunity regardless of race, color, creed, national origin, or handicap. If you feel you have been discriminated against, please contact us.

500,000 copies of this brochure were printed at a cost of $6,261. Unit cost .0125.

HOUSEHOLD HAZARDOUS CHEMICALS: THEY'RE EVERYONE'S PROBLEM

Our homes are full of hazardous substances. Daily we are exposed to and use household cleaners, drain openers, automotive products, pesticides, herbicides, paint products, solvents and outdated medicines. All contain hazardous chemicals and are potentially dangerous to people, plants and animals.

Groundwater — the source of our drinking water — is particularly susceptible to contamination by hazardous household waste.

Pouring powerful chemicals down toilets, sewers and sinks, or tossing them in the garbage can have a devastating effect. If you have a septic system, toilets and sinks empty into a drainage field...and your septic tank isn't designed to treat toxic substances. If you're connected to a city sewer line, waste travels to a municipal treatment facility. Such a plant effectively processes your natural waste, but most hazardous chemicals will enter the ecosystem basically unaltered. Hazardous waste tossed in the garbage will be dispersed at a landfill where it can leak into the soil and seep into the groundwater.

The continuous release of small amounts of hazardous household substances into our water system can create a MAJOR problem over time and a danger to us all. Toxic substances must be disposed of properly and safely if we wish to maintain good health.

TARGET CLEAN WATER

HOW THE 1987 GROUNDWATER BILL ADDRESSES HOUSEHOLD HAZARDOUS PRODUCTS

In 1987, the Iowa General Assembly passed comprehensive legislation to protect Iowa's groundwater. Waste disposal and hazardous waste handling were identified as major threats to Iowa's groundwater. The following provisions of the Bill address the sale, disposal, and handling of household hazardous products:

- Requires retailers to label hazardous products and to obtain a permit to sell the products.
- Appropriates money for grants to begin recycling operations.
- Appropriates money for research and education on disposal methods.
- Mandates a pilot waste oil collection program.
- Appropriates money for grants to study alternatives to landfills.
- Sets-up a statewide Toxic Cleanup Days program.
- Creates a Small Business Assistance Center for the Safe and Economic Management of Solid Waste and Hazardous Substances at the University of Northern Iowa.

For a copy of the Bill (HF 631), call (515) 281-8941.

HOME SWEET HAZARDS

A GUIDE TO CHEMICAL HAZARDS IN YOUR HOME

DNR

IOWA DEPARTMENT OF NATURAL RESOURCES

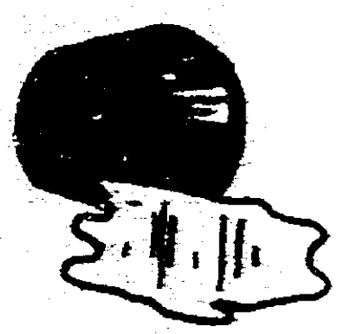
KINDS OF WASTES CONSIDERED TO BE HAZARDOUS

- EXPLOSIVE
- CORROSIVE
- TOXIC
- INFECTIOUS
- RADIOACTIVE

People have always produced hazardous wastes, but in the twentieth century the amount and variety have greatly increased. The kitchen drain and garbage truck are no longer viable options for disposal of many of these chemicals. Alternative disposal options must be sought such as:

- recycling
- incineration
- community collection programs

Wastes which are *not* considered to be hazardous include:
laundry detergents or soaps, dishwashing compounds, chlorine bleach and personal care products.



IN THE HOUSE

EXAMPLES OF HOUSEHOLD PRODUCTS CONTAINING TOXICANTS INCLUDE:

Oven Cleaners	Floor Wax
Spot Removers	Deodorizers
Furniture Polish	Drain Cleaners

TOXICANTS FOUND IN THESE PRODUCTS ARE:

Lye	Trichloroethane
Phenols	Napthas
Petroleum Distillates	Dichlorobenzene

TOXIC EFFECTS: Many of these are immediately poisonous or accumulate to toxic levels in people, fish and wildlife.

ALTERNATIVES: For clogged drains consider boiling water, snaking with a metal line and/or using a plunger. Use biodegradable and low phosphate products when possible.

Baking soda can be used for general cleaning.

All-purpose cleaner — 4T baking soda, 2 t. pure soap, 1 qt. warm water.

Lemon oil combined with mineral oil can be used to polish furniture. Other formulas also work well.

Furniture polish — 1 T vinegar, 1 T olive oil, 1 pt. warm water. This can be put into a spray bottle & warmed in the microwave oven before use.

IN THE GARDEN

PRODUCTS IN THIS CATEGORY INCLUDE:

Pesticides Insect Sprays Weed Killers

TOXIC EFFECTS: All pesticides and herbicides are designed to kill specific pests. They are also poisonous to people, pets and wildlife.

SPECIAL WARNING: The following pesticides are now banned from sale or severely restricted in use:

DDT	Aldrin	Dieldrin	Chlordane
DBCP	Heptachlor	Lindane	Kepone
Mirex	Silvex	2,4,5-T	Toxaphene

USE: Consider alternatives to pesticides whenever possible. Do not over-water. Pesticides and fertilizers can run off with the excess water into nearby storm drains or waterways.

DISPOSAL: Never dump into street sewers, storm drains or septic tanks.

IN THE GARAGE

TOXICANTS ARE FOUND IN THE FOLLOWING AUTOMOTIVE PRODUCTS:

Motor Oil	Engine Cleaners
Degreasers	Engine-radiator flushes
Batteries	Antifreeze
Car Wax and Polish	Rust Preventatives
Gasoline	

TOXIC EFFECTS: Waste oil and antifreeze are toxic to people, fish and wildlife. Waste oil contains heavy metals like lead and zinc, and petroleum hydrocarbons. Pets may die after drinking from sweet tasting puddles of antifreeze on driveways.

SPECIAL WARNING: Dumping waste oil into sewers, storm drains or any body of water is illegal.

DISPOSAL: Many local service stations will accept waste oil for recycling.

IN THE WORKSHOP & HOBBY AREA

PRODUCTS IN THIS CATEGORY INCLUDE:

Old Paint	Paint Strippers
Preservatives	Art Supplies
Solvents	Photographic Chemicals
Brush Cleaners	

TOXICANTS IN THESE PRODUCTS INCLUDE:

Lead	Ferrocyanide
Cadmium	Silver
Arsenic Oxide	Hexavalent Chromium
Asbestos	Potassium Dichromate

TOXIC EFFECTS: Many of these substances are suspected carcinogens, poisonous to people and animals, or capable of accumulating to toxic levels in the environment.

DISPOSAL: Solvents, paint thinners and wood preservatives, in particular, should not be dumped in the sewer system.

Let used turpentine or brush cleaner sit in a closed jar until paint particles settle out. Then strain and reuse; wrap the waste material and discard in the trash.

Septic tank systems can handle some photographic wastes, as long as the ratio of human to photographic wastes is no less than 10-1. However solutions with sodium or potassium dichromate must be neutralized or filtered before dumping in the septic system.

GENERAL TIPS ON HAZARDOUS PRODUCTS

USE:

- Read the label and follow directions.
- Keep unused products in their original containers. The correct label provides directions for use and proper poison treatment.
- Always store in a safe place.
- Buy only what you need.
- Be aware of the uses and dangers of products. If the directions are unclear, contact the manufacturer or dealer before using.
- Never mix different products; explosive or poisonous chemical reactions may occur.
- Use the exact amount specified; twice as much does not mean twice the results.
- Avoid skin contact and breathing fumes.

DISPOSAL:

- Never dispose of products containing harmful chemicals down the drain unless you know they can be treated. Many toxic substances disturb septic tanks or pass right through the treatment systems into rivers or lakes.
- Find a friend, neighbor or business who can use up excess products for their intended purpose.
- In an emergency, see phone numbers on the back.

PLEASE SAVE AND POST FOR HANDY REFERENCE

ENVIRONMENTAL PROTECTION: Household hazardous waste sales permit fees. U.S. Const. amend. XIV, § 1; House File 631, 72nd G.A., First Session, § 507, Iowa Code Supp. § _____ (1987). The term "gross retail sales" as used in § 507 of H.F. 631 means gross retail sales of household hazardous materials only and not gross retail sales of an applicant's entire business. (Sarcone to Harbor, State Representative, 8-13-87) #87-8-1(L)

August 13, 1987

The Honorable William H. Harbor
State Representative
Henderson, Iowa 51541

Dear Representative Harbor:

You have requested an opinion of the Attorney General regarding section 507 of House File 631, the groundwater protection act. Section 507 is part of new chapter 455F created by the act dealing with household hazardous materials and requires retailers and certain manufacturers or distributors as defined in § 501 of the act to have a permit to sell or offer for sale household hazardous materials. The permit fee is graduated, with set maximum fees, based on gross retail sales. The Department of Revenue and Finance has responsibility to administer the permit process. You note that the Department of Revenue and Finance has taken the position that in determining permit fees the term "gross retail sales" as used in §§ 507(1) and (2) of House File 631 means gross retail sales of a permit applicant's business. In light of this you ask the following questions:

> 1. For purposes of § 507(1), does the term "gross retail sales" refer to gross retail sales of the entire business or does it refer just to gross sales of household hazardous materials made by that business?
>
> 2. Section 507(2) provides for a $100 fee for manufacturers or distributors who sell products on a person-to-person basis, primarily in the customer's home (known as the Avon amendment). However there is an additional $100 for each additional $3 million of gross retail sales. Again, does this refer to total gross sales or total gross sales only of the household hazardous materials sold?

In our opinion the term "gross retail sales" as used in §§ 507(1) and (2) of House File 631 refers only to gross retail sales of household hazardous materials and not to gross retail sales of an applicant's entire business.

Section 507 of H.F. 631 is the funding mechanism for the household hazardous waste account within the groundwater protection fund created by § 111.2(e) of the act. This provision is an integral part of the overall legislative plan to protect groundwater by educating Iowans regarding the hazardous nature, proper use and proper disposal methods of certain household products. Preamble to H.F. 631, § 502. Section 507 of House File 631 provides as follows:

> 1. A retailer offering for sale or selling a household hazardous material shall have a valid permit for each place of business owned or operated by the retailer for this activity. All permits provided for in this division shall expire on June 30 of each year. Every retailer shall submit an annual application by July 1 of each year and a fee of ten dollars based upon gross retail sales of up to fifty thousand dollars, twenty-five dollars based upon gross retail sales of fifty thousand dollars to three million dollars, and one hundred dollars based upon gross retail sales of three million dollars or more to the department of revenue and finance for a permit upon a form prescribed by the director of revenue and finance. Permits are nonrefundable, are based upon an annual operating period, and are not prorated. A person in violation of this section shall be subject to permit revocation upon notice and hearing. The department shall remit the fees collected to the household hazardous waste account of the groundwater protection fund. A person distributing general use pesticides labeled for agricultural or lawn and garden use with gross annual pesticide sales of less than ten thousand dollars is subject to the requirements and fee payment prescribed by this section.
>
> 2. A manufacturer or distributor of household hazardous materials, which authorizes retailers as independent contractors to sell the products of the manufacturer or distributor on a person-to-person basis

> primarily in the customer's home, may obtain a single household hazardous materials permit on behalf of its authorized retailers in the state, in lieu of individual permits for each retailer, and pay a fee based upon the manufacturer's or distributor's gross retail sales in the state according to the fee schedule and requirements of subsection 1. However, a manufacturer or distributor which has gross retail sales of three million dollars or more in the state shall pay an additional permit fee of one hundred dollars for each subsequent increment of three million dollars of gross retail sales in the state, up to a maximum permit fee of three thousand dollars.

Fees generated by § 507 of H.F. 631 are used to fund Toxic Cleanup Days throughout the state (§ 508), provide grants to city, county or service organizations for recycling and reclamation events (§ 512), fund a Department of Natural Resources public information and education program regarding proper use and disposal of household hazardous materials (§ 509), fund a one-time pilot project run by the Department of Transportation to collect and dispose of used motor oil from residences in one urban and one rural county in the state (§ 511), provide limited assistance to the department of public health to carry out new functions pursuant to §§ 202 and 203 of H.F. 631, and provide funds to the Department of Revenue and Finance to administer the permit program. Clearly, the interpretation of the term "gross retail sales" as used in §§ 507(1) and (2) of H.F. 631 will not only affect the fee paid by retailers, manufacturers, and distributors required to have a permit but will also affect the amount of funds available to carry out the programs funded by the household hazardous waste account.

In interpreting a statute we are guided by well established principles of statutory construction to achieve the ultimate goal which is determining legislative intent. Beier Glass Co. v. Brundige, 329 N.W.2d 280, 283 (Iowa 1983); LeMars Mutual Insurance Co. of Iowa v. Bonnecroy, 304 N.W.2d 422, 424 (Iowa 1981). The language used in the statute, the objects to be accomplished and the evils sought to be remedied must be considered, and a reasonable construction must be placed on the statute to best effectuate its purpose. LeMars Mutual Ins. Co. of Iowa v. Bonnecroy, 304 N.W.2d at 424. A cardinal principle of statutory construction is that the intent of the legislature must be determined from the statutes read as a whole and not from any one section or portion taken piecemeal. Durant-Wilton Motors Inc. v. Tiffin Fire Assn, 164 N.W.2d 829, 831 (Iowa 1969); Iowa Natural Resources Council v. Van Zee, 158 N.W.2d 111, 114 (Iowa

1968). However, rules of statutory construction are to be resorted to only when the terms of the statute are ambiguous. LeMars Mutual Ins. Co. of Iowa v. Bonnecroy, 304 N.W.2d at 424. Initially we must determine if the term "gross retail sales" as used in § 507 of H.F. 631 is ambiguous.

In examining § 507(1) it is apparent that a permit is required of all retailers for the specific activity of selling or offering for sale a household hazardous material. Instead of setting a fixed fee for selling or offering for sale household hazardous materials, the legislature chose to impose a graduated fee from $10 to $100 on each place of business operated by a retailer engaged in this activity based on gross retail sales. The same fee schedule applies to manufacturers or distributors of such materials who authorize retailers as independent contractors to sell their products on a person-to-person basis primarily in the customer's home. However, for each increment of three million dollars of gross retail sales in the state, the fee increases to a maximum of three thousand dollars. Monies generated are specifically earmarked for the household hazardous waste account to carry out the policy directives set forth in § 111.2(e) and § 502 of H.F. 631. The term "gross retail sales" is not defined in either § 507 or § 501 (definitional section of Chapter 455F) or in any other provisions of House File 631. One reasonably could read this term to mean either gross retail sales of household hazardous materials or gross retail sales of the applicant's entire business. It simply is not clear from the language used by the legislature what the term "gross retail sales" was intended to mean. Because we believe an ambiguity exists, we must resort to rules of statutory construction to determine legislative intent. Willis v. City of Des Moines, 357 N.W.2d 567, 570 (Iowa 1984).

Applying the principles of statutory construction and construing the term "gross retail sales" as used in § 507 of H.F. 631 together with the stated legislative intent of H.F. 631 to improve and protect groundwater quality, it is our opinion that the term "gross retail sales" means gross retail sales of household hazardous materials only. We reach this result based on the limited activity for which a permit is required under §§ 507(1) and (2) and the specific programs funded by the fees collected and deposited in the household hazardous waste account (§ 111.2(e) of H.F. 631). This construction also avoids an interpretation of the statute which might render it unconstitutional. Willis v. City of Des Moines, 357 N.W.d 567, 572 (Iowa 1984). First, we believe the language of § 507 itself supports construing the term "gross retail sales" to mean only gross retail sales of household hazardous materials. The word "retailer" is expressly limited in the first sentence of § 507(1), as well as by § 501(5), to a person "offering for sale or selling a household hazardous material." The third sentence

of § 507(1) imposes the permit fee on such a "retailer" based upon the amount of "gross retail sales." Since "retailer" is limited to a person who sells household hazardous materials, it is reasonable to conclude that the term "gross retail sales," used in the same sentence, is correspondingly limited.

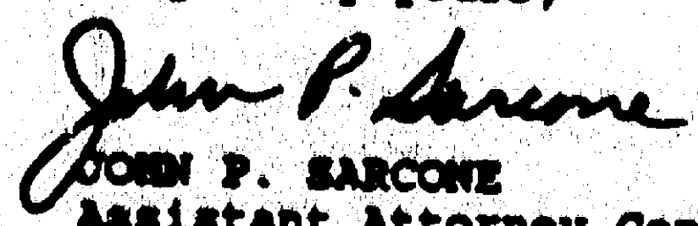
If we were to adopt the position taken by the Department of Revenue and Finance, we believe serious equal protection questions would arise. Because fundamental rights or suspect classifications are not involved, the test to determine if a statute is unconstitutional on equal protection grounds is whether a rational basis exists between the classification and state interest involved. Miller v. Boone County Hospital, 394 N.W.2d 776 (Iowa 1986); Veach v. Iowa Department of Transportation, 374 N.W.2d 248 (Iowa 1985). We are mindful that statutes are accorded a strong presumption of constitutionality and that a party challenging a statute on equal protection grounds has a heavy burden of showing the absence of the rational basis for the challenged classification. Miller v. Boone County Hospital, 394 N.W.2d at 781. Nonetheless, tying the amount of the fee to total retail sales could result in a substantial constitutional question. This problem can best be illustrated by two examples of businesses which sell or offer for sale household hazardous materials along with other nonhazardous materials.

An automobile dealership with a service department may have substantial gross retail sales of which only a small percentage is attributed to the sale of motor oil which is listed as a household hazardous material under § 501(8) of H.F. 631. Similarly a grocery store may have substantial gross retail sales of which a relatively small percentage would include waxes, polishes, etc. which are listed as household hazardous materials under § 501(8) of H.F. 631. In each instance there does not appear to be any rational basis to impose a fee based on gross retail sales of automobiles, food or other nonhazardous materials. Miller v. Boone County Hospital, 394 N.W.2d at 780-781. In § 507 of H.F. 631, the legislature chose to regulate by permit and fees the sale or offering for sale of household hazardous materials as a means of accomplishing the ultimate goal of H.F. 631 which is to prevent groundwater contamination and if necessary restore it to a potable state. § 104, H.F. 631. Imposing a fee on gross retail sales of items other than household hazardous materials does not appear to be rationally related to this laudable goal. When there are two possible constructions of an enactment, the one which will not render the enactment unconstitutional should be adopted. Willis v. City of Des Moines, 357 N.W.2d at 572.

We therefore conclude that the term "gross retail sales" as used in §§ 507(1) and (2) of House File 631 means gross retail

sales of household hazardous materials only and not gross retail sales of an applicant's entire business.

Very truly yours,



JOHN P. SARCONE
Assistant Attorney General

JPS:rcp

ENVIRONMENTAL PROTECTION COMMISSION

ITEM 8 DECISION

REVISIONS TO CHAPTERS 40 AND 41 -- WATER SUPPLY RULES

Attached is a revised copy of revisions to Chapters 40 and 41--Water Supply Rules. The proposed revisions reflect the input from departmental staff and the Administrative Rules Review Committee. We are requesting the Commission's approval of the proposed rules.

The revisions to Chapters 40 and 41--Water Supply Rules were sent for public comment to various interested and affected groups, including all community water supplies with fluoride levels in excess of 2.2 mg/l, the Iowa Chapter of the American Water Works Association, the League of Municipalities, university professors, the Department of Health, the State Hygienics Laboratory, DNR field offices and EPA Region 7. In addition, a general news release regarding the proposed revisions was made.

Four minor changes have been made to the revisions. The words "such as" in 41.4(3)"f."(3)4 has been replaced with the word "include" and the word "such" in 41.4(3)"f"(4) has been replaced with the word "this" to improve the readability of the rules. A minor wording modification has been made to 41.4(3)"f"(5) to clarify that the laboratory must be certified as prescribed in 41.4(1). A typing error was noted in 41.4(3)"f"(5). The figure +10% was changed to ±10%.

On May 20, 1987, the Commission approved a Notice of Intended Action to hold three public hearings and receive comments on the proposed revisions. The public hearings were held on July 7, July 8 and July 10, 1987, and the written comment period closed on July 20, 1987. No oral comments were made at the public hearings, and no written comments were received.

Roy Ney
July 27, 1987

(I04.MIN/sc)

ENVIRONMENTAL PROTECTION COMMISSION [567]
Adopted Rule

Pursuant to the authority of Iowa Code sections 455B.105 and 455B.173, the Environmental Protection Commission of the Department of Natural Resources amends 567--Chapters 40 and 41 Iowa Administrative Code, pertaining to the maximum contaminant level of fluoride in community drinking water systems.

The Notice of Intended Action was filed by the Environmental Protection Commission and published in the June 18, 1987 Iowa Administrative Bulletin as ARC 7681. Public hearings were held on July 7, 1987, July 8, 1987 and July 10, 1987. The amendments were adopted on August 19, 1987. Four minor changes to the amendments to Chapters 40 and 41 proposed in the Notice of Intended Action have been made as a result of input from departmental staff and the Administrative Rules Review Committee. The words "such as" in 41.4(3)"f"(3)4. have been replaced with the word "include" and the word "such" in 41.4(3)"f"(4) has been replaced with the word "this" to improve the readability of the rules. A minor wording modification has been made to 41.4(3)"f"(5) to clarify that the laboratory must be certified as prescribed in 41.4(1). A typing error was noted in 41.4(3)"f"(5). The figure +10% was changed to ±10%.

No oral comments were made at the public hearings, and no written comments were received.

These rules are intended to implement Iowa Code chapter 455B, division III, part I. These rules are intended to become effective October 14, 1987 after filing with the Administrative Rules Coordinator and publication in the Iowa Administrative Bulletin.

ITEM 1. Amend rule 40.2(455B) by adding in alphabetical sequence the following definition:

"Performance evaluation sample" means a reference sample provided to a laboratory for the purpose of demonstrating that a laboratory can successfully analyze the sample within limits of performance specified by the department. The true value of the concentration of the reference material is unknown to the laboratory at the time of analysis.

ITEM 2. Amend subrule 41.3(1), paragraph "b," "Fluoride," as follows:

41.3(1) Inorganic chemicals.

b. *Fluoride 2.2 4.0

ITEM 3. Amend subrule 41.4(3), by adding a new paragraph "f" as follows:

"f." Fluoride. In addition to complying with paragraphs "a" through "e" of this subrule, systems monitoring for fluoride must comply with the requirements of this paragraph.

(1) Where the system draws water from more than one source, the system must sample each source at the entry points to the distribution system.

(2) If the system draws water from more than one source and the sources are combined before distribution, the system must sample at an entry point to the distribution system during periods representative of the maximum fluoride levels occurring under normal operation conditions.

(3) The department may alter the frequencies for fluoride monitoring as set out in paragraph "a" of this subrule. Any increase or decrease in monitoring under this subparagraph will be designated in an operation permit or administrative order. To increase or decrease such frequency, consider the following factors:

1. Reported concentrations from previously required monitoring.

2. The degree of variation in reported concentrations.

3. Blending or treatment processes conducted for the purpose of complying with the MCL, and

4. Other factors which may affect fluoride concentrations include changes in pumping rates in groundwater supplies or significant changes in the system's configuration, operating procedures, source of water and changes in stream flows.

(4) Monitoring may be decreased from the frequencies specified in paragraph "a" of this subrule upon application in writing by water systems, if the state determines the system is unlikely to exceed the MCL, considering the factors listed in subparagraph (3) of paragraph "f" of this subrule. This determination shall be in writing and set forth the basis for determination. In no case shall monitoring be reduced to less than one sample every ten years. For systems monitoring once every ten years, the state shall review the monitoring results every ten years to determine whether more frequent monitoring is necessary.

(5) Effective October 2, 1987, analysis for fluoride under this subrule shall only be used for determining compliance if conducted by a certified laboratory as prescribed in 41.4(1) that has analyzed Performance Evaluation samples to within ±10% of the reference value at fluoride concentrations from 1.0 mg/l to 10.0 mg/l within the last 12 months.

_____

Date

_____

Larry J. Wilson, Director

(EP40-41.RUL)

ENVIRONMENTAL PROTECTION COMMISSION [567]

Adopted Rule

Pursuant to the authority of Iowa Code sections 455B.105 and 455B.173, the Environmental Protection Commission of the Department of Natural Resources amends 567--Chapters 40 and 41 Iowa Administrative Code, pertaining to the maximum contaminant level of fluoride in community drinking water systems.

The Notice of Intended Action was filed by the Environmental Protection Commission and published in the June 18, 1987 Iowa Administrative Bulletin as ARC 7681. Public hearings were held on July 7, 1987, July 8, 1987 and July 10, 1987. The amendments were adopted on August 19, 1987. Four minor changes to the amendments to Chapters 40 and 41 proposed in the Notice of Intended Action have been made as a result of input from departmental staff and the Administrative Rules Review Committee. The words "such as" in 41.4(3)"f"(3)4. have been replaced with the word "include" and the word "such" in 41.4(3)"f"(4) has been replaced with the word "this" to improve the readability of the rules. A minor wording modification has been made to 41.4(3)"f"(5) to clarify that the laboratory must be certified as prescribed in 41.4(1). A typing error was noted in 41.4(3)"f"(5). The figure +10% was changed to ±10%.

No oral comments were made at the public hearings, and no written comments were received.

These rules are intended to implement Iowa Code chapter 455B, division III, part I. These rules are intended to

become effective October 14, 1987 after filing with the Administrative Rules Coordinator and publication in the Iowa Administrative Bulletin.

ITEM 1. Amend rule 40.2(453B) by adding in alphabetical sequence the following definition:

"Performance evaluation sample" means a reference sample provided to a laboratory for the purpose of demonstrating that a laboratory can successfully analyze the sample within limits of performance specified by the department. The true value of the concentration of the reference material is unknown to the laboratory at the time of analysis.

ITEM 2. Amend subrule 41.3(1), paragraph "b," "Fluoride," as follows:

41.3(1) Inorganic chemicals.

b. *Fluoride 2.2 4.0

ITEM 3. Amend subrule 41.4(3), by adding a new paragraph "f" as follows:

"f." Fluoride. In addition to complying with paragraphs "a" through "e" of this subrule, systems monitoring for fluoride must comply with the requirements of this paragraph.

(1) Where the system draws water from more than one source, the system must sample each source at the entry points to the distribution system.

(2) If the system draws water from more than one source and the sources are combined before distribution, the system must sample at an entry point to the distribution system during periods representative of the maximum fluoride levels occurring under normal operation conditions.

(3) The department may alter the frequencies for fluoride monitoring as set out in paragraph "a" of this subrule. Any increase or decrease in monitoring under this subparagraph will be designated in an operation permit or administrative order. To increase or decrease such frequency, consider the following factors:

1. Reported concentrations from previously required monitoring.

2. The degree of variation in reported concentrations.

3. Blending or treatment processes conducted for the purpose of complying with the MCL, and

4. Other factors which may affect fluoride concentrations include changes in pumping rates in groundwater supplies or significant changes in the system's configuration, operating procedures, source of water and changes in stream flows.

(4) Monitoring may be decreased from the frequencies specified in paragraph "a" of this subrule upon application in writing by water systems, if the state determines the system is unlikely to exceed the MCL, considering the factors listed in subparagraph (3) of paragraph "f" of this subrule. This determination shall be in writing and set forth the basis for determination. In no case shall monitoring be reduced to less than one sample every ten years. For systems monitoring once every ten years, the state shall review the monitoring results every ten years to determine whether more frequent monitoring is necessary.

(5) Effective October 2, 1987, analysis for fluoride under this subrule shall only be used for determining compliance if conducted by a certified laboratory as prescribed in 41.4(1) that has analyzed Performance

Evaluation samples to within ±10% of the reference value at fluoride concentrations from 1.0 mg/l to 10.0 mg/l within the last 12 months.

Date

Larry J. Wilson, Director

(EP40-41.RUL)

ENVIRONMENTAL PROTECTION COMMISSION

ITEM 9 DECISION

REVISION OF CHAPTER 23, "EMISSION STANDARDS FOR CONTAMINANTS"

The Department requests Commission approval of the proposed amendments to the Chapter 23 rules.

On April 21, 1987, the Commission approved a notice of intended action to amend the rules to adopt the federally enforceable standard of 5.0 lbs. SO_2 per million Btu input for existing solid fuel burning sources located in 89 counties (other than Black Hawk, Clinton, Des Moines, Dubuque, Jackson, Lee, Linn, Louisa, Muscatine and Scott Counties).

Public hearings were held in July in Des Moines, Iowa City and Council Bluffs. No comments were received at these hearings. Written comments were received from three persons. The Department's responsiveness summary is attached.

If the Commission approves the Chapter 23 rule amendments in August, the amended rules will become effective October 14, 1987.

Allan Stokes
August 3, 1987

(I09.MIN/sc)

ENVIRONMENTAL PROTECTION COMMISSION (567)
Adopted Rule

Pursuant to the authority of Iowa Code section 455B.133, the Environmental Protection Commission hereby adopts amendments to Chapter 23, "Emission Standards for Contaminants," Iowa Administrative Code, by revising the sulfur dioxide emission standards for solid fuel (coal) burning stationary sources (principally coal-fired industrial and utility boilers and cement kilns) that are not subject to the federal new source performance standards.

Background

In 1972, the state of Iowa first submitted to the United States Environmental Protection Agency (EPA) a state implementation plan for meeting federal ambient air quality standards for sulfur dioxide (SO_2). That plan contained an SO_2 emission limit of 6 lbs. of SO_2 per million British thermal units (Btu) of heat input for all solid fuel burning sources in Iowa. The plan also provided for the reduction from 6 lbs. to 5 lbs. per million Btu from all sources by January 1975. These limits were approved by the EPA on May 31, 1972 (37 FR 10865).

