# EPC COMMISSION MINUTES & AGENDA

MONTH October

YEAR 1987

ADM-1-1-1
October 1987

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


| | Page |
|---|---|
| MEMBERS PRESENT | 1 |
| MEMBERS ABSENT | 1 |
| ADOPTION OF AGENDA | 1 |
| ADOPTION OF MINUTES | 1 |
| DIRECTOR'S REPORT | 1 |
| PUBLIC PARTICIPATION | 2 |
| MONTHLY REPORTS | 2 |
| ADOPTION OF RULE -- CHAPTER 143, USE OF RECYCLED OIL FOR ROAD OILING, DUST CONTROL AND WEED CONTROL | 9 |
| EMERGENCY ADOPTION -- CHAPTERS 50 AND 51, AGRICULTURAL DRAINAGE WELL REGISTRATION | 10 |
| NOTICE OF INTENDED ACTION -- CHAPTER 100, "SCOPE OF TITLE-DEFINITION-FORMS-RULES OF PRACTICE," AND CHAPTER 102, "PERMITS" | 12 |
| NOTICE OF INTENDED ACTION -- CHAPTER 102, "PERMITS" | 14 |
| AMENDMENTS TO NEW SOURCE PERFORMANCE STANDARDS AND NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS | 15 |
| NOTICE OF INTENDED ACTION -- CHAPTER 91, STATE CONSTRUCTION GRANTS | 19 |
| NOTICE OF INTENDED ACTION -- CHAPTER 135, UNDERGROUND STORAGE TANKS | 20 |
| NOTICE OF INTENDED ACTION -- CHPATERS 100, 103, AND 110, GROUND-WATER MONITORING AT LANDFILLS | 22 |
| REFERRALS TO THE ATTORNEY GENERAL'S OFFICE | 38 |
| GROUNDWATER PROTECTION NEWS | 39 |
| MEETING REPORT | 39 |
| REFERRALS TO THE ATTORNEY GENERAL'S OFFICE (Continued) | 39 |
| APPOINTMENT -- BILL SHIELDS | 40 |

Page


1988 LEGISLATION -- COMMITTEE REPORT . . . . . 40

APPOINTMENT -- TOM HESTON . . . . . 40

CONTESTED CASE APPEAL -- DES MOINES METRO LANDFILL . . . . . 41

APPOINTMENT -- DES MOINES METRO LANDFILL . . . . . 41

RECESS . . . . . 42

MEETING RECONVENES AT 9:00 A.M., TUESDAY, OCTOBER 20, 1987 . . . . . 42

REFERRALS TO THE ATTORNEY GENERAL'S OFFICE (Continued) . . . . . 42

APPOINTMENT -- KEN COOPER . . . . . 42

1988 LEGISLATIVE PACKAGE . . . . . 43

COMMENT . . . . . 43

CONTESTED CASE APPEAL -- CITY OF LONG GROVE . . . . . 44

APPOINTMENT -- CITY OF LONG GROVE . . . . . 45

ADDRESS ITEMS FOR NEXT MEETING . . . . . 45

NEXT MEETING DATES . . . . . 45

ADJOURNMENT . . . . . 46

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

The meeting of the Environmental Protection Commission was held at the Wallace State Office Building in Des Moines, Iowa convening at 10:00 a.m. on Monday, October 19.

MEMBERS PRESENT

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

MEMBERS ABSENT

Catherine Dunn, Donna Hammitt

ADOPTION OF AGENDA

The following appointments were added to the agenda:

October 19: Bill Shields, 2:30 p.m.
Mr. Heston - City of Ankeny, 3:15 p.m.
Des Moines Metro Landfill, 3:30 p.m.

October 20: City of Long Grove, 10:30 a.m.
Ken Cooper, 11:00 a.m.
Giese Construction, 11:30 a.m.

Keith Uhl asked that, before the Commission review any contested case hearings, staff inform the Commission of rules to follow in the review of these cases. Mike Murphy, Legal Bureau, explained options available to the Commission. Discussion took place regarding the rules and procedures.

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

ADOPTION OF MINUTES

The following correction was made to the minutes: Page 1, second paragraph from bottom, delete "resignation" and insert "retirement notice."

Motion was made by Richard Timmerman to approve the minutes of September 21-22, 1987 as amended. Seconded by Charlotte Mohr. Motion carried unanimously.

DIRECTOR'S REPORT

Director Wilson reported that Ruth Bender was selected as the Division Administrator for the Waste Management Division. Mr. Wilson introduced Mrs. Bender to the Commission and stated that she will begin work with the Department on Thursday of this week.

Director Wilson reported that staff has been working closely with representatives of about ten different retail associations in Iowa regarding rules for household hazardous waste materials. They were very helpful and cooperative in their suggestions and with advice on how to frame the requirements of the labeling and information portions of the program so that it will work smoothly with the retail environment. One of the suggestions offered was to use a logo rather than using a label with a hard-to-read and understand message.

James Brown, Coordination and Information Division, presented a slide photo of the proposed logo. Mr. Brown stated that the retailers suggested using something small that would get attention and allow people to identify with the program. The logo will be 7/8-inch square, and will have a bright yellow background with the design in black. Mr. Brown added that some members of the legislative staff also worked on this. The design is by Pat Lohmann of the Geological Survey Bureau.

Director Wilson stated that the Midwest Commission on Low-Level Radioactive Waste will meet in Chicago the latter part of November. Michigan is moving forward, before their legislature, to give them siting authority, and establish criteria and methods to look at in locating a low-level radioactive waste site there. The chairmen of the Energy and Environment committees, both in the House and Senate, have been asked to meet with Allan Stokes and the Director before they go to the Chicago meeting. Legislators will also be asked to go to the Chicago meeting.

The Department of Natural Resources, in cooperation with the Iowa Association of Naturalists, Iowa State University, and several county conservation boards, is sponsoring a two-day workshop entitled "Iowa Women in Natural Resources." This workshop will be held at the Education Center in Springbrook State Park on December 1 and 2.

PUBLIC PARTICIPATION

Chairman Schlutz announced public participation at 10:30 a.m.; no one requested to speak.

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.

IOWA DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION COMMISSION
RULEMAKING STATUS REPORT
OCTOBER 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. 50 - Emission Standard | 9/22/87 | ---- | | ---- | 9/22/87 | 9/22/87 | 10/21/87 | 9/22/87 |
| 2. Ch. 23 - NSPS & NESHAPS | 10/22/87 | *11/10/87 | | 12/09/87<br>12/10/87<br>12/11/87 | | | | |
| 3. Chs. 50, 51 - Ag Drainage Well Registration | 10/22/87 | ---- | | ---- | 10/22/87 | *10/22/87 | *11/10/87 | *10/22/87 |
| 4. Chs. 50 - 52 Water Allocation (Conservation) | 5/26/87 | 6/17/87 | 7/08/87 | 7/07/87<br>7/08/87<br>7/10/87 | 9/22/87 | 9/22/87 | 10/21/87 | *11/25/87 |
| 5. Ch. 91 - Construction Grants | 10/27/87 | *11/10/87 | | 12/08/87 | | | | |
| 6. Chs. 100, 102 - Liquids in Landfills | 10/28/87 | *11/10/87 | | 12/09/87<br>12/10/87<br>12/11/87 | | | | |
| 7. Ch. 102 Sewage Sludge at Landfills | 10/28/87 | | | | | | | |
| 8. Chs. 100, 103 - Landfill Ground Water Monitoring | 3/16/87 | 5/20/87 | 6/10/87 | 6/09/87<br>6/10/87<br>6/11/87 | *Termination 10/28/87 | | | |
| 9. Chs. 100,103 Landfill Ground Water Monitoring | 10/28/87 | *11/10/87 | 2/10/87 | 12/09/87<br>12/10/87<br>12/11/87 | | | | |
| 10. Ch. 135 - Tank Registration | 9/22/87 | ---- | | ---- | 9/22/87 | 9/22/87 | 10/21/87 | 9/22/87 |
| 11. Ch. 135 - Sniffer Well Criteria | 10/28/87 | *11/10/87 | | 12/09/87<br>12/10/87<br>12/11/87 | | | | |
| 12. Ch. 143 - Used Oil | 6/17/87 | 8/12/87 | | 9/08/87<br>9/09/87<br>9/10/87 | 10/28/87 | *10/28/87 | *11/10/87 | *12/23/87 |
| 13. Ch. 152 - Criteria for Siting Low-Level Radioactive Waste Facilities | 8/19/87 | 9/09/87 | 10/15/87 | 10/01/87<br>10/02/87<br>10/06/87 | | | | |

*Projected

MONTHLY VARIANCE REPORT 09/30/87

| No. | Facility | Program | Engineer | Subject | Decision | Date |
|---|---|---|---|---|---|---|
| 1 | Holland Bros. Const.Co | Air Quality | | Landscape Waste | approved | 09/01/87 |
| 2 | IA-ILL Gas & Electric | Air Quality | | Monitors | approved | 09/15/87 |
| 3 | Mystic, City of | Wastewater Const. | French-Renshaw | Pond Influent Piping | approved | 09/02/87 |
| 4 | Kossuth County | Flood Plain | County Engineer | Freeboard | approved | 09/01/87 |
| 5 | University of Iowa | Watersupply Const. | UofI Water Plnt Mgr | Siting Criteria | approved | 09/24/87 |
| 6 | University of Iowa | Watersupply Const. | UofI Water Plnt Mgr | Design Basis | approved | 09/24/87 |
| 7 | Alta Mun. Facilities | Watersupply Const. | Layne Western-L.U. | Siting Criteria | denied | 09/25/87 |

## REPORTS OF HAZARDOUS CONDITIONS

During the period of September 1, 1987 through September 30, 1987, reports of 51 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 |
|---|---|---|---|
| 9/03/87 LINN | On September 3, 1987, a tanker truck overturned and spilled 800 gallons of liquid asphalt into a ditch and Crow's Creek along County Home Road near Viola, Iowa. | Indianhead Truck Line, Inc. 1947 West County Road C P.O. Box 64355 St. Paul, MN 55164 | The remaining product in the tanker was pumped out. All of the spilled product solidified and was removed by a local asphalt company. |
| 9/28/87 POLK | A semi-trailer collided with a van at 401 S.W. 7th Street in Des Moines, Iowa, on September 28, 1987. The van belonged to a pest control company, and an unknown amount of boric acid dust and Drione powder was spilled. | Terminix 1510 N.W. 86th Des Moines, IA 50311 | The spilled material was sprayed with a fog mist, swept up, and containerized for disposal. The area of the spill was covered with soda ash and flushed. |

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 | 25 | 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 | 26 | 10 | 38 | 50 | 1 | 13 | 3 | 1 | 6 |
| Aug | 65 | 30 | 5 | 30 | 49 | 0 | 9 | 1 | 1 | 5 |
| Sep | 51 (41) | 33 (24) UST-22 | 4 (1) | 14 (16) | 38 (29) UST-23 | 0 (1) | 9 (12) | 0 (1) | 0(1) | 4 (6) |

| Total # of Incidents Per Field Office | 01 | 02 | 03 | 04 | 05 | 06 |
|---|---|---|---|---|---|---|
| This Period | 7 | 3 | 4 | 3 | 26 | 8 |

**RE: Enforcement Report Update**

The following new enforcement actions were taken last month:

| Name, Location and Field Office Number | Program | Alleged Violation | Action | Date |
|---|---|---|---|---|
| Accent Lawn & Leisure Mt. Joy (6) | Air Quality | Open Burning | Order/Penalty | 8/28/ |
| Ottumwa-Wapello Co. SLF Comm. Ottumwa (6) | Solid Waste | Solid Waste- Daily operation | Order/Penalty | 8/31/ |
| Ernest & Kevin Gradert Sibley (3) | Air Quality | Open Burning | Order/Penalty | 8/28/ |
| Everco Industries, Ottumwa (6) | Wastewater | Pretreatment | Order/Penalty | 9/22/ |
| Ottumwa Industrial Airport, Ottumwa (6) | Wastewater | Monitoring & reporting treatment violations | Order/Penalty | 9/22/ |
| Wilton Steel Processing, Inc. | Wastewater | Prohibited discharge | Order/Penalty | 9/22/ |
| Chicago NW Railroad(2) | Air Quality | Open Burning | Referral AG | 9/22/ |
| City of Garner (2) | Wastewater | Compliance Schedule | Referral AG | 9/22/ |
| Warner Livestock, Inc. (6) | Wastewater | Prohibited Discharge | Referral AG | 9/22/ |
| Boyer Valley Co. (4) | Wastewater | Court Order | Referral AG | 9/22/ |
| Elings, Frey & Oratron | Wastewater | Open Dumping/Penalty | Referral AG | 9/22/ |
| City of Wilton (6) | Wastewater | Permit Violations | Order/Penalty | 9/28/ |
| J.C. White Excavating Co. (5) Des Moines | Solid Waste | C & D Sites | Order/Penalty | 9/28/ |
| City of Gravity (4) | Drinking Water | Monitoring & reporting - radioactivity | Order/Penalty | 9/29/ |
| City of Vincent (2) | Drinking Water | Monitoring & reporting - radioactivity | Order/Penalty | 9/29/ |
| City of Fremont (5) | Drinking Water | Monitoring & reporting - radioactivity | Order/Penalty | 9/29/ |
| Pleasant Creek Estates | Drinking Water | Monitoring & reporting - inorganics | Order/Penalty | 9/29/ |
| City of Runnels (5) | Drinking Water | MCL - Radioactivity | Order | 9/29/ |
| Spectra Health Care, Buena Vista Co. (3) | Drinking Water | Monitoring & reporting - bacteria | Order/Penalty | 9/30/ |
| Keokuk Landfill, Inc. (6) | Solid Waste | Daily operation, plans & specs | Order/Penalty | 9/29/ |
| Richard Vogt, Fairfield (6) | Solid Waste | Open dumping | Order | 9/29/ |
| AMPEL, Inc., Des Moines (5) | Air Quality | Failure to obtain a permit | Order/Penalty | 9/29/ |
| Van Diest Supply Co., Webster City (2) | Air Quality | Failure to obtain a permit | Order/Penalty | 9/29/ |
| Rick Harstack, Clarinda (4) | Hazardous Condition | Failure to notify | Order/Penalty | 9/29/ |

SUBJECT: Enforcement Report Update (continued)

The following new enforcement actions were taken last month:

| Name, Location and Field Office Number | Program | Alleged Violation | Action | Date |
|---|---|---|---|---|
| Stanton Cooperative, Stanton (4) | Hazardous Condition | Failure to notify | Order/Penalty | 9/29/ |
| Mark Wallin, Essex (4) | Hazardous Condition | Failure to notify | Order/Penalty | 9/29/ |
| Northwestern States Portland Cement, Mason City (2) | Air Quality | Emission violations | Order/Penalty | 9/29/ |
| City of Brighton (6) | Wastewater | Municipal improvement plan | Order/Penalty | 9/29/ |
| City of University Park (5) | Wastewater | Municipal improvement plan | Order/Penalty | 9/29/ |

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 |
| *Elings/Catron/Fray (Des Moines) | 1,000 | 7-18-87 |
| Giese Construction Co. (Eagle Grove) | 1,000 | 5-25-87 |
| City of Swan | 530 | 7-01-87 |
| Country Corner Cafe (Pacific Junction) | 451 | 8-05-87 |
| JTM Indust./MacDade/Lesmar (Pleasant Valley) | 1,000 | 8-12-87 |
| Glen Mark Subdivision (Burlington) | 436 | 8-19-87 |
| **Ken Turner (Fort Madison) | 150 | 9-15-87 |
| City of Ireton | 500 | 9-06-87 |
| Big Rock Tap | 660 | 9-21-87 |
| Bremer Utilities | 262 | 9-21-87 |
| City of Dixon | 200 | 9-27-87 |
| Linwood Mining (Davenport) | 1,000 | 9-27-87 |
| ***K & K Truckstop (Lenox) | 87 | 10-01 87 |
| City of Elkhart | 1,000 | 10-10-87 |
| City of Mt. Vernon | 1,000 | 10-12-87 |
| Twelve Mile House (Barrard) | 339 | 10-28-87 |
| Timberline Assoc. Ltd (W. Burlington) | 1,000 | 11-02-87 |
| Accent Lawn and Leisure (Mt. Joy) | 1,000 | 11-02-87 |
| Everco Industries (Ottumwa) | 1,000 | 11-23-87 |
| Ottumwa Industrial Airport | 1,000 | 11-23-87 |
| Wilton Steel Processing (Wilton) | 1,000 | 11-27-87 |
| City of Wilton | 1,000 | ---- |
| J.C. White Excavating (Des Moines) | 1,000 | ---- |
| City of Gravity | 100 | ---- |
| City of Vincent | 100 | ---- |
| City of Fremont | 100 | ---- |
| Pleasant Creek Estatttes (Shellsburg) | 200 | ---- |
| Spectra Health Care (Storm Lake) | 580 | ---- |
| Keokuk Landfill, Inc. | 600 | ---- |
| ATTM, Inc. (Des Moines) | 600 | ---- |

Administrative Penalties Due (Continued)

| NAME/LOCATION | AMOUNT | DUE DATE |
|---|---|---|
| Van Dolst Supply Co. (Webster City) | 1,000 | ---- |
| Richard Marstack (Clarinda) | 1,000 | ---- |
| Stanton Cooperative | 1,000 | ---- |
| Mark Wallin (Mason) | 1,000 | ---- |
| Northeastern States Cement (Mason City) | 1,000 | ---- |
| City of Brighton | 700 | ---- |
| City of University Park | 500 | ---- |

The following administrative penalties have been appealed:

| NAME/LOCATION | AMOUNT |
|---|---|
| Kula and Boge (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 |
| Bicanchi Meyrat Lagoon (Des Moines) | 600 |
| Thomas E. Lannon (Barnum) | 700 |
| Trausch Co., Inc. (Carroll) | 1,000 |
| Trausch Co., Inc. (Carroll) | 1,000 |
| McFedries (Davenport) | 1,000 |
| City of Inwood | 400 |
| Clarion Farmer's Coop | 750 |
| Great Rivers Coop (Atavia) | 1,000 |
| Poweshiek Rural Water | 500 |
| Rich Metals (Davenport) | 1,000 |
| Village Oaks Homeowners Ass'n (Blue Grass) | 424 |
| City of Wapello | 500 |
| City of Newell | 500 |
| Gradert, Ernest and Kevin (Sibley) | 500 |
| Ottumwa-Wapello County SLF | 1,000 |

The following administrative penalties were paid in September:

| NAME/LOCATION | AMOUNT |
|---|---|
| **K & K Trucking (Lenox) | $ 50 |
| *Rinehart Construction (N. Dallas SLF) | 848 |
| Wilson/Pingel (Fort Dodge) | 500 |
| Moore Oil Co. (West Branch) | 50 |
| Orrie's Supper Club (Hudson) | 100 |
| Mt. Vernon Steel and Wire | 1,000 |

*, Referred to the Attorney General
** On Payment Schedule

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

| DATE RECEIVED | NAME OF CASE | ACTION APPEALED | PROGRAM | ASSIGNED TO | STATUS |
|---|---|---|---|---|---|
| 10-17-85 | City of Bevington | Administrative Order | WM | Hansen | Hearing continued. |
| 1-23-86 | Dulwein Soil Service | Administrative Order | WM | Lande | Hearing continued; closure study progressing. |
| 6-12-86 | ABM - Clinton | Administrative Order | Air | Lande | Hearing continued. |
| 9-10-86 | Kuin and Boge | Administrative Order | SW | Lande | Negotiating before filing. Removal completed. |
| 10-27-86 | Union County/Mitchtown | Permit Issuance | FP | Clark | Remanded by District Court; settled. |
| 10-29-86 | Mandi-Klemp Company, Inc. | Administrative Order | AQ/WM/SW | Lande | Hearing set for 10-15-87 |
| 12-05-86 | City of Waukee | Administrative Order | WM | Hansen | Hearing continued. |
| 12-11-86 | Elaine Ranno | Permit Condition | FP | Clark | Hearing set for 11-17-87. |
| 12-24-86 | Francis Hamberlin | Administrative Order | FP | Clark | Hearing set for 12-08-87. |
| 3-10-87 | Greiner | Administrative Order | FP | Clark | Hearing held 6-30-87; brief filed 9-24-87. |
| 3-25-87 | City of Long Grove | Design Denial | WM | Hansen | Proposed decision 9-10-87; appealed. |
| 3-25-87 | Truem and Hana | Administrative Order | SW | Kennedy | Negotiating before filing. |
| 4-06-87<br>7-16-87 | Scotty's Auction Service | Administrative Order | SW<br>AQ | Kennedy | Hearing set for 10-23-87. |
| 5-05-87 | Des Moines Metro SLF | Administrative Order | SW | Kennedy | Proposed decision 8-6-87; EPC review. |
| 5-12-87 | Iowa City Regency MHP | Administrative Order | WM | Hansen | Hearing set for 11-05-87. |
| 5-20-87 | Bianchi-Meyrat Lagoon (Hank Smith) | Administrative Order | WM | Kennedy | Hearing set for 11-4-87. |
| 6-02-87 | Millen Creek Dam/Eberle et.al | Permit Issuance | FP | Clark | Negotiating before filing. |
| 7-30-87 | Transcoh Company, Inc. | Administrative Order | WM/HC | Lande | Hearing set for 11-05-87 |
| 8-11-87 | Thomas Lannon | Administrative Order | FP | Clark | Hearing set for 01-12-88. |
| 7-30-87 | City of Inwood | Administrative Order | WM | Hansen | Settled. |
| 8-10-87 | Great Rivers Co-op | Administrative Order | HC | Lande | Hearing continued; study pending. |
| 8-17-87 | City of Hopelle | Administrative Order | WM | Hansen | Hearing set for 10/27/87. |
| 8-17-87 | City of Donnellson | Administrative Order | WM | Hansen | Hearing set for 10-30-87. |
| 8-24-87 | Dish Metals Co. | Administrative Order | AQ | Lande | Hearing set for 10-26-87. |
| 8-27-87 | Village Gate Homeowners Assn. | Administrative Order | WS | Murphy | Hearing set for 10-27-87. |
| 9-01-87 | City of Hazell | Administrative Order | WM | Hansen | Hearing set for 11-10-87. |
| 9-02-87 | City of Mt. Vernon | Administrative Order | WM | Hansen | Hearing set for 11-17-87 |
| 9-17-87 | Gradert, Kevin and Ernest | Administrative Order | AQ | Lande | New Case. |
| 9-23-87 | Ottumwa-Wapello County SLF | Administrative Order | SW | Kennedy | New Case. |

Mr. Stokes stated that, in regards to Chapter 135, Underground Storage Tank Rules, the 70-day delay placed on these rules by the Administrative Rules Review Committee has lapsed. The Committee has not requested any additional action; therefore, these rules will now go into effect.