In 1974, the state adopted new rules providing for a delay of the reduction to 5 lbs. per million Btu from January 1975 to July 1978. This proposal was submitted to the EPA on July 17, 1975. On October 1, 1976, EPA published notice that no approval or disapproval action would be taken on the July 1975, submittal because the state had adopted subsequent revisions to the affected rules.

The existing subrule 23.3(3), Iowa Administrative Code, was adopted on April 15, 1976, and became effective July 19, 1976. This subrule provides that for ten eastern Iowa counties, the eight bordering Illinois plus Black Hawk and Linn Counties, all solid fuel burning sources are limited to 6 lbs. per million Btu. (This is unchanged from the original 1972 plan.) In the remaining 89 counties, no emission limits are specified for existing sources with less than 500 million Btu heat input per hour. In these 89 counties, emissions from existing sources with more than 500 million Btu of heat input per hour are limited to 8 lbs. per million Btu. Throughout the state, new sources of less than 250 million Btu are limited to 6 lbs. per million Btu; for new fossil fuel burning sources greater than 250 million Btu input the new source performance standards apply.

On June 1, 1977 (42 Fed. Reg. 27892), the Environmental Protection Agency formally determined that the proposed revisions to the SO_2 emission limits, other than the 6 lb. limit for the ten eastern counties and the new sources which have a capacity of 250 million Btu or less per hour heat input, were inadequate to maintain the National Ambient Air Quality Standards for sulfur dioxide. The approval of only a portion of the emission limitations adopted by Iowa resulted in a dual set of standards. The state and federal standards for the ten eastern counties and for new sources with capacities of 250 million Btu or less are consistent. However, the state and federal standards for the remaining 89 counties are significantly different. As they currently exist, the state standard for sources over 500 million Btu is 8 lbs. per million Btu and for those sources of 500 million Btu or less, there is no limit prescribed. The federal standard limits SO_2 emissions to 5 lbs. per

million Btu for all solid fuel burning sources located in these 89 counties. (A more complete history of this rule is found in the IAB Volume 5, Number 26 published on June 22, 1983, as ARC 3813.)

The present rules were promulgated by the Iowa Department of Environmental Quality on April 15, 1976, and have only been approved in part by the Federal Environmental Protection Agency. In order to eliminate the dual standards which presently exist because of this EPA action, to provide a clear direction for Iowa industries and utilities, and to provide for the minimum short-term impact to Iowa's economy while preserving the existing air quality the Commission revises the rules as follows:

1. To simplify and clarify this subrule, former subrule 23.3(3)"a"(2) is revised and is renumbered as 23.3(3)"a"(1). The emission limitation set by the subrule for the ten eastern Iowa counties specifically listed was approved by the Environmental Protection Agency on June 2, 1977, and remains in its entirety.

2. Subparagraph (23.3(3)"a"(1) is renumbered as 23.3(3)("a"(2) and is revised to set new emission limitations for the existing solid fuel burning units in the remaining 89 counties in Iowa. The rule which was promulgated by the DEQ limiting these sources to 8 lbs. of SO2 per million Btu was not approved by the EPA. To conform to the existing federally approved standard, a previously proposed DEQ emission limitation of 5 lbs per million Btu for existing sources is now adopted. The standards for new sources with a capacity of 250 million Btu or less per hour heat input are not affected by this revision.

3. Subparagraph 23.3(3)"a"(5) is repealed in its entirety. The Environmental Protection Agency refused to approve this standard because it failed to provide for compliance with the National Ambient Air Quality Standards.

The rule which is adopted at this time is nearly identical to the rule making that was proposed in 1983. The Notice of Intended Action was published in the June 22, 1983, Iowa Administrative Bulletin as ARC 3813.

The Notice of Intended Action for this amendment was published in the Iowa Administrative Bulletin on June 17, 1987, as ARC 7680. Hearings were held in Iowa City, Des Moines and Council Bluffs to receive comment on the proposal. Two commentors wrote statements in support of the proposed amendments. One commentor, an affected utility, submitted adverse comments. The utility has a large supply of coal on hand that may not meet the 5.0 lb. SO_2/mm Btu heat input emission standard. The commentor contends that the cost of purchasing additional low sulfur coal for blending is unjustifiable. The commentor requested special allowance for their plants until their higher sulfur coal is consumed.

Since all existing sources in the 89 counties are subject to federal enforcement of the 5.0 lb. SO_2 standard, an exclusion in the state rule for certain sources would have little meaning or effect. In addition the purpose of the rule amendment is to reconcile state rules with those which have already been approved by EPA. To adopt exclusions in the final rule would be

contrary to the elimination of dual standards in the 89 counties. No changes have been made to the rule that was proposed.

This rule amendment is intended to implement Iowa Code section 455B.133, and will become effective October 14, 1987.

The following amendment is adopted:

Subrule 23.3(3), paragraph "a" is amended by striking subparagraphs (1) and (2) and inserting in lieu thereof the following:

(1) No person shall allow, cause, or permit the emission of sulfur dioxide into the atmosphere from an existing solid fuel-burning unit, (i.e., a unit which was in operation or for which components had been purchased, or which was under construction prior to September 23, 1970), in an amount greater than 6 pounds, replicated maximum two-hour average, per million Btu of heat input if such unit is located within the following counties: Black Hawk, Clinton, Des Moines, Dubuque, Jackson, Lee, Linn, Louisa, Muscatine and Scott.

(2) No person shall allow, cause, or permit the emission of sulfur dioxide into the atmosphere from an existing solid fuel-burning unit, (i.e., a unit which was in operation or for which components had been purchased, or which was under construction prior to September 23, 1970), in an amount greater than 5 pounds, replicated maximum two-hour average, per million Btu of heat input if such unit is located within the remaining 89 counties of the state not listed in subparagraph 23.3(3)"a"(1).

Further amend subrule 23.3(3), paragraph "a," by striking subparagraph (5).

_____
Date

_____
Larry J. Wilson, Director

I02.MIN

Responsiveness Summary for Proposed Revisions to Sulfur Dioxide Emission Limits for Existing Solid Fuel Burning Sources in the 89 Counties

Public hearings were held in Iowa City, Des Moines and Council Bluffs, July 7th through July 10th. Although five representatives from utilities or associations were in attendance, no comments were made at the hearings. Written comments were received from Interstate Power Company, the Iowa Utility Association and Corn Belt Power Cooperative. Interstate Power and the Iowa Utility Association both issued general statements in support of changing the sulfur dioxide emission limitation as proposed. Elimination of dual standards was mentioned in both letters, and the Utilities Association stated that their facilities have demonstrated that the federal standard can be achieved through coal washing and fluidized bed combustion technology. Corn Belt Power offered adverse comments and they will be treated in greater detail.

Background

Corn Belt Power operates two existing plants which would be affected by the change in the regulation. The company calculates the average sulfur dioxide emission rate to be 5.27 lbs. SO2 at Humboldt and 6.0 lbs. SO2/mmBTU heat input at Spencer. These figures do not include credit for sulfur that may be retained in the boiler. Between both plants they have an inventory of 80,000 tons coal on hand. This is more than enough for any forseeable need to operate these plants. In order to comply with the 5.0 lb. standard, they project that they would need to purchase an additional 20,500 tons of low sulfur Wyoming coal to successfully blend and burn their existing coal piles.

Comment

Corn Belt Power contends that the imposition of the 5.0 lb. standard represents an unreasonable burden and that a special allowance should be made for their plants until the coal pile is consumed.

Staff Response

The commentor has indicated that the standard can be met by blending existing stockpiled coal with low sulfur Wyoming coal. Since the federal enforceable emission standard in the 89 counties is 5.0 lbs. this source is already subject to the lower emission rate. EPA has in the past required stack testing of existing sources which may not be capable of meeting the 5.0 lb. standard.

On the question of special allowances, that is difficult in this case because we are trying to reconcile state rules with previously approved standards. Since there was no special allowance for Corn Belt Power in those previously approved rules, we would have to abandon our original intent of eliminating the dual standard dilemma. Even if we were to make a special allowance for this facility in the state rule, they would still be subject to EPA enforcement.

Recommendation

No changes in the proposed rule are recommended by the staff.

IOWA
UTILITY ASSOCIATION
Suite 300
321 E. Walnut Street P.O. Box 6007
DES MOINES, IOWA 50309-6007
(515) 282-2115

July 20, 1987

Mr. Allan E. Stokes
Administrator
Environmental Protection Division
Department of Natural Resources
Capitol Complex
Des Moines, IA 50319

Dear Mr. Stokes:

We are pleased to enclose written comments filed on behalf of the members of the Iowa Utility Association in the following rule-makings:

1) 567 Chapter 23 "Emission Standard for Contaminants".

2) 567 Chapters 50, 51, 52 "Water Conservation and Priority Allocation Rules"

We appreciate the opportunity to submit comments.

Respectfully submitted,

John M. Lewis
President

bjo

Enclosures

RECEIVED
JUL 20 1987
IOWA DEPARTMENT OF
NATURAL RESOURCES

COMMENTS BY THE IOWA UTILITY ASSOCIATION
TO THE ENVIRONMENTAL PROTECTION COMMISSION
REGARDING PROPOSED AMENDMENTS TO SO_2 EMISSIONS RULES

JULY 20, 1987

The Iowa Utility Association appreciates the opportunity to comment on the Commission's proposed rules to amend Chapter 23, "Emission Standards for Contaminants" (IAC), by revising the sulfur dioxide emission standards for solid fuel (coal) burning stationary sources (principally coal-fired industrial and utility boilers and cement kilns) that are not subject to the federal new source performance standards. The membership of the Association consists of investor-owned electric and gas utilities operating in Iowa. Our members who own and operate electric generating facilities have a significant interest in these rules.

This issue has been before the Commission and its predecessor, the Environmental Quality Commission, on numerous occasions since June 1, 1977, when the actions of the federal Environmental Protection Agency left 89 Iowa counties with dual state and federal standards for SO_2 emissions. We support the staff in its recommendation to adopt the federal standard for the 89 counties. The staff has communicated with our members about the proposed change as they have other interested parties. We have appreciated the willingness of the staff to meet with our members and discuss the impact of the proposed revision.

We have demonstrated through our facilities that the federal standard can be achieved and maintained. We believe technological developments - coal washing and increased use of fluidized bed combustion systems will make these standards achievable for facilities using Iowa coal as a primary fuel or in a fuel blend.

Again, we thank you for the opportunity to comment on these rules and encourage you to adopt them.

Respectfully submitted,

John M. Lewis

John M. Lewis, President
Iowa Utility Association

RECEIVED
JUL 20 1987
IOWA DEPARTMENT OF
NATURAL RESOURCES

MINN.
IOWA
ILL.

GENERAL OFFICE
1699 MAIN STREET
P.O. BOX 799
DUBUQUE, IOWA 52004-0799
319-588-5421

July 13, 1987

Mr. Allan Stokes
Administrator
Environmental Protection Division
Iowa Department of Natural Resources
Wallace State Office Building
900 East Grand Avenue
Des Moines, Iowa 50319-0034

Notice of Intended Action to
Amend Chapter 23 "Emission
Standards for Contaminants"

Dear Mr. Stokes:

Interstate Power Company appreciates the opportunity to comment on the proposed amendments to Chapter 23 "Emission Standards for Contaminants", dealing with modifications of the SO_2 Emission Standards.

We support lowering the SO_2 Standards in the 89 "other" Iowa counties to a level of 5 lbs SO_2 per million BTU.

This will do away with the present dual standard and make Iowa SO_2 Standards in all counties agree with EPA approved standards.

We thank you for this opportunity to comment.

Very truly yours,

E. D. Forslund

E. D. Forslund
Vice President-Power Production

EDF/MRC/lw

COMMENTS TO THE DEPARTMENT OF NATURAL RESOURCES ENVIRONMENTAL PROTECTION COMMISSION BY CORN BELT POWER COOPERATIVE CONCERNING THE NOTICE OF INTENDED ACTION TO ADOPT A 5.0 LB. SULFUR DIOXIDE STANDARD FOR FUEL BURNING SOURCES LOCATED IN 89 COUNTIES WITHIN THE STATE OF IOWA

RECEIVED BY
JUL 20 1987
DIRECTORS OFF.

Corn Belt appreciates the opportunity the Department of Natural Resources Environmental Protection Commission has provided to express its comments regarding the proposed revision of sulfur dioxide standards and thanks the Commission therefore.

Corn Belt Power Cooperative, headquartered at Humboldt, Iowa, is a generation and transmission cooperative supplying power and energy to 12 member distribution cooperatives who serve approximately 30,000 rural Iowa customers in 29 contiguous counties generally located in north central Iowa. This area runs roughly from Cherokee on the West to Waterloo on the East, and from the Minnesota border on the North to Highway 30 on the South.

In addition, Corn Belt participates in power and energy transactions with the North Iowa Municipal Electric Cooperative Association. Corn Belt provides all the power requirements of the City of Webster City, as well as a significant portion of the connected load of 12 additional North Iowa Municipal Electric Member systems.

It is Corn Belt's responsibility to supply a dependable, economical, and adequate power and energy source to these Iowa customers over the long term. This is presently accomplished in

part with Corn Belt's solely owned and operated generating stations located at Humboldt (the Humboldt Station), with a nameplate capacity of 41,500 kilowatts, and Wisdom, located at Spencer with 33,000 kilowatts of nameplate capacity. These units are presently being used as reserve and peaking capacity only.

Corn Belt's base load is normally supplied by its share of Duane Arnold Energy Center, Council Bluffs Unit #3, and Neal Unit #4. Additional hydro-power energy is obtained from the Western Area Power Administration. Two of the base load units are fired with low sulfur western fuel and contribute only relatively small amounts of sulfur dioxide to the atmosphere. Corn Belt's remaining base load is obtained with nuclear fuel and hydro-power generated energy. Both of these sources do not contribute any sulfur dioxide emissions to our atmosphere. At present, these sources provide most of Corn Belt's requirements, leaving very little operation for the Humboldt and Wisdom Stations. This pattern is expected to persist several more years while the Midwestern area's load growth catches up with surplus capacity.

It is the opinion of Corn Belt Power that due to the limited operation of the Wisdom and Humboldt stations, now, and in the foreseeable future, the implementation of 5 lb. sulfur dioxide emission standard for these two stations will have very little, if any effect, in lowering the atmospheric sulfur dioxide loading or to improve the national ambient air quality.

Combined coal consumption at Corn Belt's Humboldt and Wisdom stations totaled 49,000 tons from January 1, 1981 through January 1, 1987. During this period of time (January 1, 1981 to January 1, 1987), some 30 samples of the stockpiled coal was sampled and analyzed for sulfur and BTU content as burned at the Humboldt Station. The average sulfur dioxide emission during this period of time without retention credit is calculated to be 5.27 lb. per million BTU. During this same period of time some 38 samples of the stockpile coal was sampled and analyzed for sulfur and BTU content as burned at the Wisdom Station. The average sulfur dioxide emission during this period of time without retention credit is calculated to be 6.0 lb. per million BTU. The Humboldt Station is only slightly above the proposed 5 lb. sulfur dioxide emission standard. The Wisdom Station is at the 6 lb. sulfur dioxide standard that is a standard for 10 eastern counties. Copies of the coal analysis reports are included for your review. This coal burning produced less than 600 tons of sulfur dioxide emissions on an average yearly basis. Our current projections for operation at Humboldt and Wisdom stations for the next 5 years indicate even a lower volume of coal will be burned and thus even less sulfur dioxide emission is to be expected from these two stations during this period. Until load growth in the Midwest uses up the current excess capacity, this level of sulfur dioxide emissions from the Humboldt and Wisdom stations can be expected to change very little.

Corn Belt believes that existing coal inventories at the Humboldt and Wisdom stations, which total some 80,000 tons, should be exempted from attainment of new, more stringent standards than

existed at the time the inventories were acquired. The cost of replacing existing inventories with a lower sulfur coal or the need for blending of coal is an expense that will add to the already escalating cost of electricity for our members.

If the proposed 5 lb. sulfur dioxide emission standard is adopted for Corn Belt's Humboldt and Wisdom stations and blending of fuel is required, it is estimated that the purchase of approximately 20,500 tons of low sulfur western coal may be necessary. This purchase of low sulfur coal will be needed to dilute the sulfur content of the existing stockpile coal at the Humboldt and Wisdom stations in order to meet the proposed 5 lb. sulfur dioxide emission standard. This will result in an increased cost to our members for their electrical energy. Corn Belt Power Cooperative does not feel this is a justifiable burden to place on its members.

In closing, Corn Belt Power Cooperative believes that the Department of Natural Resources Environmental Protection Commission would be imposing an unjustifiable increase in the cost of energy production from the Humboldt and Wisdom stations by the adoption and implementation a 5 lb. sulfur dioxide emission standard at this time. We ask that your consideration be given to allow the continued operation of the Humboldt and Wisdom stations at the current 8 lb. sulfur dioxide emission standard until such time the 80,000 tons of stockpiled coal has been consumed.

ENVIRONMENTAL PROTECTION COMMISSION

ITEM 10 INFORMATION

EMISSIONS OF ACRYLONITRILE AT MONSANTO, MUSCATINE

The department has issued a technical report which provides information about emissions of acrylonitrile and 1,3 butadiene. Acrylonitrile is classified as a known carcinogen and 1,3 butadiene as a suspected carcinogen. The report shows the reductions in public health risks that will occur as a result of Monsanto's plan to control acrylonitrile emissions.

A public hearing will be held September 9, 1987 at 7:00 p.m. in the Muscatine City Hall to receive comments on a preliminary decision to permit this project. Best available control technology will be required for the control of these potentially carcinogenic emissions.

EPA provided contractor assistance to review Monsanto's first control plan and to conduct human exposure modeling. DNR solicited comments on the draft report from the Department of Public Health and University of Iowa's Medical School.

Jerry Tonneson
August 4, 1987

I01.min

STATE OF IOWA

TERRY E. BRANSTAD, GOVERNOR

DEPARTMENT OF NATURAL RESOURCES
LARRY J. WILSON, DIRECTOR

NOTICE OF PUBLIC HEARING

EMISSIONS OF ACRYLONITRILE AND 1,3 BUTADIENE FROM Monsanto, Muscatine

Public notice is hereby given that the Iowa Department of Natural Resources, Environmental Protection Division, has made a preliminary decision to permit emissions of acrylonitrile and 1,3 butadiene from the Monsanto Agricultural Products plant near Muscatine. This preliminary decision is based upon control programs and commitments that Monsanto has submitted to the Department. Acrylonitrile is classified as a probable human carcinogen, and 1,3 butadiene is classified as a suspected human carcinogen by the U.S. EPA's Carcinogen Assessment Group. The Department has made the determination that best available control technology should be required for any air pollutants that are either known or suspected carcinogens. Proposals and commitments made by Monsanto Corporation will result in reduced emissions and substantial reductions in public health risks.

A report detailing the changes in emission levels and a discussion of the health effects data has been prepared by the Department. The report is available upon request from the Department at the address given below, or a copy of the report and supporting documentation is available for review in the Muscatine City Clerk's office at City Hall during normal business hours.

A public hearing is scheduled for September 9,1987 at 7:00 pm in the Muscatine City Hall, 215 Sycamore. The purpose of the public hearing will be to receive comments on the preliminary decision to issue permits for equipment and control equipment, which will reduce emissions of acrylonitrile and 1,3 butadiene. Department staff familiar with the project will be available to answer questions about the project and the health risk assessment document. Written comments will be received for an additional ten days after the hearing, and may be addressed to;

Environmental Protection Division
Iowa Department of Natural Resources
900 East Grand Ave.
Des Moines, IA 50319

EMISSIONS OF ACRYLONITRILE
MONSANTO CORPORATION,
MUSCATINE IOWA

The Iowa Department of Natural Resources has entered into an agreement with the U.S. Environmental Protection Agency to review the public health risks associated with emissions of acrylonitrile from the Monsanto facility. This report describes changes in emission levels and changes in public health risks that will occur as a result of process modifications at the ABS resin production facility. Upon consideration of the available control techniques and the resulting health risk reductions, the Department has made the preliminary decision to permit this facility subject to certain conditions which are specified in the final section of this report.

BACKGROUND

The acrylonitrile pilot project was announced in the June 10,1985 Federal Register. This program was envisioned by EPA as an alternative to the rather resource intensive process of regulation under the national emission standards for hazardous air pollutants (NESHAPs) program. Sources of acrylonitrile may not present enough of a national problem to justify federal standard setting under NESHAPs, however there are sufficient health risks for people living in the vicinity of these sources to justify some level of mandated controls. Finally, EPA saw the acrylonitrile pilot project as a way to build the capability of state and local air pollution control agencies to deal with toxic air contaminants.

The Monsanto Corporation produces acrylonitrile butadiene styrene (ABS) plastic by polymerization of acrylonitrile (AN), 1,3 butadiene (BD) and styrene (ST). Acrylonitrile is classified as a probable human carcinogen (cancer causing

substance) by the EPA's Carcinogen Assessment Group. In addition, EPA has published an intent to list 1,3 butadiene as a hazardous air pollutant for potential regulation under Section 112 of the federal Clean Air Act. Styrene is not classified as a carcinogen (cancer causing substance), although exposure to high levels may cause acute adverse health effects. Monsanto has proposed changes to their process and the installation of pollution control equipment which will result in substantial reductions of acrylonitrile emissions. Because of the evidence that exists about the carcinogenic potential of acrylonitrile, the Department of Natural Resources has determined that best available control technology is the minimum acceptable control level for this pollutant.

In order to assist the Department in determining what constitutes best available control technology for acrylonitrile, EPA provided contractor assistance to review Monsanto's proposal of May 29,1986. The initial control program proposed by Monsanto would have resulted in acrylonitrile emissions of 42.5 metric tons per year. The EPA contractor, PEI Associates, Inc., determined that additional controls were available and could be implemented at a reasonable cost. After review of the PEI report, the Department requested that Monsanto provide additional controls of acrylonitrile emissions. Monsanto responded with another control proposal on October 27,1986, that would further reduce emissions of acrylonitrile to 31.0 metric tons per year.

CHANGES IN EMISSION LEVELS

The following table shows the current and proposed emission estimates for acrylonitrile, butadiene and styrene at Monsanto. The current emissions will be drastically reduced by process changes as well as the installation of

pollution control devices. The levels marked PEI proposal represents the level of controls recommended by the EPA contractor. The differences in these estimates will be discussed further in the control technology section of this report.

TABLE 1 (Metric tons/year)

	Acrylonitrile	1,3 Butadiene	Styrene
Current Emissions	391	48.1	323
Monsanto Proposal *	31.0	43.8	19.1
PEI Proposal	27.7	13.8	11.8

* Monsanto proposal of October 27,1986

Acrylonitrile, and 1,3 butadiene are volatile materials. They are gaseous under standard conditions, while styrene is a liquid at room temperature. These compounds may be released from storage vessels, equipment leaks, pumps, valves, compressors, and reaction vessels. Most of the emissions from the process come after the plastic product has polymerized and is ready to be washed and dryed. The reaction takes place in an aqueous environment and this water must be driven off before the product is considered to be in final form. When the water is driven off, some of the volatile ingredients are also flashed off to the atmosphere. At present, these product drying emissions are largely uncontrolled.

CONTROL TECHNOLOGY

There are three predominant control techniques for organic vapors. They are carbon absorption, condensation, and incineration. The difference between the Monsanto proposal and the PEI proposal lies with the type of control technique that was selected. The EPA contractor, PEI, has recommended

ducting of some of the process streams to existing boilers. This would provide for recovery of the heating value of the organic vapors. The company is reluctant to connect the boiler to the ABS plant because of the potential for explosions. As an alternate control method, the company has proposed steam stripping in combination with condensation technology. This will result in slightly higher emission levels for acrylonitrile than are possible with incineration. Incineration can result in control efficiencies in excess of 99% with sufficient combustion temperatures and residence times.

A more detailed discussion of PEI Associates findings is contained in the "Assessment of the Monsanto Acrylonitrile Solution in Muscatine, Iowa" EPA 907/9-86-005 September 1986. A limited number of copies of this report are available upon request from the Department of Natural Resources, 900 East Grand Avenue, Des Moines, Iowa 50319. A copying fee will be charged to anyone requesting this document.

Monsanto, in their October 27,1986, submittal, has proposed additional control of acrylonitrile by combining process vents identified as SGL-15 and SGL-16 and by providing additional passes through steam stripping and spray condensation vessels. The new combined process vent stack will be labeled as SGL-15. The Department has made a preliminary determination that the level of controls proposed for SGL-15 represents an adequate level of control for acrylonitrile from this emission point. The control efficiency obtainable through incineration is 99.5%. The control efficiency proposed by this series approach to steam stripping and condensation is 99.4% for acrylonitrile. Another benefit of Monsanto's proposed control methodology is that acrylonitrile is returned to the process and reused.

A decision to permit this source would be conditioned upon source testing, within 180 days after completion of this project, to confirm compliance with proposed emission rates. The acrylonitrile emission levels proposed by the Company in their permit application will become their emission limits, subject to significant public comments on the issue.

The Department has reservations about the proposed control technology for SGL-15 because the condensers will not capture any 1,3 butadiene. According to PEI, the vapor pressure of 1,3 butadiene is so low that no vapors will be collected even with a -30 degree F refrigerated condenser. Some recently received information regarding the potential health effects of 1,3 butadiene have elevated the importance of controlling this compound. More discussion of this issue is contained in the Public Health Risks portion of this report. Styrene control from SGL-15 is adequate.

The only other significant acrylonitrile emission source is SGL-4. SGL-4, which is mentioned in both Monsanto's permit application and the contractor report previously mentioned, is a building ventilation system outlet which removes fumes from a number of sources within the polymerization process. Monsanto has expressed some uncertainty regarding the reliability of their estimate of 15.6 metric tons per year of acrylonitrile from this emission point. This emission estimate is based upon a relatively short sampling period, where the possibility of double counting emissions due to recirculation of ventilation air could not be discounted. The Department has suggested, and the Company is agreeable to an engineering evaluation of acrylonitrile sources within the polymerization building to be submitted at a later date. The Company has suggested that such studies will take a year to complete. The Department would propose that the results of any such studies should be due by May 1,1988.

Correspondence regarding this issue dated September 15,1986 from the Department and Monsanto's replies dated October 27,1986 and May 15,1987 are attached. If additional reductions in acrylonitrile can reasonably be achieved, such reductions will be required.

Health Effects Data

The carcinogenic potential of acrylonitrile has been mentioned. In addition to the concern about cancer, this chemical can cause other acute (short term) health effects. The threshold limit value (TLV),time weighted average, for this chemical is 2 parts per million or 4.5 mg/cubic meter for an eight hour period. The level described as the immediate danger to life and health (IDLH) action level is 4000 parts per million. According to the "Health Assessment Document for Acrylonitrile" EPA-600/8-82-007F, October 1983, exposure to concentrations in excess of the TLV can result in irritation of the eyes and nose, weakness, labored breathing, dizziness, impaired judgement, cyanosis, nausea, and convulsions.

The evidence for the carcinogenicity of acrylonitrile is based upon seven rat exposure studies, and ten epidemiologic studies. Statistically significant incidence of central nervous system cancers was reported in all five rat studies where acrylonitrile was administered by drinking water. In the remaining two rat inhalation studies, one study showed clear evidence of carcinogenic effect, and the other showed only a marginal increase in tumor incidence. Four of the ten epidemiological studies resulted in a statistically significant elevation in expected lung cancer cases. The remaining six studies, were criticized for having too short of a follow-up, populations that did not have enough members in the age group (50+) where cancer is more likely to occur, and lack of correlation to job classification and potential

for occupational exposure, i.e. office worker versus plant maintenance personnel. On the basis of these human and animal studies, acrylonitrile is classified as a probable human carcinogen.

1,3 Butadiene is classified as a suspected human carcinogen. According to the relative unit risk values assigned to acrylonitrile and 1,3 butadiene, butadiene is a more potent carcinogen than acrylonitrile. The eight hour exposure TLV is 1000 parts per million for protection from acute health effects and 10 parts per million for chronic exposures which could lead to the onset of cancer. The IDLH value is 20,000 parts per million.

The EPA has published a summary of the cancer and mutagenic evidence for 1,3 butadiene in "Mutagenicity and Carcinogenicity Assessment of 1,3 Butadiene" EPA/600/8-85/004F, September 1985. One inhalation study with mice shows clear evidence of carcinogenicity. A similar inhalation study, using rats and higher exposure levels, indicates that 1,3 butadiene is a suspected weak carcinogen. There were six epidemiological studies of workers exposed during the production of styrene butadiene (synthetic) rubber. These studies are inconclusive due to confounding problems such as coexposure to butadiene and styrene. Traces of benzene, classified as a known carcinogen, may be present as an impurity of either styrene or toluene. The studies reported in the health assessment indicate that 1,3 butadiene may be a mutagen as well. The evidence for the carcinogenicity of 1,3 butadiene is insufficient for humans and sufficient for animals. Even though the cancer causation data for 1,3 butadiene is somewhat mixed, the Department has made the determination that sufficient evidence exists to require best available control technology for this potential carcinogen.

Styrene is not classified as a carcinogen, however there is some evidence which suggests that it may cause leukemia. In addition, styrene has been implicated with other adverse health effects, such as peripheral neuropathy, abnormal pulmonary function, liver toxicity, and teratogenicity. Exposures to concentrations above the TLV may cause irritation to eyes, and nose, as well as bring on weakness and drowsiness. The TLV value for an eight hour exposure is 100 parts per million. The 15 minute ceiling value is 200 parts per million, and the 5 minute out of 3 hour peak value allowed is 600 parts per million. A level of 5000 parts per million constitutes immediate danger to life and health. The following table provides a comparison between projected ambient concentrations, and the OSHA standards.

Table 2

	OSHA standard	maximum projected concentration
acrylonitrile	4,500	4.87
1,3 butadiene	22,000	7.25
styrene	430,000	0.90

All values given in micrograms per cubic meter

The concentrations shown for the OSHA values are for eight hour per day exposures, while the projected concentrations are representative of maximum modeled concentrations that occur very close to the Monsanto property boundaries. Even though the values are lower, there is still concern about long term exposure to low levels of probable and suspected carcinogens. The

methodology for examining these low level health risks is explained in the following section.

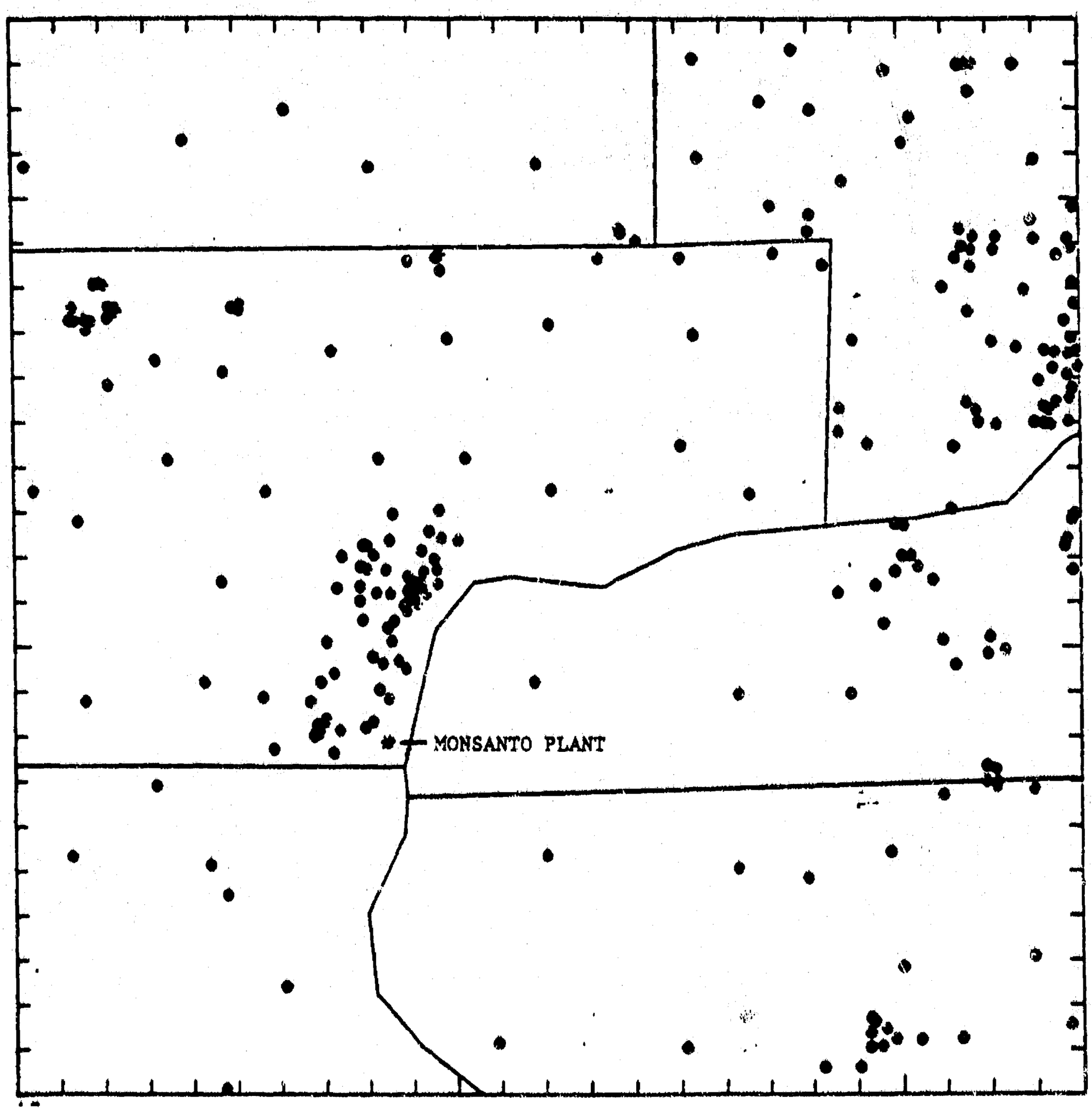
Public Health Risks

The cumulative and maximum human health risks due to exposure to these chemicals can be calculated. For years EPA has used relative risk information to prioritize pollutant and industrial category standard setting projects. Risk assessment is done in other disciplines as well. The EPA air quality risk assessment program is called the Human Exposure Program. This program calculates annual ambient concentrations, within 50 km of a given plant location. These concentrations are compared with U.S Census data at the Enumeration District/Block Group (ED/BG) level. This results in a dosage for each discrete census area (see Figure 1). Unit risk factors derived from animal and epidemiological studies can then be applied to this dosage value to define cumulative or community risks as well as maximum risks for the most exposed individual.

This simplistic model differs from reality in several ways. For instance, the unit risk value is defined as the estimated excess probability of contracting cancer as the result of a constant exposure over a 70-year period to an ambient concentration of 1 ug/cubic meter. Average concentrations are calculated at the population centroid for each census area. If the enumeration district has irregular geometry or uneven distribution of the population, this may skew the dosage values either positively or negatively. For a more detailed discussion of model assumptions and limitations, the reader may refer to "User's Manual for the Human Exposure Model (HEM)" EPA-450/5-86-001, June 1986. Although there are some limitations to the methodology, the human exposure models do provide some valuable information on relative risks for use in risk management.

FIGURE 1

POPULATION CENTROIDS USED IN MUSCATINE AREA EXPOSURE MODELING



The central concept in the risk assessment methodology is the existence of a unit risk factor. The unit risk factor used for acrylonitrile was supplied by EPA's Carcinogen Assessment Group. Two different unit risk factors were used for 1,3 butadiene during this study. The first value that was used was based on work done by Clement and Associates, a contractor to EPA's Carcinogen Assessment Group, and was published in the August 10,1984 edition of the Environment Reporter. This unit risk factor of 4.6 X 10 to the minus 7th was used by PEI Associates in their risk assessment. EPA had subsequently published a unit risk factor of 2.8 X 10 to the minus 4th in their notice of intent to list 1,3 butadiene under Section 112 of the Clean Air Act, published in the October 10,1985 Federal Register. The Department did not notice this discrepancy until receipt of a risk assessment done by EPA's Pollutant Assessment Branch dated January 28,1987. The unit risk value is an indicator of relative cancer causing potency of the individual chemical.

Another factor to be considered, when reviewing risk assessment data, is the relative certainty of the data used to develop the unit risk factor. In the case at hand, acrylonitrile is a probable human carcinogen. 1,3 butadiene is a suspected human carcinogen, and the unit risk factor is based on fewer studies. The cancer evidence surrounding styrene is not compelling enough to list it as a carcinogen. Accordingly, the certainty surrounding the public health risk estimates decreases as we go from acrylonitrile to 1,3 butadiene to styrene. On the advice of EPA's Pollutant Assessment Branch in Research Triangle Park, N. C., unit risk values should not be assigned to styrene, accordingly caution is advised when reviewing the public health risk due to styrene as reported by PEI Associates. Another way of expressing the unit risk factor concept is to characterize it in terms of excess risk of contracting

cancer. In those terms, the excess risk resulting from exposure to one microgram per cubic meter for 70 years can be expressed as follows;

	acrylonitrile	68	chances in a million
1984 EPA value	1,3 butadiene	0.46	chances in a million
1985 EPA value	1,3 butadiene	280	chances in a million

The resulting risk from exposure to a pollutant is due to two factors. One is the concentration of the pollutant in the air, the other is the time of exposure. The product of these two values is the dosage to which one is exposed. By using unit risk factors we can calculate maximum and cumulative community risk estimates. This is done merely by multiplying the dosage times the unit risk factor. For example;

maximum concentration X unit risk factor = maximum individual risk

for the Monsanto proposal for acrylonitrile the maximum concentration for acrylonitrile is predicted to be 4.87 ug/cubic meter, and the unit risk factor is 68 chances per million/ ug/cubic meter exposure, yielding the following

4.87 ug/cubic meter X 68 chances/million= 331 cancers / lifetime/ million people

It must be stated that these results are upper bound estimates, and that the real risk may be lower. The average risk factors, annual cancer incidence, and cancer repeat intervals all take into account the fact that only 314,000 people live within a 50 kilometer radius of the plant, and that people living in different sectors are exposed to a different concentration of the pollutant. These last three values may best be described as cumulative or community

risks. The maximum values apply only to those who live in close proximity to the plant.

The following exposure results summary, Table 3, shows the relative reduction in cancer risk that will occur as a result of Monsanto's control program. The three control scenarios presented are current emissions, PEI's proposed control program and Monsanto's proposal of October 27,1986 proposal. The risk estimates for the current situation and PEI's proposal were prepared by PEI Associates, Inc. with the revised unit risk factor for 1,3 butadiene. The risk estimates for the Monsanto proposal were prepared by EPA's Pollutant Assessment Branch, under the Office of Air Quality Planning and Standards, Research Triangle Park, North Carolina. The exposure summary results have been adjusted to reflect the impact of an additional 6.0 metric tons per year of 1,3 butadiene, that was not considered in the previous studies and has only recently been reported by the company.

The Monsanto proposal would result in a significant reduction in both maximum and community wide risks due to acrylonitrile exposure. Maximum risks and maximum ground level concentrations due to emissions of 1,3 butadiene are projected to increase. This is true even though total emissions of butadiene will decrease. The reason for this apparently discrepant result is due to the fact that the plume from the condensation and steam stripping release point will not be as buoyant as the current configuration. The reduced temperature of the air stream leaving the condensors will reduce the buoyancy of the plume as will the loss of heat due to evaporation of water vapor, which is entrained from the steam stripping.

The change in butadiene unit risk factors has resulted in public health risk estimates far in excess of those anticipated when this project was initiated. There is

TABLE 3

EXPOSURE RESULTS SUMMARY FOR MONSANTO

MUSCATINE, IOWA

	ACRYLONITRILE			1,3 BUTADIENE		
	Current	Monsanto Proposal*	PEI Proposal	Current	Monsanto Proposal	PEI* Proposal
Population exposed, persons	314,000	14,000	314,000	314,000	314,000	314,000
Total emissions, metric tons/yr	391.0	31.0	27.7	48.1	43.8	13.8
Maximum Concentration $\mu g/m^3$	30.2	4.87	3.76	5.11	7.25	1.42
Maximum risk[a], cancers/lifetime/10^6 persons	2,050	331	256	1,431	2,030	398
Annual incidence[b], cancers/year	0.034	.0027	0.0025	.018	.017	.00508
Repeat interval, years/cancer	29	370	400	56	59	197
Average risk[c], cancers/lifetime/10^6 persons	7.68	0.59	0.56	4.00	3.79	1.12

[a]Maximum risk is the probability in 10^6 of contracting cancer over a lifetime to the maximum exposed individual.

[b]Annual incidence is cancers per year per lifetime expected to occur over the actual population.

[c]Average risk is the probability in 10^6 of contracting cancer over a lifetime to the average exposed individual.

*The Department is proposing to permit Monsanto's emissions at the levels labeled as the Monsanto proposal of acrylonitrile and the levels labeled as PEI proposal for 1,3 butadiene.

almost a thousand fold increase in this estimate. This is due to the tumorogenic response in the mouse inhalation study, which was completed after the 1984 unit risk factor was published. However, caution is advised due to the fact that the supporting evidence is more limited. Additionally, Monsanto is not that confident in the butadiene emission factors due to the relatively short sample period and other uncertainties mentioned in the development of acrylonitrile emission estimates. The PEI report shows that additional control of 1,3 butadiene can easily be achieved. The projected public health risks are significant enough to warrant concern. The Department will require additional reductions in butadiene emissions at least equivalent to best available control technology. This would be similar to the level of emission controls recommended by PEI Associates. The proposed permit will require emission reductions for butadiene that will result in public health risks similar to those listed in Table 3 under PEI proposal for butadiene.

Preliminary Determination

In this report, changes in emissions and reductions in public health risks have been explained. The nature of public health risks, and some of the background information regarding cancer risks have been summarized. In addition to Department staff who have prepared and reviewed this report, critical review comments have been solicited from :

Iowa Department of Public Health
University of Iowa Medical School

After opportunity for review and comment on this draft report by the groups listed above, the Department has made this report available to interested parties in the Muscatine area. The comments received are attached as Appendix A.

Public notice of a preliminary decision to permit this source will be published in newspapers for Muscatine and Des Moines. A public hearing will be convened in the Muscatine area on August . 1987 at 7:00 pm in to take any comments on the proposed permit decision. There will also be an opportunity for written comments as well.

The Department has made the preliminary decision that a permit for Monsanto proposal should be issued for the following reasons;

1. The company is voluntarily installing equipment and control equipment that will change emissions of air - contaminants in the Muscatine area. The change in emission of air contaminants makes this project subject to permitting requirements specified in the Iowa Administrative Code, Chapter 567--22(455B).

2. The proposed project will result in substantial emission reductions of potentially harmful air contaminants.

3. The control technology proposed for the main process vent is equivalent to best available control technology, for the control of acrylonitrile.

4. The Department has adopted equipment leak standards for emissions of hazardous air pollutants. Leak detection and repair requirements similar to those contained in national emission standards for hazardous air pollutants (40 CFR, Part 61) will be included in the facility's permit.

5. A requirement to conduct an engineering evaluation of sources within the polymerization building, vented through SGL-4, will be made a condition of the permit. The submittal date for this engineering report is proposed to be May 1,1988.

6. Additionally, control of 1,3 butadiene that will substantially reduce public health risks will be required as a condition of the permit to construct facilities. The PEI report states that emissions totalling no more than 13.8 metric tons per year are reasonably achievable. A program

for the control of 1,3 butadiene, equivalent to best available control technology, must be submitted by May 1, 1988.

7. There will be a substantial reduction in public health risks as a result of this program.

Anyone who has concerns or additional information regarding this preliminary determination is encouraged to comment. All public comments will be considered prior to the final decision on a permit for Monsanto.

Bibliography

1. Letter from Stephen W. Ballou, Ph.D. Executive Director of the Iowa Department of Water, Air and Waste Management, to William A. Spratlin, Director of U.S. EPA Region VII's Air and Toxics Division, dated November 1,1985

2. June 10,1985 Federal Register notice of the acrylonitrile pilot program

3. "Assessment of the Monsanto Acrylonitrile Solution in Muscatine, Iowa" EPA 907/9-86-005 September 1986 prepared by PEI Associates

4. Letter from Rexford A. Walker, Supervisor, Air Quality Section, Environmental Protection Division, Iowa Department of Natural Resources to J. R. Klieve, Monsanto, Muscatine dated September 18,1986

5. Permit application transmittal letter from J. R. Klieve, Monsanto, Muscatine dated October 27,1986

6. October 10,1985 Federal Register notice of EPA's intent to list 1,3 butadiene as a hazardous air pollutant under Section 112 of the Clean Air Act

7. Risk Estimates for Carcinogens, 1,3 butadiene, 12/23/86 DRAFT, Office of Air Quality Planning and Standards (OAQPS), EPA Research Triangle Park, NC

8. Letter to Jerry Tonneson, Iowa Department of Natural Resources from Mike Dumetzina, Environmental Engineer, Pollutant Assessment Branch, OAQPS, EPA Research Triangle Park, NC dated January 28,1987 containing risk assessment data for Monsanto's proposal

Appendix A

1. Comment letter from John A. Eure, Iowa Department of Public Health dated May 26,1987.

2. Comment letter from Jeff Klieve, Monsanto, Muscatine dated June 1,1987.

3. Comment letter from Donald P. Morgan, M.D., Ph. D. University of Iowa, College of Medicine dated June 15,1987.

STATE OF IOWA

TERRY E. BRANSTAD, GOVERNOR

DEPARTMENT OF PUBLIC HEALTH
MARY L. ELLIS, Director

May 26, 1987

Peter R. Hamlin, Chief
Air and Hazardous Waste Bureau
Division of Environmental Protection
Department of Natural Resources
Wallace Building
LOCAL

Dear Mr. Hamlin:

Reference is made to your letter of May 5, 1987, transmitting a draft health assessment document relating to acrylonitrile and 1,3 butadiene emissions from the Monsanto ABS plastic production facility in Muscatine, Iowa. We have reviewed the subject document and have the following comments:

1. We concur that 1,3 butadiene should be considered a human carcinogen. Review test data relating to 1,3 butadiene in the Registry of Toxic Effects of Chemical Substances (RTECS), 1983-84 Supplement, prepared by the National Institute of Occupational Safety and Health (NIOSH) reveals that this chemical has been found to produce cancer in rats as a result of inhalation exposure. Other studies referenced in your report apparently show clear evidence of carcinogenicity in mice. Although we are unaware of any epidemiological studies showing cancer in man, positive evidence of cancer in two different mammalian species is strong evidence that 1,3 butadiene is a human carcinogen.

2. Benzene is definitely considered to be leukemogenic by NIOSH and, therefore, carcinogenic. You may wish to reconsider the term <u>probable</u> carcinogen when referring to benzene in the last paragraph on page 7 of your draft report.

3. Styrene, referenced on page 8, should be revised to state that exposure to styrene has been implicated with other adverse health effects besides leukemia, such as peripheral neuropathy, abnormal pulmonary function, liver toxicity, and teratogenicity.

4. The increase in unit risk factor for 1,3 butadiene by a factor of approximately 600 times higher, as described in the last paragraph on page 9, is apparently due to a reduction in plume buoyancy resulting from steam stripping as explained on page 12. It would enhance your report to discuss the increase in unit risk factor and the cause for this increase in the same paragraph.

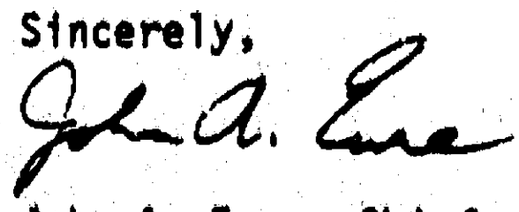
5. There appears to be an error in Table 2, on page 11, under the Monsanto Proposal for Acrylonitrile on the last line entry entitled, "Average risk cancers per lifetime per one million persons." Shouldn't the table entry read 0.59 rather than 0.059?

6. It would also be helpful if sample calculations for the various entries of Table 2 were given. For instance, one could show that the maximum risk is the product of the maximum concentration and the unit risk. There appears to be a relationship between the total annual emissions and the average risk. This needs to be explained.

7. I also discussed my above comments relating to your report with Dr. Donald Morgan. He concurs in these comments and also recommends that a map should be incorporated showing where the facility is located in relation to the population. In addition, your report states on page 8 that the concentrations of 1,3 butadiene, acrylonitrile, and styrene are far below their respective threshold limit values. It is important that the actual concentration of these chemicals, as well as benzene, be stated in order to better inform the public with respect to the degree of health hazard.

I hope that these comments are helpful to you in preparing your report. If we can be of any additional assistance or if you have any questions, please do not hesitate to contact me or Brad Cudal at 281-7782.

Sincerely,



John A. Eure, Chief
Bureau of Environmental Health
(515) 281-4928

JAE:BVC:emb

cc: Mary L. Ellis
Director of Public Health

Dr. Donald Morgan
University of Iowa Medical School

Monsanto

MONSANTO AGRICULTURAL CO.
P. O. Box 473
Muscatine, Iowa 52761
Phone: (319) 263-0083

June 1, 1987

Mr. Pete Hamlin
Chief, Air and Hazardous Waste Bureau
Environmental Protection Division
Department of Natural Resources
Wallace State Office Building
Des Moines, Iowa 50319

Dear Mr. Hamlin:

The purpose of this letter is to comment on the Draft Health Assessment Document for acrylonitrile (AN) and 1,3-butadiene (BD) emissions from our Muscatine, Iowa, production facility as submitted to Dr. Don Morgan and John Eure. My comments are as follows:

Page 5, paragraph 1 - Monsanto has provided best engineering estimates of emissions resulting from the installation of the selected control option. The actual emissions should be in the "neighborhood" of the estimates, but actual emissions have a 50% probability of being greater than the estimates, and a 50% probability of being less than the estimates. Therefore, it is not appropriate to establish "emission limits" at estimated emission levels. In the absence of promulgated emission limits, installation of the IDNR approved control option and operation in conformance with IAC 567-24.2(1) should provide reasonable assurance that emissions in the "neighborhood" of engineering estimates will be attained.

Pages 9-13 - It should be noted throughout the Public Health Risks section that unit risk factors cited are 95% upper bound factors representing worst case interpretation of available toxicology and epidemiology data. Actual risks are probably much less severe than stated, and may be zero.

Page 11, * footnote; page 13, paragraph 1; and page 14, item 6 - Discussions of BD emissions abatement should be revised to be consistent with our May 15 submittal. BD abatement should be handled as an issue separate from the AN abatement issue. Implementation of the AN abatement solution should not be conditioned on BD abatement i.e., BD abatement should not be a condition of the AN abatement construction permit.

Page 14, item 1 - We believe an acknowledgment that Monsanto proposed and invested in AN emissions abatement voluntarily is appropriate in the technical document. Item 1 could be restated as follows: "The company has volunteered to install equipment and control equipment that will reduce emissions ..."

Page 14, item 4 - Subpart V of 40 CFR 61 is not applicable since neither AN nor BD are designated hazardous air pollutants pursuant to section 112 of the Federal Clean Air Act.

Page 14, item 5 - Since possible controls on SGL-4 will likely interact with possible BD emissions controls, we propose to submit results of an engineering study of SGL-4 coinciding with the engineering study evaluating BD emission abatement.

We look forward to the scheduling of a public hearing and the issuance of a construction permit for the AN abatement project.

Sincerely,

J.R. Klieve
Environmental Control
Superintendent

/cv

The University of Iowa
Iowa City, Iowa 52242

Institute of Agricultural Medicine and Occupational Health
Department of Preventive Medicine and Environmental Health
College of Medicine, Oakdale Campus

(319) 335-4415

1847

June 15, 1987

Peter R. Hamlin, Chief
Air and Hazardous Waste Bureau
Department of Natural Resources
Wallace Building
900 East Grand Avenue
Des Moines, Iowa 50319

Dear Mr. Hamlin:

Mr. Rex Walker of DNR has asked that I reply in writing to your request to review a document entitled "Emissions of Acrylonitrile Monsanto Corporation, Muscatine, Iowa."

I think readers of this report will want to have some idea of the location of the plant in relation to the population of Muscatine and perhaps other local communities. This might be done with a map.

On page 8, there is the following statement: THE PROJECTED AND MONITORED CONCENTRATIONS OF THESE THREE POLLUTANTS NEAR THE MONSANTO PLANT IS (sic) FAR BELOW THE THRESHOLD LIMIT VALUES GIVEN ABOVE. I think it would be appropriate at this point to elaborate on just what the air concentrations of the target pollutants actually are, not only near the Monsanto plant, but in local neighborhoods where people presumably inhale these pollutants. A part of the standard "risk assessment" procedure is to estimate the approximate <u>dosage</u> (quantity/time) which people are currently absorbing into their bodies. This can be estimated from measured, time-weighted-average air concentrations.

Your letter of May 5, 1987 asks that I comment on the "cancer assessment data for 1, 3-butadiene." I do so reluctantly because I am not an expert in chemical carcinogenesis, and you should take this fact fully into account. I do, however, follow the very extensive contemporary literature on cancer risk assessment and low-dose extrapolation from rodent bioassay information. My own judgement is that these methods for evaluating cancer risk in human populations have no scientific validity. The basis for this judgement is much too detailed to explain in this letter. I would feel very lonely in holding this view were it not for the published works of such eminent scientists as Professor Bruce Ames (Science 236:271-9, April 17, 1987) and others. An interesting insight into the skepticism shared by EPA scientists themselves is offered in Environmental Science and Technology 20(2):111-16, 1986.

I realize that a regulatory agency such as the DNR is not at liberty to make its own judgements of these complex biological issues, and I certainly have no desire to intrude on the decision-making processes which you are required by law to carry through. But since you have specifically requested my opinion, I have offered it.

I hope this is helpful.

Sincerely,

Donald Morgan

Donald P. Morgan, M.D., Ph.D.
Professor

DPM:jr

cc: John Eure, Iowa State Department of Health

ENVIRONMENTAL PROTECTION COMMISSION

ITEM 11 DECISION

SAYLORVILLE HYDRO DEVELOPMENT CONTRACT APPROVAL

Approval is requested to enter the Department into an agreement with Saylorville Hydro Partners.

Saylorville Hydro Partners, a Minnesota, LTD. Partnership, is seeking a license from the Federal Energy Regulatory Commission (FERC) for the purpose of developing hydropower generating facilities at Saylorville Dam. State Section 401 water quality certification from this department is a requirement for obtaining the FERC license. The developer's license application was insufficient at addressing and assessing environmental concerns resulting from hydropower development. To ensure that the state's water resources will not be adversely impacted, a conditional Section 401 water quality certification has been developed and incorporated into the agreement. The agreement binds the developer to the conditions of the Section 401 water quality certification. Although the conditional Section 401 water quality certification will become part of the FERC license, this agreement would allow the department to enforce these conditions through the state courts rather than relying in the FERC for total enforcement capability.

Monica Wnuk
July 29, 1987

M210MJT.1

AGREEMENT

This Agreement entered into this ____ day of _____, 1987, by and between the Iowa Department of Natural Resources (the "Department"), and Saylorville Hydro Partners, a Minnesota Limited Partnership consisting of HRM Partners, General Partner and Independent Hydro Developers, a Minnesota Limited Partnership, as Limited Partner (the "Developer").

WHEREAS, The Developer proposes to construct a hydroelectric generating facility (the "Project") at Saylorville Reservoir Dam on the Des Moines River and has applied for a license from the Federal Energy Regulatory Commission ("FERC") to construct the project; and

WHEREAS, as part of the license application the Department has been requested to issue a Water Quality Certification under Section 401 of the Clean Water Act (33 USC 1341) and will issue a conditional Water Quality Certification (the "Conditional Section 401 Certification") as set forth therein, a copy of which is attached hereto as Exhibit A and the provisions and duties of which are incorporated herein by this reference; and

WHEREAS, the Developer recognizes the Department's duty to maintain and improve the quality of the Des Moines River and the necessity of complying with Iowa's water quality standards (Chapter 567--61, IAC) and is desirous that the Conditional Section 401 Certification be issued by the Department to facilitate the granting of the license by FERC and in consideration of the issuance by the Department of the conditional Section 401 Certification has agreed to be bound and abide by the Conditions and has agreed to fully minimize and mitigate adverse environmental impacts from the project and to be at all times in compliance with Iowa's water quality standards; and

WHEREAS, one of the Conditions of the Conditional Section 401 Certification is that the Department and the Developer enter into this Agreement to bind the parties to the Conditions and to provide for the separate enforcement of the Conditions by the Department or the Environmental Protection Commission.

NOW, THEREFORE, in consideration of the mutual promises and agreements made herein, the Department and the Developer agree as follows:

SECTION 1. The Department will, immediately upon execution of this Agreement, forward to FERC a Conditional Section 401 Certification, a copy of which is attached hereto as Exhibit A.

SECTION 2. The Department will not intervene or attempt to intervene in the proceedings before FERC relating to the Project for the purpose of requesting the preparation of an environmental impact statement ("EIS") by FERC or otherwise cause or attempt to cause any person, agency or entity to request an EIS relating to the Project. If for any reason, the Developer fails at any time to fulfill its responsibilities under this Agreement, this section shall not be binding on the Department.

SECTION 3. The Developer agrees to be bound by the Conditional Section 401 Certification and the Conditions set forth therein and to observe and perform all acts, duties and obligations, required to be observed or performed by it by the Conditional Section 401 Certification, its Conditions and the terms of this Agreement. This Agreement is a separate and independent contract among the Developer and the Department to ensure compliance with Iowa's water quality standards and the Conditions. The Developer's agreements herein are unconditional and shall not be altered or diminished by FERC with respect hereto. Provided, however, that in no event shall this Agreement be construed to require Developer to violate federal laws or regulations.

SECTION 4. Decisions and orders of the Director of the Department concerning all the requirements of the Conditional Section 401 Certification including but not limited to all conditions and requirements for minimizing of impacts and for any mitigation of impacts shall be final unless appealed pursuant to procedures contained in Chapter 17A, Iowa Code, and chapter 900-7, Iowa Administrative Code. All decisions and orders of the Department shall be effective immediately unless a stay would be requested and granted.

Section 5. The Developer agrees to pay all charges, fees and taxes necessary to the due and lawful performance of its obligations under this Agreement and the costs of all studies, consultants, reports, plans and minimizing and mitigation efforts required by the Conditional Section 401 Certification and compliance with its terms. Nothing herein shall require the Developer to reimburse the Department for charges, fees, taxes, costs, or attorneys' fees attributable to performance or enforcement of this Agreement by the agencies.

Section 6. The parties agree to coordinate activities and requirements of this Agreement with FERC, the U.S. Fish and Wildlife Service, the U.S. Environmental Protection Agency and the U.S. Army Corps of Engineers (the"Federal Agencies"). Even though the duties imposed by this Agreement and the Conditions upon the Developer may be greater than those imposed upon the Developer by any of the Federal Agencies including FERC, the Developer agrees to comply with the requirements of this Agreement and the Conditions. The Developer agrees not to seek provisions in its FERC license or its Agreement with the U.S. Army Corps of Engineers which are inconsistent with the provisions of this Agreement. In the event that this Agreement

or the Conditions attached might be construed to authorize the Department to impose requirements on the Developer that are inconsistent with the Conditions in the Developer's FERC license or its Agreement with the U.S. Army Corps of Engineers, the Department agrees to attempt to resolve such inconsistencies, however, in no event shall Iowa's Water Quality Standards be violated.