Keith Uhl asked about the number of administrative penalties that are being appealed, and stated that he feels the appeals are using a great deal of staff time and resources. Mr. Uhl asked that consideration be given to revising rules for the administrative penalty process.

Allan Stokes gave an update on the Oran Sanitary District case. Mr. Stokes stated that the department presented various options to them, which they discounted. At this point, they have decided not to proceed with any of the options or to rehabilitate their sewer system.

ADOPTION OF RULE -- CHAPTER 143, USE OF RECYCLED OIL FOR ROAD OILING, DUST CONTROL AND WEED CONTROL

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

Iowa Code section 455B.412 requires the Commission to establish maximum levels of contaminants in oil. One of the contaminants specified in 455B.412 is polychlorinated biphenyl (PCB). When the rules were developed, it was the intent of the Department to allow no detectable amount of PCB in recycled or used oil used as a road oil, dust suppressant or for weed control. When the rules were developed (Chapter 143), a detectable limit of 0.001 mg/l was determined to be the applicable detection limit.

Since the rules became effective, the Department has learned that the detection limit for PCB in an oily-type waste is not 0.001 mg/l, but approximately 5 mg/l using standard methods and reasonable reliability. The 0.001 mg/l detection level would be attainable for analysis of a drinking water-type liquid only. Rule 143.6(455B) is modified by changing the maximum contaminant level for PCB to be 5 mg/l.

Public hearings on the Notice of Intended Action were held on September 8, 9 and 10, 1987 in Des Moines, Iowa City, and Council Bluffs. No one attended any of the public meetings.

ENVIRONMENTAL PROTECTION COMMISSION [567]
Adopted Rule

Pursuant to Iowa Code section 455B.411 and 455B.412, the Environmental Protection Commission adopts an amendment to 567--Chapter 143, "Use of Recycled Oils for Road Oiling, Dust Control and Weed Control," Iowa Administrative Code. The Commission proposed these amendments in a previously filed Notice of Intended Action, ARC 7837, published in the Iowa Administrative Bulletin on August 12, 1987.

Iowa Code section 455B.412 requires the Commission to establish maximum levels of contaminants in oil. One of the contaminants specified in 455B.412 is polychlorinated biphenyl (PCB). When the rules were developed, it was the intent of the Department to allow no detectable amount of PCB in recycled or

used oil used as a road oil, dust suppressant or for weed control. When the rules were developed (Chapter 143), a detectable limit of 0.001 mg/l was determined to be the applicable detection limit.

Since the rules became effective, the Department has learned that the detection limit for PCB in an oily-type waste is not 0.001 mg/l, but approximately 5 mg/l using standard methods and reasonable reliability. The 0.001 mg/l detection level would be attainable for analysis of a drinking water-type liquid only. Rule 143.6(455B) is modified by changing the maximum contaminant level for PCB to be 5 mg/l.

The Commission requested comments on the amendment. No comments were received. Public hearings on the Notice of Intended Action were held on September 8, 9 and 10, 1987. The rule was adopted on October ____, 1987.

The amendment is intended to implement Iowa Code sections 455B.411 and 455B.412 and will become effective on December 23, 1987.

The following amendment is adopted.

Amend rule 143.6(455B) as follows:

567--143.6(455B) Maximum contaminant levels for used or recycled oils. A used or recycled oil shall not be used for the purpose of road oiling, dust control, or weed control when analysis of the oil under rule 567--143.3(455B) indicates that: polychlorinated biphenyls are present at a level of ~~0.001~~ 5 mg/l or greater or, the mobile lead concentration is 5 mg/l or greater or, the measured flashpoint is 140° (60°C) or lower.

_____

Date

_____

Larry J. Wilson, Director

Motion was made by Nancylee Siebenmann to approve Final Rule--Chapter 143, Use of Recycled Oil for Road Oiling, Dust Control and Weed Control. Seconded by Charlotte Mohr.

Clark Yeager asked if oils can be diluted to bring them down to the 5 mg/l level. Mr. Stokes stated that conscious dilution to get it down to that level is not allowed.

Motion carried unanimously.

EMERGENCY ADOPTION--CHAPTERS 50 AND 51, AGRICULTURAL DRAINAGE WELL REGISTRATION

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

The attached proposed rules are intended to implement, in part, section 303 of the Groundwater Protection Act concerning registration of agricultural drainage wells. It is being recommended that the rules be emergency adopted and implemented to provide the greatest possible time period for registration prior to the January 1, 1988 deadline.

If approved, the rules could become effective upon filing with the Administrative Rules Coordinator.

The rules amend Chapters 50 and 51 of the Commission's rules and:

- Define agricultural drainage wells
- Identify the registration form
- Parrot the statutory registration requirement
- Point out that registration is not considered a permit
- Update the implementation language.

Also attached is a copy of the registration form.

ENVIRONMENTAL PROTECTION COMMISSION [567]
Emergency Adopted and Implemented Rule

Pursuant to the authority of Iowa Code section 455B.105 and 1987 Iowa Acts, House File 631, sections 303 and 304, the Environmental Protection Commission emergency adopts rules amending Chapter 50 "Scope of Division--Definitions--Forms--Rules of Practice" and Chapter 51 "Water Permit or Registration--When Required" to provide for registration of agricultural drainage wells.

In compliance with section 17A.4(2), Code of Iowa, the Commission finds that public notice and participation are impracticable and contrary to the public interest in that the 1987 Iowa Acts, House File 631, section 303, provides, in part, that all agricultural drainage wells be registered with the Department of Natural Resources by January 1, 1988. These rules are necessary to prescribe the procedure for registration. The legislation was effective July 1, 1987, but without rules to implement the statute, it may be difficult for agricultural drainage well owners to comply with the registration requirements. Registration of agricultural drainage wells by January 1, 1988 is important because failure to do so would render the well owners ineligible for financial incentive monies from the agriculture management account of the groundwater protection fund to implement alternatives to agricultural drainage wells.

The Commission also finds, pursuant to Iowa Code section 17A.5(2)"b"(2), that the normal effective date of these rules, thirty-five days after publication, should be waived and the rules be made effective upon filing with the Administrative Rules Coordinator on _____, 1987 as it confers a benefit upon the public by providing the greatest possible time period to comply with the agricultural drainage well registration law.

The Environmental Protection Commission adopted these rules at a regular meeting on _____, 1987.

These rules implement 1987 Iowa Acts House File 631, section 303.

---

ITEM 1. Rule 567--50.2(455B) "Definitions" is amended to add the following definition:

"Agricultural drainage well" is a vertical opening to an aquifer or permeable substratum, which has been drilled, driven, dug, bored, augered, jetted, washed, cored or otherwise constructed and which intercepts or receives or is capable of intercepting or receiving surface or subsurface drainage water from agricultural land.

ITEM 2. Subrule 567--50.3(1) "Application forms" is amended to add the following form:

Form 542-0986: Registration of Agricultural Drainage Wells 10/87.

ITEM 3. The implementation paragraph at the end of Chapter 50 is amended to read as follows:

These rules are intended to implement Iowa Code sections 17A.3, 455B.105, 455B.262, 455B.264 to 455B.274, and 455B.278, 455B.281 ~~as amended by 1985 Iowa Acts, Chapter 7, and 1985 Iowa Code supplement section 455B.281~~ and 1987 Iowa Acts, House File 631.

ITEM 4. Rule 567--51.3(455B) is amended to read as follows:

567--51.3(455B) Diversion from surface into aquifer. A permit is required for diversion of water or any other material from the surface directly into any aquifer. Diversion by tile or ditch into a sinkhole or quarry excavated in carbonate rock is presumed to be a diversion from the surface directly into an aquifer in the absence of convincing evidence to the contrary. All agricultural drainage wells must be registered by the owner with the department by January 1, 1988 on the form provided by the department. Registration of an agricultural drainage well is not considered a permit as required under this rule.

ITEM 5. The implementation paragraph at the end of Chapter 51 is amended to read as follows:

These rules are intended to implement Iowa Code section 455B.262, 455B.264 to 455B.274, and 455B.278, ~~as amended by 1985 Iowa Acts, Senate File 163~~ and 1987 Iowa Acts, House File 631.

_____

Date

_____

Larry J. Wilson, Director

Mr. Stokes distributed a sample copy of the registration form along with instructions for filling out same.

Discussion followed regarding the grouping of sinkholes, quarries and drainage wells all into the same category, and whether or not that was the legislative intent. Discussion also took place on what is required to be registered and what is required to have permits.

Clark Yeager suggested that the areas of permit requirements and registration requirements be separated in the rule.

Motion was made by Keith Uhl to approve Emergency Adoption--Chapters 50 and 51, Agricultural Drainage Well Registration with the provision that the registration mandate language be separated, by a section, from the permit language mandate. Seconded by Charlotte Mohr. Motion carried unanimously.

NOTICE OF INTENDED ACTION -- CHAPTER 100, "SCOPE OF TITLE-DEFINITIONS-FORMS-RULES OF PRACTICE", AND CHAPTER 102, "PERMITS".

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

Iowa Code section 455B.304 requires the Commission to adopt rules prohibiting the disposal of uncontained liquid waste in a sanitary landfill.

Federal regulations for hazardous wastes in 40 CFR 264.314 and 40 CFR 265.315 reference a test to demonstrate the absence or presence of free liquids in either a containerized or a bulk waste. The test, called the Paint Filter Liquids Test Method 9095 EPA SW 846, is easily applied to various materials. A 100-milliliter or 100-milligram sample is placed on a standard 60-mesh conical paint filter for five minutes. If any liquid passes through the filter after five minutes, the waste is determined to contain free liquids.

The proposed rule changes are to add the definition of a free liquid to the definitions contained in rule 100.2(455B) and add a portion to rule 102.14(455B) which would prohibit free liquids from being disposed in a sanitary landfill.

ENVIRONMENTAL PROTECTION COMMISSION [567]
Notice of Intended Action

Pursuant to the authority of Iowa Code section 455B.304, the Environmental Protection Commission proposes to adopt amendments to 567--Chapter 100, "Scope of Title-Definitions-Forms-Rules of Practice," and 567--Chapter 102, "Permits," Iowa Administrative Code.

Iowa Code section 455B.304 requires the Commission to adopt rules prohibiting the disposal of uncontained liquid waste in a sanitary landfill.

Federal regulations for hazardous wastes in 40 CFR 264.314 and 40 CFR 265.315 reference a test to demonstrate the absence or presence of free liquids in either a containerized or a bulk waste. The test, called the Paint Filter Liquids Test Method 9095 EPA SW 846, is easily applied to various materials. A 100-milliliter or 100-milligram sample is placed on a standard 60-mesh conical paint filter for five minutes. If any liquid passes through the filter after five minutes, the waste is determined to contain free liquids.

The proposed rule changes are to add the definition of a free liquid to the definitions contained in rule 100.2(455B) and add a portion to rule 102.13(455B) which would prohibit free liquids from being disposed in a sanitary landfill.

Any interested person may file with the Director written comments on the proposed amendment through December 11, 1987. Interested persons may also provide oral comments at public hearings to be held Iowa City, Council Bluffs and Des Moines as follows: Wednesday, December 9, 1987 at 3:00 p.m. in the conference room of the Geological Survey Bureau, 125 North Capitol Street, Iowa City, Iowa; on Thursday, December 10, 1987 at 3:00 p.m. in the Community Hall Room, 205 South Main, Council Bluffs, Iowa; and on Friday, December 11, 1987 at 3:00 p.m. in the east half of the fifth floor conference room of the Wallace State Office Building, 900 East Grand Avenue, Des Moines, Iowa.

This rule is intended to implement Iowa Code section 455B.304.

The following amendments are proposed.

---

ITEM 1. Amend rule 567--100.2(455B) by adding the following definition:

"Free liquid" means the liquid produced when a 100 milliliter or 100 milligram representative sample is placed on a standard mesh number 60 (fine mesh size) conical paint filter for five minutes. Method 9095 EPA SW 846.

ITEM 2. Amend rule 567--102.13(455B) by adding the following subrule:

102.13(8) Free liquids or waste containing free liquids. No free liquids or waste containing free liquids shall be disposed in a sanitary landfill.

_____
Date

_____
Larry J. Wilson, Director

Richard Timmerman asked who is responsible for the testing.

Allan Stokes replied that the landfill will require proof of testing by the party who is bringing material to the landfill.

Motion was made by Clark Yeager to approve Notice of Intended Action--Chapters 100 and 102, Liquids in Landfills. Seconded by Gary Priebe. Motion carried unanimously.

NOTICE OF INTENDED ACTION -- CHAPTER 102, "PERMITS"

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

Iowa Code section 455B.304 requires the Commission to adopt rules that prohibit land burial or disposal by land application of wet sewer sludge at a sanitary landfill.

The term "wet sewer sludge" contained in Iowa Code section 455B.304 is taken to mean municipal sewage sludge which contains more liquid than solid, that is, equal to or greater than 50 percent liquid. The proposed rule change adds language to rule 102.14(3)a which restricts burial or disposal by land application of municipal sewage sludge at a sanitary landfill to sludge which has a solids content greater than 50 percent.

ENVIRONMENTAL PROTECTION COMMISSION [567]
Notice of Intended Action

Pursuant to the authority of Iowa Code section 455B.304, the Environmental Protection Commission proposes to adopt an amendment to 567--Chapter 102, "Permits," Iowa Administrative Code.

Iowa Code section 455B.304 requires the Commission to adopt rules that prohibit land burial or disposal by land application of wet sewer sludge at a sanitary landfill.

The term "wet sewer sludge" contained in Iowa Code section 455B.304 is taken to mean municipal sewage sludge which contains more liquid than solid, that is, equal to or greater than 50 percent liquid. The proposed rule change adds language to rule 102.14(3)a which restricts burial or disposal by land application of municipal sewage sludge at a sanitary landfill to sludge which has a solids content greater than 50 percent.

Any interested person may file with the Director written comments on the proposed amendments through January 8, 1988. Interested persons may also provide oral comments at public hearings to be held in Iowa City, Council Bluffs and Des Moines as follows: Wednesday, January 6, 1988 at 1:00 p.m. in the conference room of the Geological Survey Bureau, 125 North Capitol Street, Iowa City, Iowa, on Thursday, January 7, 1988 at 1:00 p.m. in the Community Hall Room, 205 South Main, Council Bluffs, Iowa; and on Friday, January 8, 1988 at 1:00 p.m. in the east half of the fifth floor conference room of the Wallace State Office Building, 900 East Grand Avenue, Des Moines, Iowa.

This rule is intended to implement Iowa Code section 455B.304.

The following amendment is proposed:

Amend rule 102.14(3)a(455B) as follows:

a. Unstabilized sewage sludge, including unstabilized septic tank pumpings, shall not be disposed in the portion of a sanitary landfill open to the public. Municipal sewage sludge, whether stabilized or unstabilized, may be disposed of at a sanitary landfill as provided in Chapter 103 or 121 only if the sludge has a solids content greater than 50 percent.

_____

Date

_____

Larry J. Wilson, Director

This was an informational item; no action was required.

AMENDMENTS TO NEW SOURCE PERFORMANCE STANDARDS AND NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS

The Department has adopted by reference the Federal New Source Performance Standards (NSPS) and the National Emission Standards for Hazardous Air Pollutants (NESHAPS) through May 1, 1985. Since that date, additional NSPS and NESHAPS subparts have been promulgated by the Environmental Protection Agency and several revisions have been made in the test methods and procedures required for NSPS and NESHAPS regulated sources.

The attached notice of intended action proposes to make the Department's rules regarding NSPS consistent with 40 Code of Federal Regulations Part 60 and the Department's rule regarding NESHAPS consistent with 40 Code of Federal Regulations Part 61.

The following NSPS standards have been promulgated by EPA since May 1, 1985:

1) Iron and steel plants - (Subpart Na)
   potential sources - none known

2) Equipment leaks of VOC from on-shore natural gas processing plants - (Subpart KKK)
   potential sources - none known

3) On-shore natural gas processing: $SO_2$ emissions - (Subpart LLL)
potential sources - none known

4) Nonmetallic mineral processing plants - (Subpart 000)
potential sources - 260 licensed operators at 1200 locations
known sources - one

5) Industrial - commercial - industrial steam generating units - (Subpart Db)
known sources - five

6) Volatile organic liquid storage vessels - (Subpart Kb)
potential sources - none known

Additional NESHAPS subparts have been promulgated by the Environmental Protection Agency since May 1, 1985. Four of these subparts regarding radionuclide and radon 222 emissions are not delegable to the states by EPA. Iowa is seeking delegation of the remaining NESHAPS standard for inorganic arsenic. There is no known sources in Iowa subject to this standard.

The adoption of the attached amendments to 567--23.1(455B) Iowa Administrative Code would not impose any additional restrictions on industry, but merely transfer the authority to the Department for enforcing the emission standards and for issuing construction permits for any affected facilities proposing to locate in Iowa.

The additional work load to the Department resulting from adoption of these rules is expected to be minimal since NSPS only applies to new construction or modification and many potential sources are already being inspected on a routine basis.

The staff recommends the attached rules be approved for public notice and comment.

ENVIRONMENTAL PROTECTION COMMISSION [567]
Notice of Intended Action

Pursuant to the authority of Iowa Code section 455B.133, the Environmental Protection Commission gives Notice of Intended Action to amend Chapter 23, "Emission Standards for Contaminants" by proposing to adopt by reference recently promulgated federal regulations pertaining to new source performance standards and emission standards for hazardous air pollutants and by including, as facilities affected by these standards, seven additional source or pollutant categories.

In order to prevent new air pollution problems, by section 111(b)(1)(A) of the Clean Air Act, the Administrator of the Environmental Protection Agency was required to publish a list of categories of major sources that cause or contribute significantly to air pollution which may reasonably be anticipated to endanger health or welfare. Regulations establishing standards of performance for new sources within each category were promulgated and have been adopted by reference by the Department. Each standard of performance establishes allowable emission limitations that reflect the degree of emission limitation which is achievable through the application of the best technological system of continuous emission reduction. These regulations apply only to "new sources," that is, sources, the construction or

modification of which is commenced after the proposal date of the individual rule. The rules are adopted by reference by subrule 567--23.1(2)(455B).