Section 7. The Developer agrees to develop and construct recreational facilities adjacent to the outlet area of the hydropower facility in accordance with the plans to be submitted to and approved by the Department. The plans shall include but not be limited to:

a. provide a 130 car parking lot;
b. construct an access walkway to the riprap areas of the outlet (tailrace);
c. construct a public rest room that will accommodate the handicapped;
d. provide five (5) picnic tables and park benches each in the outlet area;
e. the licensee will riprap the outlet (tailrace) for a distance of 300 feet on the east bank and 450 feet on the west bank and;
f. developer is of the opinion that the new discharge channel will not affect the fishing pier at the Cottonwood Recreation Area or other downstream recreational facilities. If impacts do occur to these recreational facilities, the Developer will be responsible to mitigate these impacts and mitigation must be approved by the Section 401 Coordinator of the Department.

Section 8. The Developer agrees that the hydropower facility will operate in accordance with the Army Corps of Engineers operating plan and will mitigate fish stocked by the Iowa Fish and Wildlife Division at current costs as follows:

> 13 percent of the walleye, hybrid stripped bass and northern pike fry and 7 percent for largemouth bass fingerlings stocked at the Saylorville Reservoir.

Annual costs in recent years would not have exceeded $1075. Future costs would vary according to the fish species stocked and the number stocked. Escalated costs above this value would be the result of increased production costs and for an increase in the number of fish stocked.

Section 9. The Department shall have the right of entry to the Project at any reasonable time with reasonable notice for the purpose of monitoring compliance with this Agreement.

Section 10. Unless terminated or cancelled by mutual agreement of the parties, this Agreement shall be in effect from the date hereof and for so long as the Project (as originally constructed or modified) is in physical existence, and shall be binding on the parties hereto, their successors-in-interest and assigns.

or modified) is in physical existence, and shall be binding on the parties hereto, their successors-in-interest and assigns. Provided, however, that the Developer may convey the Project and be released from this Agreement if the successor is acceptable to the Department and the sucessor agrees to assume all the obligations of this agreement. If Developer cancels, terminates or abandons the Project for any reason before beginning construction, the Developer's obligation to conduct the studies required as a condition of the Conditional Section 401 Certification is terminated upon reasonable notice to the Department, and the Developer's only obligation pursuant to this Agreement and the Conditions shall be to provide the Department with all study results obtained prior to termination. If the Developer cancels, terminates or abandons the Project after beginning construction for any reason, the Developer agrees subject to Section 4 to take all actions determined by the Department to be necessary to ensure that no negative environmental impact will occur as a result of such cancellation, termination or abandonment.

Section 11. The Developer shall indemnify, hold harmless and protect the Department and the State of Iowa, their representatives, officers, employees, successors and assigns, from all suits, actions or claims of any character brought because of any injuries or damage received or sustained by any person or property, personal or otherwise, on account of any negligent act, omission or misconduct of the Developer, its representatives, officers, employees or agents in connection with the construction, operation and maintenance of the Project, and compliance with the terms of this Agreement, any law, regulation, injunction, ordinance, order or decree.

Section 12. It is understood that in no circumstances whatsoever shall the Department or the State of Iowa be liable to the Developer or any other party for damages, including but not limited to lost profits or for any costs incurred except as may be allowed by law for Breach of this Agreement.

Section 13. All General partners comprising the Developer shall be jointly and severally liable for all obligations of the Developer under this Agreement.

Section 14. All notices or other communications hereunder shall be in writing and shall be deemed if delivered in person or by first-class mail addressed as follows:

If to the Department: Iowa Department of Natural Resources
Wallace State Office Building
Des Moines, Iowa 50319
Attention: Darrell McAllister

If to the Developer: Charles N. Lucas or Ingolf Hermann
c/o Independent Hydro Developers
2000 Plymouth Road, Suite 380
Minnetonka, Minnesota 55343
Phone: 612/546-5110

Section 15. This Agreement shall be governed by the laws of the State of Iowa in all respects. Nothing herein precludes the application of any future laws to the Project and this Agreement. The Developer agrees to maintain a registered agent in the State of Iowa upon whom service of process may be served in any action or proceeding arising from matters relating to this Agreement.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by their duly authorized officers as of the date and year indicated.

IOWA DEPARTMENT OF NATURAL RESOURCES

By: _____ Date: _____
Larry J. Wilson, Director

SAYLORVILLE HYDRO PARTNERS, A Minnesota Limited Partnership

By: _____ Date: _____

VWK:rag

EXHIBIT A

STATE OF IOWA

TERRY E. BRANSTAD, GOVERNOR

DEPARTMENT OF NATURAL RESOURCES
LARRY J. WILSON, DIRECTOR

July 16, 1987

Mr. Charles N. Lucas
Independent Hydro Developers
Ridgehill Professional Building
Suite 380
2000 Plymouth Road
Minnetonka, Minnesota 55345

RE: Request for State Section 401 Certification
FERC Project No. 7693
Saylorville Hydro Partners--Saylorville Dam, Iowa

Dear Mr. Lucas:

A request for State Section 401 water quality certification for the above referenced project was received. Since the time of your request, a considerable amount of correspondence and discussion has occurred, most notably: your draft entitled "Response to Issues Related to Section 401 Certification" dated February, 1986; our response to this draft, dated April 28, 1986; and your response to our response, dated June 3, 1986. Effective July 1, 1986, the Iowa Conservation Commission and the Iowa Department of Water, Air and Waste Management have become a part of the Iowa Department of Natural Resources due to state government reorganization. Due to this reorganization and other circumstances, I regret the delay in responding to you. Many water quality issues within the FERC application for the project remain unresolved. To ensure that an adequate environmental assessment is performed by the applicant prior to any construction, the only type of Section 401 certification that will be issued by this Department is conditional and requires the applicant meet the conditions contained below for the Section 401 certification to be valid.

Section 401 Water Quality Certification is hereby granted for the above-referenced project subject to Conditions 1-11 contained below. The state requests that these conditions be incorporated into articles of the FERC license. At the very minimum, the state insists that nothing inconsistent with these conditions be incorporated into the articles of the FERC license.

Conditions

1. The applicant must obtain all necessary wastewater construction permits for wastewater facilities required in conjunction with the hydroelectric project.

2. The applicant must assess environmental impacts resulting from the discharge of the existing Corps of Engineer's sewage lagoon (adjacent to the proposed parking facilities) discharge. Impacts on water quality and water quality uses, e.g. recreation, protection of aquatic life, etc., resulting from discharge must be evaluated by the applicant under the worst case situation of the maximum permitted flow of 25,000 gallons/day during peak summertime usage. Since the impacts of the discharge should have been addressed in the environmental assessment of the application and was not, the applicant must provide to this department for review and approval the above requested information as well as any proposals from the applicant to monitor, minimize or mitigate water quality or aesthetic impacts from the discharge.

3. The applicant is responsible to ensure that the proposed project does not modify water quality, in the area between the existing outlet to the confluence with the proposed hydropower discharge channel, so as to adversely impact the fish in that reach. During periods of minimum releases through the existing outlet, the reduced discharge may result in higher water temperatures, decreased dissolved oxygen levels, and/or restrictions to fish movement. If impacts to fish are observed or reported in this area, the applicant must either: increase discharge flows through the existing channel; increase the water depth in this area; or, submit to this department for approval an alternative to alleviate fishery impacts.

   The applicant must also provide to this department the name and telephone number of an immediate contact person to be reached in case such circumstances arise.

4. The applicant must install automated monitoring equipment for determining the dissolved oxygen (D.O.) concentration in the immediate tailwater area of the power house. D.O. monitoring must also be conducted in the existing outlet discharge when flows less than 200 cfs are being discharged through that outlet. The sites for D.O. monitoring are subject to departmental approval. Instantaneous dissolved oxygen concentrations must be provided to this department upon request. Monitoring equipment must be calibrated on a routine schedule and regularly checked for accuracy against an alternative D.O. detection method acceptable to this department.

   D.O. monitoring reports are to be submitted to the department's Section 401 coordinator. The frequency of report submission and the format of the contents are subject to departmental approval.

   The applicant must also prepare a mitigation plan for departmental approval, to be implemented if dissolved oxygen levels at the existing discharge or hydroplants discharge fall below 5.0 mg/l. This plan of action must include the name and telephone number of the applicant's contact in order for the department to acquire instantaneous readings, discuss reports and other water quality issues, etc.

5. At no time will the dissolved oxygen levels in the water at the existing outlet discharge or the hydroplant's discharge be allowed to fall below 5.0 mg/l. In addition, the dissolved oxygen levels in both the existing discharge channel and the hydroplant's discharge channel shall meet state water quality standards. Measurement of dissolved oxygen levels at the hydroplant's discharge shall reflect the mixing of the turbine discharge and bypass valve discharge.

6. The applicant must coordinate the dewatering behind the cofferdam with the Department's district fisheries biologist (presently Tom Putnam). It will be the applicant's responsibility to remove stranded fish in a manner approved by the fisheries biologist.

   Use of dirt fill with cofferdam construction must be coordinated and approved by the department.

7. The applicant states that the new discharge channel will not affect the fishing pier (at Cottonwood) or other downstream recreational facilities. If unforeseen impacts occur to these recreational facilities (caused by the discharge), the applicant will be responsible to mitigate for these impacts. Mitigation must be approved by the Section 401 Coordinator of the Department.

8. Turbidity and suspended solids are to be monitored at the Corps of Engineers station one mile downstream of the project. The frequency of sampling, monitoring location, analytical methods, reporting, etc., must be approved by the Department prior to sampling. A report comparing pre-project and post-project conditions must be prepared by the applicant six months after use of the discharge channel (and at times thereafter to be specified by the Section 401 Coordinator) and submitted to the Section 401 Coordinator for review. If the findings indicate an increase in solids or turbidity, the report must include measures to be taken by the applicant to reduce suspended solids and turbidity. These measures must be approved by the Section 401 Coordinator of this Department.

9. The study plan contained in the application is insufficient to meet the objective for assessing impacts to aquatic life. The applicant must conduct studies to provide sufficient site-specific information to assess and describe the impacts upon fisheries from hydropower development. In order to make this assessment, both pre- and post-construction/operation studies are required. The pre- and post-studies are to be designed: to establish a good understanding of the reservoir and tailwater fisheries and fish movement out of the reservoir; to effectively evaluate changes which have occurred; and to determine the cause of the changes.

   <u>Study Plan</u>

   A detailed study plan to assess impacts to aquatic life must be submitted by the applicant to DNR's Section 401 coordinator for review and approval. The study plan must, at the minimum, address the following:

1. seasonality and intensity of fish movement from Saylorville Reservoir through each outlet;
2. movement related to size of fish;
3. pathway taken during movement (existing outlet, hydropower facility);
4. creel survey (at 90 percent reliability); and
5. assessment of the Saylorville Reservoir fisheries, the existing tailwater fisheries, and the hydropower tailwater fisheries.

The applicant will bear the financial cost of conducting the DNR approved study plan and will be responsible for hiring a consultant to develop and propose the detailed study plan.

Pre-Construction/Pre-Operation Studies

The pre-construction studies are to be conducted by the applicant for a minimum of two years. Pre-operation studies, in lieu of pre-construction studies, will be allowed provided that construction activities do not affect the study(s). Approval for construction must be obtained from DNR's Section 401 coordinator. The decision for requiring additional (continued) baseline studies will be decided by DNR and will be based on the following factors: the quality of the data collected, the variability between the two years of data, and the influence of atypical events and conditions during the period of data collection such as extremes in weather patterns, river flow, reservoir levels, etc.

Post-Operation Studies

A study to evaluate the effects of hydropower operation will commence immediately following operational start-up. A minimum of three years of post operational studies will be required. The decision for additional monitoring requirements will be made by DNR and be based on the same criteria as the pre-construction/operation studies.

Reporting

Annual reports on the required study shall be prepared by the applicant. The annual reports must include: a description of the studies that were conducted; results; discussion of the results; conclusions; results from other past or on-going studies that would provide additional information to support the impact assessment; recommendations to improve the quality of information collected in future studies; and, recommendations to minimize anticipated impacts and fully mitigate all remaining impacts.

The annual reports must be submitted to the DNR for review and be approved by the DNR. Based upon the findings contained in the approved annual reports, the DNR may recommend modifications to the plan of study or work to be conducted in subsequent required studies. These modifications will be submitted to the applicant for implementation.

Mitigation

Environmental impacts to fisheries from hydropower operation must be minimized and fully mitigated by the applicant. The licensee must submit a "minimization and full mitigation of impacts" plan to the DNR for review and comment. The DNR will submit to the applicant for implementation requirements to minimize and fully mitigate all impacts. If impacts cannot be reduced to an acceptable level of no violations of water quality standards, a full mitigation plan will be developed by the DNR and submitted to the applicant. The applicant shall be responsible for the implementation of the full mitigation plan approved by the DNR.

10. Water level fluctuations. The hydropower facility must operate in a run-of-river mode. No storage of river flow for peaking power production will be permitted. Water level fluctuations must be minimized from run-of-river power production.

11. The applicant (FERC licensee) shall execute a separate agreement and covenant with the Iowa Department of Natural Resources (DNR) to bind the licensee to these conditions and which will allow for separate (from FERC license process) enforcement of these conditions by DNR. In exchange for the state's issuance of this conditional Section 401 Certification, the licensee will agree to abide by the conditions imposed in this Certification and to submit itself to the jurisdiction of Iowa District Courts for enforcement of this agreement.

Sincerely,

DARRELL McALLISTER, BUREAU CHIEF
SURFACE AND GROUNDWATER PROTECTION

DM:MW:rlt:L004

cc: Kenneth Plumb, FERC
M. Bronowski, EPA
J. Millar, USFWS
Kent Johnson, University of Iowa
Douglas Spaulding, Warzyn Engineering Inc.

ENVIRONMENTAL PROTECTION COMMISSION

ITEM 12 DECISION

A notice of intended action is attached for proposed rules for siting low-level radioactive waste disposal facilities. The procedure for identifying suitable sites for storage or treatment of low level radioactive wastes is described in the proposed chapter 142 rule and the "Low-Level Radioactive Waste Disposal Facilities Siting Criteria and Methodology". These documents are attached.

Allan Stokes

ENVIRONMENTAL PROTECTION COMMISSION [567]
Notice of Intended Action

Pursuant to Iowa Code section 455B.485, the Environmental Protection Commission proposes to adopt a new 567--Chapter 152, "Criteria for Siting Low-Level Radioactive Waste Disposal Facilities," Iowa Administrative Code.

In accordance with Iowa Code section 455B.485 paragraph 2, the Commission shall adopt rules establishing criteria for identification of sites which are suitable for the operation of low-level radioactive waste disposal facilities. In accordance with this authority, the Commission proposes to adopt rules which are similar to the existing rules in 567--Chapter 151, "Criteria for Siting Hazardous Waste Management Facilities." These rules provide exclusionary and quantitative criteria for site selection and the method to be used by the waste management authority for applying these criteria. These criteria are to be applied to facilities which are owned or operated by the state of Iowa and privately owned by the state of Iowa which are used for low-level radioactive waste disposal pursuant to 455B.485.

These amendments may impact small business.

Any interested person may file written comments on the proposed rules through October 15, 1987. Persons are also invited to attend public hearings on October 1, 1987 at 1:00 p.m. in the Trowbridge Hall Conference Room, Room 115B, Geological Survey Bureau, 123 North Capitol Street, Iowa City, Iowa; on October 2, 1987 at 1:00 p.m. in the fifth floor conference room, Wallace State Office Building, 900 East Grand Avenue, Des Moines, Iowa; and on October 6, 1987 at 11:00 a.m. in Room 006, Continuing Education Building, Iowa Western Community College, 2700 College Road, Council Bluffs, Iowa.

Chapter 152
CRITERIA FOR SITING LOW-LEVEL RADIOACTIVE
WASTE DISPOSAL FACILITIES

567--152.1(455B) Authority, purpose and scope.

152.1(1) Authority. This chapter is authorized in the 1986 Iowa Code section 455B.485 paragraph 2, which relates to the siting of low-level radioactive waste disposal facilities.

152.1(2) Purpose. These regulations establish criteria for identifying sites which are suitable for operation of low-level radioactive waste disposal facilities. The waste management authority will apply these criteria to identify and recommend to the commission sites suitable for locating these facilities.

152.1(3) Scope. These regulations apply only to facilities which are owned or operated by the state of Iowa and privately owned or operated facilities which are located upon land owned by the state of Iowa which are used for low-level radioactive waste disposal pursuant to Iowa Code section 455B.485 paragraph 2.

567--152.2(455B) Definitions. In addition to the definitions in Iowa Code section 455B.481, the following definitions apply to this chapter:

"Aquifers" means water-bearing geological formations, group of formations, or part of a formation that is capable of yielding significant amounts of groundwater for beneficial use.

"Conservation area" means any park, recreation area, wildlife area, forest, prairie, preserve, natural area, scenic area owned, managed, or under control of any government agency or organized conservation group on or before the date of enactment of these rules.

"Criterion" means a test, rule, measure, or model by which judgment will be made.

"Critical wildlife habitat" means any areas known to be inhabited on a seasonal or permanent basis by, or to be critical at any stage of the life cycle of any wildlife or vegetation identified as "rare," "threatened," or "endangered" by official federal or state lists of species, or is under active consideration for listing.

"Cultural area" means any known property of recognized archaeological, architectural, cultural or historical significance as listed in or eligible for the National Register of Historic Places, the significant State Site records of the Office of Historic Preservation, the Office of the State Archaeologist, or is under active consideration for listing. Archaeological property shall include, but is not limited to, ancient mortuary sites.

"Dam hazard area" means any area identified as areas of dynamic flooding below a dam (the inundation zone) or areas of static flooding above a dam (flood pool). The inundation zone includes the area that would be flooded by a flood wave generated by dam failure during a one hundred (100)-year flood. The static flooding zone is equal to the pool level reached during a one hundred (100)-year inflow flood, or the top of the dam, whichever is greater.

"Drinking water source" means the groundwater or surface water intake of drinking water used for human consumption.

"Facility" means any hazardous waste management facility including land and structures, appurtenances, improvement and equipment for handling, treatment, storage or disposal of hazardous wastes.

"Floodplain" means the land adjacent to a stream which has been or may be inundated by a flood having the magnitude of the regional one hundred (100)-year flood.

"Geological hazard structures" means any faults, fracture zones, or other structures that may provide pathways to groundwater.

"Karst areas" means a type of topography or surface area covered by alluvial or colluvial sediments that may form over limestone, dolomite, or gypsum formations by dissolving or solutions, and that are characterized by closed depressions or sinkholes, caves, and underground drainage.

"Mineral and energy resources" means minerals, construction materials, metals, coal, gas, and oil.

"Mining activity" means any area of past or present underground or surface mining, mineral extraction, or major exploration or production drilling for oil, gas, or mineral resources, and any area likely to be influenced by mining activity through subsidence or surface deformation.

"Nonattainment area" means any area not attaining the National Ambient Air Quality Standards as defined in Part D of the Clean Air Act.

"Population area" means any commercial, school, church, social, medical facility, elderly housing, correctional facility, mobile home park, or incorporated residential area.

"Prevention of significant deterioration" is defined in Part C of the Clean Air Act.

"Prime farmland" means any area identified as such by the United States Department of Agriculture, Soil Conservation Service.

"Protected basins" means any portion of the drainage basin of protected water areas within two (2) miles of the water area. Protected water areas are those classified as such pursuant to Iowa Code chapter 108A, or high-quality waters, high-quality resource waters or Class "C" waters designated in Chapter 61 of the department's rules.

"Proximity to major generators" means within fifty (50) miles of the central point of generation based on the latest available RCRA biennial report on hazardous waste generation in Iowa.

"Seismic risk" means the relative geologic stability of the site based on the likelihood of structural damage due to seismic events. Seismic risk categories, as developed by the National Oceanographic and Atmospheric Administration, will be used to rate relative stability.

"Site" means the land area upon which a facility is, or is proposed to be, physically located, including but not limited to adjacent land use for utility systems such as repair, storage, processing, or other areas incident to the facility or operation.

"Siting authority" means the party with the specific authority to select sites for facilities.

"Transportation routes" means any public all-weather hard-surfaced road with adequate capacity to carry the type and volume of commercial vehicular traffic serving the facility for the entire year with no embargoes, special permits or other restrictions on roads, overpasses or bridges that would prevent transportation to the facility.

"Utilities and services" means electricity, gas, water and sewer utilities, and police, fire protection, and emergency medical services.

"Wetlands" means any area inundated by surface or groundwater with a frequency sufficient to support, under normal circumstances, a prevalence of vegetation or wildlife requiring saturated or seasonally saturated soil conditions for growth or reproduction. These areas include swamps, marshes, bogs, sloughs, wet meadows, mudflats, sandflats, ponds, lakes, and similar areas.

567--152.3(455B) Siting criteria. The siting authority shall use the following criteria in selecting sites for facilities.

151.3(1) Exclusionary criteria. No facility shall be sited within:

a. An area of seismic risk category of four (4) or greater;

b. A one hundred (100)-year floodplain;

c. A dam hazard area;

d. An area with less than one hundred (100) feet of aquitard between the base of operation and the subjacent aquifer;

e. One (1) mile of a geologic hazard structure;

f. One (1) mile of a karst area;

g. One (1) mile of an area of past or present surface or underground mining activity;

h. One (1) mile of wetland;

i. Any protected basin; or

j. Ten (10) miles of any nuclear power plant.

152.3(2) Quantitative criteria. The quantitative criteria and corresponding values which are to be applied are in Table 1 as follows:

Table 1

	Value Assigned		
	5 points	2 points	Excluded
Mineral and Energy Resources	No significance present within one mile	Significant presence with perpetual ban on recovery	---

Drinking Water Sources	No sources within one mile	Source permanently closed and alternative water source provided	---
Critical Wildlife Habitats	No habitat within one mile	Permanent buffer and no interference	Interference
Conservation Areas	No area within one mile	Permanent buffer and no interference	Interference
Cultural Areas	No area within one mile	Permanent buffer and no interference	Interference
Population Areas	No area within one mile	Permanent buffer and no interference	Interference
Prime Farmland	Less than 25% prime farmland	More than 25% prime farmland	---
Nonattainment With NAAQS	No significant impact predicted	Little significant impact predicted	---
Prevention of Significant Deterioration	Good data available and sufficient increments	Little data available but increment available	---
Transportation Routes	Within 5 miles of major highway, 10 miles of a rail line, and 50 miles interstate highway	Beyond 5 miles from major highway, 10 miles of a rail line, or 50 miles from interstate highway	---
Proximity to Major Generators	Within 50 miles major generators	Beyond 50 miles from generators	---
Utilities and Services	Accessible services available	Sites needing services extended	---

152.3(3) Methodology. The methodology to be used by the siting authority in applying these criteria is contained in the report "Low-Level Radioactive Waste Disposal Facility Siting Criteria and Methodology" which is adopted by reference. The criteria listed in this rule shall be applied in three steps as follows:

a. Step 1. The exclusionary criteria shall be applied to the entire state. Step 2 shall be applied to those areas remaining.

b. Step 2. The quantitative criteria shall be applied to the nonexcluded areas identified in step 1. The values in table 1 shall be applied and the potential sites ranked in order of priority.

c. Step 3. The top rated potential sites shall be subject to detailed evaluation. The best site for the facility shall be selected.

(EP152.MIN)

LOW-LEVEL RADIOACTIVE WASTE DISPOSAL

SITING CRITERIA

AND METHODOLOGY

August, 1987

Iowa Department of Natural Resources

MLP:rlz/AUS-I212J01

TABLE OF CONTENTS

	Page
Summary	i
Chapter A - Introduction	A-1
Chapter B - Overview of Methodology	B-1
1. Three Stage Exclusionary Approach	B-1
2. Level of Information Needs	B-1
3. Interdisciplinary Approach	B-2
4. Public Participation	B-2
Chapter C - Siting Criteria	C-1
1. Seismic Risk	C-3
2. Geologic Hazard Structures	C-3
3. Karst Areas	C-3
4. Mining Activity	C-3
5. Flood Plains	C-4
6. Dam Hazard Areas	C-4
7. Wetlands	C-5
8. Protected Basins	C-5
9. Aquifers	C-5
10. Nuclear Power Plants	C-6
11. Mineral and Energy Resources	C-6
12. Drinking Water Sources	C-6
13. Critical Wildlife Habitats	C-7
14. Conservation Areas	C-7
15. Cultural Areas	C-7
16. Population Areas	C-8
17. Prime Farmland	C-8
18. Nonattainment Areas	C-9
19. Prevention of Significant Deterioration	C-9
20. Transportation Routes	C-9
21. Proximity to Major Generators	C-10
22. Utilities and Services	C-10
Chapter D - Siting Procedure	D-1
1. Stage I -- Exclusionary Criteria	D-1
a. Approach and Methodology	D-1
b. Exclusionary Criteria	D-3
c. Demonstration of Stage I Screening	D-3
2. Stage II -- Quantitative Criteria	D-3
a. Approach and Methodology	D-4
b. Quantitative Criteria	D-4
3. Stage III -- Final Site and Engineering Analysis	D-5
a. Final Site Analysis	D-5
b. Engineering Analysis	D-5
c. Demonstration of Stage III Screening	D-5
4. Final Site Selection	D-6

SUMMARY

Senate File 396, adopted by the Legislature in 1987, directs the Department to "adopt rules establishing criteria for the identification of sites which are suitable for the operation of low-level radioactive waste disposal facilities." The Act also notes the obligation of the state government to provide for the proper and safe management of low-level radioactive wastes produced within its borders, pursuant to the federal Low-Level Waste Management Policy Act of 1980. The criteria for siting such a facility are included in this report.

Chapter A explains why a low-level radioactive waste management facility and siting criteria are needed.

In Chapter B, the methodology to be used in the siting process is discussed.

The siting criteria for a management facility are discussed in Chapter C.

Using these criteria to screen the state for acceptable sites is explained in Chapter D.

A. INTRODUCTION

In June of 1987, the Iowa Legislature created a waste management authority within the Department of Natural Resources. Management of low-level radioactive wastes was one of the authority's duties. The state government was previously required to provide proper and safe management of low-level radioactive wastes by the federal Low-Level Waste Management Policy Act of 1980. It was also the purpose of the legislature that to the extent possible, the use of environmentally sound waste management practices be used which are alternatives to land disposal.

The state was authorized to acquire property, construct, own, and operate facilities within the state to be used for the proper and safe management of low-level wastes generated in the state. Any facilities acquired, owned or operated by the State of Iowa may be used for regional or multi-state management of these wastes.

The Legislature instructed that the waste management authority establish a plan to address the following items:

1) Determine the need and adequate regulatory controls prior to the initial site selection.
2) The process for selecting a superior site determined to be necessary.
3) Establish a process for a site community to submit or present data, views, or arguments regarding the selection of the operator and the technology that best ensures proper facility operation.
4) The prohibition of shallow land burial of low-level radioactive wastes.
5) The establishment of a regulatory framework for a facility.
6) The establishment of provisions for the safe and orderly development, operation, closure, post-closure, and long-term monitoring and maintenance of the facility.

The waste management authority was also required to adopt rules establishing criteria for the identification of sites which are suitable for the operation of low-level radioactive waste disposal facilities. The authority shall then apply these criteria to identify and recommend to the commission sites suitable for locating disposal facilities.

The criteria that is being used is very similarly to the criteria for siting the hazardous waste management facility. This seems appropriate because safeguards are necessary to properly manage both types of wastes. However, having separate criteria will allow specific conditions to be applied that may be appropriate for only one on the wastes. In the future, the criteria may be modified to address these waste specific criteria.

B. OVERVIEW OF METHODOLOGY

The Department will develop design and operation standards for the storage facility and any other management methods proposed. These standards will mandate emission limits, operating procedures and design standards to provide additional safeguards for protecting public health and the environment. Design and operation standards will be addressed in reports to be prepared later.

The subject of this report will be the siting criteria. These criteria are designed to assure that the facility be located at a site which will (in order of priority):

a. protect public health
b. protect the environment
c. comply with regulations
d. comply with permitting and licensing requirements
e. reduce costs to the state
f. avoid engineering and socioeconomic problems that would prevent the facility from being built

1. Three Stage Exclusionary Approach

In order to consider the entire state and efficiently use existing resources, the Department recommends that the site selection process be carried out in three stages.

In Stage I the entire state would be examined by such broad criteria as geological factors. These criteria are exclusionary: when one or more of the factors are found, the area would be excluded from further consideration. Stage I exclusionary screening would use readily available data to eliminate large areas of the state from further consideration.

Stage II would involve looking at smaller areas remaining after Stage I screening. Readily available data would be applied in closer examination of smaller areas. Stage II criteria are quantifiable; they can be used to assign values to specific sites. By ranking sites according to value, the best sites can be selected.

Stage III would involve looking very closely at a few small sites that have not been excluded by the first two levels of screening. Detailed on-site studies would be applied. Factors that could prevent the facility from being built would be examined. As a result, the best site for a hazardous waste management facility would be selected.

These screening steps are discussed in more detail in Chapter D.

2. Level of Information Needs

This siting criteria proposal is designed in three separate stages. Stage I and II screening would require general and readily available information. Detailed, site-specific information would be needed for Stage III screening.

The following level of information is proposed for each stage:

Stage I -- Exclusionary Criteria. Statewide knowledge of Iowa's geology, mining activities and water resources would be needed. This information is generally available from the Department of Natural Resources (DNR).