Similarly, by Section 112 of the Clean Air Act the EPA was required to adopt emission standards for "hazardous air pollutants," those pollutants which cause or contribute to air pollution which may reasonably be anticipated to result in an increase in mortality or an increase in serious irreversible, or incapacitating reversible illness. These standards apply to new and existing sources and are adopted by reference by subrule 567--23.1(3)(455B).

In greater detail, the following amendments are proposed:

Item 1 amends subrule 567--23.1(2)(455B) by including, as federal regulations adopted by reference, those regulations pertaining to 40 C.F.R. part 60 which have been promulgated through June 4, 1987. Part 60, which sets forth federal standards of performance for new stationary sources, is amended by adding the six new source categories specifically adopted herein and by amending various emission standards, opacity standards and testing methods.

Item 1 further amends subrule 567--23.1(2)(455B) by adding, as facilities specifically affected by the standards of performance for new stationary sources, the following types of facilities: iron and steel plants, on-shore natural gas processing plants, nonmetallic mineral processing plants, industrial-commercial-institutional steam generators, and volatile organic liquid storage vessels.

Item 2 amends subrule 567--23.1(3)(455B) by including, as federal regulations adopted by reference, those regulations pertaining to 40 C.F.R. part 61 which have been promulgated through March 19, 1987. Part 61 which sets forth emission standards for hazardous-air pollutants is amended by the addition of one new source category. Facilities in this source category which are affected by this amendment are primary copper smelters, glass manufacturing plants and arsenic plants.

Any person interested in receiving a copy of the federal regulations proposed to be adopted by reference may contact the Department of Natural Resources. Copies are available upon request from the Department for the cost of reproduction.

Any interested party may file a written statement of position on the subjects covered by the proposed rules through December 21, 1987. These written statements should be directed to the Director of the Department of Natural Resources, 900 East Grand Avenue, Des Moines, Iowa 50319. Persons or organizations are also invited to present oral or written comments at public hearings on these proposed amendments which will be held in Iowa City, Council Bluffs and Des Moines as follows: Wednesday, December 9, 1987 at 2:00 p.m. in the conference room of the Geological Survey Bureau, 125 North Capitol Street, Iowa City, Iowa; on Thursday, December 10, 1987 at 2:00 p.m. in the Community Hall Room, 205 South Main, Council Bluffs, Iowa; and on Friday, December 11, 1987 at 2:00 p.m. in the east half of the fifth floor conference room of the Wallace State Office Building, 900 East Grand Avenue, Des Moines, Iowa.

These rules are intended to implement Iowa Code section 455B.133.

The following amendments are proposed.

---

ITEM 1. Subrule 567--23.1(2)(455B) is amended as follows:

23.1(2) New source performance standards. The federal standards of performance for new stationary sources, as defined in 40 Code of Federal Regulations Part 60 as amended through May 1, 1985 June 4, 1987, are adopted by reference and shall apply to the following affected facilities. The corresponding 40 C.F.R. Part 60 subpart designation is in parentheses.

Reference test methods (Appendix A), performance specifications (Appendix B), determination of emission rate change (Appendix C) and the general provisions (Subpart A) of 40 C.F.R. Part 60 also apply to the affected facilities.

Further amend rule 23.1(2) by revising the following paragraphs.

bb. Petroleum storage vessels. Any storage vessel for petroleum liquids constructed, reconstructed, or modified after June 11, 1973, and prior to May 19, 1978, having a storage capacity greater than 151,416 liters (40,000 gallons). (Subpart K)

cc. Petroleum storage vessels. Any storage vessels for petroleum liquids constructed after May 18, 1978 and prior to July 23, 1984, having a storage capacity greater than 151,416 liters (40,000 gallons). (Subpart Ka)

Further amend rule 23.1(2) by adding the following paragraphs:

yy. Iron and steel plants. Secondary emissions from basic oxygen process steelmaking facilities for which construction commenced after January 20, 1983. (Subpart Na)

zz. Equipment leaks of VOC from on-shore natural gas processing plants. A compressor and all equipment defined in 40 C.F.R., Part 60.631 which commences construction after January 20, 1984. (Subpart KKK)

aaa. On-shore natural gas processing: $SO_2$ emissions. Each sweetening unit and each sweetening unit followed by a sulfur recovery unit which commences construction after January 20, 1984. (Subpart LLL)

bbb. Nonmetallic mineral processing plants. Each crusher, grinding mill, screening operation, bucket elevator, belt conveyor, bagging operation, storage bin, enclosed truck or rail car loading station in fixed or portable nonmetallic mineral processing plants for which construction was commenced after August 31, 1983. (Subpart 000)

ccc. Industrial-Commercial-Institutional Steam Generating Units. Steam generating units for which construction commenced after June 19, 1984 and which has a heat input capacity of more than 100 million Btu/hour. (Subpart Db)

ddd. Volatile Organic Liquid Storage Vessels. Volatile organic liquid storage vessels which commence construction after July 23, 1984. (Subpart Kb)

ITEM 2. Subrule 567--23.1(3)(455B) is amended as follows:

567--23.1(3) Emission standards for hazardous air pollutants. The federal standards of emissions for hazardous air pollutants, 40 Code of Federal Regulations Part 61 as amended through ~~May 1, 1985~~ March 19, 1987, are adopted by reference, except 40 C.F.R. subsection 61.20 through subsection 61.28, subsection 61.90 through 61.98, subsection 61.100 through 61.108, subsection 61.120 through subsection 61.126, and subsection 61.145 through subsection 61.147, and shall apply to the following affected pollutants and facilities and activities listed below. The corresponding 40 C.F.R. Part 61 subpart designation is in parentheses. Reference test methods (Appendix B), compliance status information requirements (Appendix A), quality assurance procedures (Appendix C) and the general provisions (Subpart A) of Part 61 also apply to the affected activities or facilities.

Further amend subrule 23.1(3) by adding the following paragraph:

h. Inorganic arsenic emissions from arsenic trioxide and metallic arsenic production facilities. Each metallic arsenic production plant and each arsenic trioxide plant that processes low-grade arsenic bearing materials by a roasting condensation process. (Subpart P)

Motion was made by Richard Timmerman to approve Notice of Intended Action--Chapter 23, Amendments to Emission Standards for Contaminants (NESHAPS). Seconded by Nancylee Siebenmann. Motion carried unanimously.

NOTICE OF INTENDED ACTION -- CHAPTER 91, STATE CONSTRUCTION GRANTS

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

The Commission has previously been advised of the status of state construction grant funds. Recent appropriations for five percent grant funds are inadequate to provide state grants to all projects receiving federal grants in FFY 1987 and 1988. The Commission has discussed options for administration of state grants in such a shortage situation and has directed that rules clearly describe how funds will be administered. The recommended option has been incorporated into a draft amended rule.

Commission action is requested for approval to issue a notice for public hearing on December 8, 1987.

ENVIRONMENTAL PROTECTION COMMISSION
Notice of Intended Action

Pursuant to the authority of Iowa Code section 455B.105 and 455B.245, the Environmental Protection Commission intends to amend IAC 567--Chapter 91, "Criteria for Award of Grants."

Iowa Code sections 455B.241 through 455B.246 provide the authorization for a "sewage works construction fund" and sets forth the general conditions for the Department of Natural Resources to offer state grants for construction of wastewater treatment facilities.

The Department proposes to clarify the administration of state grant funds by amending Chapter 91(455B). Specifically, the amended rule is intended to clearly describe how funds are administered should they be inadequate for all eligible projects. The proposed rule specifies that state grants will be offered in the order of federal grant actions and that if state funds are depleted, a project may receive less than its full entitlement but remains eligible should additional funds be appropriated.

Any interested person may file written comments on the above-referenced rule changes through December 8, 1987, with the Administrator of the Environmental Protection Division, Department of Natural Resources, 900 East Grand Avenue, Des Moines, Iowa 50319-0120. Persons are also invited to present oral or written comments at a public hearing which will be held on December 8, 1987 at 1:00 p.m. in the fourth floor conference room, Wallace State Office Building, 900 East Grand Avenue, Des Moines, Iowa.

---

Chapter 91
Criteria For Award Of Grants

567--91.1(455B) Financial assistance. Federal and state financial assistance for construction of municipal sewage works may be available pursuant to the Clean Water Act of 1977, Title II (as amended, 33 USC ~~1281-1297~~ 1251 et. seq.) and Iowa Code chapter 455B, division III, part 3, subject to the following:

91.1(1) Federal grants. Application procedures and award of federal grants are governed by federal regulations, 40 CFR, parts 30, 33 and 35, subparts C, E and I as amended through March 1, 1986. Projects complying with the state rules of this title VII and federal requirements, including the federal regulations cited above, may be awarded federal grants subject to the availability of federal grant allotments to the state.

91.1(2) State grants.

a. State grants shall be awarded at-the-time-that-federal-Step-3-grants-are awarded to projects subsequent to federal grant awards and in the order of federal grant actions. The state grant will be based upon facility-costs which-include-eligible the same eligible costs as the federal grant including Step 1 and Step 2 work directly related to the facility and which have not previously been awarded state grant assistance. The state grant shall be at the participation level designated in the state appropriation, subject to available appropriated funds in the sewage works construction fund established under Iowa Code section 455B. 241. Should there be insufficient funds to provide a full state grant for a project at the designated participation level, available funds can be granted. The project remains eligible for additional state funds without regard to the year of the original federal or state grant action, and the state grant can be funded up to the authorized participation level when sufficient funds are available.

91.1(3) b. Only state grant awards and adjustments amounting to sums of $500 or more will be processed unless an eligible applicant provides a request including a reasonable statement of financial need, or until the final grant or adjustment for a project step. State grant progress payments only in the amount of $100 or more will be processed upon evidence of federal grant progress payments unless a similar request is provided. Documentation of incurred costs is required for all state grant payments.

These rules are intended to implement Iowa Code sections 455B.105,-455B.245, 455B.274, and 455B.241 to 455B.246.

_____

Date

_____

Larry J. Wilson, Director

Chairman Schlutz was concerned with the wording in 91.1(2)a. He stated that, as he understands it, if a community previously received a grant, they would not be eligible for additional dollars. He further commented that if a community had built a treatment plant twenty years ago and was now going to rebuild a new plant, they would not receive funds according to the wording in this section.

Mr. Stokes stated that staff will check into this and provide clarification regarding same.

Motion was made by Richard Timmerman to approve Notice of Intended Action--Chapter 91, State Construction Grants. Seconded by Charlotte Mohr. Motion carried unanimously.

NOTICE OF INTENDED ACTION -- CHAPTER 135, UNDERGROUND STORAGE TANKS

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

Proposed rules for underground storage tanks are attached. These amendments provide conditions for the use of sniffer wells for detection of leaks from underground storage tanks. The conditions are identical to the conditions listed in the proposed federal Environmental Protection Agency rules. A notice of intended action is also included that lists the time and location for public hearings on the rule revisions.

ENVIRONMENTAL PROTECTION COMMISSION [567]
Notice of Intended Action

Pursuant to Iowa Code Section 455B.474, the Environmental Protection Commission proposes to adopt amendments to Chapter 135,"Underground Storage Tanks" Iowa Administrative Code. These amendments provide conditions describing the use of the sniffer well for the purposes of leak detection from a regulated underground storage tank installed within the State of Iowa.

The amendment adds new rule 567--135.7(3) which states that testing or monitoring for vapors in a sniffer well may be used as a leak detection system provided the backfill material for the well is sufficiently porous, the substance stored in the tank is sufficiently volatile, the vapor monitoring device is not inoperative due to groundwater or moisture in the well, background contamination is not greater than 500 parts per million the vapor monitor's threshold value can be preset for the type of substance stored in the tank, the site has adequate sniffer well placement within the excavation, and the sniffer wells are marked and secured.

These amendments may impact small business.

Any interested person may file written suggestions or comments on the proposed rule changes through December 20, 1987. Such written materials should be directed to Morris Preston, Iowa Department of Natural Resources, Wallace State Office Building, 900 East Grand Avenue, Des Moines, Iowa 50319. Persons are also invited to attend public hearings on December 8, 1987 at 10:00 a.m. in room 006, Continuing Education Building, Iowa Western Community College, 2700 College Road, Council Bluffs; on December 9, 1987 at 1:00 p.m. in the fifth floor conference room, Wallace State Office Building, 900 East Grand Avenue, Des Moines, Iowa; on December 10, 1987 at 10:00 a.m. in the Trowbridge Hall conference room, room 115B, Geological Survey Bureau, 123 North Capitol Street, Iowa City, Iowa.

These amendments are intended to implement Iowa Code section 455B.474.

---

Amend Rule 567--135.7(455B) by adding new subrule 567--135.7(3) as follows:

135.7(3) Testing or monitoring for vapors using a sniffer well may be used only if:

a. The materials used as backfill are sufficiently porous (e.g., gravel, sand, crushed rock) to readily allow diffusion of vapors from releases into the excavation area;

b. The stored regulated substance is sufficiently volatile (e.g., gasoline) to result in a vapor level that is detectable by the monitoring devices located in the excavation area in the event of a release from the underground storage tank (UST) system;

c. The measurement of vapors by the monitoring device is not rendered inoperative by the groundwater, rainfall, or soil moisture so that a release could go undetected for more than 30 days;

d. The level of background contamination in the excavation area will not interfere with detection of releases from the UST system and, when measured in the soil gas, is no greater than 500 parts per million of total hydrocarbons;

e. The vapor monitors are designed and operated to allow the threshold level to be preset specifically for the type of regulated substance stored in the tank system and are capable of detecting any significant increase in concentration of total hydrocarbons above background levels;

f. In the UST excavation area, the site is assessed to assure compliance with the requirements in paragraphs 135.7(3)(a) through (e) of this section and to establish the number and positioning of monitoring wells that will detect releases within the excavation area from any portion of the UST system; and;

g. Monitoring wells are clearly marked and secured to avoid unauthorized access and tampering.

_____
Date

_____
Larry J. Wilson, Director

Motion was made by Richard Timmerman to approve Notice of Intended Action--Chapter 135, Underground Storage Tanks. Seconded by Charlotte Mohr. Motion carried unanimously.

NOTICE OF INTENDED ACTION -- CHAPTERS 100, 103 AND 110, GROUNDWATER MONITORING AT LANDFILLS

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

Iowa Code section 455B.304 requires the Commission to adopt rules establishing standards for hydrologic investigation and for the construction, operation and maintenance of hydrologic monitoring systems in sanitary landfills.

These proposed rules were previously presented to the public at hearings held June 9, 10 and 11, 1987. Because of extensive professional comments received both from the public hearings and from further internal staff review, it is necessary to again present the revised proposed rules to the public for their review and comment.

The proposed rules are intended to add or substitute definitions in rule 100.2(455B), amend subrule 103.2(1), add subrule 103.2(3), amend rules 103.3(455B), 103.4(455B) and 103.5(455B) by deleting subrules (1) in each case and renumbering accordingly, and add a part of Chapter 110, Design, Construction and Operation Standards for Solid Waste Management Facilities.

ENVIRONMENTAL PROTECTION COMMISSION [567]
Notice of Intended Action

Pursuant to Iowa Code section 455B.304, the Environmental Protection Commission proposes to adopt amendments to 567--Chapter 100, "Scope of Titles-Definitions-Forms-Rules of Practice" and 567--Chapter 103, "Sanitary Landfills," Iowa Administrative Code and part of a new 567--Chapter 110,

"Design, Construction and Operation Standards for Solid Waste Management Facilities."

This notice of intended action supersedes the notice identified as ARC 7614, under which previously issued notice further action has been dropped as a result of numerous and varied public comments.

In accordance with Iowa Code section 455.304, the Commission is required to adopt rules establishing standards for construction, operation and maintenance of hydrologic monitoring systems in sanitary landfills. In accordance with this authority, the Commission proposes to adopt amendments to existing rules in order to provide quantitative standards and methodology to be used by the landfill authority for applying these standards. These standards are to be applied to facilities which dispose of solid waste by burial.

The Department intends to require submittal of all hydrologic monitoring system plans within a three-year period. Plans must be submitted for review within 60 days of receiving notice from the Department.

The Department proposes to give notice to facilities based on the following priority:

1. Facilities with leachate migration problems and/or minimal groundwater monitoring systems;
2. Facilities applying for a new permit or permit amendments which involve major lateral and/or vertical expansion;
3. With notice of permit expiration and prior to renewal.

These amendments may impact sanitary landfills economically and operationally.

Any interested person may file with the director written comments on the proposed amendments through December 22, 1987. Interested persons may also provide oral comments at public hearings to be held in Des Moines, Iowa City and Council Bluffs as follows:

Wednesday, December 9, 1987 at 3:30 p.m. in the Geological Survey Bureau Conference Room, 123 North Capitol Street, Iowa City, Iowa; on Thursday, December 10, 1987 at 3:30 p.m. in the Community Hall Room, 205 South Main, Council Bluffs, Iowa; and on Friday, December 11, 1987 at 3:30 p.m. in the fifth floor conference room of the Henry A. Wallace Building, 900 East Grand Avenue, Des Moines, Iowa.

The Department is particularly interested in receiving comments regarding the proposed standards pertaining to the number, spacing and depth of wells and other technical requirements specified in 567--Chapter 110.

These rules are intended to implement Iowa Code section 455B.304.

The following amendments are proposed:

---

ITEM 1. Amend rule 567--100.2(455B) by adding or substituting the following definitions in alphabetical order:

"Annular space" means the open space formed between the borehole and the well casing.

"Aquifer" means a saturated geologic formation or combination of formations which has appreciably greater ability to transmit water than do adjacent formations. Typically, an aquifer is capable of yielding usable quantities of water to a well.

"Confined aquifer" means an aquifer with a confining bed above and below. Water in a confined aquifer is under pressure such that water rises above the top of the aquifer in a well which penetrates the aquifer.

"Confining bed" means a geologic formation exhibiting relatively low ability to transmit water compared to adjacent formations. Confining beds are typically not capable of yielding usable quantities of water to a well.

"Down gradient" means direction of groundwater flow.

"Down gradient well" means a well which has been installed down gradient of the site and is capable of detecting the migration of contaminants from the site.

"Geologic cross section" means a drawing of a subsurface profile showing the various strata encountered based on at least three soil borings.

"Groundwater flow path" means the route of water (and contaminant) travel within the groundwater system.

"Hydraulic head" means the energy contained at a point in the groundwater system. Hydraulic head is measured as the elevation to which water rises in a piezometer.

"Landfill property" means the entire area of the landfill including the disposal site and any other contiguous property proposed for actual landfill use.

"Leachate" means a liquid including suspended components in the liquid that has percolated through or drained from a solid waste landfill.

"Mean" is the sum of all the measurements divided by the number of measurements.

"Perched saturated zone" is a localized saturated zone occurring above the regional zone of saturation. The perched saturated zone's presence is caused by a lens of relatively impermeable material within the unsaturated zone that impedes the downward movement of water toward the zone of saturation.

"Piezometers" are devices used to measure hydraulic head at a specific point in the groundwater system. Piezometers are generally small diameter wells sealed along the entire length and open to water only at the bottom through a short section of well screen, which is the point where hydraulic head is measured. A piezometer may be constructed similar to a monitoring well or may be a driven well point.

"Potentiometric surface" is the imaginary surface that represents the level to which water from a confined aquifer will rise in wells.

"Shelby tube" is a thin-walled, seamless steel tube with a sharp cutting edge which is used to obtain undisturbed samples of cohesive or moderately cohesive soils (silts and clays).

"Site" means any location, place or tract of and used for collection, storage, conversion, utilization, incineration or landfilling of solid waste, to include the landfill area, nonfill work areas, borrow areas plus a 100-foot-wide perimeter surrounding the working areas or the property line if it is closer than 100 feet to the working areas.

"Soil boring" means a hole placed into the subsurface for the purpose of determining subsurface characteristics.

"Specific yield" is a measure of the amount of water that can be drawn from storage in an unconfined aquifer.

"Split spoon sampler" means a device used in conjunction with a drilling rig to obtain undisturbed core samples from unconsolidated strata.

"Standard deviation" means the square root of the variance.

"Storage coefficient" is a measure of the amount of water that can be drawn from storage in a confined aquifer.

"Transmissivity" is a measure of the capacity of an aquifer to transmit water.

"Tremie tube" means a pipe used to fill the annular space in a well from the bottom up.

"Unconfined aquifer" means an aquifer which does not have a confining bed above it. The level of water in a well in a confined aquifer is below the top of the aquifer formation.

Unsaturated zone" is the subsurface zone above the water table in which the interstitial spaces are only partially filled with water.

"Upgradient" means direction of increasing hydraulic head.

"Upgradient well" means a well which is capable of yielding groundwater samples that are representative of regional conditions and are not affected by the landfill site. Such a well is typically placed upgradient of the site, if possible, and, if not, is placed as near the site as feasible.

"Variance" means the sum of the differences between the actual measurement and the mean divided by one less than the number of measurements.

"Water table" means the water surface below the ground at which the unsaturated zone ends and the saturated zone begins. It is the level to which a well screened in the unconfined aquifer would fill with water.

"Zone of saturation" is the subsurface zone below the water table in which the interstitial spaces are completely filled with water.

ITEM 2. Amend subrule 103.2(1) by adding the following new paragraphs "l" and "m." Relettter existing paragraph "l" as new paragraph "n."

l. Information indicating that the portion of the landfill site to be filled is not situated in an unconsolidated sequence that will permit more than 0.004 cubic foot of liquid per day per square foot of area downward leadage into the groundwater beneath or adjacent to the proposed site.

(1) The potential downward leadage shall be evaluated by means of the generalized Darcy's law $Q=P\frac{(h_2-H_1)}{L}A$ where:

Q = feet of liquid/day/square foot of area of the interface

A = one square foot of area at the base of the landfill

P = coefficient of permeability of the unconsolidated confining unit above the high water table.

$h_2$ = maximum final elevation of a contiguous portion of fill of the site

$h_1$ = lowest elevation of the top of the confining unit above the high water table

L = minimum thickness of the confining unit above the high water table

(2) Should conditions in violation of this paragraph exist, the original plan must detail how the site is to be engineered to provide equal protection to the water resources.

m. The required soil and hydrogeologic design information specified in chapter 110.

ITEM 3. Amend subrule 103.2(2) by deleting paragraphs "j" and "k," and relettering the remaining paragraphs.

ITEM 4. Amend rule 103.2(455B) by adding the following subrule:

103.2(3) Hydrologic monitoring system requirements. The owner or operator of a solid waste disposal facility shall operate and maintain a hydrologic

monitoring system which includes a sufficient number of groundwater monitoring wells and surface water monitoring points to determine the impact, if any, that the sanitary disposal project is having on the adjacent waters. The hydrologic monitoring systems shall enable early detection of the escape of pollutants from a sanitary landfill

a. Hydrologic monitoring system plan, design and construction requirements. The hydrologic monitoring system shall be planned, designed and constructed in accordance with the provisions in rule 110.1(455B). A hydrologic monitoring system plan shall be submitted to the department for review and approval with any application for a new permit, with an application for permit amendments which involve major lateral and/or vertical expansion, with application for permit renewal, or within 90 days of receiving notice from the department. These requirements apply to any sanitary landfill in operation after July 1, 1987. Within 60 days after the hydrologic monitoring system plan is approved by the department, the construction of hydrologic monitoring system shall be completed in accordance with the plan.

b. Hydrologic monitoring system operating requirements.

1. Operational sampling requirements. All sampling shall be conducted in accordance with an approved sampling protocol, components of which are described in subrule 110.1(4).

(a) Groundwater levels. The elevation of water in each monitoring well shall be measured monthly and recorded to the nearest 0.01 foot. Level measurements must be made before a well is evacuated for sample collection.

(b) Surface water levels. The water level or flow rate of each surface water body sampled shall be measured and recorded at the time of sample collection.

(c) First year water sampling. During the first year of operation of the hydrologic monitoring system, samples shall be collected quarterly from each groundwater monitoring well and surface water monitoring point. The purpose of this sampling is to determine baseline water quality information and enable initial estimation of water quality variability. Samples shall be analyzed for the following parameters, plus any additional parameter deemed necessary by the department.

(1) Arsenic, dissolved.
(2) Barium, dissolved.
(3) Cadmium, dissolved.
(4) Chromium, total dissolved.
(5) Fluoride, dissolved.
(6) Lead, dissolved.
(7) Mercury, dissolved.
(8) Magnesium, dissolved.
(9) Magnesium, dissolved.
(10) Silver, dissolved.
(11) Zinc, dissolved.
(12) Copper, dissolved.
(13) Suspended solids, total.
(14) Dissolved solids, total.
(15) Sodium, dissolved.
(16) Alkalinity.
(17) Calcium, dissolved.
(18) Manganese, dissolved.
(19) Hardness.
(20) Potassium, dissolved.
(21) Nitrate and nitrite (as N).

(22) Benzene.
(23) Carbon tetrachloride.
(24) 1,2-Dichloroethane.
(25) Trichloroethylene.
(26) 1,1,1-Trichloroethane.
(27) 1,1-Dichlorethylene.
(28) Paradichlorobenzene.
(29) Vinyl chloride.

(d) Routine quarterly water sampling. After the first year, each monitoring point must be sampled quarterly as specified in the facility's operation permit and analyzed for the following parameters.
(1) Chloride.
(2) Specific conductance (field measurement).
(3) pH (field measurement).
(4) Ammonia nitrogen.
(5) Iron, dissolved.
(6) Chemical oxygen demand.
(7) Temperature (field measurement)
(8) Any additional parameters deemed necessary by the department.

(e) Routine annual water sampling. After the first year, one sample per year from each monitoring point collected in a quarter specified in the facility's operation permit must analyzed for the following parameters.
(1) Total organic carbon.
(2) Total organic halogen.
(3) Phenols.
(4) Any additional parameters deemed necessary by the department.

2. Laboratory procedures.

The owner or operator of the solid waste facility must have the ground and surface water samples analyzed only by laboratories that are certified by the state of Iowa to perform public water supply sample analyses.

All analyses of parameters not covered in the Safe Drinking Water Act (SDWA) must be performed according to methods specified in SW-846 or approved by the United States Environmental Protection Agency. Any analytical method used on non-SDWA parameters deviating from those specified in SW-846 or approved by EPA must be approved by the department.

All analyses must be recorded on forms which, in addition to the analytical results, show the precision of the data set, bias, and limit of detection.

3. Analysis of sampling data. For each parameter analyzed during the first year of operation of the hydrologic monitoring system, as listed in subparagraph 1.(c) above, determine the mean and standard deviation (see Appendix A, Mean and Standard Deviation Calculation) for each upgradient monitoring well using the first year of data. For routine quarterly monitoring parameters, as listed in subparagraph 1.(d) above, mean and standard deviation should be recalculated annually using all available analytical data.

If the analytical results for a downgradient monitoring point do not fall within the control limits of two standard deviations above the mean parameter(s) level in a corresponding upgradient monitoring point, the owner or operator shall submit this information to the department within 30 days of receipt of the analytical results. If the analytical results from an upgradient monitoring point do not fall within two standard deviations of the mean parameter(s) level for that monitoring point, the department shall also be notified within 30 days.

4. Additional sampling. The department will determine if additional sampling is warranted, after receipt of information indicating a possible release as required in subparagraph 3. above. The department may require any additional samples to be split and analyzed to determine if the values obtained outside the control limits were the result of laboratory or sampling error. Any additional analytical results shall be submitted to the department by the owner or operator within seven days of receipt. The department will review the information and determine if additional monitoring or preparation of a groundwater quality assessment plan, in accordance with paragraph c, is necessary.

5. Record keeping and recording.

(a) The persons conducting the sampling must record the procedures, measurements and observations at the time of sampling. The field records must be sufficient to document whether the procedures and requirements specified in the sampling protocol have been followed. The records must also contain the names of the persons conducting the sampling, the time and date each monitoring point was sampled, the required field measurement or test result. The owner or operator must submit copies of these field records to the department if requested.

(b) The owner or operator shall keep records of analyses and the associated groundwater surface elevations for the active life and postclosure period of the facility. These records shall be kept at the site or in the administrative files of the owner or operator, and shall be available for review in the county which the landfill is located by the department upon request.

(c) The owner or operator shall provide the department with copies of the quarterly monitoring analytical results by the dates specified in the facility's operation permit.

(d) An annual report summarizing the effect the facility is having on ground and surface water quality shall be submitted to the department by November 30 each year. The summary is to be prepared by an engineer registered in the state of Iowa and incorporated in the November semiannual engineer inspection report. The contents of this summary are to include the following items:

(1) Amounts and kinds of wastes accepted under Special Waste Authorizations.

(2) A narrative describing the effects the facility is having on surrounding surface and ground water quality and any changes made or maintenance needed in the monitoring network.

(3) Graphs showing concentrations versus time for all monitoring parameters for each well for as long as records exist for that parameter. Control limits (-two standard deviations from the initial background value) must be shown on each graph. (See Appendix A, Standard Deviation Calculation.)

(4) Results of activities and tests required by the well maintenance and performance reevaluation plan described in paragraph 567--110.1(1)"b"5 shall be submitted to the department.

c. Groundwater quality assessment plan.

1. If leachate migration occurs and, as required by the department, the owner or operator shall develop and submit for approval a specific plan to conduct a ground water quality assessment study at the facility to determine the rate of migration and the extent and constituent composition of the leachate release. At a minimum, the assessment monitoring plan must contain the following elements:

(a) Discussion of the hydrogeologic conditions at the site with an identification of potential contaminant pathways.

(b) Description of the present detection monitoring system.

(c) A description of the approach the owner or operator will take to substantiate any contention that the contamination may have been falsely indicated.

(d) Description of the investigatory approach used to characterize the rate and extent of leachate migration.

(e) Discussion of the number, location and depth of wells that will be initially installed as well as a strategy for installing more wells in subsequent investigatory phases.

(f) Information on well design and construction.

(g) Description of the sampling and analytical program used to obtain and analyze groundwater monitoring data.

(h) Description of data collection and analysis procedures.

(i) Schedule for the implementation of each phase of the assessment study.

2. After the plan has been approved by the department, the owner or operator shall implement the plan according to the schedule in the plan.

3. Within 30 days after the activities prescribed in the groundwater assessment plan have been completed, the owner or operator shall submit a written ground water quality assessment report to the department.

4. If the department determines that no waste or waste constituents from the facility have entered the ground water, the owner or operator shall reinstate the routine monitoring program.

If the department determines that waste or waste constituents have been released from the facility and have entered the groundwater, the owner or operator shall continue to make the determinations described by the assessment plan and develop a remedial action/mitigation plan to alleviate or reduce contamination to the fullest extent possible.

d. Postclosure monitoring requirements.

1. At least six months prior to closing the site, the owner or operator of a sanitary landfill shall submit a plan to the department for approval detailing a 30-year postclosure monitoring program. The plan at a minimum must address the following items:

2. The department will review the facility's post-closure monitoring records at five-year intervals to determine if changes in the monitoring frequencies or parameters are required.

3. The commission may adopt rules on a site-specific basis identifying additional monitoring requirements for sanitary landfills for which the postclosure monitoring period is to be extended.

ITEM 5. Amend rule 103.3(455B) by deleting subrule 103.3(1) in its entirety and renumber remaining subrules accordingly.

ITEM 6. Amend rule 103.4(455B) by deleting subrule 103.4(1) in its entirety and renumber remaining subrules accordingly.

ITEM 7. Amend rule 103.5(455B) by deleting subrule 103.5(1) in its entirety and renumber remaining subrules accordingly.

ITEM 8. Add the following part of new Chapter 110, "Design, Construction and Operation Standards for Solid Waste Management Facilities."

Chapter 110
Design, Construction and Operation Standards
For Solid Waste Management Facilities

567--110.1(455B) Hydrologic monitoring system standards for solid waste disposal facilities.

110.1(1) Hydrologic monitoring system planning requirements. All plans, specifications and other documentation required herein must be developed by an engineer registered in Iowa.

a. Soil and hydrogeologic investigations. The purpose of soil and hydrogeologic investigation is to obtain data which will enable a determination of potential routes of contaminant migration from a site via groundwater. The following items are minimum requirements for such investigations. Additional work and use of other methods (e.g., geophysical techniques) are encouraged.

1. Soil borings.

(a) Number of borings. A sufficient number of soil borings shall be made to accurately identify the hydrogeologic variations of the site. For new sites, the minimum number of borings required is 10 for sites of 10 acres or less, 20 for sites of 10 to 50 acres, and 20 plus an additional boring for every 10 acres above 50 acres for sites larger than 50 acres. Fewer borings may be needed for existing sites, depending on previous work done at the site. Also, no borings will be required in existing fill areas. The department may require additional borings based on the geological complexity of the site.

(b) Depth of borings. All borings must extend a minimum of 25 feet deep and at least 10 feet below the water table. However, borings in proposed fill areas shall be terminated 10 feet above the uppermost aquifer. At least half the borings located outside the existing or proposed fill area shall extend a minimum of 10 feet into the uppermost aquifer, 50 feet below the water table, or 10 feet into bedrock. At lease one boring shall go 10 feet into bedrock, regardless of depth.

(c) Boring method. Borings shall comply with the applicable portions of subrule 567--110.1(3). The preferred boring method is hollow stem auger, although it may be necessary to use other methods at greater depths and in bedrock.

(d) Soil samples. Undisturbed samples shall be collected with a split spoon or Shelby tube sampler at five-foot intervals plus at every change in stratum. When collecting undisturbed samples, the standard penetration test should be conducted in accordance with American Standard Testing Methods (ASTM) Standard D1586. This test simply counts the blows of a 140-pound hammer falling 30 inches on the sampler per foot penetration of the sampler. Samples should be clearly marked, preserved, and maintained for future inspection. Samples selected for laboratory analysis shall be preserved and transported to the laboratory in accordance with ASTM Standard D4220.

2. Groundwater level measurements. The elevation of the water table shall be determined at or near the location of each soil boring which penetrates the water table. The water table may be determined using a completed water table monitoring well, piezometer, or even an open bore hole. The bottom of a piezometer or open bore hole used to measure water table elevation shall be no more than five feet below the water table.

The apparent horizontal groundwater flow direction should be determined based on water table measurements. Vertical groundwater flow shall then be assessed in at least two profiles approximately parallel to the apparent horizontal flow direction. Vertical groundwater flow shall be assessed using at least two well clusters per profile. Each well cluster shall contain a water table monitoring well or piezometer and additional water level monitoring points based on site conditions as follows:

(a) If the water table is in the uppermost aquifer, one additional water level monitoring point is to be located near the base of the aquifer or at least 20 feet below the base of the water table monitoring point. This

additional monitoring point may not be required if the aquifer is less than 20 feet thick.

(b) If the uppermost aquifer is less than 50 feet below the water table, an additional water level monitoring point shall be located at the top of the aquifer.

(c) If the uppermost aquifer is more than 50 feet below the water table, additional water level monitoring points shall be placed at depths of 30 feet and 50 feet below the water table.

(d) If required, the one deeper soil boring into bedrock shall be used as a site for one well cluster. Water table monitoring points in this cluster shall correspond to the other well cluster used for a profile. In addition, water level monitoring points shall be placed at the bottom of the boring and, if possible, at the top and bottom of the uppermost aquifer.

Groundwater level measurements should be made after the water levels have stabilized in the monitoring point; at least 24 hours after completion of the monitoring well, installation of the peizometer, or placement of the boring. Each set of water level measurements shall be made in as short a time frame as possible; within a eight-hour period maximum.

3. In-situ permeability tests. In-situ permeability tests shall be conducted on each monitoring well and/or piezometer in each well cluster.

(a) Pumping test. If more than one monitoring point is located in the uppermost aquifer, a pumping test should be conducted at one or more upper aquifer monitoring point. A pumping test involves pumping at constant rate from one well while observing water levels in other wells. The pumping rate should be as high as possible without dewatering the well. Water level measurements in other uppermost aquifer wells should be measured at frequent intervals near the start of the test and then at progressively longer intervals (e.g., one-minute intervals to 10 minutes, five-minute intervals to an hour, 15-minute intervals to two hours, and half-hour intervals thereafter). Continuous water level recording is preferable. Water levels in wells not located in the uppermost aquifer should be recorded throughout the test at regular intervals (e.g., every half hour). Water levels in all wells should be measured 24 hours prior to the test and just before the test. The test duration should be at least four hours. Longer tests may be necessary if other uppermost aquifer monitoring points are slow to respond.

(b) Bail and slug tests. Monitoring wells and piezometers located in materials with low permeabilities should be tested using bail or slug tests. These tests involve rapidly removing or adding a known volume of water to a well and then recording water levels in the well as it recovers to its original level. Typically, the necessary frequency of measurements will be similar to that required of pumping tests. In materials of very low permeability, less frequent measurements are necessary; and in materials of higher permeability, more frequent measurements may be necessary.

4. Laboratory tests of undisturbed soil samples. Laboratory tests of undisturbed soil samples shall be conducted to: correlate strata between soil borings, obtain permeability data on each strata, and design monitoring wells.

(a) Permeability tests. Permeability tests using a constant-head or falling-head permeameter shall be run on at least three samples of each distinct stratum, if possible. Each sample shall be from a different soil boring representing different areas of the state. If analytical results for each stratum are not within the same order of magnitude, at least three additional samples shall be tested.

(b) Particle size analysis. Particle size analysis should be conducted on at least three samples of each distinct stratum, if possible. Analyses should

be conducted in accordance with ASTM standards D4220 and D1140. If results from each stratum are not consistent, additional samples shall be analyzed to enable correlation of strata between borings.

b. Hydrologic monitoring system planning report requirements. The hydrologic monitoring system planning report shall contain the following information:

1. Description of field investigations and presentation of results.

(a) Field and laboratory testing methods shall be described.

(b) Test results and field measurements shall be presented.

(c) An inventory of all active, unused, and abandoned wells within one mile of the facility shall be made. Also, all public water supply wells and wells with water withdrawal permits pursuant to 567--Chapters 50, 51 and 52 within three miles of the facility shall be identified. Well logs, other available information on well construction, static water levels, and usage shall be obtained. The well inventory should be based on thorough reviews of state and local collections of well logs and, when possible, interviews or surveys of well owners.

(d) Maps showing location of soil borings, other field tests/measurements, and existing wells shall be provided.

2. Evaluation of hydrogeologic conditions.

(a) Based on soil boring and other available information, a description of the site geology shall be made. This shall include preparation of geologic cross sections of sufficient number and spacing (no fewer than four at every site) to adequately define all areas of the site and of sufficient detail to adequately depict major stratigraphic and structural trends and reflect geologic structural features in relation to groundwater flow. Each pair of cross sections must be as near to perpendicular as possible to adequately portray the site geology.

(b) A description of the hydrogeologic unit(s) within the saturated zone shall be made including: thickness; depth, hydraulic properties, such as transmissivity and storage coefficient or specific yield; description of the role of each as confining bed, aquifer, or perched saturated zone, and their actual or potential use as water supply aquifers.

(c) All groundwater flow paths from the site shall be identified, including both horizontal and vertical components of flow. A contour map of the water table shall be presented showing horizontal flow paths. A potentiometric surface map of the uppermost aquifer showing horizontal flow paths shall also be presented, if different than the water table. Vertical flow paths shall be shown in at least two profiles approximately parallel to the direction of horizontal flow. Vertical flow paths shall be determined by water level measurements from clustered wells at different depths, if possible. An evaluation of vertical groundwater flow based on the hydrologic properties of the various strata encountered at the site, estimated groundwater flow and recharge rates, and known information on hydraulic head shall also be made.

(d) The seasonal, temporal and artificially induced variations in groundwater flow shall be evaluated. Temporal variations would occur due to natural events, such as rainfall. The addition of tilelines, removal of overburden, or deposition of wastes would constitute artificially induced variations.

(e) Surface water flow paths from the site shall be identified on topographic contour maps.

3. Monitoring system plan. A hydrologic monitoring system shall be designed to intercept the groundwater and surface water flow paths from the site. The plan shall include proposed locations and depths for monitoring

wells, in accordance with monitoring well siting criteria in subrule 567--110.1(2). Monitoring wells shall be designed in accordance with subrule 567--110.1(3).

The surface water monitoring plan shall include monitoring points on all standing and flowing bodies of water which will receive surface runoff and/or groundwater runoff from the site. For streams, sampling points upstream and downstream of areas of potential impact from the site should be selected.

4. Sampling protocol.

At a minimum, the sampling protocol must include procedures or descriptions of the following:

(a) Order in which monitoring points are to be sampled.

(b) All tests and procedures needed at each monitoring point and the order in which these procedures will be carried out.

(c) Equipment and containers to be used, procedures and precautions for their use; precautions to avoid introducing contaminants from outside sources into monitoring wells or samples; and how equipment must be cleaned between uses.

(d) Procedures for evacuating each monitoring well prior to each water quality sampling.

(e) Procedures for handling field blanks and other quality assurance samples at the facility and in transit to and from the laboratory.