Stage II -- Quantitative Criteria. Regional knowledge of Iowa's geology, natural resources, environmental resources, and socioeconomics would be needed. This information is generally available from the DNR, the Department of Cultural Affairs, and the Office of the State Archaeologist.

Stage III - Final Site Analysis. This stage would require site-specific information for a small number of sites. This information could be collected by examining the sites, using existing data, and working with the agencies identified in Stage II.

3. Interdisciplinary Approach

The proposed siting process would be conducted by an interdisciplinary group of scientists and engineers. This group would be made up of individuals with experience and specific knowledge in hydrology, geology, biology, natural resources, history, archaeology, air and water resources, and other relevant disciplines.

The proposed criteria and methodology could be used to recommend sites to the commission. The siting team could be assembled from staff of this Department, from other state agencies, or from private consulting firms.

4. Public Participation

Participation by the public would be essential to the successful siting of a facility. The Department has and will continue to encourage public participation and comment and keep the public informed on low-level radioactive waste activities.

During the implementation stage, the public would be informed of the process through news releases and other public information programs. When the final candidate sites, chosen through the three stage screening process described before, are announced public meetings would be held in those communities.

For each candidate site a temporary commission, the Department's Commission and up to four citizens of the local community would meet. This temporary commission would act on site licensing procedures found in Chapter 567--150 (455B), IAC. All meetings would be open to the public, whose attendance and participation would be encouraged.

C. HAZARDOUS WASTE SITING CRITERIA

The Department proposes the following criteria to eliminate sensitive areas and to locate the safest areas for siting a hazardous waste management facility. These criteria, summarized in Table 1, are discussed in greater detail in the text. The criteria are listed in no particular order of priority.

TABLE 1. LOW-LEVEL RADIOACTIVE WASTE DISPOSAL

Criterion	Favorable	Potentially Favorable	Unfavorable
1. Seismic Risk	NOAA Risk Category 1	NOAA Risk Categories 2 or 3	NOAA Risk Category 4
2. Geologic Hazard Structures	Not present within one mile	---	Within one mile
3. Karst Areas	Not present within one mile	---	Within one mile
4. Mining Activity	Not present within one mile	---	Within one mile
5. Flood Plains	Not in a 100-year flood plain	---	In a 100-year flood plain
6. Dam Hazard Areas	Not in a dam hazard area	---	In a dam hazard area
7. Wetlands	Not within one mile	---	Within one mile
8. Protected Basins	Not within two miles of the water area	---	Within two miles of the water area
9. Aquifers for Radius of One Mile	At least 100 feet of aquitard between base of operation and subjacent aquifer	---	Less than 100 feet of aquitard between base of operation and subjacent aquifer
10. Nuclear Power Plant	Not within ten miles	---	Within ten miles
11. Mineral and Energy Resources	No significant presence within one mile	Significant presence with perpetual ban on recovery	---

TABLE 1. LOW-LEVEL RADIOACTIVE WASTE DISPOSAL
- Continued -

Criterion	Favorable	Potentially Favorable	Unfavorable
12. Drinking Water Sources	No sources within one mile	Source permanently closed and alternative water source provided	---
13. Critical Wildlife Habitats	No habitat within one mile	Permanent buffer and no interference	Interference
14. Conservation Areas	No area within one mile	Permanent buffer and no interference	Interference
15. Cultural Areas	No area within one mile	Permanent buffer and no interference	Interference
16. Population Areas	No area within one mile	Permanent buffer and no interference	Interference
17. Prime Farmland	Less than 25% prime farmland	More than 25% prime farmland	---
18. Nonattainment with NAAQS	No significant impact predicted	Little significant impact predicted	---
19. Prevention of Significant Deterioration	Good data available and sufficient increments available	Little data available but increment available	---
20. Transportation Routes	Within five miles of major highway, ten miles of rail service and 50 miles of interstate highway	Beyond five miles from major highway, ten miles of rail service and 50 miles of interstate highway	---
21. Proximity to Major Generators	Within 50 miles of major generators	Beyond 50 miles from generators	---
22. Utilities and Services	Access to services available	Sites needing services extended	---

1. Seismic Risk

This criterion is related to the seismic stability of a given site. The natural processes affecting such stability should not occur at a frequency or extent that can alter the geological integrity of a site or its ability to isolate contaminants from the groundwater.

Seismic risk is an accepted measure of the likelihood of structural damage resulting from seismic events for specific areas. Seismic risk categories, as developed by the National Oceanographic and Atmospheric Administration (NOAA), include 0 (no risk) to 4 (severe risk). For the purposes of this criterion, a site in risk category 1 would be considered favorable, a site in categories 2 and 3 potentially favorable, and a site in category 4 unfavorable. Areas within 1 mile of category 4 risk factor will be excluded from further consideration.

The information necessary to evaluate sites for this criterion is available from the Iowa Department of Natural Resources (DNR).

2. Geologic Hazard Structures

This criterion is designed to prevent ground water contamination through geologic structures that might serve as avenues of transport. For the purposes of this criterion, "geologic structures" include faults, fracture zones, and other features that provide pathways to or through ground water aquifers.

The protection of ground water is related to the protection of public health. For this reason, no site shall be established within 1 mile of a geologic structure. The 1 mile separation distance was selected as the distance necessary to sufficiently avoid major stressed areas around the structure.

Information about geologic hazard structures criterion is available from DNR.

3. Karst Areas

Karst areas occur where limestone has been partially dissolved to form fractures, caves and sinkholes. These breaks in the bedrock provide potential pathways for ground water contamination.

To protect ground water and thereby protect public health, the Department proposes that no facility be sited within 1 mile of a sinkhole area or within a known or potential karst region with less than 100 feet of overburden material.

Information about Karst areas is available from DNR.

4. Mining Activity

This criterion is designated to prevent ground water contamination in areas of past underground or surface mining, major exploration/production drilling or mineral recovery. Areas where materials have been removed or exploration conducted may present avenues through which

contaminants could be transported from surface to ground water. Contaminants could enter ground water through boreholes, wells, tunnels or areas of structural instability due to mining.

To prevent potential contamination of ground water and therefore protect public health, a site shall not be located within 1 miles of areas of past under ground or surface mining, major exploration/production drilling or mineral recovery.

Information about mining activity is available from DNR.

5. Flood Plains

This criterion pertains to the potential for contamination by means of flooding. It is designed to prohibit siting a facility in a 100-year flood plain, thereby reducing the possibility that flooding would ever occur at the site. Flooding could adversely affect the facility by:

a. interfering with site operation
b. damaging equipment and structures
c. accelerating transport of waste by leaching
d. transporting waste material off-site by flood action

In developing this criterion, some consideration was given to allowing a site in a 100-year flood plain provided that flood control structures (such as dikes, levees, etc.) were designed to protect the site. This consideration was rejected because the facility will be designed and constructed to safely store wastes for hundreds of years. Limited maintenance will be required to maintain the integrity of the site. However, major maintenance would be required for flood control structures. There is no way to guarantee that flood control structures would be properly maintained over the life of the facility. By prohibiting siting in a 100-year flood plain, protecting a facility from flooding could be guaranteed without reliance on human maintenance.

Information about flood plain locations is available from the United State Geological Survey (USGS).

6. Dam Hazard Areas

This criterion also pertains to flooding. Use of this criterion would prohibit siting a facility in a dam hazard area, thus eliminating the possibility of flooding (and resultant water contamination) due to failure of an upstream dam or water impoundment. (The adverse affects of flooding are discussed in Criterion Number 5: Flood Plains.)

As discussed in Criterion Number 5, a facility should be designed and constructed to safely contain hazardous wastes for hundreds of years. There is no way to guarantee the integrity of dams over the long term. By prohibiting siting in dam hazard areas, a facility could be protected from flooding due to dam failure.

The information about dam hazard areas is available from DNR.

7. Wetlands

This criterion is proposed to protect surface and ground water from contamination by prohibiting the siting of a facility in a wetland. For the purposes of the siting process, "wetland" is defined as any swamp, marsh, bog, slough, wet meadow, mudflat, sandflat, pond, lake and similar areas. Wetlands provide a connection between ground and surface waters, therefore contamination of wetlands can lead to contamination of these waters. To prevent adverse impacts to public health and the environment, wetlands must be protected.

The Department proposes that a separation distance of 1 mile be used as a safety factor. One mile should separate the active portion of a facility from the boundary of a wetland. The 1 mile distance should be used as a minimum separation distance for all areas of potential water contamination.

Information about wetlands is available from the DNR.

8. Protected Basins

This criterion is proposed to prevent contamination of protected water areas by prohibiting construction in their watersheds. For the purpose of this criterion, "protected water areas" are those classified as:

a. protected water areas, as designated under the authority of 108A, Code of Iowa

b. Class B, Cold Water (trout streams) as designated in 567--Chapter 61 (455B), Iowa Administrative Code

c. Class C (drinking water supply) as designated in 567--Chapter 61 (455B), Iowa Administrative Code

For the purposes of this criterion, "protected basin" is defined as any portion of a drainage basin of the forementioned protected water areas, including their tributaries, within two miles of the water area.

This criterion is designed to protect public health and the environment by preventing contamination of protected water areas.

Information about watersheds is available from DNR.

9. Aquifers

This criterion is proposed to protect public health and the environment by preventing contamination of major ground water aquifers. No site will be permitted over an aquifer with less than a 100 foot thickness of low-permeability (aquitard) soil or rock material (e.g., glacial till and claystone-shales) between the base of the facility and the subjacent aquifer. Candidate sites must have such a thickness existing for a radius of at least one mile around the location.

Because of concerns with fracture porosity and permeability in soil and rock materials, the above-mentioned thickness was chosen to provide a safety margin for ground water protection.

Information about aquifers is available from DNR.

10. Nuclear Power Plants

This criterion is proposed to minimize the potential disruption to the operation of the facility should an accident occur at a nuclear power plant.

The ten mile distance was selected based on the emergency planning zone distance established by the U.S. Nuclear Regulatory Commission.

Information about nuclear power plants is available from the Iowa Office of Disaster Services.

11. Mineral and Energy Resources

This criterion is proposed to evaluate mineral and energy resources contained in an area considered for a facility. These resources include construction material, coal, petroleum, metals and minerals. The presence of a hazardous waste management facility would forever prevent the recovery or mining of mineral or energy resources at a given site.

This criterion would be used to evaluate mineral and energy resources within 1 miles of a proposed site. The present and projected economic value of these resources and the availability of other sources would be evaluated.

If no critical mineral or energy resources were found within 1 mile of a site, the site would be given a favorable rating for this criteria.

Information about mineral and energy resources is available from DNR.

12. Drinking Water Sources

This criterion pertains to the minimum allowable distance from the boundary of the active portion of a facility to a drinking water source. A distance of 1 mile was selected for this criterion. This distance was selected to assure there would be no adverse affects on a water source from potential ground water contamination from a facility. Obviously, protecting ground water and drinking water sources from contaminants would protect public health.

If no source of drinking water were found within 1 mile of the site, the site would be rated as favorable for this criterion. If a permanent alternative water supply could be provided so a source within the 1 mile distance would no longer be used and the source could be properly sealed, the site would be given a potentially favorable rating for this criterion. A permanent alternative water supply would have to be provided to further consider such a site.

Information about drinking water sources is available from DNR.

13. Critical Wildlife Habitats

This criterion is proposed to protect habitat areas for specific rare, threatened or endangered species of plants and animals and critical habitat areas for all species. Habitat areas include those recognized by federal and state conservation agencies.

The purpose of this criterion is to protect habitat areas and avoid potential problems with getting necessary permits to operate a facility. Any site that is in, or interferes with, a habitat area would be rated as unacceptable and be excluded from further consideration.

A site that is not within 1 mile of a habitat area would be rated as favorable. A site within 1 mile of a habitat area that has sufficient permanent buffer area to prevent interference with the habitat area would be rated as potentially favorable.

Information on critical wildlife areas is available from DNR.

14. Conservation Areas

This criterion is proposed to protect conservation areas. For the purpose of this criterion, "conservation area" means parks, recreation areas, wildlife areas, forests, prairies, natural areas, or scenic areas managed by a government agency or an organized conservation group on or before the date of enactment of these rules. The purpose of this criterion is to protect conservation areas, allow free use by people, and avoid problems in getting the necessary permits to operate a facility.

No site shall be considered that is in, or would interfere with, a conservation area. The active portion of a facility shall not be visible from any conservation area; however, natural screening might be used to shield the facility.

A site that is not within 1 mile of a conservation area would be given a favorable rating for this criterion. A site within 1 mile of a conservation area that has a permanent buffer area of sufficient size to prevent interference with a conservation area, would be rated as potentially favorable. A site located in, or that interferes with, a conservation area, would be excluded from further consideration.

Information on conservation areas is available from DNR.

15. Cultural Areas

For the purpose of this criterion, "cultural area" means any property of recognized archaeological, architectural, cultural or historical significance. "Recognized" is defined as listed in or eligible for the National Register of Historic Places or listed on significant state site records on file at the Office of Historic Preservation or Office of the State Archaeologist. Archaeological property should include, but not be limited to, ancient mortuary sites.

No facility should be sited in, or interfere with, the use of a cultural area. The active portion of a facility should not be visible from a cultural area. However, natural or architectural screening might be used to conceal the view of the facility.

This criterion is proposed to protect cultural areas, to allow free use by people, and to avoid problems with getting the necessary permits to operate a facility.

An area not within 1 mile of a cultural area should be given a favorable rating for this criterion. An area located within 1 mile of a cultural area that has sufficient buffer to permanently shield the area should be rated as potentially favorable. An area located in, or interfering with, a cultural area should be excluded from further consideration.

Information on cultural areas is available from the Department of Cultural Affairs and the Office of the State Archaeologist.

16. <u>Population Areas</u>

For the purpose of this criterion, "populated area" means any commercial facility, school, church, medical facility, elderly housing, correctional facility, mobile home park or incorporated residential area. The purpose of this criterion is to protect people from any nuisance caused by proximity to a facility.

The active portion of a facility should not be located within 1 mile of any populated area or within one-fourth mile of any occupied residence in a non-incorporated area. However, the distance might be reduced with an appropriate buffer area.

Sites located farther than the separation distances should be given a favorable rating for this siting criterion. Sites located closer than the separation distances with a permanent buffer of sufficient size to prevent interference with normal activities, should be given a potentially favorable rating.

Information about population areas can be gathered from maps and site surveys.

17. <u>Prime Farmland</u>

A facility should not be located in prime farmland. The purpose of this criterion is to protect prime farmland from conversion to non-farm uses and to reduce the problems with getting permits to operate a facility.

Prime farmland has been identified by the USDA Soil Conservation Service (SCS) through detailed soil surveys. Areas containing less than 25% prime farmland should be rated favorably. Areas with greater than 25% prime farmland should be rated as less than favorable.

18. Nonattainment Areas

This criterion is proposed to consider the impact of potential air emissions. Air emissions from the planned facility would initially be of little significance. However, an incinerator might be installed and operated at a later date. To assure that permits for an incinerator could be obtained, the impact of an incinerator on the ambient air quality should be considered.

Areas of the country where air contamination exceed air quality standards are designated as nonattainment areas. New sources of air pollutant which locate in nonattainment areas may be subject to stringent permit requirements. The purpose of this criterion is to reduce potential problems involved in getting permits for an incinerator. Therefore, a higher priority should be given to areas where increased emissions would have little impact on air quality.

Sites located in areas where no significant impact on nonattainment areas is predicted should be given a favorable rating for this criterion. Sites located in areas where minimal significant impact on nonattainment areas is predicted should be rated potentially favorable.

Information about air quality is available from DNR.

19. Prevention of Significant Deterioration (PSD)

As stated in Criterion Number 17, the land facility would not be a source of significant amounts of air pollution. The purpose of this criterion is to assure that PSD-allowable increments would be available if an incinerator were constructed at the facility in the future, to facilitate obtaining permits for a facility should an incinerator be installed.

Therefore, sites with sufficient air quality data available and an indication that sufficient increments would be available should be given favorable ratings for this criterion. Sites with minimal air quality data but believed to have sufficient increments available should be rated as potentially favorable.

Information about air quality is available from DNR.

20. Transportation Routes

The purpose of this criterion is to assure proximity of the facility to transportation routes.

For the purposes of this criterion, a transportation route is a public all-weather hard-surfaced road with adequate capacity to carry the type and volume of commercial vehicular traffic necessary to serve the facility year around. There should be no embargoes, special permits or other restrictions on roads, overpasses or bridges that would prevent transportation to the facility.

Sites within five miles of a transportation route, ten miles of rail service, and within 50 miles of an interstate highway should receive a favorable rating for this criterion. Sites beyond the 5/10/50 mile limit should be given a potentially favorable rating, provided sufficient road construction is proposed.

Information about transportation routes is available from the Iowa Department of Transportation (DOT).

21. Proximity to Major Generators

This criterion is proposed to favor sites located near major generators of low-level radioactive wastes in Iowa.

The purpose of this criterion is to reduce the distance wastes must be transported in order to reduce costs and the chance of accidental spills. A distance of 50 miles or less should be considered favorable, and distances of over 50 miles should be rated as potentially favorable.

For the propose of this criterion, distances should be measured from the central point of generation based on waste generation in Iowa.

Information about distances from specific waste generators should be available from DNR.

22. Utilities and Services

This criterion is proposed to favor sites with access to existing utilities and services.

Utilities include electricity, gas, water and sewers. Services include police and fire protection and emergency health care. Those sites having access to existing services should receive a favorable rating. Those sites which would need to have these services extended should be rated as potentially favorable.

Information about utilities and services should be available from maps and surveys.

D. SITING PROCEDURE

The siting procedure proposed by the Department would be carried out in three stages. It is designed to use resources and staff efficiently in applying available information to large areas. The three stages of the screening procedure, as mentioned briefly in Chapter A, are:

1. Stage I -- Exclusionary Criteria

The objective of Stage I is to screen the state to eliminate areas unsuitable for locating an above-ground facility for the long-term storage of hazardous waste. In the process, Stage I screening would identify areas that could be considered further for siting this facility.

a. Approach and Methodology

Stage I screening would be performed by using an overlay mapping technique with existing data. The entire state would be examined and screened for those criteria which would provide for the protection of public health and the environment.

Stage I screening would be used to identify those areas of Iowa with the greatest potential for ground water or surface water contamination. The major concern in waste management is to isolate or neutralize wastes so water is not contaminated. Contaminated water is the primary threat to public health and to the environment. Therefore, Stage I screening should be limited to those criteria directly related to protection of ground water and surface water.

Stage I screening would be used for the entire state by applying existing resource data to overlay maps. The overlay maps would create a composite map of Iowa. Areas covered by overlays would be identified as unsuitable and should be excluded from further consideration. For example, if a site is located in a 100-year flood plain, it would be excluded from further consideration. The overlay map technique is shown in Figures 1 through 3.

Areas not covered by overlays would be considered potentially suitable for siting a facility. Such areas would then be evaluated and ranked in Stage II of the siting process.

For Stage I, the smallest unit of land considered would be the township. Therefore, each area identified for further study would consist of one or more townships. It is expected that Stage I screening would yield at least 20 areas for evaluation in Stage II of the siting process.

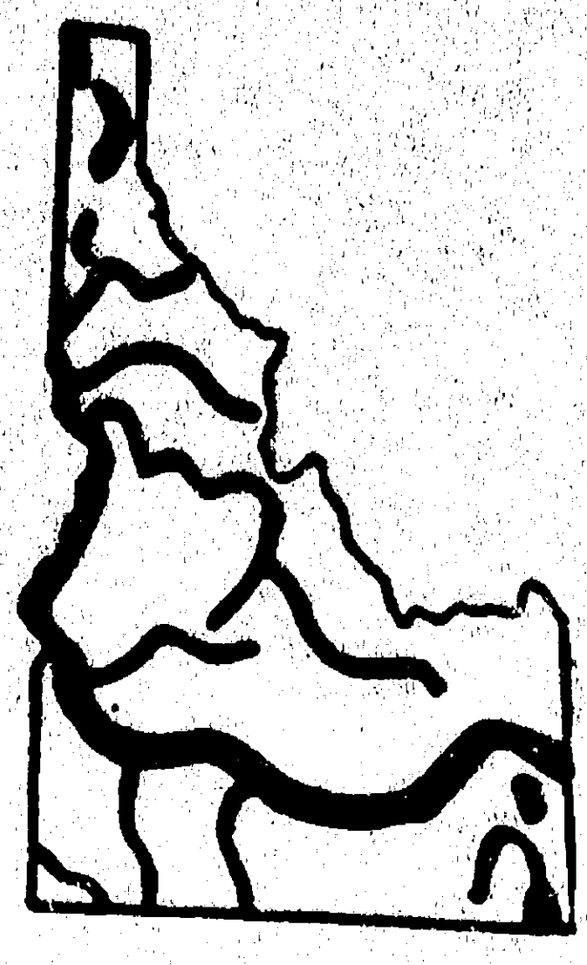


Figure 1. Flood Plains Excluded

Figure 2. Flood Plains and Seismic Risk Areas Excluded

Figure 3. All Exclusionary Criteria Applied

b. Exclusionary Criteria

The following exclusionary criteria would be used in Stage I screening:

1) seismic risk
2) geologic hazardous structures
3) karst areas
4) mining activity
5) flood plains
6) dam hazard areas
7) wetlands
8) protected basins
9) aquifers
10) nuclear power plants

c. Demonstration of Stage I Screening

A map of Idaho will be used to demonstrate how Stage I screening would be done. This is to avoid speculation on where in Iowa a site might be located.

Figure 1 shows a map of Idaho with flood plain areas identified. For this demonstration, flood plain areas are to be excluded from further consideration. Therefore, all areas that are blacked out will be excluded.

Figure 2 shows a map of seismic risk areas that has been lain over the map of flood plain areas. Seismic risk areas are also to be excluded from further consideration.

Figure 3 shows the end result of Stage I screening. All remaining exclusionary criteria have been mapped and placed over the original map. The blacked-out areas represent areas where the potential for water contamination is greatest. Therefore, these areas are excluded from further consideration.

As this example shows, Stage I screening should be applied to a large area, such as an entire state. By using readily available data, unsuitable areas can be excluded. The remaining smaller areas can then be examined for other factors.

2. Stage II -- Quantitative Criteria

The objective of Stage II of the proposed siting process is to evaluate and rank all the candidate areas selected in Stage I. Stage II screening would also involve the overlay mapping technique. All candidate areas would be examined and screened for the major categories listed under Stage II Criteria.

Stage II screening would use criteria selected to provide for the protection of public health, protection of the environment, reduction of costs to the state, compliance with regulations, and compliance with permit and licensing requirements.

Not all criteria in Stage II are designed to protect public health or the environment. For example, the criterion on cultural areas is designed to protect areas of historical interest and to comply with regulations on historical protection.

Sites remaining after Stage II screening would be ranked by the rating values assigned to these quantitative criteria. The highest ranked favorable sites would then be examined in Stage III.

a. Approach and Methodology

For each category, site suitability would be rated according to a three-level rating system with relative values assigned to factors that would restrict or favor siting a facility. The three proposed rating levels are:

1) Favorable. This level meets the criterion so a site could be expected to avoid potential damage to public health and the environment, to reduce costs to the state, and to comply with all regulations and conditions for siting a facility. This level is assigned a value of 5 points.

2) Potentially Favorable. This level would minimally meet the criterion. In certain cases, modifications might be required to meet some criteria, for example, supplying a permanent alternate water supply if the site were within 1 mile of a drinking water source. The potentially favorable level would avoid damage to public health and the environment, and comply with all regulations and conditions for siting a facility. However, some factors may increase the cost or difficulty in siting. Therefore, this level is assigned a value of 2 points.

3) Unfavorable. This level would not meet the criterion. A site given this rating would have significant potential public health risks, environmental risks, or would cause significant difficulty or expense in the process of obtaining necessary permits. An unfavorable ranking would eliminate a given site from consideration.

b. Quantitative Criteria

The following quantitative criteria would be used in Stage II screening:

11) mineral and energy resources
12) drinking water sources
13) critical wildlife habitats
14) conservation areas
15) cultural areas
16) population areas
17) prime farmland
18) nonattainment areas
19) prevention of significant deterioration

20) transportation routes
21) proximity to major generators
22) utilities and services

3. Stage III -- Final Site and Engineering Analysis

The objective of the proposed Stage III screening would be to perform a final evaluation on the 5 highest-ranked sites identified in Stage II. This evaluation would include detailed on-site studies and would determine how well the site could comply with regulations, permit and license requirements. The cost of construction and operation would also be evaluated.

Each of the top 5 sites would have met the health and environmental criteria in Stages I and II. Therefore, each of the sites would be considered a safe and proper location for an above-ground facility for the long-term storage of hazardous waste.

a. Final Site Analysis

The goal of this analysis would be to identify the most preferred site. Site specific analysis would be performed on all 5 candidate sites to determine:

1) potential problems in complying with regulations
2) potential problems in obtaining necessary permit and licenses
3) potential problems in other areas that might delay or prevent the facility from being constructed

The potential problems of each site would be identified and evaluated in relation to the other four sites. The site with the fewest potential problems would be selected.

b. Engineering Analysis

The goal of this analysis would be to identify the most preferred site. Site specific analysis would be performed on all 5 candidate sites to determine:

1) differences in design of facilities
2) differences in construction and operation costs
3) differences in cost to the user

The differences in design and costs would be identified and evaluated in relation to each of the other four sites. The site with the fewest identified engineering difficulties and with the lowest costs would be selected.

c. Demonstration of Stage III Screening

The candidate sites identified in Stage II screening would undergo intensive examination. Detailed maps would be prepared showing all structures within a 1 mile radius of the potential site. On-site investigation, monitoring, and geologic studies would be conducted.

d. <u>Final Site Selection</u>

The analyses of the five candidate sites would then be compared. The site with the greatest potential should be selected as the site for the facility.

NEED HELP? CONTACT

EMERGENCY ..... Check your local phone directory

UNIVERSITY OF IOWA POISON CONTROL CENTER 1-800-272-6477

To report hazardous substance spills in Iowa regardless of quantity ..... 515-281-8894 (24 hr.)

Toxic substance disposal information 515-281-5145

For information regarding risks associated with exposure to toxic substances, Natural Resources Defense Council 1-800-648-NRDC

Household products safety information can be obtained from your County Extension Service or write Consumer Product Safety, Washington, D.C. 20207

This publication was prepared by the League of Women Voters of Dubuque in cooperation with the League of Women Voters of Iowa.

Modified and printed July, 1987 by the Iowa Department of Natural Resources, Wallace State Office Building, Des Moines, Iowa 50319.

The Iowa Department of Natural Resources offers equal opportunity regardless of race, color, creed, national origin, or handicap. If you feel you have been discriminated against, please contact us.

500,000 copies of this brochure were printed at a cost of $6,251. Unit cost .0125.

HOUSEHOLD HAZARDOUS CHEMICALS: THEY'RE EVERYONE'S PROBLEM

Our homes are full of hazardous substances. Daily we are exposed to and use household cleaners, drain openers, automotive products, pesticides, herbicides, paint products, solvents and outdated medicines. All contain hazardous chemicals and are potentially dangerous to people, plants and animals.

Groundwater — the source of our drinking water — is particularly susceptible to contamination by hazardous household waste.

Pouring powerful chemicals down toilets, sewers and sinks, or tossing them in the garbage can have a devastating effect. If you have a septic system, toilets and sinks empty into a drainage field...and your septic tank isn't designed to treat toxic substances. If you're connected to a city sewer line, waste travels to a municipal treatment facility. Such a plant effectively processes your natural waste, but most hazardous chemicals will enter the ecosystem basically unaltered. Hazardous waste tossed in the garbage will be dispersed at a landfill where it can leak into the soil and seep into the groundwater.

The continuous release of small amounts of hazardous household substances into our water system can create a MAJOR problem over time and a danger to us all. Toxic substances must be disposed of properly and safely if we wish to maintain good health.

HOW THE 1987 GROUNDWATER BILL ADDRESSES HOUSEHOLD HAZARDOUS PRODUCTS

In 1987, the Iowa General Assembly passed comprehensive legislation to protect Iowa's groundwater. Waste disposal and hazardous waste handling were identified as major threats to Iowa's groundwater. The following provisions of the Bill address the sale, disposal, and handling of household hazardous products:

- Requires retailers to label hazardous products and to obtain a permit to sell the products.
- Appropriates money for grants to begin recycling operations.
- Appropriates money for research and education on disposal methods.
- Mandates a pilot waste oil collection program.
- Appropriates money for grants to study alternatives to landfills.
- Sets-up a statewide Toxic Cleanup Days program.
- Creates a Small Business Assistance Center for the Safe and Economic Management of Solid Waste and Hazardous Substances at the University of Northern Iowa.

For a copy of the Bill (HF 631), call (515) 281-8941.

HOME SWEET HAZARDS

A GUIDE TO CHEMICAL HAZARDS IN YOUR HOME

IOWA DEPARTMENT OF NATURAL RESOURCES

wastes, but
ley have
arbage truck
many of
ons must be

azardous

g com-
re products.

IN THE HOUSE

EXAMPLES OF HOUSEHOLD PRODUCTS CONTAINING TOXICANTS INCLUDE:

Oven Cleaners	Floor Wax
Spot Removers	Deodorizers
Furniture Polish	Drain Cleaners

TOXICANTS FOUND IN THESE PRODUCTS ARE:

Lye	Trichloroethane
Phenols	Napthas
Petroleum Distillates	Dichlorobenzene

TOXIC EFFECTS: Many of these are immediately poisonous or accumulate to toxic levels in people, fish and wildlife.