(f) Procedures for field filtration of samples, if required.

(g) Procedures for sample preservation.

(h) Procedures for sample collection, labeling and handling at the facility and during transport to the laboratory.

(i) Procedures for recording field observations and measurements.

(j) Procedures for records maintenance and data analysis.

(k) Procedures for sampling surface water monitoring points including exact sampling locations and depths.

5. Monitoring well maintenance performance reevaluation plan. A monitoring well performance reevaluation plan shall be included as part of the hydrogeologic monitoring system plan. The plan shall ensure that all monitoring points remain reliable. At minimum, the plan shall include the following items:

(a) Every two years an examination of high and low water levels accompanied by a discussion of the acceptability of well location (vertically and horizontally) and exposure of the screened interval to the atmosphere.

(b) A biannual evaluation of water level conditions in the monitoring wells to ensure the effects of waste disposal or well operation have not resulted in changes in the hydrologic setting and resultant flow paths.

(c) Annually conducting well depth measurements to ensure wells are physically intact and not filling with sediment.

(d) Every five years conducting in-situ permeability tests on monitoring wells; comparing test data with those collected originally to determine if well deterioration is occurring.

110.1(2) Monitoring well siting requirements.

a. Downgradient monitoring wells. Downgradient monitoring wells must be located to provide a high level of certainty that releases of contaminants from the site can be promptly detected. Downgradient monitoring wells should be placed along the site perimeter, within 50 feet of the planned liner or waste boundary, downgradient of the facility with respect to the hydrologic unit being monitored. For those facilities which are long-term, multi-phase operations, the department may establish temporary waste boundaries in order to define locations for monitoring wells.

1. Water table wells. At least three downgradient water table monitoring wells shall be installed at each facility. The maximum spacing between wells shall be 300 feet.

2. Uppermost aquifer monitoring wells. If different than water table monitoring wells, at least three uppermost aquifer monitoring wells shall be installed at each facility. Uppermost aquifer monitoring wells shall be spaced no more than 600 feet apart. If the uppermost aquifer is located more than 50 feet below the water table, this requirement may be relaxed, although at least one downgradient uppermost aquifer monitoring well will be required.

3. Other downgradient monitoring wells. Additional downgradient monitoring wells will be required if the water table and uppermost aquifer monitoring wells do not intercept most vertical flow paths from the site. In such situations, monitoring wells shall be placed at the appropriate depths to intercept the remaining flow paths and shall be spaced at no more than 600 feet apart.

4. Upgradient monitoring wells. Upgradient monitoring wells shall not be affected by the site. At least one upgradient monitoring well shall be installed into each stratum being monitored by downgradient monitoring wells. If it is not possible to actually locate a monitoring well upgradient of the site, the well should be placed as near the site as feasible without being affected by the site. If the uppermost aquifer is more than 50 feet below the water table, a nearby private well into the uppermost aquifer may be utilized.

5. Monitoring point identification system. The various types of monitoring points should be identified as follows:

| | |
|---|---|
| Monitoring well | MW#___ |
| Surface Water Monitoring Point | SW#___ |
| Piezometer | PZ#___ |

Each monitoring point must have a unique number, regardless of the type of monitoring point, and that number must never change.

110.1(3) Monitoring well/soil boring construction standards.

a. General considerations.

1. Contractors involved in construction of monitoring wells and piezometers and soil boring activities shall be registered with the department as required in 567--Chapter 37, Iowa Administrative Code.

2. To the extent possible, all monitoring well construction materials must not absorb, desorb, react or otherwise alter the quality of the groundwater being sampled. Galvanized metal, glues, welding solvents, pipe thread lubricants and other foreign substances must not be used.

3. All monitoring well construction materials must be protected from contamination prior to installation.

4. A typical cross section of a properly constructed monitoring well is shown in Figure 1.

b. Casings.

1. As a minimum, the diameter of the inner casing (see Figure 1) of a monitoring well must be at least two inches

2. Plastic cased wells must be constructed of materials with threaded, nonglued joints which do not allow water infiltration under natural subsurface pressure conditions or when the well is evacuated for sampling.

3. Well casings must provide structural stability to prevent casing collapse during installation as well as drill hole integrity when installed.

4. Well casings must be constructed of inert materials such as polytetrafluorethylene, stainless steel or polyvinyl chloride. The department may approve other casing materials if the owner or operator can demonstrate the material has a low potential for biasing the water quality parameters of

samples. The department may approve the construction of composite well casings (casings with less inert materials in the unsaturated zone).

c. Well Screens.

1. Slot size will be based on sieve analysis of the sand and gravel formations or filter pack. The slot size must hold out 35 percent to 60 percent of the formation material and not less than 90 percent of the filter pack.

2. Slot configuration and open area must permit effective development of the well.

3. Screen length. Maximum screen length shall be 10 feet except for water table wells in which the screen must be of sufficient length to accommodate expected seasonal fluctuations of the water table. Screen length for piezometers should be two feet or less.

Multiple screened single-cased wells are prohibited.

d. Filter pack.

1. To prevent other materials from coming in contact with the well screen, extend the filter pack at least 18 inches above and at least 12 inches below the well screen.

2. Size must be based on sieve analysis of sand and gravel formation. The filter pack material must be 2.5 to 3 times larger than 50 percent grain size of the zone being monitored.

e. Grouting.

1. The annular space above the screened section must be sealed with expanding cement or bentonite grout. The vertical dimension of this seal must be a minimum of three feet.

2. The annular space between the seal and to just below the frostline must be backfilled with an impervious material such as bentonite or expanding cement.

3. The remaining annular space must be grouted with expanding cement to the ground surface.

4. Grouting materials must be installed from the top of the filter pack up in one continuous operation with a tremie tube.

f. Well protection.

1. Plastic cased wells. A protective metal casing must be installed around the well casing. The inside diameter of the protective metal casing should be at least two inches larger than the outside diameter of the well casing. Extend the protective metal casing from a minimum of one foot below the frostline to slightly above the well casing top. The protective casing should be shortened or omitted if it covers part of the well screen. Seal or immobilize the protective casing with a concrete plug around the outside. The bottom of the concrete plug must extend at least one foot below the frostline. The concrete plug should be shortened if it covers part of the well screen. Extend the top of the plug approximately three to six inches above the ground surface and slope it away from the well approximately three feet. Soil may be placed above the plug. Seal the inside of the protective casing with a bentonite slurry. Place a vented cap on the well casing and a protective locking cap on the metal casing. The lockable cap must be kept locked when the well is not in use.

2. Metal cased wells. Extend the concrete plug from at least one foot below the frostline to approximately three to six inches above the ground surface and slope it away from the well approximately three feet. Soil may be placed on top of the concrete plug. Place a vented, locking cap on the casing. The lockable cap must be kept locked when the well is not in use. See Figure 1.

3. To protect against accidental damage, a ring of brightly colored posts or other protective devices must be installed around all wells.

g. Well drilling.

1. The owner or operator must ensure that in all phases of drilling, well installation and completion, the methods and materials used do not introduce substances that may alter the results of water quality analyses.

2. Well drilling equipment coming into contact with contaminants in the bore hole or above ground must be thoroughly cleaned to avoid spreading contamination to other depths or locations. Contaminated materials or leachate from wells must not be discharged onto the ground surface or into ponds or streams so as to cause environmental harm in the processes of drilling or well development.

3. The owner or operator must ensure that, at a minimum, the following well design and construction log information are retained at the site and a copy of this information sent to the department.

Date/time of construction;
Name and address of the driller;
Drilling method and drilling fluid used;
Soil sampling methods;
Surveyed location (±0.5 ft.);
Soil and rock classifications;
Field observations;
Well name/number;
Bore hole diameter and well casing diameter;
Well depth (±0.1 ft.);
Water level measurements;
Drilling and lithologic logs;
Casing materials, inside diameter and weight or wall thickness;
Screen materials;
Casing and screen joint type;
Screen slot size/length;
Filter pack material/size; (depths from _ to _)
Filter pack volume;
Filter pack replacement method;
Sealant materials; (depths from __ to __)
Sealant volume;
Sealant placement method;
Grouting schedule and materials;
Surface seal design/construction; (depths from __ to __)
Type of protection well cap;
Ground surface elevation (±0.1 ft.)
Well cap elevation (±0.01 ft.);
Top of casing elevation (±0.01 ft.); and
Detailed drawing of well (include dimensions).

h. Well Development. Prior to use of the monitoring well for water quality monitoring purposes, well development is required to ensure the collection of representative groundwater samples. Procedures used in well development involve using a surge block, bailing or surging by pumping to produce a movement of water at alternately high and low velocities into and out of the well screen and gravel pack in order to loosen and remove fine materials. Development of low hydraulic conductivity wells may require the circulation of water down the well casing, out through the screen and gravel pack, and up the open bore hole prior to the placement of grout or seal in the annulus. Any additional water used must be of a quality so as not to interfere with future

groundwater quality determinations. Following surging, the well is pumped until the water does not contain sufficient quantities of suspended solids.

i. Sealing abandoned wells and boreholes. Bore holes, piezometers and observation wells not used for groundwater monitoring must be sealed. Document in writing the location of the abandoned well or bore hole with reference to the landfill's coordinate system and method of sealing. The document must be retained at the landfill with a copy sent to the department.

1. Sealing bore holes. Fill the bore hole by extending a tremie tube to the bottom of the hole. Apply bentonite or expanding cement grout through the tube to the bottom of the hole and raise the tremie tube as the hole is filled from the bottom upward. Keep the end of the tremie tube submerged in the grout while filling. Fill the bore hole from the base of the boring all the way to the ground surface.

2. Sealing abandoned monitoring wells.

(a) Well is known to be constructed properly with impermeable grout that was installed from the bottom up using a tremie tube. Remove any existing protective metal casing by vertically pulling it off the well. Using a tremie tube, fill the inner well casing with an impermeable grout slurry from the bottom to ground surface. After 24 hours, retop the grout if it has settled below the existing ground surface.

(b) Well construction is improper or undocumented. Attempt to remove the well casing. If this fails, either drill around the well casing using a hollow stem auger of large inside diameter or drill out the well casing using a standard casing bit or solid stem auger with a boring diameter greater than the initial diameter of the hole. Drill to the maximum depth of the previously drilled boring. Clean the drilling debris from the interior of the auger or bore hole. Seal the bore hole with an impermeable grout using a tremie tube. If the soil conditions permit the sealing to be conducted in a continuous operation, keep the tremie tube submerged in the grout at all times. After 24 hours, retop the grout if it has settled below the ground surface.

(c) Monitoring wells in future fill areas. Remove well and seal as described in the procedures for sealing bore holes. Dig a pit around the well five feet below the ground surface or five feet below the base of the proposed landfill excavation, whichever is deeper. Fill the pit above the abandoned hole with compacted one foot (maximum) layers of clay which meets the downward leakage criteria (0.004 $ft.^3/day/ft.^2$).

_____

Date

_____

Larry J. Wilson, Director

Mr. Stokes stated that, as a result of numerous and varied public comments and additional staff review stemming from these comments, staff has made substantial changes in these rules. Staff is asking the Commission to withdraw rulemaking on the original rules which went to hearing in March, and approve the new Notice of Intended Action with revised rules.

Charlotte Mohr asked if the new proposed rules were sent to sanitary landfill representatives.

Mr. Stokes responded that a copy has been sent to members of the task force that worked on the first set of rules, as well as to others interested in solid waste.

Motion was made by Charlotte Mohr to withdraw the rulemaking which the Commission approved on March 16. Seconded by Nancylee Siebenmann.

Charlotte Mohr asked if some of the landfills are closing and combining with an adjoining county.

Mr. Stokes responded that a lot of landfill wards and communities have started opening conversations with one another to look at various alternatives. There has been nothing concrete at this time.

Chairman Schlutz asked about an article in the paper in regards to staff not allowing a test on an incinerator.

Mr. Stokes clarified the issue for the Commission.

Chairman Schlutz requested vote on the motion made by Charlotte Mohr. Motion carried unanimously.

Motion was made by Charlotte Mohr to approve Notice of Intended Action--Chapters 100, 103 and 110, Groundwater Monitoring at Landfills. Seconded by Nancylee Siebenmann. Motion carried unanimously.

Keith Uhl stated that, in regards to multi-county landfills, that this department needs to establish that it is the sole source (other than federal government) of jurisdiction as to regulation of landfills in the state.

REFERRALS TO THE ATTORNEY GENERAL'S OFFICE

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 Shields - Floodplain
City of Ankeny - Wastewater
City of What Cheer - Wastewater
The Giese Construction Company (Eagle Grove) - Solid Waste
Kenneth Cooper (Minburn) - Gasoline Spill
Lakewood Sanitary Sewer District - Wastewater
Country Corner Cafe (Pacific Junction) - Drinking Water
Glen Mark Subdivision (Burlington) - Drinking Water

City of Ankeny

Mr. Combs asked the Commission to table this case as staff is not to the point where they are ready to move on referral. Some details are still being worked out with the city of Ankeny.

Motion was made by Clark Yeager to table the referral for the city of Ankeny. Seconded by Nancylee Siebenmann. Motion carried unanimously.

City of What Cheer

Mr. Combs briefed the Commission on the history of this case.

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

Lakewood Sanitary Sewer District

Mr. Combs asked the Commission to table this case. It will be brought back at a later date.

Motion was made by Charlotte Mohr to table the referral for the Lakewood Sanitary Sewer District. Seconded by Clark Yeager. Motion carried unanimously.

Country Corner Cafe

Mr. Combs stated that, in the relief requested section, staff would like to add to the request the requirement that they do a nitrate sample.

With the above stipulation added to the referral, motion was made by Charlotte Mohr for referral to the Attorney General's Office. Seconded by Richard Timmerman. Motion carried unanimously.

Glen Mark Subdivision (Burlington)

Mr. Combs stated that this referral is being dropped as they have paid their penalty.

GROUNDWATER PROTECTION NEWS

Mr. Combs distributed a new newsletter entitled "Groundwater Protection News." The newsletter is a cooperative effort of the Department of Natural Resources, Iowa Department of Agriculture and Land Stewardship, Department of Public Health, and the Iowa Board of regents. It will be distributed on a periodic basis to approximately 7,000 people.

MEETING REPORT

Charlotte Mohr reported on the Waste to Energy Bi-State Workshop she attended in Bettendorf. The main focus was on recycling.

REFERRALS TO THE ATTORNEY GENERAL'S OFFICE (Continued)

Bill Shields

Randall Clark, Legal Bureau, updated the Commission on the status of this case. Mr. Clark reported that Mr. Shields had intended to do the work last week; but due to a breakdown with the contractor's equipment, they will not be

able to do the work until this week. He stated that Mr. Harold Johnson was present to represent Mr. Shields.

APPOINTMENT--BILL SHIELDS

Mr. Harold Johnson read a letter, dated October 14, from Bill Shields to Dave Allen of the DNR. The letter stated that construction would begin on or about October 21 and that he expected the work to take seven working days. The letter further stated that Mr. Shields would keep the Department updated on the construction progress so that the Department could inspect it before the contractor leaves. Mr. Johnson asked the Commission to give Mr. Shields the chance to complete the project beginning this week.

Motion was made by Keith Uhl for referral to the Attorney General's Office subject to the condition that, if the project is completed to the satisfaction of the Department by November 6, the Attorney General proceed no further with litigation. Seconded by Gary Priebe. Motion carried unanimously.

1988 LEGISLATION -- COMMITTEE REPORT

Keith Uhl reported that the Legislative Committee has met and decided that, at least this year, the department will not proceed any further with a merger of the Commissions. The legislative package will contain the following proposed bills:

1) Creation of a state revolving fund for the purpose of making low interest loans to municipalities for sewage treatment works construction, and authorizing the issuance of bonds.

2) Creates a laboratory certification program under the authority of the Department.

3) Provides that interest earned on revenues generated from the groundwater protection program stay in the groundwater fund, rather than revert to the General Fund.

4) Appropriates funds from the General Fund ($493,000) for grants to governing bodies responsible for publicly owned sewage treatment facilities.

5) Appropriates from the General Fund ($60,600) for assessments to the Midwest Interstate Low-Level Radioactive Waste Compact.

Each of these proposals were presented and discussed in detail. The Commissioners decided to study the proposals overnight and take action on this item tomorrow.

APPOINTMENT--TOM HESTON

Tom Heston addressed the Commission expressing his concerns with bypassing at the Westwood Plant in Ankeny. Mr. Heston stated that he wanted the Commission to be aware of what is happening in relation to the Westwood Plant. He asked that any decision made by the Commission impose a moratorium on any further construction that will empty into this system.

CONTESTED CASE APPEAL -- DES MOINES METRO LANDFILL

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

The Proposed Decision of the Hearing Officer regarding an appeal of an Administrative Order to the Des Moines Metro Sanitary Landfill Commission, was issued on August 8, 1987. The decision upheld the order in part and overturned the order in part. The Commission voted at its August meeting to review the Hearing Officer's decision. The decision has been made available to the Commission and representatives of the parties will be available at the October meeting to aid in the Commission's review of this matter.

Mr. Combs briefed the Commission on the history of this case. He reminded them that, at the August Commission meeting, the Commission voted to review the hearing officer's decision. He added that the Commission can take no action, or they can affirm, modify, or overturn the hearing officer's decision. If the Commission changes the hearing officer's decision, they must state their conclusions in fact and law in the motion in which they are doing that.

APPOINTMENT--DES MOINES METRO LANDFILL

Philip Stroffregen, representative for Des Moines Metro Landfill, presented a statement prepared by his law firm. He concluded by stating that the Agency accepts the decision of the hearing officer, and believes that the decision reached by the hearing officer is the same decision that will be reached by any fact-finder that reviews the facts and evidence of this case. He added that the Agency does not object to referral to the Attorney General, as they are confident that a review of the record will speak for itself, and that the decision reached by the hearing officer is the same decision that would be reached by the Attorney General or a court of competent jurisdiction.

Richard Timmerman stated that he is opposed to what the Commission is doing as both parties agree to the facts. He added that it would be a waste of time and money to review facts that both parties agree to. If the Department has a bad penalty policy, it should be taken up aside from this case; that is a separate issue.

Mr. Combs explained that it is up to the Commission to define what their review contains.

Clark Yeager stated that his reason for moving to review this case was that there were environmental violations, and others have been fined as much for doing less. Des Moines Metro Landfill is getting off very easy in view of what they have done. He stated that his original intent was for referral for a penalty.

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

Keith Uhl offered a friendly amendment to dismiss the Administrative Order and the Administrative Penalty and approve referral for prosecution to the Attorney General.

Clark Yeager concurred with the amendment.

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

RECESS

Chairman Schlutz recessed the meeting at 3:45 p.m., Monday, August 19, 1987.

MEETING RECONVENES AT 9:00 A.M., TUESDAY, OCTOBER 20, 1987

REFERRALS TO THE ATTORNEY GENERAL'S OFFICE (Continued)

Ken Cooper

Mike Murphy, Legal Bureau, briefed the Commission on the history of this case.

APPOINTMENT--KEN COOPER

Ken Richards, attorney for Ken Cooper, stated that he would like the Commission to look at the total picture. He stated that Mr. Cooper is 25 years old and very green. He added that Mr. Jim Anderson, who had owned Hunter Oil Station for 40 years, came to Mr. Cooper and offered him the station on contract with no money down and just a monthly payment. Mr. Cooper, being inexperienced in business, was not wise enough to understand that the underground pipes should be checked before purchase. He was unaware of how to monitor. He has no financial means to clean up the mess, which will cost $30,000. Later on, Mr. Cooper had found out about leaky pipes in the past. He also learned that, at times in the past when the supplier was filling the tanks, he left them unattended and gas was flowing out all over. Mr. Richards added that he and Mr. Cooper feel there are responsibilities here of other people who owned the station. Mr. Cooper had to shut down the station as he had no resources to fix it up. Mr. Richards concluded by asking that no further action be taken against Mr. Cooper, as he was an innocent party who got stuck with an old station at the time the leak took place.

Charlotte Mohr asked if the land went back to Hunter Oil. Mr. Richards stated that Hunter now owns it, as it was forfeited as of the 15th of October.

Nancylee Siebenmann asked if Mr. Cooper has any recourse against the former owners. Mr. Richards stated that Hunter Oil has sued Mr. Cooper for $30,000 for the gasoline, and that Mr. Cooper has filed a counterclaim since they were not advised of the problems with the underground lines and Hunter Oil was negligent in not telling Mr. Cooper about it.

Richard Timmerman stated that the Commission is not to settle mitigating circumstances, and if the environment was damaged, this should be referred.

Clark Yeager stated that Mr. Cooper should not be referred unless Hunter Oil is referred along with Mr. Cooper.

Mike Murphy stated that Mr. Cooper is already in court with Hunter Oil, and the claim he has would seem to relate to the liability for clean-up in addition to the liability for paying for the gas.

Mr. Murphy stated that the department can start dealing with Hunter Oil now, and staff intends to do so. He added that when the Cooper case began the department did not have this information on Hunter Oil.

Discussion followed in regards to bringing all involved parties for referral at the same time.

Motion was made by Nancylee Siebenmann to table this referral and bring all involved parties for referral at the same time. Seconded by Clark Yeager.

Chairman Schlutz requested a roll call vote. "Aye" votes were cast by Commissioners Mohr, Siebenmann and Yeager. "Nay" votes were cast by Commissioners Priebe, Timmerman, Uhl and Schlutz. Motion failed 4 to 3.

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

Director Wilson commented to the Commission, and with instruction to legal staff, that he wants the fullest cooperation and anything we can do to help alleviate the problem in the dilemma Mr. Cooper faces. Mr. Wilson stated that he thinks it is the sense of the Commission that we work, in every way that we can, with Mr. Cooper's legal counsel and with Mr. Cooper to take care of this problem as expediently, in the best interest of Mr. Cooper, as we possibly can.

Giese Construction

Mike Murphy briefed the Commission on the history of this case. Mr. Murphy stated that, in his conversation with company representatives, they did not quite understand what was required. They have now committed to get the penalty in and get the rest of the solid waste cleaned up.

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

1988 LEGISLATIVE PACKAGE (Continued)

Keith Uhl reviewed the legislative proposals he presented to the Commission yesterday.

Motion was made by Richard Timmerman to approve the 1988 Legislative Package. Seconded by Clark Yeager. Motion carried unanimously.

COMMENT

Chairman Schlutz commented that, in regards to the Des Moines Metro Landfill case which was before the Commission yesterday, the Department paid $26,873 for water testing at the landfill. He added that even though the Commission voted to have the water testing done, in consideration of the violations that have occurred, Des Moines Metro Landfill should pay back some of this money.

Allan Stokes explained the action taken by the Commission regarding the sampling, and further explained the cost for same.

Motion was made by Keith Uhl to direct staff to put in the referral for the Des Moines Metro Landfill, that costs to the Department for water testing be recovered. Seconded by Clark Yeager. Motion carried unanimously.

CONTESTED CASE APPEAL -- CITY OF LONG GROVE

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

The city of Long Grove appealed the denial of a wastewater variance by the department, in connection with its Municipal Improvement Program Plan of Action. After hearing, a Hearing Officer's Proposed Decision affirming the department's action was issued on September 10, 1987. The city has appealed the Hearing Officer's decision to the Commission; has requested that the Commission defer its consideration of this matter until June, 1988; and has attached purported evidence not submitted at the hearing. The department resists delay of this matter; resists the submission of additional evidence by the city, or in the alternative asks that the hearing be reopened to allow department testimony on the matter; and asks that the Commission affirm the Hearing Officer's decision. Pertinent documents will be supplied to the Commission members.

Diana Hansen, Legal Bureau, explained that the Commission needs to decide whether or not to review this matter today, or to wait until June, 1988 as requested by Mr. Allen, representative of the city of Long Grove.

Mrs. Hansen stated that the second procedural matter before the Commission concerns an exhibit that was attached to the city's appeal. She stated that, in her review of the hearing officer's proposed order, it does not appear that this particular exhibit was introduced at the hearing. It is the Department's contention that if the Commission would like to consider this piece of additional evidence, it would be proper to remand the matter back to the hearing officer for the introduction of this particular exhibit. This would allow the city of Long Grove and the department a chance to offer any additional testimony relating to this exhibit.

Chairman Schlutz stated that the Commission set up an appeal process at the meeting yesterday, during review of another appeal, which stated that the Commission would not accept any additional evidence.

Diana Hansen explained that the city is proposing a first cell with aeration, a second cell with aeration and no baffle, and they would use the fill and draw mode of operation. The city has argued that the facility can operate in the fill and draw mode, or continuous discharge mode by merely turning valves. The department's position is that the city still needs to meet design standards, whether in either mode. Mrs. Hansen added that the city of Long Grove, in its appeal, it has no evidence to substantiate its request for a variance as to no baffle in the use of the fill and draw mode of operation.

APPOINTMENT--CITY OF LONG GROVE

Tom Allen, Consultant for the city of Long Grove, distributed a packet of information to each Commissioner.

Chairman Schlutz reminded Mr. Allen that if this material is new evidence or information, it cannot be used in the appeal.

Diana Hansen pointed out which items were not previously used as evidence at the hearing.

Mr. Allen stated that the point of contention is whether the city of Long Grove can obtain the authority to try something. He added that no one has hard evidence that says the system, on the fill and draw basis which the city asked for, is going to meet the effluent limits or not. The city is asking for only a trial period. In essence, the city has offered to undertake a research program. They are willing to do some extra testing for a twelve-month period. Mr. Allen described the city's present system. He concluded his presentation stating that the city has a system that is approved, they have a bid and are ready to go to construction. He stated that they would like to try the fill and draw without baffles until they get enough evidence that it isn't going to work.

Discussion followed regarding design standards, dikes, baffles and mode of operation.

Motion was made by Keith Uhl to uphold the hearing officer's decision. Seconded by Richard Timmerman. Motion carried unanimously.

ADDRESS ITEMS FOR NEXT MEETING

Report on Gra-Iron Foundry -- Marshalltown
Report on radon
Rates at landfills -- jurisdiction of counties

NEXT MEETING DATES

November 16-17, 1987
December 14-15, 1987
January 18-19, 1988

**ADJOURNMENT**

With no further business to come before the Environmental Protection Commission, Chairman Schlutz adjourned the meeting at 11:20 a.m., Tuesday, October 20, 1987.

Larry J. Wilson, Director

Charlotte Mohr, Secretary

(EP10-87.MIN/sc)

ASM-1-1-4
October 1987

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

Meeting Convenes at 10:00 a.m., October 19, 1987, 4th floor conference room and reconvenes on October 20, 8:30 a.m.

| | |
|---|---|
| Public Participation | 10:30 a.m. |
| APPOINTMENT: - Bill Shields | 2:30 p.m. |
| Break | 3:00 p.m. |
| APPOINTMENTS: Mr. Heston - Anthony; D.M. Metro Landfill | 3:15 p.m.; 3:30 p.m. |
| **Meeting Reconvenes 8:30 a.m. October 20** | |
| Break | 10:00 a.m. |
| APPOINTMENTS: City of Long Grove; Ken Cooper; ~~Close information~~ | 10:20 A.M.; 9:00 A.M.; ~~11:30 A.M.~~ |

1. Approval of Agenda.

2. Approval of Minutes of September 21-22, 1987.

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

4. Monthly Reports. (Stokes) Informational.

5. Final Rule--Chapter 143, Use of Recycled Oil for Road Oiling, Dust Control and Weed Control. (Stokes) Decision.

6. Emergency Adoption--Chapters 50 and 51, Agricultural Drainage Well Registration. (Stokes) Decision.

7. Notice of Intended Action--Chapters 100 and 102, Liquids in Landfills. (Stokes) Decision.

8. Proposed Rule--Chapter 102, Sewage Sludge at Landfills. (Stokes) Informational.

9. Notice of Intended Action--Chapter 23, Amendments to Emission Standards for Contaminants (NESHAPS). (Stokes) Decision.

10. Notice of Intended Action--Chapter 91, State Construction Grants. (Stokes) Decision.

11. Notice of Intended Action--Chapter 135, Underground Storage Tanks. (Stokes) Decision.

12. Notice of Intended Action--Chapters 100, 103 and 110, Groundwater Monitoring at Landfills. (Stokes) Decision.

13. Contested Case Appeal--Des Moines Metro Landfill. (Combs) Decision.

14. Contested Case Appeal--City of Long Grove. (Combs) Decision.

15. Referrals to Attorney General's Office. (Combs) Decision.

16. 1988 Legislation - Committee Report. (Uhl) Decision.

17. Address Items for Next Meeting

NEXT MEETING DATES
November 16-17, 1987
December ~~21-22~~, 1987 14-15
January 18-19, 1988

ENVIRONMENTAL PROTECTION COMMISSION

Monday, October 19, 1987

| NAME | COMPANY OR AGENCY | CITY |
|---|---|---|
| (Please print) | | |
| Robert Wattman | Amana Refrigeration Inc. | Amana |
| Frank Weaver | Iowa Power | DM |
| Winton Etchen | IFCA | D.M. |
| Marjorie Dennison | Cedar Rapids Gazette | D.M. |
| O. KAY HENDERSON | Radio Iowa | DM |
| JULIE RUTZ | OPI | DSM. |
| Keith Cherryholmes | Hygienic Laboratory | Iowa City |
| Don Torney | IA Co Engrs Assoc | Marengo |
| Tom Carney | DM Register | DM |
| DARRY VEST | GROUNMARK | Bloomington, IL |
| Helen F. Maher | | Des Moines |
| Ed Lokenmacher | Petroleum Marketers Assn | D.M. |
| JOHN CROSSMOCK | CHEMLAWN SERVICES CORP. | NAPERVILLE, IL |

Tuesday, October 20, 1987

| | | |
|---|---|---|
| Pam Reed | Northern Natural Gas | Des Moines |
| Marjorie Dennison | Cedar Rapids Gazette | Des Moines Bureau |
| Rich Ommen | Cresco Da | Ho Co. Solid Waste DIR |

ENVIRONMENTAL PROTECTION COMMISSION

ITEM 4 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
October 7, 1987

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

| PROPOSAL | DRAFT TO COMMISSION | NOTICE PUBLISHED | RULES REVIEW COMMITTEE | HEARINGS | SUMMARY OF COMMENTS & RECOMMENDATIONS TO COMMISSION | RULES ADOPTED | RULES PUBLISHED | RULE EFFECTIVE |
|---|---|---|---|---|---|---|---|---|
| 1. Ch. 28 - Emission Standard | 9/22/87 | --- | | --- | 9/22/87 | 9/22/87 | 10/21/87 | 9/22/87 |
| 2. Ch. 23 - NRPS & NESHAPS | 10/22/87 | *11/18/87 | | 12/09/87<br>12/10/87<br>12/11/87 | | | | |
| 3. Chs. 50, 51 - Ag Drainage Well Registration | 10/28/87 | --- | | --- | 10/28/87 | *10/28/87 | *11/18/87 | *10/28/87 |
| 4. Chs. 58 - 52 Water Allocation (Conservation) | 5/28/87 | 6/17/87 | 7/08/87 | 7/07/87<br>7/08/87<br>7/10/87 | 9/22/87 | 9/22/87 | 10/21/87 | *11/25/87 |
| 5. Ch. 91 - Construction Grants | 10/27/87 | *11/18/87 | | 12/08/87 | | | | |
| 6. Chs. 100, 102 - Liquids in Landfills | 10/28/87 | *11/18/87 | | 12/09/88<br>12/10/87<br>12/11/87 | | | | |
| 7. Ch. 102 Sewage Sludge at Landfills | 10/28/87 | | | | | | | |
| 8. Chs. 100, 103 - Landfill Ground Water Monitoring | 3/16/87 | 5/28/87 | 6/18/87 | 6/09/87<br>6/10/87<br>6/11/87 | *Termination 10/28/87 | | | |
| 9. Chs. 100,103 Landfill Ground Water Monitoring | 10/28/87 | *11/18/87 | 2/10/87 | 12/09/87<br>12/10/87<br>12/11/87 | | | | |
| 10. Ch. 135 - Tank Registration | 9/22/87 | --- | | --- | 9/22/87 | 9/22/87 | 10/21/87 | 9/22/87 |
| 11. Ch. 135 - Sniffer Well Criteria | 10/28/87 | *11/18/87 | | 12/09/87<br>12/10/87<br>12/11/87 | | | | |
| 12. Ch. 143 - Used Oil | 6/17/87 | 8/12/87 | | 9/08/87<br>9/09/87<br>9/10/87 | 10/28/87 | *10/28/87 | *11/18/87 | *12/23/87 |
| 13. Ch. 152 - Criteria for Siting Low-Level Radioactive Waste Facilities | 8/19/87 | 9/09/87 | 10/13/87 | 10/01/87<br>10/02/87<br>10/06/87 | | | | |

*Projected

E:NPM/CI-1251305.PMM

# MONTHLY VARIANCE REPORT

09/30/87

| No. | Facility | Program | Engineer | Subject | Decision | Date |
|---|---|---|---|---|---|---|
| 1 | Holland Bros. Const.Co | Air Quality | | Landscape Waste | approved | 09/01/87 |
| 2 | IA-ILL Gas & Electric | Air Quality | | Monitors | approved | 09/15/87 |
| 3 | Mystic, City of | Wastewater Const. | French-Reneker | Pond Influent Piping | approved | 09/02/87 |
| 4 | Kossuth County | Flood Plain | County Engineer | Freeboard | approved | 09/01/87 |
| 5 | University of Iowa | Watersupply Const. | Uofi Water Plnt Mgr | Siting Criteria | approved | 09/24/87 |
| 6 | University of Iowa | Watersupply Const. | Uofi Water Plnt Mgr | Design Basis | approved | 09/24/87 |
| 7 | Alta Mun. Facilities | Watersupply Const. | Layne Western-L.U. | Siting Criteria | denied | 09/25/87 |

## REPORTS OF HAZARDOUS CONDITIONS

During the period of September 1, 1987 through September 30, 1987, reports of 51 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 |
|---|---|---|---|
| 9/03/87 LINN | On September 3, 1987, a tanker truck overturned and spilled 800 gallons of liquid asphalt into a ditch and Crow's Creek along County Home Road near Viola, Iowa. | Indianhead Truck Line, Inc. 1947 West County Road C P.O. Box 64355 St. Paul, MN 55164 | The remaining product in the tanker was pumped out. All of the spilled product solidified and was removed by a local asphalt company. |
| 9/28/87 POLK | A semi-trailer collided with a van at 401 S.W. 7th Street in Des Moines, Iowa, on September 28, 1987. The van belonged to a pest control company, and an unknown amount of boric acid dust and Drione powder was spilled. | Terminix 1510 N.W. 86th Des Moines, IA 50311 | The spilled material was sprayed with a fog mist, swept up, and containerized for disposal. The area of the spill was covered with soda ash and flushed. |

RMK:xlz/EK-M275J05

**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 | 25 | 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 | 26 | 10 | 38 | 50 | 1 | 13 | 3 | 1 | 6 |
| Aug | 65 | 30 | 5 | 30 | 49 | 0 | 9 | 1 | 1 | 5 |
| Sep | 51 (41) | 33 (24) UST-22 | 4 (1) | 14 (16) | 38 (20) UST-22 | 0 (1) | 9 (12) | 0 (1) | 0(1) | 4 (6) |

| Total # of Incidents Per Field Office This Period | 01 | 02 | 03 | 04 | 05 | 06 |
|---|---|---|---|---|---|---|
| | 7 | 3 | 4 | 3 | 26 | 8 |

rlz/ERI216P01.01

October 1, 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 |
|---|---|---|---|---|
| Accent Lawn & Leisure Mt. Joy (6) | Air Quality | Open Burning | Order/Penalty | 8/28/87 |
| Otumwa-Wapello Co. SLF Comm. Ottumwa (6) | Solid Waste | Solid Waste- Daily operation | Order/Penalty | 8/31/87 |
| Ernest & Kevin Gradert Sibley (3) | Air Quality | Open Burning | Order/Penalty | 8/28/87 |
| Everco Industries, Ottumwa (6) | Wastewater | Pretreatment | Order/Penalty | 9/22/87 |
| Ottumwa Industrial Airport, Ottumwa (6) | Wastewater | Monitoring & reporting treatment violations | Order/Penalty | 9/22/87 |
| Wilton Steel Processing, Inc. | Wastewater | Prohibited discharge | Order/Penalty | 9/22/87 |
| Chicago NW Railroad(2) | Air Quality | Open Burning | Referral AG | 9/22/87 |
| City of Garner (2) | Wastewater | Compliance Schedule | Referral AG | 9/22/87 |
| Warner Livestock, Inc. (6) | Wastewater | Prohibited Discharge | Referral AG | 9/22/87 |
| Boyer Valley Co. (4) | Wastewater | Court Order | Referral AG | 9/22/87 |
| Elings, Frey & Cratron | Wastewater | Open Dumping/Penalty | Referral AG | 9/22/87 |
| City of Wilton (6) | Wastewater | Permit Violations | Order/Penalty | 9/28/87 |
| J.C. White Excavating Co. (5) Des Moines | Solid Waste | C & D Sites | Order/Penalty | 9/28/87 |

MPM:rls/CIM093K02.01

October 1, 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 Gravity (4) | Drinking Water | Monitoring & reporting - radioactivity | Order/Penalty | 9/29/87 |
| City of Vincent (2) | Drinking Water | Monitoring & reporting - radioactivity | Order/Penalty | 9/29/87 |
| City of Fremont (5) | Drinking Water | Monitoring & reporting - radioactivity | Order/Penalty | 9/29/87 |
| Pleasant Creek Estates | Drinking Water | Monitoring & reporting - inorganics | Order/Penalty | 9/29/87 |
| City of Runnels (5) | Drinking Water | MCL - Radioactivity | Order | 9/29/87 |
| Spectra Health Care, Buena Vista Co. (3) | Drinking Water | Monitoring & reporting - bacteria | Order/Penalty | 9/30/87 |
| Keokuk Landfill, Inc. (6) | Solid Waste | Daily operation, plans & specs | Order/Penalty | 9/29/87 |
| Richard Vogt, Fairfield (6) | Solid Waste | Open dumping | Order | 9/29/87 |
| AMPEL, Inc., Des Moines (5) | Air Quality | Failure to obtain a permit | Order/Penalty | 9/29/87 |
| Van Diest Supply Co., Webster City (2) | Air Quality | Failure to obtain a permit | Order/Penalty | 9/29/87 |
| Rick Harstack, Clarinda (4) | Hazardous Condition | Failure to notify | Order/Penalty | 9/29/87 |

MPM:rls/CIM093K02.01

October 1, 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 |
|---|---|---|---|---|
| Stanton Cooperative, Stanton (4) | Hazardous Condition | Failure to notify | Order/Penalty | 9/29/87 |
| Mark Wallin, Essex (4) | Hazardous Condition | Failure to notify | Order/Penalty | 9/29/87 |
| Northwestern States Portland Cement, Mason City (2) | Air Quality | Emission violations | Order/Penalty | 9/29/87 |
| City of Brighton (6) | Wastewater | Municipal improvement plan | Order/Penalty | 9/29/87 |
| City of University Park (5) | Wastewater | Municipal improvement plan | Order/Penalty | 9/29/87 |

MPM:rls/CIM093K02.01

# M E M O R A D N U M

DATE: October 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 |
| *Elings/Catron/Frey (Des Moines) | 1,000 | 7-18-87 |
| Giese Construction Co. (Eagle Grove) | 1,000 | 5-25-87 |
| City of Swan | 530 | 7-01-87 |
| 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 |
| **Ken Turner (Fort Madison) | 150 | 9-15-87 |
| City of Ireton | 500 | 9-06-87 |
| Big Rock Tap | 660 | 9-21-87 |
| Bremer Utilities | 262 | 9-21-87 |
| City of Dixon | 200 | 9-27-87 |
| Linwood Mining (Davenport) | 1,000 | 9-27-87 |
| **K & K Truckstop (Lenox) | 87 | 10-01 87 |
| City of Elkhart | 1,000 | 10-10-87 |
| City of Mt. Vernon | 1,000 | 10-12-87 |
| Twelve Mile House (Bernard) | 339 | 10-28-87 |
| Timberline Assoc. Ltd (W. Burlington) | 1,000 | 11-02-87 |
| Accent Lawn and Leisure (Mt. Joy) | 1,000 | 11-02-87 |
| Everco Industries (Ottumwa) | 1,000 | 11-23-87 |
| Ottumwa Industrial Airport | 1,000 | 11-23-87 |
| Wilton Steel Processing (Wilton) | 1,000 | 11-27-87 |
| City of Wilton | 1,000 | ---- |
| J.C. White Excavating (Des Moines) | 1,000 | ---- |
| City of Gravity | 100 | ---- |
| City of Vincent | 100 | ---- |
| City of Fremont | 100 | ---- |
| Pleasant Creek Estatttes (Shellsburg) | 200 | ---- |
| Spectra Health Care (Storm Lake) | 580 | ---- |
| Keokuk Landfill, Inc. | 600 | ---- |
| AMPEL, Inc. (Des Moines) | 600 | ---- |