ALTERNATIVES: For clogged drains consider boiling water, snaking with a metal line and/or using a plunger. Use biodegradable and low phosphate products when possible.

Baking soda can be used for general cleaning.

All-purpose cleaner — 4T baking soda, 2 t. pure soap, 1 qt. warm water.

Lemon oil combined with mineral oil can be used to polish furniture. Other formulas also work well.

Furniture polish — 1 T vinegar, 1 T olive oil, 1 pt. warm water. This can be put into a spray bottle & warmed in the microwave oven before use.

IN THE GARDEN

PRODUCTS IN THIS CATEGORY INCLUDE:

Pesticides	Insect Sprays	Weed Killers

TOXIC EFFECTS: All pesticides and herbicides are designed to kill specific pests. They are also poisonous to people, pets and wildlife.

SPECIAL WARNING: The following pesticides are now banned from sale or severely restricted in use:

DDT	Aldrin	Dieldrin	Chlordane
DBCP	Heptachlor	Lindane	Kepone
Mirex	Silvex	2,4,5-T	Toxaphene

USE: Consider alternatives to pesticides whenever possible. Do not over-water. Pesticides and fertilizers can run off with the excess water into nearby storm drains or waterways.

DISPOSAL: Never dump into street sewers, storm drains or septic tanks.

IN THE GARAGE

TOXICANTS ARE FOUND IN THE FOLLOWING AUTOMOTIVE PRODUCTS:

Motor Oil	Engine Cleaners
Degreasers	Engine-radiator flushes
Batteries	Antifreeze
Car Wax and Polish	Rust Preventatives
Gasoline	

TOXIC EFFECTS: Waste oil and antifreeze are toxic to people, fish and wildlife. Waste oil contains heavy metals like lead and zinc, and petroleum hydrocarbons. Pets may die after drinking from sweet tasting puddles of antifreeze on driveways.

SPECIAL WARNING: Dumping waste oil into sewers, storm drains or any body of water is illegal.

DISPOSAL: Many local service stations will accept waste oil for recycling.

IN THE WORKSHOP & HOBBY AREA

PRODUCTS IN THIS CATEGORY INCLUDE:

Old Paint	Paint Strippers
Preservatives	Art Supplies
Solvents	Photographic Chemicals
Brush Cleaners	

TOXICANTS IN THESE PRODUCTS INCLUDE:

Lead	Ferrocyanide
Cadmium	Silver
Arsenic Oxide	Hexavalent Chromium
Asbestos	Potassium Dichromate

TOXIC EFFECTS: Many of these substances are suspected carcinogens, poisonous to people and animals, or capable of accumulating to toxic levels in the environment.

DISPOSAL: Solvents, paint thinners and wood preservatives, in particular, should not be dumped in the sewer system.

Let used turpentine or brush cleaner sit in a closed jar until paint particles settle out. Then strain and reuse; wrap the waste material and discard in the trash.

Septic tank systems can handle some photographic wastes, as long as the ratio of human to photographic wastes is no less than 10-1. However, solutions with sodium or potassium dichromate must be neutralized or filtered before dumping in the septic system.

GENERAL TIPS ON HAZARDOUS PRODUCTS

USE:

- Read the label and follow directions.
- Keep unused products in their original containers. The correct label provides directions for use and proper poison treatment.
- Always store in a safe place.
- Buy only what you need.
- Be aware of the uses and dangers of products. If the directions are unclear, contact the manufacturer or dealer before using.
- Never mix different products; explosive or poisonous chemical reactions may occur.
- Use the exact amount specified; twice as much does not mean twice the results.
- Avoid skin contact and breathing fumes.

DISPOSAL:

- Never dispose of products containing harmful chemicals down the drain unless you know they can be treated. Many toxic substances disturb septic tanks or pass right through the treatment systems into rivers or lakes.
- Find a friend, neighbor or business who can use up excess products for their intended purpose.
- In an emergency, see phone numbers on the back.

PLEASE SAVE AND POST FOR HANDY REFERENCE

ENVIRONMENTAL PROTECTION: Household hazardous waste sales permit fees. U.S. Const. amend. XIV, § 1; House File 631, 72nd G.A., First Session, § 507, Iowa Code Supp. § _____ (1987). The term "gross retail sales" as used in § 507 of H.F. 631 means gross retail sales of household hazardous materials only and not gross retail sales of an applicant's entire business. (Sarcone to Harbor, State Representative, 8-13-87) #87-8-1(L)

August 13, 1987

The Honorable William H. Harbor
State Representative
Henderson, Iowa 51541

Dear Representative Harbor:

You have requested an opinion of the Attorney General regarding section 507 of House File 631, the groundwater protection act. Section 507 is part of new chapter 455F created by the act dealing with household hazardous materials and requires retailers and certain manufacturers or distributors as defined in § 501 of the act to have a permit to sell or offer for sale household hazardous materials. The permit fee is graduated, with set maximum fees, based on gross retail sales. The Department of Revenue and Finance has responsibility to administer the permit process. You note that the Department of Revenue and Finance has taken the position that in determining permit fees the term "gross retail sales" as used in §§ 507(1) and (2) of House File 631 means gross retail sales of a permit applicant's business. In light of this you ask the following questions:

> 1. For purposes of § 507(1), does the term "gross retail sales" refer to gross retail sales of the entire business or does it refer just to gross sales of household hazardous materials made by that business?
>
> 2. Section 507(2) provides for a $100 fee for manufacturers or distributors who sell products on a person-to-person basis, primarily in the customer's home (known as the Avon amendment). However there is an additional $100 for each additional $3 million of gross retail sales. Again, does this refer to total gross sales or total gross sales only of the household hazardous materials sold?

In our opinion the term "gross retail sales" as used in §§ 507(1) and (2) of House File 631 refers only to gross retail sales of household hazardous materials and not to gross retail sales of an applicant's entire business.

Section 507 of H.F. 631 is the funding mechanism for the household hazardous waste account within the groundwater protection fund created by § 111.2(e) of the act. This provision is an integral part of the overall legislative plan to protect groundwater by educating Iowans regarding the hazardous nature, proper use and proper disposal methods of certain household products. Preamble to H.F. 631, § 502. Section 507 of House File 631 provides as follows:

> 1. A retailer offering for sale or selling a household hazardous material shall have a valid permit for each place of business owned or operated by the retailer for this activity. All permits provided for in this division shall expire on June 30 of each year. Every retailer shall submit an annual application by July 1 of each year and a fee of ten dollars based upon gross retail sales of up to fifty thousand dollars, twenty-five dollars based upon gross retail sales of fifty thousand dollars to three million dollars, and one hundred dollars based upon gross retail sales of three million dollars or more to the department of revenue and finance for a permit upon a form prescribed by the director of revenue and finance. Permits are nonrefundable, are based upon an annual operating period, and are not prorated. A person in violation of this section shall be subject to permit revocation upon notice and hearing. The department shall remit the fees collected to the household hazardous waste account of the groundwater protection fund. A person distributing general use pesticides labeled for agricultural or lawn and garden use with gross annual pesticide sales of less than ten thousand dollars is subject to the requirements and fee payment prescribed by this section.
>
> 2. A manufacturer or distributor of household hazardous materials, which authorizes retailers as independent contractors to sell the products of the manufacturer or distributor on a person-to-person basis

> primarily in the customer's home, may obtain a single household hazardous materials permit on behalf of its authorized retailers in the state, in lieu of individual permits for each retailer, and pay a fee based upon the manufacturer's or distributor's gross retail sales in the state according to the fee schedule and requirements of subsection 1. However, a manufacturer or distributor which has gross retail sales of three million dollars or more in the state shall pay an additional permit fee of one hundred dollars for each subsequent increment of three million dollars of gross retail sales in the state, up to a maximum permit fee of three thousand dollars.

Fees generated by § 507 of H.F. 631 are used to fund Toxic Cleanup Days throughout the state (§ 508), provide grants to city, county or service organizations for recycling and reclamation events (§ 512), fund a Department of Natural Resources public information and education program regarding proper use and disposal of household hazardous materials (§ 509), fund a one-time pilot project run by the Department of Transportation to collect and dispose of used motor oil from residences in one urban and one rural county in the state (§ 511), provide limited assistance to the department of public health to carry out new functions pursuant to §§ 202 and 203 of H.F. 631, and provide funds to the Department of Revenue and Finance to administer the permit program. Clearly, the interpretation of the term "gross retail sales" as used in §§ 507(1) and (2) of H.F. 631 will not only affect the fee paid by retailers, manufacturers, and distributors required to have a permit but will also affect the amount of funds available to carry out the programs funded by the household hazardous waste account.

In interpreting a statute we are guided by well established principles of statutory construction to achieve the ultimate goal which is determining legislative intent. Beier Glass Co. v. Brundige, 329 N.W.2d 280, 283 (Iowa 1983); LeMars Mutual Insurance Co. of Iowa v. Bonnecroy, 304 N.W.2d 422, 424 (Iowa 1981). The language used in the statute, the objects to be accomplished and the evils sought to be remedied must be considered, and a reasonable construction must be placed on the statute to best effectuate its purpose. LeMars Mutual Ins. Co. of Iowa v. Bonnecroy, 304 N.W.2d at 424. A cardinal principle of statutory construction is that the intent of the legislature must be determined from the statutes read as a whole and not from any one section or portion taken piecemeal. Durant-Wilton Motors Inc. v. Tiffin Fire Assn, 164 N.W.2d 829, 831 (Iowa 1969); Iowa Natural Resources Council v. Van Zee, 158 N.W.2d 111, 114 (Iowa

1968). However, rules of statutory construction are to be resorted to only when the terms of the statute are ambiguous. Lathers Mutual Ins. Co. of Iowa v. Bonnecroy, 304 N.W.2d at 424. Initially we must determine if the term "gross retail sales" as used in § 507 of H.F. 631 is ambiguous.

In examining § 507(1) it is apparent that a permit is required of all retailers for the specific activity of selling or offering for sale a household hazardous material. Instead of setting a fixed fee for selling or offering for sale household hazardous materials, the legislature chose to impose a graduated fee from $10 to $100 on each place of business operated by a retailer engaged in this activity based on gross retail sales. The same fee schedule applies to manufacturers or distributors of such materials who authorize retailers as independent contractors to sell their products on a person-to-person basis primarily in the customer's home. However, for each increment of three million dollars of gross retail sales in the state, the fee increases to a maximum of three thousand dollars. Monies generated are specifically earmarked for the household hazardous waste account to carry out the policy directives set forth in § 111.2(e) and § 502 of H.F. 631. The term "gross retail sales" is not defined in either § 507 or § 501 (definitional section of Chapter 455F) or in any other provisions of House File 631. One reasonably could read this term to mean either gross retail sales of household hazardous materials or gross retail sales of the applicant's entire business. It simply is not clear from the language used by the legislature what the term "gross retail sales" was intended to mean. Because we believe an ambiguity exists, we must resort to rules of statutory construction to determine legislative intent. Willis v. City of Des Moines, 357 N.W.2d 567, 570 (Iowa 1984).

Applying the principles of statutory construction and construing the term "gross retail sales" as used in § 507 of H.F. 631 together with the stated legislative intent of H.F. 631 to improve and protect groundwater quality, it is our opinion that the term "gross retail sales" means gross retail sales of household hazardous materials only. We reach this result based on the limited activity for which a permit is required under §§ 507(1) and (2) and the specific programs funded by the fees collected and deposited in the household hazardous waste account (§ 111.2(e) of H.F. 631). This construction also avoids an interpretation of the statute which might render it unconstitutional. Willis v. City of Des Moines, 357 N.W.d 567, 572 (Iowa 1984). First, we believe the language of § 507 itself supports construing the term "gross retail sales" to mean only gross retail sales of household hazardous materials. The word "retailer" is expressly limited in the first sentence of § 507(1), as well as by § 501(5), to a person "offering for sale or selling a household hazardous material." The third sentence

of § 507(1) imposes the permit fee on such a "retailer" based upon the amount of "gross retail sales." Since "retailer" is limited to a person who sells household hazardous materials, it is reasonable to conclude that the term "gross retail sales," used in the same sentence, is correspondingly limited.

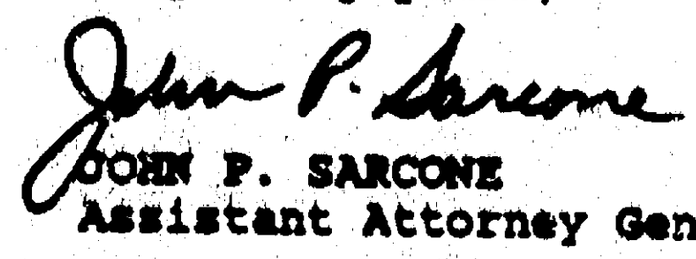
If we were to adopt the position taken by the Department of Revenue and Finance, we believe serious equal protection questions would arise. Because fundamental rights or suspect classifications are not involved, the test to determine if a statute is unconstitutional on equal protection grounds is whether a rational basis exists between the classification and state interest involved. Miller v. Boone County Hospital, 394 N.W.2d 776 (Iowa 1986); Veach v. Iowa Department of Transportation, 374 N.W.2d 248 (Iowa 1985). We are mindful that statutes are accorded a strong presumption of constitutionality and that a party challenging a statute on equal protection grounds has a heavy burden of showing the absence of the rational basis for the challenged classification. Miller v. Boone County Hospital, 394 N.W.2d at 781. Nonetheless, tying the amount of the fee to total retail sales could result in a substantial constitutional question. This problem can best be illustrated by two examples of businesses which sell or offer for sale household hazardous materials along with other nonhazardous materials.

An automobile dealership with a service department may have substantial gross retail sales of which only a small percentage is attributed to the sale of motor oil which is listed as a household hazardous material under § 501(8) of H.F. 631. Similarly a grocery store may have substantial gross retail sales of which a relatively small percentage would include waxes, polishes, etc. which are listed as household hazardous materials under § 501(8) of H.F. 631. In each instance there does not appear to be any rational basis to impose a fee based on gross retail sales of automobiles, food or other nonhazardous materials. Miller v. Boone County Hospital, 394 N.W.2d at 780-781. In § 507 of H.F. 631, the legislature chose to regulate by permit and fees the sale or offering for sale of household hazardous materials as a means of accomplishing the ultimate goal of H.F. 631 which is to prevent groundwater contamination and if necessary restore it to a potable state. § 104, H.F. 631. Imposing a fee on gross retail sales of items other than household hazardous materials does not appear to be rationally related to this laudable goal. When there are two possible constructions of an enactment, the one which will not render the enactment unconstitutional should be adopted. Willis v. City of Des Moines, 357 N.W.2d at 572.

We therefore conclude that the term "gross retail sales" as used in §§ 507(1) and (2) of House File 631 means gross retail

sales of household hazardous materials only and not gross retail sales of an applicant's entire business.

Very truly yours,



JOHN P. SARCONE
Assistant Attorney General

JPS:rcp

ENVIRONMENTAL PROTECTION COMMISSION

ITEM 13 INFORMATION

Draft rules for underground storage tanks are included for your information and review. These changes are mandated by the Groundwater Protection Act. The requirements in the draft proposal mirror the requirements in the Groundwater Protection Act. The proposal has been discussed with members of the petroleum industry and environmental interest groups. The commission will be asked to take action at the next commission meeting.

Allan Stokes

7/30/87
DRAFT

Pursuant to the 1987 Iowa Code supplement section 455B.471 and 455B.479, the Environmental Protection Commission emergency adopts amendments to Chapter 135, "Underground Storage Tanks," Iowa Administrative Code. These amendments relate to fees for registering underground storage tanks with the state and annual management fees for tanks over eleven hundred gallons in size. The rule also establishes requirements for farm and residential tanks that previously were excluded from the rules. Emergency adoption and immediate implementation is necessary to protect the public health and environment and to meet legislative deadlines for the effectiveness of these rules.

Item 1 -
Amend 135.3 Notice Requirements as follows:

Modify 135.3(5) by deleting five dollars ($5) and inserting ten dollars ($10).

Add "135.3(8) It is unlawful to place a regulated substance into a tank that has not been registered with the department."

Add "135.3(9) When a supplier or deliverer of a regulated substance reports an unregistered tank to the department, the owner or operator of that tank has fifteen days to register the tank with the department. If the owner or operator fails to notify in fifteen days the registration fee will be twentyfive ($25) dollars.

Item 2 - Add:

135.4 Farm and Residential Tanks

135.4(1) The owner or operator of a farm or residential tank of one thousand one hundred (1100) gallons or less capacity used for storing motor fuel for noncommercial purposes is subject to the requirements of this rule.

135.4(2) Tanks under this rule installed before July 1, 1987 must report the tank on a notification form by July 1, 1989, but are not required to pay a registration fee.

135.4(3) Tanks under this rule that were installed on or after July 1, 1987 must comply with all the underground storage tank regulations.

Item 3 - Add:

135.5 Registration Tags and Annual Management Fee

135.5(1) Tanks of one thousand one hundred (1100) gallons or less capacity that have registered with the department will be issued a permanent registration tag.

135.5(2) Tanks that are over one thousand one hundred (1100) gallons must submit a tank management fee of fifteen dollars ($15) per tank each year by January 1. A one year registration tag will then be issued for the period from April 1 to March 31. The first fee is due January 1, 1988.

135.5(3) The owner or operator shall affix the tag to the fill pipe of the underground storage tank where it will be readily visible.

135.5(4) A person who conveys or deposits a regulated substance shall inspect the underground storage tank to determine the existence or absence of the registration tag. If the tag is not affixed to the fill pipe the person may deposit the substance in the tank, but must then notify the owner or operator of the registration requirement and notify the department of the unregistered tank.

Item 4 -
Revise 135.11 to reflect the effective date as the date of rule adoption for the new sections.

Item 5 -
Renumber existing sections 135.4 through 135.11.

ITEM 1. Amend 135.3 Notice requirements, as follows:

Modify 135.3(5) by deleting five dollars ($5) and inserting ten dollars ($10).

Add "135.3(8) It is unlawful to place a regulated substance into a tank that has not been registered with the department."

Add "135.3(9) When a supplier or deliverer of a regulated substance reports an unregistered tank to the department, the owner or operator of that tank has fifteen days to register the tank with the department. If the owner or operator fails to notify in fifteen days, the registration fee will be twenty-five dollars ($25).

ITEM 2. Add:

135.4 Farm and Residential Tanks

135.4(1) The owner or operator of a farm or residential tank of one thousand one hundred (1,100) gallons or less capacity used for storing motor fuel for noncommercial purposes is subject to the requirements of this rule.

135.4(2) Tanks under this rule installed before July 1, 1987 must report the tank on a notification form by July 1, 1989, but are not required to pay a registration fee.

135.4(3) Tanks under this rule that were installed on or after July 1, 1987 must comply with all the underground storage tank regulations.

ITEM 3. Add:

135.5 Registration tags and annual management fee.

135.5(1) Tanks of one thousand one hundred (1,100) gallons or less capacity that have registered with the department will be issued a permanent registration tag.

registration tag will then be issued for the period from April 1 to March 31. The first fee is due January 1, 1988.

135.5(3) The owner or operator shall affix the tag to the fill pipe of the underground storage tank where it will be readily visible.

135.5(4) A person who conveys or deposits a regulated substance shall inspect the underground storage tank to determine the existence or absence of the registration tag. If the tag is not affixed to the fill pipe, the person may deposit the substance in the tank but must then notify the owner or operator of the registration requirement and notify the department of the unregistered tank.

ITEM 4. Revise 135.11 to reflect the effective date as the date of rule adoption for the new sections.

ITEM 5. Renumber existing sections 135.4 through 135.11.

Date

Larry J. Wilson, Director

(EP135ER.RUL/sc)

STATE OF IOWA

TERRY E. BRANSTAD, GOVERNOR

DEPARTMENT OF COMMERCE

KEITH HEFFERNAN, DIRECTOR

July 29, 1987

Allen E. Stokes, Administrator
Environmental Protection Division
Department of Natural Resources
Wallace State Office Building
Des Moines, Iowa 50319

Dear Mr. Stokes:

At its meeting on July 24, 1987, the Iowa Engineering and Land Surveying Examining Board reviewed your letter of July 9, 1987, concerning rules adopted by the Department of Natural Resources relating to underground storage tanks.

In response to your question number 2, the board's position is that the preparation of as-built plans of new tank installations does constitute "professional engineering," the practice of which requires the services of a professional engineer. This position is based upon Code Chapter 114.2, third paragraph:

> The practice of "professional engineering" within the meaning and intent of this chapter includes any professional service, such as consultation, investigation, evaluation, planning, designing, or responsible supervision of construction in connection with structures, buildings, equipment, processes, works, or projects, wherein the public welfare, or the safeguarding of life, health or property is or may be concerned or involved, when such professional service requires the application of engineering principles and data.

The board recommends that 135.9(4) be amended by placing a period after the words "professional engineer" and deleting the rest of that sentence. The rule should retain the sentence "All elevations shall be referenced to a local benchmark(s)," but the rest of the paragraph should be deleted. The rule would then read as follows:

> 135.9(4) Each facility shall maintain as-built plans of any new tank installation. These plans shall be certified by a professional engineer. All elevations shall be referenced to a local benchmark(s).

The definition of "company engineer" then becomes moot.

If you have questions about this, or need more information, please don't hesitate to write or call me at this office. The board appreciates having this opportunity to comment on these rules, and feels strongly that in order

1918 S.E. HULSIZER AVE. / ANKENY, IOWA 50021 / 515-964-6800

to protect the public safety and welfare in conformance with the requirements of Code Chapter 114 the rules should be revised as shown above.

Sincerely,

Patricia Peters

Patricia Peters
Executive Secretary
Engineering and Land Surveying
Examining Board
Phone: 515/281-5602

cc: Board Members

ENVIRONMENTAL PROTECTION COMMISSION

ITEM 14 DECISION

It is recommended that the Commission adopt the attached FY88 Construction Grants State Project List.

A public hearing was held in Des Moines on June 30, 1987, to receive comments on the proposed FY 88 Construction Grants State Project List. The Project List was developed in accordance with provisions contained in the Priority System which is part of departmental rules 567--91 (455B) Iowa Administrative Code. Copies of the proposed list and notice of intended action were mailed to all facilities on the list; to EPA Kansas City; and the notice also appeared in the Des Moines Register, all at least 30 days prior to the hearing date.

Opening comments were presented by Wayne Farrand. The procedures used in the development of the Project List were explained. The scores assigned to each facility were unchanged from the previous year; however, the Funding Portion of the List does contain new projects based on the premise that federal funding will remain at approximately 33.0 million dollars for FY 88 and upon the premise that Iowa will receive the remaining FY 87 appropriated funds. If these anticipated funds are not received, the Funding List may have to be changed significantly. Wayne also explained the conditions of the Clean Water Act Amendments calling for the phase out of the Construction Grant Program. Also explained were the provisions of the amendments calling for the appropriation of funds in FY 89 to be used to set up state revolving fund loan programs. It was explained that these amendments also allowed states to appropriate up to 50 percent of FY 87 and 75 percent of FY 88 funds into this revolving loan program. Iowa has not proposed to establish a loan program for FY 88 and the projects showing on the Funding List are proposed to use their allotments in the form of grants. Because of the Construction Grant Program phase-out and the start of a revolving loan program, it was explained that the FY 89 Priority System and List development would probably create interest during the public participation period.

The only oral comment received was from Harris F. Siedel, Director, Ames Water and Pollution Control, who on behalf of the city of Ames and Iowa State University expressed their appreciation for their past and planned future grant funding. There were a few general questions following the comment period to which Wayne directed answers, such as how a facility gets on the list; did all facilities on the list express such a desire; and in what order are facilities placed on the funding list? Wayne's closing comments indicated his appreciation for the public interest shown and that a list would soon be taken before the commission for final adoption. One written comment was received following the hearing, that being from Mayor Frank Young of the city of Waucoma. His letter noted the city's intention to pursue their proposed FY 88 Step 4 grant funding enroute to an approved sewer system completion.

Duane Brown
July 27, 1987

STATE OF IOWA
TERRY E. BRANSTAD, GOVERNOR
DEPARTMENT OF NATURAL RESOURCES
LARRY J. WILSON, DIRECTOR

Iowa Department of Natural Resources

Environmental Protection Division

Notice of Intended Action

Construction Grants Public Hearing

The Environmental Protection Division of the Iowa Department of Natural Resources, pursuant to action of the Environmental Protection Commission, will hold a public hearing on June 30, 1987, at 10:30 a.m. in the West 1/2 conference room on the 5th floor of the Henry A. Wallace Building, 900 East Grand Avenue, Des Moines, Iowa. The purpose of the hearing is to receive comments on the proposed "Fiscal Year 1988--Construction Grants State Project List" (Project List). Any interested person may submit oral or written comments at that time and following the public hearing through July 10, 1987. Written comments can be submitted by sending them to Wayne Farrand, Supervisor, Construction Grants Section, Environmental Protection Division, Henry A. Wallace Building, 900 East Grand Avenue, Des Moines, Iowa 50319.

The proposed Project List was developed under the provisions contained in the "Priority System for Administration of Federal Wastewater Treatment Works' Construction Grants Under the Authority of the Federal Water Pollution Control Act as Amended" (Priority System) which is part of departmental rules 567-91 (455B) Iowa Administrative Code. The proposed Project List has been submitted to the United States Environmental Protection Agency for their review and concurrence. Copies of the proposed Project List may be obtained after May 29, 1987 at no cost from the Records Section, Department of Natural Resources, Henry A. Wallace Building, 900 East Grand Avenue, Des Moines, Iowa 50319.

PROPOSED

STATE OF IOWA

IOWA DEPARTMENT OF NATURAL RESOURCES

FISCAL YEAR 1988

CONSTRUCTION GRANTS STATE PROJECT PRIORITY LIST

FOR COMMENT AT PUBLIC HEARING

CONSTRUCTION GRANTS FUNDING SUMMARY

The attached funding summary is condensed from the Fiscal Year 1988 State Project Priority List. It includes, in priority order, projects anticipated to be funded with available federal allotments and projected allotments through Fiscal Year 1988. Projects from the Fiscal Year 1987 Fundable List which have not been awarded a grant are shown in the first column. Projects in the second column comprise the proposed FY 1988 Fundable List, providing a federal appropriation is made. The Fiscal Year 1988 Fundable List is based on an assumed allotment of $32,851,200.

It is emphasized that the list as shown is dependant upon supplemental FY 1987 appropriations of an additional $16,296,200 for Iowa and appropriation of the full FY 1988 authorization of $32,851,200 for Iowa.

rag/Disc #7/CG.FY88-1

FY 1988 CONSTRUCTION GRANTS STATE PROJECT PRIORITY LIST

CONSTRUCTION GRANTS FUNDING SUMMARY

		ESTIMATED EPA GRANT ASSISTANCE	
STEP	PROJECT	FY 1987	FY 1988
3	Des Moines ICA (segmented)	12,865,940	19,710,670
3	Ames (segmented)	5,692,490	2,644,180
4	Rock Valley **	670,010	
4	Dakota City **		222,420
4	Randall *		441,650
4	Clearfield */**	550,820	
4	Atalissa */**	262,350	
4	Wauconda *		385,000
4	Menlo */**	784,020	
4	Parnell *		305,800
4	Lineville *		770,000
4	Ricketts **		86,290
4	Panama */**		242,880
4	Melton */**	258,610	
	FISCAL YEAR FUNDING ESTIMATES	$21,084,240	$24,808,890

FUNDING FOR PROJECTS SHOWN IS BASED ON A SUPPLEMENTAL FY 1987 ALLOTMENT TO IOWA OF $16,296,200 AND AN ASSUMED FY 1988 ALLOTMENT TO IOWA OF $32,851,200. VARIATION OF ACTUAL ALLOTMENTS FROM THESE ASSUMPTIONS MAY REQUIRE A REVISION OF THE LIST.

PROJECT STEP KEY

3 Construction

4 Combination grant for design and construction. Available only when the grant amount is less than $3 million, the project has not been segmented, and the population is under 25,000.

* Unsewered community

** Small community-alternative technology

rag/Disk #7 - CG.FY88-2

FY 1988 SUMMARY OF FUNDS

I. Estimated EPA Assistance Required

A. Estimated assistance for projects			$45,893,130
B. Designated reserve for grant increases			1,028,656
C. Reserve for grant increases for alternative technology	FY 1986	$ 88,566	
	FY 1987	$1,144,254	
	FY 1988	$1,149,792	2,382,652
D. Reserve for grant increases for innovative technology	FY 1987	$ 164,256	
	FY 1988	$ 164,256	328,512
E. Reserve for state management assistance 205(g)	FY 1987	$1,314,048	
	FY 1988	$1,314,048	2,628,096
F. Reserve for water quality management planning 205(j)(1)	FY 1986	$ 144,770	
	FY 1987	$ 328,512	
	FY 1988	$ 328,512	801,794
G. Reserve for non-point management planning 205(j)(5)	FY 1987	$ 162,962	
	FY 1988	$ 328,512	491,474
H. Reserve for advances of allowances (no need projected FY 1988)			
Total grant needs			$58,554,314

II. Non-additive Set-aside Reserve Funds

A. Reserve for alternative systems for small communities	FY 1987	$1,314,048
	FY 1988	$1,314,048
		$2,628,096
B. Quota for unsewered communities	FY 1987	$1,642,560
	FY 1988	$1,642,560
		$3,285,120

III. Available Funds

A. FY 1972-1986 Carryover Balances (5/01/87)	$ 1,297,373
B. FY 1987 Allotment Balance (5/01/87)	8,109,541
C. Additional anticipated FY 1987 Allotment	16,296,200
D. Anticipated FY 1988 Allotment	32,851,200
	$58,554,314

rag/Disk #7 - CG.FY88-3

PROPOSED

STATE OF IOWA

IOWA DEPARTMENT OF NATURAL RESOURCES

FISCAL YEAR 1988

CONSTRUCTION GRANTS STATE PROJECT PRIORITY LIST

The following list contains detailed information for projects proposed as fundable projects in Fiscal Year 1988. It also shows the priority rankings of all other projects which may be eligible for EPA grant funding but cannot be funded with available funds.

Pages 1 through 4 include the fundable list.

A summary of funds on page 5 shows how available fund balances are proposed to be distributed.

Pages 6 through 8 list the subsequent steps or phases of projects which have been initiated with grants assistance.

Pages 9 through 13 show the relative rankings of all other projects which are not fundable.

DESCRIPTION OF STATE PROJECT PRIORITY LIST INFORMATION

COLUMN	DESCRIPTION
Priority Rank Priority Points	Priority Rank - This is a sequential order of priorities by project and step. Priority Points - This is the point source rating according to the criteria contained in 91.10(455B).
Applicant Legal Name County Name Street Address City, Zip Code	Identification of the eligible applicant.
Permit No. Auth/Fac No.	Permit No. - Iowa NPDES discharge permit number most closely related to the applicant's project. If the project does not have municipal wastewater treatment and collection facilities, "unsewered" is entered. Auth/Fac No. - An identifying number for the facility used in the national Needs Survey conducted by EPA. If multiple authorities exist, the word "MULTIPLES" is entered in place of the authority/facility number.
Grant No. Parent Project	This is the grant number of the predecessor step or project for this project.
Project Number	This is the grant number including a state assigned facility need number and sequence number. The sequence number is the last two digits and indicates the number of the grant award to the applicant under the assigned facility need number (01 indicates first grant award, 02 second, etc.).
Project Step Type	Project Step 3 - Construction 4 - Combination grant for design and construction Type N - New grant award (01 sequence number) C - Continuation grant award (other than 01 sequence number)
State Cert.	Date (year-month-day) by which State anticipates the grant application will be forwarded to EPA for grant award. A preceding F signifies an actual endorsement date, and P indicates a projected target date.
Proj. Desc.	Project Description T - Wastewater treatment facility IT - Interceptor sewer integral to the treatment works as well as a treatment facility Rehab - Cost effective sewer system rehabilitation related to treatment works I(T) - Interceptor sewer construction in lieu of, or an integral phase of treatment works construction, assigned a treatment priority ranking EB - Equalization basin Relief - Relief sewers to transport nonexcessive I/I to treatment facilities Coll - Sanitary sewer collection system Storm Sewer - Cost effective removal of inflow sources; reconnection to storm sewers

rag/Disk #7 - CG.FY88-4

COLUMN	DESCRIPTION
Sml Comm	Identification of the project as eligible for increased grant funding from the reserve set aside for small communities proposing alternative to conventional wastewater handling systems. R indicates an eligible community of 3,500 people or less. D indicates eligibility of a sparsely populated area of a larger municipality.
Innov Elig Cost	Innov Elig Cost - Projected portion of a project qualifying as innovative technology by EPA guidelines.
Altern Elig Cost	Altern Elig Cost - Projected portion of a project qualifying as innovative technology by EPA guidelines.
Total Eligible Cost	Projected costs eligible for EPA grant participation.
Est EPA Assist	Estimated amount of EPA grant assistance required for the project.
Elig Cost by Needs Cat	Eligible Cost by Needs Categories as defined in EPA national Needs Survey guidelines. Category: I - Secondary Treatment II - More Stringent Treatment IIIA - Infiltration/Inflow Correction IIIB - Major Sewer System Rehabilitation IVA - New Collectors and Appurtenances IVB - New Interceptors and Appurtenances V - Correction of Combined Sewer Overflows
Ent Req	Enforceable requirement to be satisfied by the project. A - Project satisfies the conditions or limitations of a Section 402 or 404 permit which, if violated, would result in the issuance of a compliance order or initiation of a civil or criminal action under Section 309 of the Clean Water Act B - Permit has not been issued, but project satisfies a condition or limitation which would be included in the permit when issued C - Permit is not applicable but project satisfies a requirement anticipated to be necessary to meet applicable criteria for best practicable waste treatment technology D - Project does not meet an enforceable requirement of the Act Y - The project, in its entirety, satisfies the enforceable requirements of the Act for the condition stated in the preceding character position P - Portions of the project do not satisfy the enforceable requirement of the condition stated in the preceding character position

FISCAL YEAR 1988

CONSTRUCTION GRANTS STATE PROJECT PRIORITY LIST

State: Iowa
EPA Region: 07

Priority Rank (59) / Priority Points (H8)	Applicant Legal Name / County Name / Street Address / City, State, Zip Code (12, 15, 51, 14, 13, 52)	Permit Number (C2) / Auth/Fac No. (32)	Grant Number / Parent Project (B2)	Project Number (02, 01, 54) 03 = 0	Step (87) / Type (04)	St Cert (A5)	Proj Desc (20)	Sml Cost (33)	Innov Elig Cost (Y7) / Altern Elig Cost (Y8)	Total Eligible Cost (29)	Est EPA Assist (19)	Elig Cost by Needs Cat (Y0-Y6)	
0020 493.55	City of Des Moines Polk County East First & Locust Des Moines IA 50307	IA7727001 MULTIPLES	C190709 10	C190709 53	3 C	F 870423	T Segments 3A, 3B			4,117,700	3,088,270	1 4,117,700	AY
0030 493.55	City of Des Moines Polk County East First & Locust Des Moines IA 50307	IA7727001 MULTIPLES	C190709 10	C190709 53 Amend 1	3 C	P 870930	T Segments 3A, 3B			8,346,900	6,260,170	1 8,346,900	AY
0032 493.55	City of Des Moines Polk County East First & Locust Des Moines IA 50307	IA7727001 MULTIPLES	C190709 10	C190709 54	3 C	P 870930	T Segment 4		1,770,000	1,770,000	1,327,500	1 1,770,000	AY
0034 493.55	City of Des Moines Polk County East First & Locust Des Moines IA 50307	IA7727001 MULTIPLES	C190709 10	C190709 55	3 C	P 870930	T Segment 3C			2,920,000	2,190,000	1 2,920,000	AY
0036 493.55	City of Des Moines Polk County East First & Locust Des Moines IA 50307	IA7727001 MULTIPLES	C190709 10	C190709 53 Amend 2	3 C	P 871231	T Segments 3A, 3B			13,000,000	9,750,000	1 13,000,000	AY
0040 493.55	City of Ankeny Polk County 211 SW Walnut Ankeny IA 50021	IA7709001 MULTIPLES	C190709 10	C190790 07	3 C	P 871231	I South			4,100,000	3,075,000	YB 4,100,000	AY

rag/Disk #7-CG.FY88-6

FISCAL YEAR 1988

CONSTRUCTION GRANTS STATE PROJECT PRIORITY LIST

State: Iowa
EPA Region: 07

Priority Rank (59) / Priority Points (18)	Applicant Legal Name / County Name / Street Address / City, State, Zip Code (12, 15, 51, 14, 13, 52)	Permit Number (C2) / Auth/Fac No. (32)	Grant Number / Parent Project (82)	Project Number (02, 01, 54) 03 = 0	Step (87) / Type (04)	St Cort (A5)	Proj Desc (20)	Sml Comm (33)	Innov Elig Cost (Y7) / Altern Elig Cost (Y8)	Total Eligible Cost (2[illegible])	Est EPA Assist (19)	Elig Cost by Needs Cat (Y0-Y6)	Ent Req
0050 493.55	City of Des Moines Polk County East First & Locust Des Moines IA 30307	IA7727001 MULTIPLES	C190709 10	C190709 56	3 C	P 871231	T Segment 6			9,180,900	6,885,670	I 9,180,000	AY
0205 708.98	City of Ames Story County Municipal Building Ames IA 50010	IA8503001 19002300[illegible]	C190736 01	C190736 04 Amend 1	3 C	P 870930	T Phase 2 Segment 2		466,400	5,101,100	2,805,600	I 4,214,100 II 887,000	AY AY
0210 708.98	City of Ames Story County Municipal Building Ames IA 50010	IA8503001 19002300[illegible]	C190736 01	C190736 05	3 C	P 870930	T Phase 2 Outfall			907,700	499,230	I 907,700	AY
0220 708.98	City of Ames Story County Municipal Building Ames IA 50010	IA8503001 19002300[illegible]	C190736 01	C190736 06	3 C	P 870930	T Phase 2 Segment 3		880,100 2,352,400	4,341,200	2,387,660	I 3,599,000 II 742,200	AY AY
0225 708.98	City of Ames Story County Municipal Building Ames IA 50010	IA8503001 19002300[illegible]	C190736 01	C190736 06 Amend 1	3 C	P 871231	T Phase 2 Segment 3		975,000 2,605,200	4,807,600	2,644,180	I 3,985,500 II 822,100	AY AY
0330 202.01	City of Rock Valley Sioux County Box 100 1503 Main Rock Valley IA 51247	IA8482001 19074100[illegible]	C190848 01	C190848 02	4 C	P 370930	T	R	735,100	1,218,200	670,010	I 1,218,200	AY

FISCAL YEAR 1988

CONSTRUCTION GRANTS STATE PROJECT PRIORITY LIST

State: Iowa
EPA Region: 07

Priority Rank (59) / Priority Points (H8)	Applicant Legal Name / County Name / Street Address / City, State, Zip Code (12, 15, 51, 14, 13, 52)	Permit Number (C2) / Auth/Fac No. (32)	Grant Number / Parent Project (B2)	Project Number (02, 01, 54) 03 = 0	Step (87) / Type (04)	St Cert (A5)	Proj Desc (20)	Ssl Coun (33)	Innov Elig Cost (Y7) / Altern Elig Cost (Y8)	Total Eligible Cost (29)	Est EPA Assist (19)	Elig Cost by Needs Cat (Y0-Y6)	
0900 11.22	City of Dakota City Humboldt County 26 South 5th Street Dakota City IA 50529	IA4622001 190202001	C190975 01	C190975 02	4 C	P 871231	T	R	404,400	404,400	222,420	I 404,400	AY
1190 7.17	City of Randall Hamilton County Box 36 Randall IA 50231	UNSEWERED 190710001	C190716 01	C190716 02	4 C	P 880331	I Coll			803,000	441,650	IVA 417,000 IVB 385,400	D BY
1500 2.82	City of Clearfield Taylor County P O Box 196 Clearfield IA 50840	UNSEWERED 190157001	C190985 01	C190985 02	4 C	P 870930	T Coll	R	599,400	1,001,500	550,820	I 402,100 IVA 599,400	BY D
1550 2.37	City of Atalissa Muscatine County E 3rd Street Atalissa IA 52720	UNSEWERED 190043001	C191289 01	C191289 02	4 C	P 870930	T Coll	R	90,800 196,500	477,000	262,350	I 257,500 IVA 219,500	BY D
1620 2.16	City of Waucoma Fayette County R R 2 Box 29 Waucoma IA 52171	UNSEWERED 191015001	C191287 01	C 191287 02	4 C	P 880630	T Coll			700,000	385,000	I 287,000 IVA 413,000	BY D
1640 2.05	City of Menlo Guthrie County P O Box 165 Menlo IA 50164	UNSEWERED 190503001		C191266 01	4 M	P 870930	T Coll	R	791,400	1,425,500	784,020	I 550,500 IVA 875,000	BY D

FISCAL YEAR 1988

CONSTRUCTION GRANTS STATE PROJECT PRIORITY LIST

State: Iowa
EPA Region: 07

Priority Rank (59) / Priority Points (H8)	Applicant Legal Name / County Name / Street Address / City, State, Zip Code (12, 15, 51, 14, 13, 52)	Permit Number (C2) / Auth/Fac No. (32)	Grant Number / Parent Project (B2)	Project Number (02, 01, 54) 03 = 0	Step (87) / Type (04)	St Cert (A5)	Proj Desc (20)	Sml Comm (33)	Innov Elig Cost (Y7) / Altern Elig Cost (Y8)	Total Eligible Cost (29)	Est EPA Assist (19)	Elig Cost by Needs Cat (Y0-Y6)		Ent Req
1730 1.66	City of Parnell Iowa County Box 15 Parnell IA 52325	UNSEWERED 190668001		C191314 01	4 N	P 880630	T Coll			556,000	305,800	I IVA	194,600 361,400	BY D
2100 .738	City of Lineville Wayne County Box 187 Lineville IA 50147	UNSEWERED 190483001	C191280 01	C191260 02	4 C	P 880630	T Coll			1,400,000	770,000	I IVA	448,000 952,000	BY D
2550 .200	City of Ricketts Crawford County Main Street Ricketts IA 51460	IA2441001 191072001	C190911 01	C190911 02	4 C	P 880630	T Coll	R	156,900	156,900	86,290	I	156,900	AY
2690 .113	City of Panama Shelby County Box 10 Main Street Panama IA 51562	UNSEWERED 190664001	C191254 01	C191254 02	4 C	P 880630	T Coll		410,600	441,600	242,860	I IVA	225,200 216,400	BY D
2880 .027	City of Welton Clinton County Welton IA 52774	UNSEWERED 190907001	C191252 01	C191252 02	4 C	P 870930	T Coll	R	470,200	470,200	258,610	I IVA	211,300 258,900	BY D

FY 1988 FUNDABLE LIST SUMMARY OF FUNDS

I. Estimated EPA Assistance Required			
A. Estimated assistance for projects on fundable list			$ 45,893,130
B. Designated reserve for grant increases			6,028,656
C. Reserve for grant increases for alternative technology	FY 1986 Allotment	$ 88,566	
	FY 1987 Allotment	$1,144,294	
	FY 1988 Allotment	$1,149,742	2,382,652
D. Reserve for grant increases for innovative technology	FY 1987 Allotment	$ 164,256	
	FY 1988 Allotment	$ 164,256	328,512
E. Reserve for state management assistance 205(g)	FY 1987 Allotment	$1,314,048	
	FY 1988 Allotment	$1,314,048	2,628,096
F. Reserve for water quality planning 205(j)(1)	FY 1986 Allotment	$ 144,770	
	FY 1987 Allotment	$ 328,512	
	FY 1988 Allotment	$ 328,512	801,794
G. Reserve for non-point management planning 205(j)(5)	FY 1987 Allotment	$ 162,962	
	FY 1988 Allotment	$ 328,512	491,474
H. Reserve for advances of allowances (no need projected for FY 1988)			
Total grant needs			$ 58,554,314
II. Non-additive Set-Aside Reserve Funds			
A. Reserve for alternative systems for small communities	FY 1987 Allotment	$1,314,048	
	FY 1988 Allotment	$1,304,048	
		$2,628,096	
B. Quota for unsewered communities	FY 1987 Allotment	$1,642,560	
	FY 1988 Allotment	$1,642,560	
		$3,285,120	
III. Available Funds			
A. FY 1972-1986 Carryover Balances (05/01/87)			$ 1,297,373
B. FY 1987 Allotment Balance (05/01/87)			8,109,541
C. Additional Anticipated FY 1987 Allotment			16,296,200
D. Anticipated FY 1988 Allotment			32,851,200
			$ 58,554,314

FISCAL YEAR 1988

CONSTRUCTION GRANTS STATE PROJECT PRIORITY LIST

State: Iowa
EPA Region: 07

Priority Rank (59) / Priority Points (HB)	Applicant Legal Name / County Name / Street Address / City, State, Zip Code (12, 15, 51, 14, 13, 52)	Permit Number (C2) / Auth/Fac No. (32)	Grant Number Parent Project (B2)	Project Number (02, 01, 541 03 = 0	Step (B7) / Type (04)	St Cert (A5)	Proj Desc (20)	Sml Com (33)	Innov Elig Cost (Y7) / Altern Elig Cost (Y8)	Total Eligible Cost (29)	Est EPA Assist (19)	Elig Cost by Needs Cat (Y0-Y6)	Enf Req
0052 493.55	City of Des Moines Polk County East First & Locust Des Moines IA 50307	IA7727001 MULTIPLES	C190709 10	C190709 53 Amend 3	3 C		T Segments 3A, 3B			15,627,300	11,720,470	I 15,627,300	AY
0054 493.55	City of Des Moines Polk County East First & Locust Des Moines IA 50307	IA7727001 MULTIPLES	C190709 10	C190709 56 Amend 1	3 C		T Segment 6			14,399,100	10,799,320	I 14,399,100	AY
0060 493.55	City of Des Moines Polk County East First & Locust Des Moines IA 50307	IA7727001 MULTIPLES	C190709 10	C190709 57	3 C		T Segment 5			25,300,000	18,975,000	I 25,300,000	AY
0070 493.55	City of Des Moines Polk County East First & Locust Des Moines IA 50307	IA7727001 MULTIPLES	C190709 10	C190709 58	3 C		T Segment 7			24,560,000	18,420,000	I 24,560,000	AY
0080 493.55	City of Ankeny Polk County 211 SW Walnut Ankeny IA 50021	IA7709001 MULTIPLES	C190709 10	C190790 08	3 C		I Northwest			2,500,000	1,875,000	IVB 2,500,000	AY
0090 493.55	City of Des Moines Polk County East First & Locust Des Moines IA 50307	IA7727001 MULTIPLES	C190709 10	C190709 59	3 C		I LS,EB Westside			13,320,000	9,990,000	IVB 13,320,000	AY

FISCAL YEAR 1988

CONSTRUCTION GRANTS STATE PROJECT PRIORITY LIST

State: Iowa
EPA Region: 07

Priority Rank (59) / Priority Points (H8)	Applicant Legal Name / County Name / Street Address / City, State, Zip Code (12, 15, 51, 14, 13, 52)	Permit Number (C2) / Auth/Fac No. (32)	Grant Number / Parent Project (B2)	Project Number (02, C1, 54) 03 = 0	Step (87) / Type (04)	St Cert (A5)	Proj Desc (20)	Sel Code (33)	Innov Elig Cost (Y7) / Altern Elig Cost (Y8)	Total Eligible Cost (29)	Est EPA Assist (19)	Elig Cost by Needs Cat (Y0-Y6)	Ref Rec
0100 493.55	City of Des Moines Polk County East First & Locust Des Moines IA 50307	IA7727001 MULTIPLES	C190709 10	C190709 60	3 C		I,EB Beaver Creek			3,660,000	2,745,000	IVB 3,660,000	AY
0105 493.55	City of Des Moines Polk County East first & Locust Des Moines IA 50307	IA7727001 MULTIPLES	C190709 10	C190709 61	3 C		T Segment 6A			5,390,000	4,042,500	I 5,390,000	AY
0110 493.55	City of Des Moines Polk County East First & Locust Des Moines IA 50307	IA7727001 MULTIPLES	C190709 10	C190709 62	3 C		I Westside K Br FM			4,650,000	3,487,500	IVB 4,650,000	AY
0120 493.55	City of Des Moines Polk County East First & Locust Des Moines IA 50307	IA7727001 MULTIPLES	C190709 10	C190709 63	3 C		I Westside			3,910,000	2,932,500	IVB 3,910,000	AY
0130 493.55	City of Des Moines Polk County East First & Locust Des Moines IA 50307	IA7727001 MULTIPLES	C190709 10	C190709 64	3 C		I Fourmile Main Br			6,900,000	5,175,000	IVB 6,900,000	AY
0140 493.55	City of Des Moines Polk County East First & Locust Des Moines IA 50307	IA7727001 MULTIPLES	C190709 10	C190709 65	3 C		I Pleasant Hill			2,880,000	2,160,000	IVB 2,880,000	AY

FISCAL YEAR 1988

CONSTRUCTION GRANTS STATE PROJECT PRIORITY LIST

State: Iowa
EPA Region: 07

Priority Rank (59) / Priority Points (H8)	Applicant Legal Name / County Name / Street Address / City, State, Zip Code (12, 15, 51, 14, 13, 52)	Permit Number (C2) / Auth/Fac No. (32)	Grant Number Parent Project (B2)	Project Number (02, 01, 54) 03 = 0	Step (87) / Type (04)	St Cert (A5)	Proj Desc (20)	Sml Com (33)	Innov Elig Cost (Y7) / Altern Elig Cost (Y8)	Total Eligible Cost (29)	Est EPA Assist (19)	Elig Cost by Needs Cat (Y0-Y6)	Est Req
0150 493.55	City of Des Moines Polk County East First & Locust Des Moines IA 50307	IA7727001 MULTIPLES	C190709 10	C190709 66	3 C		I,EB Area C			2,270,000	1,702,500	IVB 2,270,000	AY
0160 493.55	City of Ankeny Polk County 211 SW Walnut Ankeny IA 50021	IA7709001 MULTIPLES	C190709 10	C190790 09	3 C		T Ph2&3			6,500,000	4,875,000	I 6,500,000	AY
0170 493.55	City of Des Moines Polk County East First & Locust Des Moines IA 50307	IA7727001 MULTIPLES	C190709 10	C190709 67	3 C		I Saylor Creek			4,980,000	3,735,000	IVB 4,980,000	AY
0180 493.55	City of Des Moines Polk County East First & Locust Des Moines IA 50307	IA7727001 MULTIPLES	C190709 10	C190709 68	3 C		I,EB Highland Hills			2,730,000	2,047,500	IVB 2,730,000	AY

FISCAL YEAR 1988

CONSTRUCTION GRANTS STATE PROJECT PRIORITY LIST
DISCHARGER RANKING

Points	Project	Points	Project	Points	Project	Points	Project
413.55	Algona	120.76	Winterset	57.86	Wellsburg	32.24	New Hampton
304.16	Iowa City	114.58	Manning	55.19	Stanwood	32.22	Walcott
280.59	Polk City	106.01	Corydon	54.87	Dayton	30.93	Clarinda
271.88	Marshalltown	90.07	Hampton	53.12	Adel	24.24	Donnellson
258.01	Mount Pleasant	79.77	Wilton	53.01	New Hartford	24.11	Gladbrook
253.12	Nevada	77.45	Whittemore	53.00	Oskaloosa	22.55	Deaville
251.81	Oelwein	74.32	DeWitt	50.81	Sigourney	21.63	Doon
230.66	Toledo	74.02	Durant	50.50	Orange City	21.40	Colfax
198.49	Farley	71.97	Conover	42.96	Moville	20.38	Villisca
156.94	Iowa Falls	67.87	Perry	40.46	North English	20.30	Maxwell
155.14	Alton	65.49	Waterloo	37.44	Coralville	18.86	Carlisle
145.72	New Sharon	63.40	Sully	35.44	Shenandoah	18.40	Victor
131.70	Creston	61.83	Albia	33.47	New London	18.08	Dyersville
125.43	Washington	60.64	Fairbank	32.82	Kellogg	16.78	Brooklyn
123.67	Edgewood	59.76	Kingsley	32.52	LaPorte City	15.96	Carson

* Unsewered Community

rag/Disk #7 - CG.FY88-14

FISCAL YEAR 1988

CONSTRUCTION GRANTS STATE PROJECT PRIORITY LIST
DISCHARGER RANKING

Points	Project	Points	Project	Points	Project	Points	Project
15.81	Ogden	8.55	Massena	5.64	Woodbine	3.60	Milledgeville *
15.52	Graettinger	8.44	Lamoni	4.87	Holstein	3.35	Ferguson *
15.15	Audubon	8.22	Grinnell	4.78	Missouri Valley	3.25	Anamosa
14.56	Rockwell City	7.75	Jesup	4.73	Humeston	2.76	Kiron
13.46	Aplington	7.44	Inwood	4.65	Britt	2.56	Lake Park
13.31	Odebolt	7.28	Sioux Rapids	4.62	Stuart	2.51	Preston
12.57	Dunlap	7.19	Marengo	4.20	Ely	2.36	Bennett
11.92	Mount Ayr	7.19	Aurelia	4.18	Clarion	2.34	Shell Rock
11.14	Carroll	6.87	Lohrville	4.17	Eldridge	2.29	Dysart
10.78	Stacyville	6.53	Wyoming	4.04	Martensdale	2.28	Albert City
10.62	West Point	6.38	Middletown	3.85	Oakland	2.25	West Branch
9.97	Wheatland	5.91	Alta	3.80	Wellman	2.19	Colo
9.52	Corning	5.81	Dallas Center	3.76	Clear Lake SSD	2.10	Griswold
9.33	Dumont	5.69	Pleasantville	3.65	Madrid	2.02	Monticello
8.75	Blairstown	5.65	Omaha	3.61	Correctionville	1.96	Evansdale

* Unsewered Community

rag/Disk #7 - CG.FY88-15

FISCAL YEAR 1988

CONSTRUCTION GRANTS STATE PROJECT PRIORITY LIST
DISCHARGER RANKING

Points	Project	Points	Project	Points	Project	Points	Project
1.92	Greenfield	1.29	Earling	.784	West Bend	.593	Lawton
1.81	Decatur City *	1.22	State Center	.782	Promise City *	.585	Hills
1.77	Fenton *	1.18	Hedrick	.769	St. Anthony *	.580	Graf *
1.75	Joice *	1.16	Bouton *	.755	Treynor	.579	Scranton
1.68	Haverhill *	1.15	Milo	.747	Center Point	.566	Lincoln *
1.65	Long Rock *	1.12	Waukee	.724	Marcus	.513	Havelock *
1.60	St. Olaf *	1.11	Newell	.714	Oran SSD *	.507	Russell
1.58	Moorland *	1.05	Numa *	.675	Farnhamville	.493	Brighton
1.55	Alta Vista	1.02	Anita	.673	Earlham	.490	Winthrop
1.54	Williamsburg	.988	Lucas *	.643	Riverton *	.464	Marne *
1.54	Luxemburg *	.967	Dike	.633	Van Horne	.462	Rose Hill *
1.50	Harvey *	.966	Melrose *	.633	Webb *	.458	Glidden
1.38	Anthon	.847	Maysville *	.610	Williamson *	.452	Swaledale *
1.37	Palmer *	.806	Sidney	.605	Essex	.441	Gilbert
1.34	Walnut	.790	Little Rock	.604	Grand Junction	.416	Paosta *

* Unsewered Community

rag/Disk #7 - CG.FY88-16

FISCAL YEAR 1988

CONSTRUCTION GRANTS STATE PROJECT PRIORITY LIST
DISCHARGER RANKING

Points	Project	Points	Project	Points	Project	Points	Project
.396	Birmingham	.257	What Cheer	.115	Long Grove	.045	Little Sioux *
.391	Grant *	.252	Redfield	.114	LeGrand	.043	Shellsburg
.390	East Peru *	.217	Shambaugh *	.095	Machealcsville	.038	Dexter
.368	Hastings *	.215	Persia	.091	Stanhope	.038	Monroe
.358	Ayrshire *	.190	Hawkeye	.078	Maple Heights SSD	.031	McGregor
.342	Blue Grass	.171	Albion	.072	Donahue	.027	Atkins
.325	Leland	.168	Exline *	.068	Keota	.026	Dyens
.321	Masonville *	.162	Cumming *	.064	Millerton *	.022	Palo
.317	Readlyn	.154	St Marys *	.062	Lockridge *	.019	Clarence
.312	Mapello	.150	Portsmouth *	.061	Baxter	.016	Farragut
.307	Lake View	.148	Gruver *	.059	Wayland	.014	Pleasanton *
.286	Winfield	.140	Ossian	.055	Denmark SSD *	.010	New Liberty *
.285	Adair	.129	Weldon *	.052	Ollie *	.009	Bellevue
.280	University Park	.127	Grand Mound	.049	Sloan	.007	Kirkville *
.262	Terrill	.120	Spring Hill *	.049	Ireton	.006	Allerton *

* Unsewered community

rag/Disk #7 - CG.FY88-17

FISCAL YEAR 1988

CONSTRUCTION GRANTS STATE PROJECT PRIORITY LIST
DISCHARGER RANKING

Points	Project	Points	Project	Points	Project	Points	Project
.005	Lehigh	.001	Eldon	.0000	Larchwood	.0000	McClausland
.002	Slater	.0005	Tabor	.0000	Low Moor	.0000	Whittier SSD *
.002	Marshall	.0003	Morley *	.0000	Larrabee	.0000	Goldfield
.001	Harpers Ferry *	.0000	Mondamin				

*Unsewered community

DEPARTMENT OF NATURAL RESOURCES
Wallace State Office Building
DES MOINES, IOWA 50319-0034

BULK RATE
U. S. POSTAGE
PAID
Des Moines, Iowa
Permit No. 1195

ENVIRONMENTAL PROTECTION COMMISSION

ITEM 15 INFORMATION

STATE CONSTRUCTION GRANT STATUS

Faced with the potential of a shortage of state funds in the Sewage Works Construction Fund which traditionally has provided five percent state grants to projects receiving federal grant assistance, it is appropriate to consider options for the administration and distribution of limited funds. It is important that the Commission be aware of state grant needs and administrative options, especially where rule revisions may be necessary.

Three general alternatives for state grant administration that address grant fund shortages follow:

Option 1: State grant contracts would be provided to projects in the order in which federal grant actions occur. State grants would only be made for a project if there were sufficient state funds available to make the full five percent grant. Should there not be sufficient funds to provide the full five percent for a project, the funds would be made available to the next project. A bypassed project would receive a state grant when sufficient funds become available to provide the full five percent grant. This option provides state grants to any projects on the federally fundable list in the order in which they meet federal requirements and as state funds are available.

Option 2: State funds would be reserved for and granted to projects required to appear on the federally fundable list in priority order as state funds are available. Annual state appropriations would be granted to the highest priority projects on a specific fundable list when they receive federal grants. Specific state grant recipients could be identified on each year's priority list when a state appropriation was made for that year. Should there be insufficient state funds to supply grants to all federally fundable projects on any year's list, lowest priority projects on that list would not receive state grants. If the appropriation is greater than necessary to supply state grants to all federally fundable projects on any year's list, the excess funds could be used to provide state grants to federally funded projects from the previous year which have not yet received a state grant, or if no previous needs exist, the subsequent year's projects.