* Referred to the Attorney General
** On Payment Schedule

MPM:rag/I122N01.01

Administrative Penalties Due (Continued)

| NAME/LOCATION | AMOUNT | DUE DATE |
|---|---|---|
| Van Deist Supply Co. (Webster City) | 1,000 | ---- |
| Richard Harstack (Clarinda) | 1,000 | ---- |
| Stanton Cooperative | 1,000 | ---- |
| Mark Wallin (Essex) | 1,000 | ---- |
| Northwestern States Cement (Mason City) | 1,000 | ---- |
| City of Brighton | 700 | ---- |
| City of University Park | 500 | ---- |

The following administrative penalties have been appealed:

| NAME/LOCATION | AMOUNT |
|---|---|
| Kula and Boge (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 |
| Trausch Co., Inc. (Carroll) | 1,000 |
| Trausch Co., Inc. (Carroll) | 1,000 |
| McFedries (Davenport) | 1,000 |
| City of Inwood | 400 |
| Clarion Farmer's Coop | 750 |
| Great Rivers Coop (Atavia) | 1,000 |
| Powershiek Rural Water | 500 |
| Rich Metals (Davenport) | 1,000 |
| Village Oaks Homeowners Ass'n (Blue Grass) | 424 |
| City of Wapello | 500 |
| City of Newell | 500 |
| Gradert, Ernest and Kevin (Sibley) | 500 |
| Ottumwa-Wapello County SLF | 1,000 |

The following administrative penalties were paid in September:

| NAME/LOCATION | AMOUNT |
|---|---|
| **K & K Trucking (Lenox) | $ 50 |
| *Rinehart Construction (N. Dallas SLF) | 848 |
| Wilson/Pingel (Fort Dodge) | 500 |
| Moore Oil Co. (West Branch) | 50 |
| Orrie's Supper Club (Hudson) | 100 |
| Mt. Vernon Steel and Wire | 1,000 |

* Referred to the Attorney General
** On Payment Schedule

MPM:rag/I122N01.01

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

| DATE RECEIVED | NAME OF CASE | ACTION APPEALED | PROGRAM | ASSIGNED TO | STATUS |
|---|---|---|---|---|---|
| 10-17-86 | City of Bevington | Administrative Order | HW | Hansen | Hearing continued. |
| 1-23-86 | Oelwein Soil Service | Administrative Order | HW | Landa | Hearing continued; cleanup study progressing. |
| 6-12-86 | ADM - Clinton | Administrative Order | Air | Landa | Hearing continued. |
| 9-10-86 | Kula and Boys | Administrative Order | SW | Landa | Negotiating before filing. Removal completed. |
| 10-27-86 | Union County/Mittstock | Permit Issuance | FP | Clark | Remanded by District Court; settled. |
| 10-29-86 | Handi-Klamp Company, Inc. | Administrative Order | AQ/HW/SW | Landa | Hearing set for 10-13-87 |
| 12-03-86 | City of Waukee | Administrative Order | WS | Hansen | Hearing continued. |
| 12-11-86 | Eloise Reese | Permit Condition | FP | Clark | Hearing set for 11-17-87. |
| 12-24-86 | Francis Heuberlin | Administrative Order | FP | Clark | Hearing set for 12-08-87. |
| 3-18-87 | Greiner | Administrative Order | FP | Clark | Hearing held 6-30-87; brief filed 9-24-87. |
| 3-25-87 | City of Long Grove | Design Denial | HW | Hansen | Proposed decision 9-18-87; appealed. |
| 3-25-87 | Traum and Huna | Administrative Order | SW | Kennedy | Negotiating before filing. |
| 4-06-87<br>7-16-87 | Scotty's Auction Service | Administrative Order | SW<br>AQ | Kennedy | Hearing set for 10-23-87. |
| 5-05-87 | Des Moines Metro SLF | Administrative Order | SW | Kennedy | Proposed decision 8-8-87; EPC review. |
| 5-12-87 | Iowa City Regency MHP | Administrative Order | HW | Hansen | Hearing set for 11-05-87. |
| 5-28-87 | Bianchi-Meyrat Lagoon (Hank Smith) | Administrative Order | HW | Kennedy | Hearing set for 11-4-87. |
| 6-08-87 | Hillow Creek Dam/Zerble et.al | Permit Issuance | FP | Clark | Negotiating before filing. |
| 7-30-87 | Trausch Company, Inc. | Administrative Order | HW/HC | Landa | Hearing set for 11-02-87 |
| 6-11-87 | Thomas Leanon | Administrative Order | FP | Clark | Hearing set for 01-12-88. |
| 7-30-87 | City of Inwood | Administrative Order | HW | Hansen | Settled. |
| 8-10-87 | Great Rivers Co-op | Administrative Order | HC | Landa | Hearing continued; study proceeding. |
| 8-17-87 | City of Hspello | Administrative Order | HW | Hansen | Hearing set for 10/27/87. |
| 8-17-87 | City of Donnellson | Administrative Order | HW | Hansen | Hearing set for 10-30-87. |

E:HPM/CI-I251302.FBM

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

| DATE RECEIVED | NAME OF CASE | ACTION APPEALED | PROGRAM | ASSIGNED TO | STATUS |
|---|---|---|---|---|---|
| 8-24-87 | Rich Metals Co. | Administrative Order | AQ | Landa | Hearing set for 10-26-87. |
| 8-27-87 | Village Oaks Homeowners Assn. | Administrative Order | WS | Murphy | Hearing set for 10-27-87. |
| 9-01-87 | City of Newell | Administrative Order | WW | Hansen | Hearing set for 11-10-87. |
| 9-02-87 | City of Mt. Vernon | Administrative Order | WW | Hansen | Hearing set for 11-17-87 |
| 9-17-87 | Gradert, Kevin and Ernest | Administrative Order | AQ | Landa | New Case. |
| 9-23-87 | Ottumwa-Wapello County SLF | Administrative Order | SW | Kennedy | New Case. |

E:NRM/CI-I251JOE.FRM

ENVIRONMENTAL PROTECTION COMMISSION

ITEM 5 DECISION

**ADOPTION OF RULE -- CHAPTER 143, USE OF RECYCLED OIL FOR ROAD OILING, DUST CONTROL AND WEED CONTROL**

Iowa Code section 455B.412 requires the Commission to establish maximum levels of contaminants in oil. One of the contaminants specified in 455B.412 is polychlorinated biphenyl (PCB). When the rules were developed, it was the intent of the Department to allow no detectable amount of PCB in recycled or used oil used as a road oil, dust suppressant or for weed control. When the rules were developed (Chapter 143), a detectable limit of 0.001 mg/l was determined to be the applicable detection limit.

Since the rules became effective, the Department has learned that the detection limit for PCB in an oily-type waste is not 0.001 mg/l, but approximately 5 mg/l using standard methods and reasonable reliability. The 0.001 mg/l detection level would be attainable for analysis of a drinking water-type liquid only. Rule 143.6(455B) is modified by changing the maximum contaminant level for PCB to be 5 mg/l.

Public hearings on the Notice of Intended Action were held on September 8, 9 and 10, 1987 in Des Moines, Iowa City, and Council Bluffs. No one attended any of the public meetings.

Stu Schmitz
October 6, 1987

(I17A.MIN/sc)

ENVIRONMENTAL PROTECTION COMMISSION [567]
Adopted Rule

Pursuant to Iowa Code section 455B.411 and 455B.412, the Environmental Protection Commission adopts an amendment to 567--Chapter 143, "Use of Recycled Oils for Road Oiling, Dust Control and Weed Control," Iowa Administrative Code. The Commission proposed these amendments in a previously filed Notice of Intended Action, ARC 7837, published in the Iowa Administrative Bulletin on August 12, 1987.

Iowa Code section 455B.412 requires the Commission to establish maximum levels of contaminants in oil. One of the contaminants specified in 455B.412 is polychlorinated biphenyl (PCB). When the rules were developed, it was the intent of the Department to allow no detectable amount of PCB in recycled or used oil used as a road oil, dust suppressant or for weed control. When the rules were developed (Chapter 143), a detectable limit of 0.001 mg/l was determined to be the applicable detection limit.

Since the rules became effective, the Department has learned that the detection limit for PCB in an oily-type waste is not 0.001 mg/l, but approximately 5 mg/l using standard methods and reasonable reliability. The 0.001 mg/l detection level would be attainable for analysis of a drinking water-type liquid only. Rule 143.6(455B) is modified by changing the maximum contaminant level for PCB to be 5 mg/l.

The Commission requested comments on the amendment. No comments were received. Public hearings on the Notice of Intended Action were held on September 8, 9 and 10, 1987. The rule was adopted on October ____, 1987.

The amendment is intended to implement Iowa Code sections 455B.411 and 455B.412 and will become effective on December 23, 1987.

The following amendment is adopted.

Amend rule 143.6(455B) as follows:

567--143.6(455B) Maximum contaminant levels for used or recycled oils. A used or recycled oil shall not be used for the purpose of road oiling, dust control, or weed control when analysis of the oil under rule 567--143.3(455B) indicates that: polychlorinated biphenyls are present at a level of ~~0.001~~ 5 mg/l or greater or, the mobile lead concentration is 5 mg/l or greater or, the measured flashpoint is 140° (60°C) or lower.

_____
Date

_____
Larry J. Wilson, Director

(EP143A.MIN/sc)

ENVIRONMENTAL PROTECTION COMMISSION

ITEM 6 DECISION

AGRICULTURAL DRAINAGE WELL REGISTRATION

The attached proposed rules are intended to implement, in part, section 303 of the Groundwater Protection Act concerning registration of agricultural drainage wells. It is being recommended that the rules be emergency adopted and implemented to provide the greatest possible time period for registration prior to the January 1, 1988 deadline.

If approved, the rules could become effective upon filing with the Administrative Rules Coordinator.

The rules amend Chapters 50 and 51 of the Commission's rules and:

- Define agricultural drainage wells
- Identify the registration form
- Parrot the statutory registration requirement
- Point out that registration is not considered a permit
- Update the implementation language.

Also attached is a copy of the registration form.

(I15.MIN/sc)

Riessen
September 30, 1987

ENVIRONMENTAL PROTECTION COMMISSION [567]
Emergency Adopted and Implemented Rule

Pursuant to the authority of Iowa Code section 455B.105 and 1987 Iowa Acts, House File 631, sections 303 and 304, the Environmental Protection Commission emergency adopts rules amending Chapter 50 "Scope of Division--Definitions--Forms--Rules of Practice" and Chapter 51 "Water Permit or Registration--When Required" to provide for registration of agricultural drainage wells.

In compliance with section 17A.4(2), Code of Iowa, the Commission finds that public notice and participation are impracticable and contrary to the public interest in that the 1987 Iowa Acts, House File 631, section 303, provides, in part, that all agricultural drainage wells be registered with the Department of Natural Resources by January 1, 1988. These rules are necessary to prescribe the procedure for registration. The legislation was effective July 1, 1987, but without rules to implement the statute, it may be difficult for agricultural drainage well owners to comply with the registration requirements. Registration of agricultural drainage wells by January 1, 1988 is important because failure to do so would render the well owners ineligible for financial incentive monies from the agriculture management account of the groundwater protection fund to implement alternatives to agricultural drainage wells.

The Commission also finds, pursuant to Iowa Code section 17A.5(2)"b"(2), that the normal effective date of these rules, thirty-five days after publication, should be waived and the rules be made effective upon filing with the Administrative Rules Coordinator on _____, 1987 as it confers a benefit upon the public by providing the greatest possible time period to comply with the agricultural drainage well registration law.

The Environmental Protection Commission adopted these rules at a regular meeting on _____, 1987.

These rules implement 1987 Iowa Acts House File 631, section 303.

---

ITEM 1. Rule 567--50.2(455B) "Definitions" is amended to add the following definition:

"Agricultural drainage well" is a vertical opening to an aquifer or permeable substratum, which has been drilled, driven, dug, bored, augered, jetted, washed, cored or otherwise constructed and which intercepts or receives or is capable of intercepting or receiving surface or subsurface drainage water from agricultural land.

ITEM 2. Subrule 567--50.3(1) "Application forms" is amended to add the following form:

Form 542-0986: Registration of Agricultural Drainage Wells 10/87.

ITEM 3. The implementation paragraph at the end of Chapter 50 is amended to read as follows:

These rules are intended to implement Iowa Code sections 17A.3, 455B.105, 455B.262, 455B.264 to 455B.274, and 455B.278, 455B.281 ~~as amended by 1985 Iowa Acts, Chapter 7, and 1985 Iowa Code supplement section 455B.281~~ and 1987 Iowa Acts, House File 631.

ITEM 4. Rule 567--51.3(455B) is amended to read as follows:

567--51.3(455B) Diversion from surface into aquifer. A permit is required for diversion of water or any other material from the surface directly into any aquifer. Diversion by tile or ditch into a sinkhole or quarry excavated in carbonate rock is presumed to be a diversion from the surface directly into an aquifer in the absence of convincing evidence to the contrary. All agricultural drainage wells must be registered by the owner with the

department by January 1, 1988 on the form provided by the department. Registration of an agricultural drainage well is not considered a permit as required under this rule.

ITEM 5. The implementation paragraph at the end of Chapter 51 is amended to read as follows:

These rules are intended to implement Iowa Code section 455B.262, 455B.264 to 455B.274, and 455B.278;-as-amended-by-1985-Iowa-Acts;-Senate-File-163 and 1987 Iowa Acts, House File 631.

Date

Larry J. Wilson, Director

(EP50-51E.MIN/sc)

## Agricultural Drainage Well Registration Form
(Please print in ink or type)

1) LOCATION OF DRAINAGE WELL (Attach aerial photo if necessary-see instructions)

—— 1/4 of the ___ 1/4, Section ___, T___N, R___, _____ County

2) NAME AND ADDRESS OF DRAINAGE WELL OWNER

Name _____

Street, RR or Box _____

City and State _____

Zip Code _____

Phone (——)_____

3) NAME AND ADDRESS OF AUTHORIZED AGENT
(leave blank if not appropriate)

Name _____

Street, RR or Box _____

City and State _____

Zip Code _____

Phone (——)_____

4) INDICATE BELOW THE AMOUNT OF LAND DRAINED BY THE DRAINAGE WELL

LAND OWNED BY THE WELL OWNER _____ ACRES
LAND NOT OWNED BY THE WELL OWNER _____ ACRES
TOTAL AMOUNT OF LAND DRAINED _____ ACRES

5) OF THE LAND DRAINED BY THE DRAINAGE WELL, GENERALLY WHAT PERCENTAGE IS IN CONTINUOUS ROW CROP (Include any set-aside acres that normally would be in row crop production) _____%

6) WHAT TYPE OF DRAINAGE WATER ENTERS THE DRAINAGE WELL? CHECK ONE

☐ TILE DRAINAGE ONLY

☐ SURFACE WATER ONLY

☐ BOTH TILE AND SURFACE WATER

7) TO YOUR KNOWLEDGE, HOW CLOSE IS THE NEAREST WATER SUPPLY WELL FOR HUMAN CONSUMPTION TO THE DRAINAGE WELL? CHECK ONE.

| ☐ | ☐ | ☐ | ☐ | ☐ |
|---|---|---|---|---|
| 1/8 mile or less | 1/8 to 1/4 mile | 1/4 to 1/2 mile | 1/2 to 1 mile | 1 mile or more |

8) HOW DEEP IS THE DRAINAGE WELL? _____ ft.

COMMENTS: _____

_____

_____

_____

_____

_____

_____

_____

_____ _____

Signature of ☐ owner ☐ agent (check one) Date

## Instructions for Completing the Well Registration Form

Iowa's Groundwater Protection Act, passed in 1987, requires that all agricultural drainage wells be registered with the Iowa Department of Natural Resources by January 1, 1988. To register an agricultural drainage well, complete the registration form and mail to:

Drainage Well Coordinator
Department of Natural Resources
Wallace State Office Building
Des Moines, IA 50319

Questions on the form should be directed to the Drainage Well Coordinator at the above address or by calling (515)281-8693.

Agricultural drainage well owners who don't comply with the January 1, 1988 deadline will not be eligible to use the financial incentive money provided by the Legislature for implementing drainage well alternatives. Although it is not known at this time if agricultural drainage wells will have to be closed or modified, well owners should definitely consider it a possibility. Therefore, well owners should preserve their right to use such funds by meeting the registration deadline.

A separate registration must be completed for <u>each</u> drainage well. A brief explanation of each of the numbered items is given below. Items 1, 2 and 3 <u>must</u> be filled in correctly, so please double check this information prior to sending.

Item 1, Location of drainage well - The location should be given to the quarter-quarter section. If you are unsure of the exact quarter-quarter section, you can attach an ASCS crop photo with the location of the well indicated. Example: <u>NW</u> 1/4 of the <u>NE</u> 1/4 of Section <u>12</u>, T <u>92</u> N, R <u>28</u> <u>W</u>, <u>Humboldt</u> County.

Item 2, Name and address of drainage well owner - The owner should be the title holder of record of the land on which the well is located and may be an individual(s), corporation, trust, etc.

Item 3, Name and address of authorized agent. An authorized agent is a person, company, etc. who is authorized by the well owner(s) to act on the owner's behalf in registering the drainage well and serve as the contact. An authorized agent might typically be a tenant, attorney, corporate officer, farm management company, etc.

Item 4, Indicate below the amount of land drained by the drainage well. Estimate the total amount of land drained by the well and of that amount, the amounts owned or not owned by the well owner. If the well owner owns all the land which drains into the well, place a "zero" in the second blank. When determining how much land the well drains, consider both tile drainage and overland flow.

Item 5, Of the land drained by the drainage well, generally what percentage is in continuous row crop? Estimate the percentage of the land that, in an average year, would be in continuous row crop production. Include set-aside acres that, in your opinion, would be in continuous row crop production if there were no farm programs. In estimating the percentage, consider the total amount of land as shown in item 4.

Item 6, What type of drainage water enters the drainage well? Drainage water typically enters a drainage well through a tile line connected to the well, through an opening at or near the ground level, or both. Please check the box which best describes the type of drainage water that normally enters the well. Tile lines which at some point directly intercept overland flow would be considered as carrying both tile drainage and surface water.

Item 7, To your knowledge, how close is the nearest water supply well for human consumption to the drainage well? In answering this question, the nearest water supply well should be considered as the nearest well supplying drinking water for humans. Do not consider wells used exclusively for such uses as irrigation or livestock watering.

Item 8, How deep is the drainage well? Give the depth of the well if known. If unknown and unable to reasonably determine such, indicate "unknown".

Comments. Use the comment lines to clarify any of the information in items 1-9.

Signature Block - The registration form must be signed by the drainage well owner or authorized agent to be a valid registration.

ENVIRONMENTAL PROTECTION COMMISSION

ITEM 7 DECISION

NOTICE OF INTENDED ACTION -- CHAPTER 100, "SCOPE OF TITLE-DEFINITIONS-FORMS-RULES OF PRACTICE", AND CHAPTER 102, "PERMITS"

Iowa Code section 455B.304 requires the Commission to adopt rules prohibiting the disposal of uncontained liquid waste in a sanitary landfill.

Federal regulations for hazardous wastes in 40 CFR 264.314 and 40 CFR 265.315 reference a test to demonstrate the absence or presence of free liquids in either a containerized or a bulk waste. The test, called the Paint Filter Liquids Test Method 9095 EPA SW 846, is easily applied to various materials. A 100-milliliter or 100-milligram sample is placed on a standard 60-mesh conical paint filter for five minutes. If any liquid passes through the filter after five minutes, the waste is determined to contain free liquids.

The proposed rule changes are to add the definition of a free liquid to the definitions contained in rule 100.2(455B) and add a portion to rule 102.14(455B) which would prohibit free liquids from being disposed in a sanitary landfill.

Stu Schmitz
October 1, 1987

(I13.MIN/sc)

ENVIRONMENTAL PROTECTION COMMISSION [567]
Notice of Intended Action

Pursuant to the authority of Iowa Code section 455B.304, the Environmental Protection Commission proposes to adopt amendments to 567--Chapter 100, "Scope of Title-Definitions-Forms-Rules of Practice," and 567--Chapter 102, "Permits," Iowa Administrative Code.

Iowa Code section 455B.304 requires the Commission to adopt rules prohibiting the disposal of uncontained liquid waste in a sanitary landfill.