Option 3: State grants would be made as in Option 1 to projects in the order in which federal grant actions occur. State grants would be five percent of eligible costs, subject to available state funds. Should there be insufficient funds to provide a five percent grant to the next project need, the available funds would be granted to the project and additional funds provided up to five percent when they were available.

Wayne Farrand
July 31, 1987

(I07.MIN/sc)

ENVIRONMENTAL PROTECTION COMMISSION

ITEM 17 DECISION

REFERRALS TO THE ATTORNEY GENERAL

The Director requests the referral of the following to the Attorney General for appropriate legal action. Litigation reports have been provided to the Commissioners and are confidential pursuant to Iowa Code Section 22.7(4).

Bill and Shirley Shields -- Floodplain
King Management, et al -- Floodplain
Rhinehart Construction -- Penalty Collection
Moore Oil Co. -- Penalty Collection

Mike Murphy
July 31, 1987

(105.MIN/sc)

ENVIRONMENTAL PROTECTION COMMISSION

ITEM 17A INFORMATION

PROPOSED CONTESTED CASE DECISION -- DES MOINES METRO SOLID WASTE AGENCY

The Department issued an administrative order on April 30, 1987 to Des Moines Metro East Sanitary Landfill concerning several violations involving the operation of the sanitary landfill and imposing a $1,000 penalty. The order was appealed, and a contested case hearing was held on July 16-17, 1987. The proposed decision of the hearing officer affirming the Department's order in part but reversing that portion which assessed the $1,000 penalty is attached.

Des Moines Metro Solid Waste Agency or the Department may appeal this proposed decision to the Commission. In the absence of an appeal, the Commission may decide on its own motion to review the proposed decision. If there is no appeal or review of the proposed decision, it automatically becomes the final decision of the Commission

Mike Murphy
August 17, 1987

(I10.MIN/sc)

BEFORE THE DEPARTMENT OF NATURAL RESOURCES

Des Moines, Iowa

IN THE MATTER OF: DES MOINES METRO SOLID WASTE AGENCY	PROPOSED FINDINGS OF FACT, CONCLUSIONS OF LAW AND ORDER DIA NO: NHS 870148

On April 30, 1987 the Iowa Department of Natural Resources (hereinafter, Department) issued Administrative Order No. 87-SW-10 to Des Moines Metro Solid Waste Agency (hereinafter, Agency), which required the Agency to: 1) provide a wet weather disposal area which shall be operated in conformance with the Department's rules, 2) to provide intermediate cover, 3) to uniformly spread and cover all solid waste after each day of operation with a compacted layer of at least six inches of earth, 4) to dispose of sludge in accordance with its special waste authorization and land application rules, and 5) to pay an administrative penalty of $1000.00. On May 5, 1987 the Agency appealed from the issuance of Administrative Order Number 87-SW-10. A Notice of Hearing set the hearing for July 16, 1987. The Petition was filed on June 17, 1987. The Answer was filed on July 6, 1987.

The hearing was held on July 16 and July 17, 1987 in the fifth floor conference room, Wallace State Office Building, 900 E. Grand, Des Moines, Iowa 50319. Representing the parties were Victor Kennedy, counsel for the Department, and James E. Brick, counsel for the Agency. The undersigned hearing officer presided. By stipulation of the parties, the testimony of Larry Wilson, Allen Stokes, Peter Hamlin, and Christine Spackman was read into the record from depositions.

THE RECORD

The evidentiary record in this case consists of the recorded testimony of the witnesses, the above pleadings, and the following Exhibits:

Department Exhibit	1	-	Administrative Order 87-SW-10
	2	-	567 Iowa Administrative Code ch. 100-109 (copies)
	3	-	567 Iowa Administrative Code ch. 120-121 (copies)
	4	-	Special Waste Authorization Permit No. 770104238602

5 - Special Waste Authorization Permit No. 770104078701
6 - Cover letter dated 4-6-87 to Charles Miller from Jack Clemens and attached inspection report for 2/24/87 inspection.
7 - Cover letter dated 4/16/87 to Miller from Clemens and attached inspection reports for 4/6, 3/24/87 inspections.
8 - Cover letter dated 5/15/87 to Miller from Clemens and attached inspection reports for 4/16 and 4/20/87 inspections.
9 - Computer printout for landfill orders issued by the Department 7/1/86-7/1/87.

10 - Referral Summary for Des Moines Metro East Sanitary Landfill (hereinafter, Metro East SLF).
11 - Excluded from evidence
12 - Photograph taken 4/24/87 of working face of Southeast quadrant the Metro East SLF depicting uncovered Solid Waste
13 - Same as 12
14 - Same as 12
15 - Photograph taken 2/24/87 depicting sludge on hillside.
16 - Same as 15, from different angle
17 - Administrative Order 85-LQ-02
18 - Letter dated 1/10/85 to Stephen Ballou from Marie Adair.

Petitioner Exhibit A Inspection report dated 2/3/87 for inspections on 1/9 and 1/20/87
B - Inspection report for 4/6/87 inspection
C - Letter dated 5/1/86 to Van Buren County Landfill from the Department
D - Letter dated 4/30/86 to Washington County Landfill from the Department
E - Letter dated 10/8/85 to Northwest Iowa Solid Waste Agency from the Department
F - Dictation of Joe Obr relative to the Landfill site dated 3/19/87
G - Memorandum dated 3/20/87 summarizing meeting between Stokes, Hamlin and Obr.
H - Cover page of Application for Permit Amendment dated 8/26/86 for the Metro East SLF
I - Waste Receipt Records for the

landfill for 4/24/87

J - Weather records of NOAA, National Climatic Data Center for February, 1987

K - Drawing of Typical Landfill Cell Development

L - Environmental Protection Division - Operational Guidance for Enforcement

M - Letter dated 2/16/87 from Hamlin to Miller.

FINDINGS OF FACT

1. The Des Moines Metropolitan Area Solid Waste Agency (hereinafter the "Agency") operates a sanitary landfill located south of highway 163 in eastern Polk County and legally described in part as sections 1 and 2, T78N, R22W Polk County, Iowa. The landfill is known as the Des Moines Metro East Sanitary Landfill. (hereinafter "Metro East SLF")
(Department Exhibit 1)

2. The Agency operates Metro East SLF pursuant to permit No. 77-1-SDP-72P issued by the Department and most recently renewed on July 18, 1986, and amended on December 12, 1986.
(Department Exhibit 1)

3. The Agency was also issued a Special Waste Authorization No. 770104238602 on April 23, 1986 which allowed it to accept 1450 tons/month of dewatered anaerobically digested sludge from the City of Des Moines Wastewater Treatment Plant until April 30, 1987.
(Department Exhibit 4)

4. The Special Waste Authorization described above allows the landfill operator to choose between two methods of disposal, either directly on the working face (if the sludge is at least 30% solids) or by land application.
(Department Exhibit 4)

5. A typical sanitary landfill consists of lifts (elevations of land) which slope downwards, typically in a 3:1 slope. The sloping area is the working face on which daily waste is applied. The landfill's steeled wheel compactor dumps its load of waste at the toe and then spreads it out in thinner layers as the weight of the equipment compacts the waste. At Des Moines Metro SLF, waste is compacted in two foot maximum layers (usually six inches-one foot), cover material is applied at the top between layers. A minimum of six inches of cover must be applied at the end of each day to the series of compacted layers for that day, which is called the daily refuse cell. Des Moines Metro SLF receives 1200 to 1400 tons of solid waste per day. Each daily refuse cell

is approximately 1700-1800 cubic yards, and two hundred feet wide. The cell is advanced approximately 100 feet per day. (Petitioner's Exhibit K, Testimony of Rodney Vlieger)

6. Some sludge is buried in the working face of the landfill. Land application of the sludge is a preferable method of disposal because burying sludge in the working face increases leachate. Leachate is the precipitation or water from within waste which picks up some contaminants from contact with the waste. Leachate breaks out of the sides of slopes of landfills. When leachate breaks occur, the Department requires the landfills to excavate and plug up the breaks. Leachate breaks are common problems at all land fills.
(Testimony of Rodney Vlieger, Christine Spackman)

7. Land application of sludge is not a common practice among landfills generally, and the practice was initiated by the Des Moines Metro Agency as a method to deal with sludge. It can be accomplished in one of two ways, depending on the moisture content of the sludge. If the sludge has a high moisture content and only 5-10% solids it can be knifed in or injected with a knife like instrument attached to a pipe which injects the sludge in "globs" in two or three trenches in ten foot widths. The second method uses a mechanism with an apron chain and beaters that works somewhat like a manure spreader.
(Testimony of Rodney J. Vlieger)

8. The Special Waste Authorization No. 770104078701 was issued to the Agency effective from April 30, 1987 until April 30, 1988. Land Application procedures were changed from the previous year's Special Waste Authorization. The changes included a maximum application rate of 60 tons/acre/year, maximum levels established for specified metals, and that the sludge shall be incorporated into final cover within 24 hours.
(Department Exhibit 5)

9. Employees of the City of Des Moines, the generator of the sludge, actually haul the sludge from its wastewater treatment plant to the Des Moines Metro SLF and apply it to the landfill ground using their own equipment. The Special Waste Authorization is issued to the Agency because it owns the land.
(Testimony of Joe Obr, Rodney J. Vlieger)

10. Cover is the cardinal rule of landfill operation and is a basic operational mandate. Cover refers to the procedure of applying dirt to the exposed layer of waste on the working face and top of the landfill. Department rules require a minimum of six inches of daily cover to be placed at the end of the working day. Cover violations by landfills, either for failure to cover or insufficient cover, are common.

(Testimony of Pete Hamlin)

11. Wet weather complicates most aspects of landfill operation. When the landfill grounds are wet, the vehicles are traveling on clay, which is slick, and have trouble getting to the working face of the landfill. More waste adheres to the equipment. For this reason a wet weather area is designated, and it is necessary to stockpile cover near the working face of the wet weather area since the equipment can't get into virgin areas with spreaders to get new cover. If it rains too many days in a row, the stockpile diminishes and can not be replenished.
(Testimony of Rodney Vlieger)

12. On January 8, 1985 Administrative Order 85-LQ-02 was issued to the Metro East Sanitary Landfill in care of its Director, Marie Adair. The order cited Des Moines Metro SLF for inadequate cover of the wet weather area and working face on November 8, and 14, 1984, and noted previous inadequate daily cover on July 12, 1984; April 26, 1984; June 22, 1983; March 4, 1983; and December 8, 1982. Ms. Adair responded to the Department on the day she received notice of the administrative order. She enclosed her letter to Jack Clemens, Regional Administrator Region #5 of the Department, dated December 7, 1984. In that letter, Ms. Adair stated her intention to make a strong effort to correct the problems and outlined the actions she had taken. Among other actions, Ms. Adair had purchased 80 additional acres to the south of the landfill for additional dirt.
(Department Exhibits 17 and 18)

13. On January 9, 1987 Steve Grgurich, Environmental Specialist with Region 5 of the Department, inspected the Des Moines Metro SLF. He made a return visit on January 20, 1987. His inspection report was sent to Charlie Miller, the current Director of the Agency, on February 9, 1987. Miller became the Director on February 1, 1985. The report contained the following recommendations: 1) Maintain an effective letter control program, 2) Install approved leachate control program, 3) Control entry of excess liquids associated with industrial waste allowed by Special Waste Authorizations.
(Petitioner's Exhibit A; Testimony of Charlie Miller)

14. The inspection report stated litter was excessive at the site on January 9, 1987 but was well under control by the return visit of January 20, 1987. Grgurich testified that the excessive litter was the only violation found. The staff had worked twelve hour days for one week, utilizing 48 manpower people, to accomplish the litter clean up. Litter fences are being utilized. The report noted that a large landfill is bound to have litter blowing with strong winds and commended the staff for accomplishing control of the litter. The report also stated that the landfill has money

budgeted for a litter vacuum if the appropriate equipment can be found.
(Petitioner's Exhibit A, Testimony of Steve Grgurich)

15. The report noted some cover erosion on the south southwest slope of the original landfill and two erosion trenches were observed with some solid waste showing on the north slope. The north and south cover erosion and erosion trenches were completely repaired by the return visit on January 20, 1987.
(Petitioner's Exhibit A; Testimony of Steve Grgurich)

16. The report also noted two large leachate seeps on the southwest corner of the original landfill on January 9, which had been repaired by January 20, 1987. The report further notes that the proposed leachate collection and treatment system will have trenches around the perimeter of the landfill which will collect the leachate and direct it to an aerated lagoon system.
(Petitioner's Exhibit A; Testimony of Steve Grgurich)

17. Although there is no documentation that leachate seeps have caused contamination of any ground wells or streams, the Agency has on its own initiative retained Rodney J. Vlieger, a registered professional engineer with Hickok and Associates, to prepare leachate and methane control plans. Prior to joining Hickok, Mr. Vlieger worked for the Department as a Senior Engineer and Environmental Engineer I & II in the landfill area for 11½ years. The leachate control program, in addition to a siltation plan designed by Vlieger, was approved by the Department in December, 1986. Its construction has been held up by the Board of Adjustment's refusal to grant a zoning variance for the storage pond. If construction goes ahead, the cost of the plan will total $725,000.
(Testimony of Rodney J. Vlieger, Peter Hamlin, Joe Obr)

18. Normally landfills are subject to one formal annual inspection and three "visits" by the Department in a given year. At some point in early 1986, Al Stokes, the Administrator for the Environmental Protection Division of the Department, decided that there should be weekly inspections of the Des Moines Metro SLF. This was not a standard procedure.
(Testimony of Steve Grgurich, Christine Spackman, Peter Hamlin)

19. On February 24, 1987 Steve Grgurich inspected the Des Moines Metro SLF again in response to neighboring landowners complaints. He was accompanied by Jack Clemens, and they met three neighbors at one of their homes, and proceeded together at the landfill. While they were at the site, Gary Stroud, the landfill's superintendent, drove down to see what they were doing. When he was told they were responding to neighbors complaints, Stroud told them to go ahead and

look at whatever they wanted to, and then he left. Grgurich did not sign his inspection report for the 2-24 inspection until 4-3-87, and it was not approved until 4-6-87. The report was sent to Charlie Miller, Director of the Agency on 4-6-87. It is not ordinary procedure for there to be such a delay between the inspection and delivery of the report to the landfill operator.
(Petitioner's Exhibit 6, Testimony of Steve Grgurich, Gary Stroud, Joe Obr)

20. The 2-24-87 inspection report sent 4-6-87, alleged the following deficiencies: 1) Land application of sludge was taking place on land neither allowed under the special waste authorization nor permitted by a land application permit from the Department, 2) Sludge was found to be 4-6 inches thick on the ground in some areas. Sludge should be incorporated to reduce runoff potential, 3) Sludge was applied on slopes of up to %20 . Land application of sludge on slopes exceeding 5% during winter months is prohibited under Iowa Administrative Code, 4) Erosion from the landfill and siltation of adjoining streams was found to be resulting in detrimental impact on the streams and water quality.
(Department's Exhibit 6)

21. Land application of sludge did not take place on land not authorized by the special waste authorization. The landfill's permit No. 77-SDP-1-72P was amended, effective December 12, 1986, to include an additional 80 acres for a total of 600 acres.
(Department Exhibit 4, Petitioner's Exhibit H, Testimony of Rodney Vlieger, Steve Grgurich,)

22. The manure spreader type equipment used to land apply sludge may leave a clump of sludge in an isolated area, but it cannot leave a uniform layer of even as much as two inches of thickness.
(Testimony of Rodney Vlieger)

23. Temperatures were well above normal in February, 1987 in Des Moines, Iowa. The average daily high temperature was 46.7°F. The average daily low temperature was 24.7°F. The daily soil temperatures table for February show an average soil temperature at or above 32.0 from its Ankeny station. Ankeny is the soil reporting station closest to Des Moines. It is unlikely the ground at the Des Moines Metro SLF was actually frozen in February, 1987.
(Petitioner's Exhibit J, Testimony of Rodney Vlieger)

24. The agency submitted a siltation plan for the Des Moines Metro SLF for approval to the Department, and it was approved in December, 1986. The siltation plan is twofold: 1) Re-excavation of some of the channels to allow proper drainage of the site (some of this was accomplished

this summer), and 2) As portions of the landfill site are brought up to final grade, terraces and diversions will be constructed on the slope.
(Testimony of Rodney J. Vlieger, Charlie Miller)

25. On March 19, 1987, Larry Wilson, Director of the Department, and Joe Obr, Supervisor of 6 Field Offices, met with two neighbors of the Des Moines Metro SLF regarding their complaints. Neighbors had complained about the landfill on and off for years, but complaints had recently gained the attention of the press and the attorney general's office. The Department was receiving calls concerning the landfill on almost a daily basis. Joe Obr listed 22 of their concerns in a memo. Among their complaints is the allegation that Camp Creek has been polluted from runoff from the landfill, and that a farmer downstream had fourteen cows that had not bred that year and they suspected contaminated water from the landfill to be the cause.
(Petitioner's Exhibit F, Testimony of Larry Wilson and Joe Obr)

26. The Des Moines SLF has been required to take water samples for the last fifteen or sixteen years. There is no evidence that any stream has been polluted as a result of the landfill's operation. The Department tried unsuccessfully to track down the farmer who had allegedly had problems with his calves and none of the neighbors could identify him. Peter Hamlin, Bureau Chief for Air Quality and Solid Waste Protection, was misquoted in the newspaper regarding a link between the Des Moines Metro SLF and pollution in the creek and stillborn calves. There was no evidence to support those statements.
(Testimony of Peter Hamlin, Joe Obr)

27. On March 24, 1987, Steve Grgurich and Bob Schuelsky went to Des Moines Metro SLF to perform sediment sampling in the bottom of Camp Creek at five locations. Sampling was done during a rainfall event when runoff could occur. The results showed increases in all metals parameters from upstream Camp Creek progressing downstream. Some heavy metals are present in the bottom of the stream, but the concentrations are typical of normal soils. Furthermore, the upstream sample location was observed to have considerable sand as confirmed by the lab report indicating 83% sand. Therefore, this area is not a typical stream bed to use for comparison. The inspectors concluded that if the concentrations of heavy metals in the north tributary were used as background comparison where the over-application of sludge was not apparent, the difference in concentrations does not seem significant. Water samples showed no increase in bio-chemical oxygen demand upstream to downstream. Chemical oxygen and Kjeldahal Nitrogen increases slightly. Fecal Coliform would be considered normal in Iowa streams although an increase was evident below the sludge

disposal. No evidence was presented to show that the increase was significant.
(Petitioner's Exhibit B, Testimony of Steve Grgurich)

28. On April 6, 1987 the same two inspectors returned to the Des Moines Metro SLF to perform Creek sampling at specific locations in response to landowner's complaints regarding wastewater sludge runoff from landfill property's surfaces. Two neighbors accompanied the inspectors, and samples were taken from eight locations which were to be analyzed for Chemical Oxygen Demand (COD), Total Dissolved Solids (TDS), Total Organic Carbon (TOC), Phenol, Cyanide, and heavy metals. The only heavy metals detected in the stream were barium and zinc, which were found in concentrations less than 20 percent of the maximum allowed by drinking water and stream standards.
(Petitioner's Exhibit B; Testimony of Steve Grgusich)

29. On April 6, 1987, the inspectors observed that land applicators had placed sludge within 200 feet of a residence and 500 feet of a well at that residence in violation of IAC 567-121.3(1)"C"(9). Grgurich stepped off the distance from the sludge to the house and estimated it to be 130 feet. The well was directly behind the house.
(Petitioner's Exhibit B, Testimony of Steve Grgurich)

30. Grgurich immediately notified Gary Stroud of the sludge location, and Stroud got out his earth moving scrapers and had them start stripping the sludge. It was completely removed within three and one half hours.
(Petitioner's Exhibit B, Testimony of Steve Grgurich, Gary Stroud)

31. A significant leachate seep was also discovered during the April 6th visit. The operator was notified and the seep was excavated and repacked as others have been, according to the Department's inspection report.
(Petitioner's Exhibit B, Testimony of Steve Grgurich)

32. Considerable litter was noted in the report of the April 6th inspection together with the observation that the landfill staff was working to bring it under control.
(Petitioner's Exhibit B)

33. The inspection report stated that piles of sludge, 10-12 inches thick were observed on the south hillside. At the time there was no limit in the special waste authorization as to the amount of sludge that could be applied per acre.
(Testimony of Rodney Vlieger, Petitioner's Exhibit B, Department Exhibit 4)

34. The inspection report for the April 6th inspection also noted alleged discrepancies in record keeping on sludge volume between the City of Des Moines and the Agency. The

Testimony at the hearing established that there was no discrepancy in the records. The Department inspectors only asked for one set of records from Des Moines Metro SLF. The landfill keeps two separate sets of records as required by its special waste authorization and law. One set is for sludge that is landfilled and one set is for sludge that is land applied. The total of the two sets of records matched the city's records exactly.
(Testimony of Rodney Vlieger, Department Exhibit 8)

35. On April 8, 1987 the Agency suspended all sewage sludge land application effective immediately, pending board review. The Department has recently informed the Agency that they can resume land application of sewer sludge, but the Agency is refusing to do so unless a court authorizes it.
(Testimony of Charlie Miller)

36. Steve Grgurich made additional visits to Des Moines Metro SLF on April 16, April 20, April 23, and April 30, 1987 and the inspection reports on these visits were sent to Charlie Miller on May 15, 1987.
(Department Exhibit 8)

37. The 4/16 inspection revealed additional leachate seeps and litter which was corrected by the return visit of 4/30/87. The report also noted that the last quarter of the landfill needed grading and additional coverage of miscellaneous waste that was visible near the surface.
(Department Exhibit 8)

38. On April 23, 1987 Jim Stricker, a Department inspector, responded to complaints that waste had not been covered at the landfill, and observed the landfill from the county road approximately 1/2 mile away. His report stated that bulldozers were pushing waste up the working face which was estimated at 20 feet high. The landfill was later observed at 7:50 p.m. and the large pile of waste in the wet weather area was observed. It had not been covered. There was no activity at the site. Stricker visited the site at 7:50 a.m. on April 24, 1987 and observed a large pile of waste on the working face. The landfill had been open since 6:00 a.m. and had received 178.56 tons of waste between 6:00 a.m. and 7:30 a.m. Therefore, the waste observed on April 24, 1987 was not the same waste observed on April 23, 1987, and the inspection report is erroneous on that point.
(Department Exhibit 8, Testimony of Gary Stroud, Petitioner's Exhibit I)

39. The pile of waste observed by Stricker on 4/23 which was estimated to be twenty feet high, must have actually been a lift, which would have been approximately twelve feet high. Stricker's distance from the site would account for his miscalculation of the height.
(Testimony of Rodney Vlieger)

40. The foreman of the crew that had been working overtime the evening of April 23, 1987 until 7:30 p.m., admitted on April 24, 1987 that he had not completely covered the working face of the cell the night before because it had been raining for four days and he was afraid they would run out of cover material. When Gary Stroud and Charlie Miller were informed of this they immediately suspended the foreman for three days without pay and issued him a written reprimand for disobeying landfill policy of using 12 inches of cover. This was the maximum punishment allowed by the union bargaining agreement.
(Department Exhibit 8, Testimony of Gary Stroud, Charlie Miller)

41. The Des Moines Metro SLF was inspected by Christine Spackman on April 30, 197. The inspection revealed no violations and the inspector concluded that the site looked very good.
(Department Exhibit 8; Testimony of Christine Spackman)

42. On April 30, 1987 the Department issued Administrative Order 87-SW-10. It was prepared by the Legal Services Division of the Department who relied on the Department's file and a referral summary (Department Exhibit 10) in preparing it. The order required the Agency to provide a wet weather disposal area which shall be operated in conformance with the Department's rules, to provide intermediate cover, to uniformly spread and cover all solid waste after each day of operation with a compacted layer of at least six inches of earth, to dispose of sludge in accordance with the special waste authorization and land application rules, and to pay an administrative penalty of $1000.00.
(Department Exhibits 1,10; Testimony of Michael P. Murphy)

43. Al Stokes told Joe Obr to provide the relevant information to Legal Services and to have them prepare an order. Stoke's strong suggestion was a maximum penalty. His stated reasons for the maximum penalty were the blatantness of the nature of the violation and the agency's cavalier attitude. However, Stokes also testified in his deposition that the agency took immediate steps to correct the problem when they ceased taking sewage sludge and immediately cleaned up the situation that was there. This testimony does not support his conclusion that the agency had a 'cavalier' attitude. The Department staff could not think of any mitigating circumstances for the daily cover violation.
(Testimony of Al Stokes)

44. Peter Hamlin testified that generally a penalty will be sought on referral if the order represents a second violation. Possible exceptions are made when there has been 1) a good faith effort to comply, 2) circumstances which make compliance physically impossible 3) acts of god.

(Testimony of Peter Hamlin)

45. Michael P. Murphy, head of Legal Services for the Department, testified that he prepared Administrative Order 87-SW-10. He reviewed the referral package, the file, and the recommendation of a maximum fine. Murphy regarded Stokes suggestion of a maximum penalty to be a recommendation which he independently reviewed pursuant to 567 Iowa Administrative Code 10.2. Al Stokes testified that he considered his strong suggestion of a maximum fine to be a directive. Regardless of Stokes' intent, the hearing officer finds that Murphy perceived it to be a recommendation.
(Testimony of Michael P. Murphy, Al Stokes)

46. Michael P. Murphy computed the $1000.00 penalty as follows: 1) $400.00 assessed because daily cover violation and the failure to assure proper sludge disposal are due primarily to an effort to save costs, 2) $300.00 assessed for gravity of the violation since failure to adequately cover strikes at the very heart of the pollution control program and unfiltered dumping of sewage sludge in a manner that may allow water pollution is particularly serious, 3) $300.00 assessed for culpability because daily cover violations are [illegible] rate.
(Department Exhi[illegible]; Testimony of Michael P. Murphy)

47. The Agency and the Superintendent of the Des Moines Metro SLF have demonstrated conscientious and prompt and costly efforts to comply with the landfill and sludge regulations and in some instances have gone beyond what is legally required of them. The Department has commended the Agency for these efforts.
(Testimony of Charlie Miller, Gary Stroud, Raymond Vlieger, Al Stokes, Peter Hamlin, Steve Grgurich, Christine Spackman; Petitioner's Exhibit M)

CONCLUSIONS OF LAW

1. Substantial evidence established that the Agency violated 567 Iowa Administrative Code 103.3(2) which provides in part that waste must be covered after each day of operation with a compacted layer of at least six inches of earth.
(Findings of Fact 38, 39, 40)

2. Substantial evidence established that the Agency failed to provide sufficient cover material at their wet weather area in violation of 567 Iowa Administrative Code 103.2(2).
(Findings of Fact 38, 39, 40)

3. Substantial evidence established that the Agency violated 567 Iowa Administrative Code 121.3(1) "c" (9) which prohibits the disposal of sludge within 200 feet of an

occupied residence or 500 feet of a well.
(Findings of Fact 29, 30)

4. The Department failed to establish by substantial evidence that the Agency had land applied sludge on frozen or snow covered ground of greater than 5% slope in violation of 567 Iowa Administrative Code 121.3(1) "c" (7)
(Findings of Fact 20, 33)

5. The Department failed to establish by substantial evidence that sludge was applied up to twelve inches deep on the south hillside of the landfill.
(Findings of Fact 22, 33)

6. Pursuant to Iowa Code Section 455B.109, the Environmental Protection Commission is authorized to establish, by rule, a schedule of civil penalties which may be assessed administratively. The Commission has adopted this schedule with procedure and criteria for assessment of penalties. 567 Iowa Administrative Code 10.

7. The Legal Services Section of the Department did screen this case and considered the relevant factors in assessing the administrative penalty under 567 Iowa Administrative Code 10.2. However, substantial evidence was not presented to support the conclusions drawn by Legal Services in assessing the penalty. There was no evidence presented to establish that the Agency has ever failed or refused to take remedial action in an effort to save costs. There was no evidence presented to establish that the Agency deliberately and without concern violated the regulations. Substantial evidence was presented to establish that the Agency has taken prompt remedial actions and has mitigated the harm caused by the violation. In addition, the Department failed to promptly notify the Agency of the results of its 2-24-87 inspection. When the Agency was finally notified, it took prompt action.
(Findings of Fact 11, 14, 16, 17, 24, 29, 30, 31, 32, 35, 37, 38-41, 43, 47)

8. Department rule 567 Iowa Administrative Code 103.3(2) requires that solid waste, immediately after it is deposited, be uniformly spread in layers not exceeding two (2) feet in depth, and covered after each day of operation with a compacted layer of at least six inches of earth. Administrative Order No. 87-SW-10, Section V, Number 1, erroneously states that "lifts" shall not exceed two feet in depth. This order is not in conformance with the administrative regulations. It should be modified to substitute the word "layers" for "lifts".
(Findings of Fact 5)

ORDER

It is therefore ORDERED, that Administrative Order No. 87-SW-10, issued to the Des Moines Metro East Sanitary Landfill on April 30, 1987 is affirmed in part and reversed in part. Section V, Number 1 is modified to substitute the word "layers" for "lifts" and is affirmed. Section V, Number 2 is affirmed. Section V, Number 3 is reversed. Section V, Number 4 is affirmed. Section V, Number 5 is affirmed.

DATED THIS 7th DAY OF AUGUST, 1987.

Margaret LaMarche
Hearing Officer
Iowa Department of Inspections
and Appeals

cc: James Brick, for the Appellant
Victor Kennedy, for the Department