Federal regulations for hazardous wastes in 40 CFR 264.314 and 40 CFR 265.315 reference a test to demonstrate the absence or presence of free liquids in either a containerized or a bulk waste. The test, called the Paint Filter Liquids Test Method 9095 EPA SW 846, is easily applied to various materials. A 100-milliliter or 100-milligram sample is placed on a standard 60-mesh conical paint filter for five minutes. If any liquid passes through the filter after five minutes, the waste is determined to contain free liquids.

The proposed rule changes are to add the definition of a free liquid to the definitions contained in rule 100.2(455B) and add a portion to rule 102.13(455B) which would prohibit free liquids from being disposed in a sanitary landfill.

Any interested person may file with the Director written comments on the proposed amendment through December 11, 1987. Interested persons may also provide oral comments at public hearings to be held Iowa City, Council Bluffs and Des Moines as follows: Wednesday, December 9, 1987 at 3:00 p.m. in the conference room of the Geological Survey Bureau, 125 North Capitol Street, Iowa City, Iowa; on Thursday, December 10, 1987 at 3:00 p.m. in the Community Hall Room, 205 South Main, Council Bluffs, Iowa; and on Friday, December 11, 1987 at 3:00 p.m. in the east half of the fifth floor conference room of the Wallace State Office Building, 900 East Grand Avenue, Des Moines, Iowa.

This rule is intended to implement Iowa Code section 455B.304.

The following amendments are proposed.

---

ITEM 1. Amend rule 567--100.2(455B) by adding the following definition:

"Free liquid" means the liquid produced when a 100 milliliter or 100 milligram representative sample is placed on a standard mesh number 60 (fine mesh size) conical paint filter for five minutes. Method 9095 EPA SW 846.

ITEM 2. Amend rule 567--102.13(455B) by adding the following subrule:

102.13(8) Free liquids or waste containing free liquids. No free liquids or waste containing free liquids shall be disposed in a sanitary landfill.

Date

Larry J. Wilson, Director

(EP102.MIN/sc)

ENVIRONMENTAL PROTECTION COMMISSION

ITEM 8 INFORMATION

NOTICE OF INTENDED ACTION -- CHAPTER 102, "PERMITS"

Iowa Code section 455B.304 requires the Commission to adopt rules that prohibit land burial or disposal by land application of wet sewer sludge at a sanitary landfill.

The term "wet sewer sludge" contained in Iowa Code section 455B.304 is taken to mean municipal sewage sludge which contains more liquid than solid, that is, equal to or greater than 50 percent liquid. The proposed rule change adds language to rule 102.14(3)a which restricts burial or disposal by land application of municipal sewage sludge at a sanitary landfill to sludge which has a solids content greater than 50 percent.

Stu Schmitz
October 7, 1987

(I22.MIN/sc)

ENVIRONMENTAL PROTECTION COMMISSION [567]
Notice of Intended Action

Pursuant to the authority of Iowa Code section 455B.304, the Environmental Protection Commission proposes to adopt an amendment to 567--Chapter 102, "Permits," Iowa Administrative Code.

Iowa Code section 455B.304 requires the Commission to adopt rules that prohibit land burial or disposal by land application of wet sewer sludge at a sanitary landfill.

The term "wet sewer sludge" contained in Iowa Code section 455B.304 is taken to mean municipal sewage sludge which contains more liquid than solid, that is, equal to or greater than 50 percent liquid. The proposed rule change adds language to rule 102.14(3)a which restricts burial or disposal by land application of municipal sewage sludge at a sanitary landfill to sludge which has a solids content greater than 50 percent.

Any interested person may file with the Director written comments on the proposed amendments through January 8, 1988. Interested persons may also provide oral comments at public hearings to be held in Iowa City, Council Bluffs and Des Moines as follows: Wednesday, January 6, 1988 at 1:00 p.m. in the conference room of the Geological Survey Bureau, 125 North Capitol Street, Iowa City, Iowa, on Thursday, January 7, 1988 at 1:00 p.m. in the Community Hall Room, 205 South Main, Council Bluffs, Iowa; and on Friday, January 8, 1988 at 1:00 p.m. in the east half of the fifth floor conference room of the Wallace State Office Building, 900 East Grand Avenue, Des Moines, Iowa.

This rule is intended to implement Iowa Code section 455B.304.

The following amendment is proposed:

Amend rule 102.14(3)a(455B) as follows:

a. Unstabilized sewage sludge, including unstabilized septic tank pumpings, shall not be disposed in the portion of a sanitary landfill open to the public. Municipal sewage sludge, whether stabilized or unstabilized, may be disposed of at a sanitary landfill as provided in Chapter 103 or 121 only if the sludge has a solids content greater than 50 percent.

Date

Larry J. Wilson, Director

(EP102A.RUL/sc)

ENVIRONMENTAL PROTECTION COMMISSION

ITEM 9 DECISION

AMENDMENTS TO NEW SOURCE PERFORMANCE STANDARDS AND NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS

The Department has adopted by reference the Federal New Source Performance Standards (NSPS) and the National Emission Standards for Hazardous Air Pollutants (NESHAPS) through May 1, 1985. Since that date, additional NSPS and NESHAPS subparts have been promulgated by the Environmental Protection Agency and several revisions have been made in the test methods and procedures required for NSPS and NESHAPS regulated sources.

The attached notice of intended action proposes to make the Department's rules regarding NSPS consistent with 40 Code of Federal Regulations Part 60 and the Department's rule regarding NESHAPS consistent with 40 Code of Federal Regulations Part 61.

The following NSPS standards have been promulgated by EPA since May 1, 1985:

1) Iron and steel plants - (Subpart Na)
   potential sources - none known

2) Equipment leaks of VOC from on-shore natural gas processing plants - (Subpart KKK)
   potential sources - none known

3) On-shore natural gas processing: $SO_2$ emissions - (Subpart LLL)
   potential sources - none known

4) Nonmetallic mineral processing plants - (Subpart OOO)
   potential sources - 260 licensed operators at 1200 locations
   known sources - one

5) Industrial - commercial - industrial steam generating units - (Subpart Db)
   known sources - five

6) Volatile organic liquid storage vessels - (Subpart Kb)
   potential sources - none known

Additional NESHAPS subparts have been promulgated by the Environmental Protection Agency since May 1, 1985. Four of these subparts regarding radionuclide and radon 222 emissions are not delegable to the states by EPA. Iowa is seeking delegation of the remaining NESHAPS standard for inorganic arsenic. There are no known sources in Iowa subject to this standard.

The adoption of the attached amendments to 567--23.1(455B) Iowa Administrative Code would not impose any additional restrictions on industry, but merely transfer the authority to the Department for enforcing the emission standards and for issuing construction permits for any affected facilities proposing to locate in Iowa.

M236MJT.4

The additional work load to the Department resulting from adoption of these rules is expected to be minimal since NSPS only applies to new construction or modification and many potential sources are already being inspected on a routine basis.

The staff recommends the attached rules be approved for public notice and comment.

Allan Stokes
October 6, 1987

M236MJT.4

## ENVIRONMENTAL PROTECTION COMMISSION [567]
### Notice of Intended Action

Pursuant to the authority of Iowa Code section 455B.133, the Environmental Protection Commission gives Notice of Intended Action to amend Chapter 23, "Emission Standards for Contaminants" by proposing to adopt by reference recently promulgated federal regulations pertaining to new source performance standards and emission standards for hazardous air pollutants and by including, as facilities affected by these standards, seven additional source or pollutant categories.

In order to prevent new air pollution problems, by section 111(b)(1)(A) of the Clean Air Act, the Administrator of the Environmental Protection Agency was required to publish a list of categories of major sources that cause or contribute significantly to air pollution which may reasonably be anticipated to endanger health or welfare. Regulations establishing standards of performance for new sources within each category were promulgated and have been adopted by reference by the Department. Each standard of performance establishes allowable emission limitations that reflect the degree of emission limitation which is achievable through the application of the best technological system of continuous emission reduction. These regulations apply only to "new sources," that is, sources, the construction or modification of which is commenced after the proposal date of the individual rule. The rules are adopted by reference by subrule 567--23.1(2)(455B).

Similarly, by Section 112 of the Clean Air Act the EPA was required to adopt emission standards for "hazardous air pollutants," those pollutants which cause or contribute to air pollution which may reasonably be anticipated to result in an increase in mortality or an increase in serious irreversible, or incapacitating reversible illness. These standards apply to new and existing sources and are adopted by reference by subrule 567--23.1(3)(455B).

In greater detail, the following amendments are proposed:

Item 1 amends subrule 567--23.1(2)(455B) by including, as federal regulations adopted by reference, those regulations pertaining to 40 C.F.R. part 60 which have been promulgated through June 4, 1987. Part 60, which sets forth federal standards of performance for new stationary sources, is amended by adding the six new source categories specifically adopted herein and by amending various emission standards, opacity standards and testing methods.

Item 1 further amends subrule 567--23.1(2)(455B) by adding, as facilities specifically affected by the standards of performance for new stationary sources, the following types of facilities: iron and steel plants, on-shore natural gas processing plants, nonmetallic mineral processing plants, industrial-commercial-institutional steam generators, and volatile organic liquid storage vessels.

Item 2 amends subrule 567--23.1(3)(455B) by including, as federal regulations adopted by reference, those regulations pertaining to 40 C.F.R. part 61 which have been promulgated through March 19, 1987. Part 61 which sets forth emission standards for hazardous air pollutants is amended by the addition of one new source category. Facilities in this source category which are affected by this amendment are primary copper smelters, glass manufacturing plants and arsenic plants.

Any person interested in receiving a copy of the federal regulations proposed to be adopted by reference may contact the Department of Natural Resources. Copies are available upon request from the Department for the cost of reproduction.

Any interested party may file a written statement of position on the subjects covered by the proposed rules through December 21, 1987. These written statements should be directed to the Director of the Department of Natural Resources, 900 East Grand Avenue, Des Moines, Iowa 50319. Persons or organizations are also invited to present oral or written comments at public hearings on these proposed amendments which will be held in Iowa City, Council Bluffs and Des Moines as follows: Wednesday, December 9, 1987 at 2:00 p.m. in the conference room of the Geological Survey Bureau, 125 North Capitol Street, Iowa City, Iowa; on Thursday, December 10, 1987 at 2:00 p.m. in the Community Hall Room, 205 South Main, Council Bluffs, Iowa; and on Friday, December 11, 1987 at 2:00 p.m. in the east half of the fifth floor conference room of the Wallace State Office Building, 900 East Grand Avenue, Des Moines, Iowa.

These rules are intended to implement Iowa Code section 455B.133.

The following amendments are proposed.

---

ITEM 1. Subrule 567--23.1(2)(455B) is amended as follows:

23.1(2) New source performance standards. The federal standards of performance for new stationary sources, as defined in 40 Code of Federal Regulations Part 60 as amended through ~~May 1, 1985~~ June 4, 1987, are adopted by reference and shall apply to the following affected facilities. The corresponding 40 C.F.R. Part 60 subpart designation is in parentheses. Reference test methods (Appendix A), performance specifications (Appendix B), determination of emission rate change (Appendix C) and the general provisions (Subpart A) of 40 C.F.R. Part 60 also apply to the affected facilities.

Further amend rule 23.1(2) by revising the following paragraphs.

~~b~~. Petroleum storage vessels. Any storage vessel for petroleum liquids constructed, reconstructed, or modified after June 11, 1973, and prior to May 19, 1978, having a storage capacity greater than 151,416 liters (40,000 gallons). (Subpart K)

cc. Petroleum storage vessels. Any storage vessels for petroleum liquids constructed after May 18, 1978 and prior to July 23, 1984, having a storage capacity greater than 151,416 liters (40,000 gallons). (Subpart Ka)

Further amend rule 23.1(2) by adding the following paragraphs:

yy. Iron and steel plants. Secondary emissions from basic oxygen process steelmaking facilities for which construction commenced after January 20, 1983. (Subpart Na)

zz. Equipment leaks of VOC from on-shore natural gas processing plants. A compressor and all equipment defined in 40 C.F.R., Part 60.631 which commences construction after January 20, 1984. (Subpart KKK)

aaa. On-shore natural gas processing: $SO_2$ emissions. Each sweetening unit and each sweetening unit followed by a sulfur recovery unit which commences construction after January 20, 1984. (Subpart LLL)

bbb. Nonmetallic mineral processing plants. Each crusher, grinding mill, screening operation, bucket elevator, belt conveyor, bagging operation, storage bin, enclosed truck or rail car loading station in fixed or portable nonmetallic mineral processing plants for which construction was commenced after August 31, 1983. (Subpart OOO)

ccc. Industrial-Commercial-Institutional Steam Generating Units. Steam generating units for which construction commenced after June 19, 1984 and which has a heat input capacity of more than 100 million Btu/hour. (Subpart Db)

ddd. Volatile Organic Liquid Storage Vessels. Volatile organic liquid storage vessels which commence construction after July 23, 1984. (Subpart Kb)

ITEM 2. Subrule 567--23.1(3)(455B) is amended as follows:

567--23.1(3) Emission standards for hazardous air pollutants. The federal standards of emissions for hazardous air pollutants, 40 Code of Federal Regulations Part 61 as amended through May 1, 1985 March 19, 1987, are adopted by reference, except 40 C.F.R. subsection 61.20 through subsection 61.28, subsection 61.90 through 61.98, subsection 61.100 through 61.108, subsection 61.120 through subsection 61.126, and subsection 61.145 through subsection 61.147, and shall apply to the following affected pollutants and facilities and activities listed below. The corresponding 40 C.F.R. Part 61 subpart designation is in parentheses. Reference test methods (Appendix B), compliance status information requirements (Appendix A), quality assurance procedures (Appendix C) and the general provisions (Subpart A) of Part 61 also apply to the affected activities or facilities.

Further amend subrule 23.1(3) by adding the following paragraph:

h. Inorganic arsenic emissions from arsenic trioxide and metallic arsenic production facilities. Each metallic arsenic production plant and each arsenic trioxide plant that processes low-grade arsenic bearing materials by a roasting condensation process. (Subpart P)

(EP23N.min/sc)

ENVIRONMENTAL PROTECTION COMMISSION

ITEM 10 DECISION

STATE CONSTRUCTION GRANTS

The Commission has previously been advised of the status of state construction grant funds. Recent appropriations for five percent grant funds are inadequate to provide state grants to all projects receiving federal grants in FFY 1987 and 1988. The Commission has discussed options for administration of state grants in such a shortage situation and has directed that rules clearly describe how funds will be administered. The recommended option has been incorporated into a draft amended rule.

Commission action is requested for approval to issue a notice for public hearing on December 8, 1987.

Wayne Farrand
October 5, 1987

(I19.MIN/sc)

ENVIRONMENTAL PROTECTION COMMISSION
Notice of Intended Action

Pursuant to the authority of Iowa Code section 455B.105 and 455B.245, the Environmental Protection Commission intends to amend IAC 567--Chapter 91, "Criteria for Award of Grants."

Iowa Code sections 455B.241 through 455B.246 provide the authorization for a "sewage works construction fund" and sets forth the general conditions for the Department of Natural Resources to offer state grants for construction of wastewater treatment facilities.

The Department proposes to clarify the administration of state grant funds by amending Chapter 91(455B). Specifically, the amended rule is intended to clearly describe how funds are administered should they be inadequate for all eligible projects. The proposed rule specifies that state grants will be offered in the order of federal grant actions and that if state funds are depleted, a project may receive less than its full entitlement but remains eligible should additional funds be appropriated.

Any interested person may file written comments on the above-referenced rule changes through December 8, 1987, with the Administrator of the Environmental Protection Division, Department of Natural Resources, 900 East Grand Avenue, Des Moines, Iowa 50319-0120. Persons are also invited to present oral or written comments at a public hearing which will be held on December 8, 1987 at 1:00 p.m. in the fourth floor conference room, Wallace State Office Building, 900 East Grand Avenue, Des Moines, Iowa.

---

Chapter 91
Criteria For Award Of Grants

567--91.1(455B) Financial assistance. Federal and state financial assistance for construction of municipal sewage works may be available pursuant to the Clean Water Act of 1977, Title II (as amended, 33 USC ~~1281-1297~~ 1251 et. seq.) and Iowa Code chapter 455B, division III, part 3, subject to the following:

91.1(1) Federal grants. Application procedures and award of federal grants are governed by federal regulations, 40 CFR, parts 30, 33 and 35, subparts C, E and I as amended through March 1, 1986. Projects complying with the state rules of this title VII and federal requirements, including the federal regulations cited above, may be awarded federal grants subject to the availability of federal grant allotments to the state.

91.1(2) State grants.

a. State grants shall be awarded ~~at the time that federal Step 3 grants are~~ awarded to projects subsequent to federal grant awards and in the order of federal grant actions. The state grant will be based upon facility ~~costs which include eligible~~ the same eligible costs as the federal grant including Step 1 and Step 2 work directly related to the facility and which have not previously been awarded state grant assistance. The state grant shall be at the participation level designated in the state appropriation, subject to available appropriated funds in the sewage works construction fund established under Iowa Code section 455B. 241. Should there be insufficient funds to provide a full state grant for a project at the designated participation level, available funds can be granted. The project remains eligible for additional state funds without regard to the year of the original federal or state grant action, and the state grant can be funded up to the authorized participation level when sufficient funds are available.

91.1(8) h. Only state grant awards and adjustments amounting to sums of $500 or more will be processed unless an eligible applicant provides a request including a reasonable statement of financial need, or until the final grant or adjustment for a project step. State grant progress payments only in the amount of $100 or more will be processed upon evidence of federal grant progress payments unless a similar request is provided. Documentation of incurred costs is required for all state grant payments.

These rules are intended to implement Iowa Code sections 455B.105,-455B.245, 455B.274, and 455B.241 to 455B.246.

Date

Larry J. Wilson, Director

(EP91.MIN/sc)

ENVIRONMENTAL PROTECTION COMMISSION

ITEM 11 DECISION

Proposed rules for underground storage tanks are attached. These admendments provide conditions for the use of sniffer wells for detection of leaks from underground storage tanks. The conditions are identical to the conditions listed in the proposed federal Environmental Protection Agency rules. A notice of intended action is also included that lists the time and location for public hearings on the rule revisions.

Allan Stokes
October 6, 1987

ENVIRONMENTAL PROTECTION COMMISSION [567]
Notice of Intended Action

Pursuant to Iowa Code Section 455B.474, the Environmental Protection Commission proposes to adopt amendments to Chapter 135,"Underground Storage Tanks" Iowa Administrative Code. These amendments provide conditions describing the use of the sniffer well for the purposes of leak detection from a regulated underground storage tank installed within the State of Iowa.

The amendment adds new rule 567--135.7(3) which states that testing or monitoring for vapors in a sniffer well may be used as a leak detection system provided the backfill material for the well is sufficiently porous, the substance stored in the tank is sufficiently volatile, the vapor monitoring device is not inoperative due to groundwater or moisture in the well, background contamination is not greater than 500 parts per million the vapor monitor's threshold value can be preset for the type of substance stored in the tank, the site has adequate sniffer well placement within the excavation, and the sniffer wells are marked and secured.

These amendments may impact small business.

Any interested person may file written suggestions or comments on the proposed rule changes through December 20, 1987. Such written materials should be directed to Morris Preston, Iowa Department of Natural Resources, Wallace State Office Building, 900 East Grand Avenue, Des Moines, Iowa 50319. Persons are also invited to attend public hearings on December 8, 1987 at 10:00 a.m. in room 006, Continuing Education Building, Iowa Western Community College, 2700 College Road, Council Bluffs; on December 9, 1987 at 1:00 p.m. in the fifth floor conference room, Wallace State Office Building, 900 East Grand Avenue, Des Moines, Iowa; on December 10, 1987 at 10:00 a.m. in the Trowbridge Hall conference room, room 115B, Geological Survey Bureau, 123 North Capitol Street, Iowa City, Iowa.

These amendments are intended to implement Iowa Code section 455B.474.

---

Amend Rule 567--135.7(455B) by adding new subrule 567--135.7(3) as follows:

135.7(3) Testing or monitoring for vapors using a sniffer well may be used only if:

a. The materials used as backfill are sufficiently porous (e.g., gravel, sand, crushed rock) to readily allow diffusion of vapors from releases into the excavation area;

b. The stored regulated substance is sufficiently volatile (e.g., gasoline) to result in a vapor level that is detectable by the monitoring devices located in the excavation area in the event of a release from the underground storage tank (UST) system;

c. The measurement of vapors by the monitoring device is not rendered inoperative by the groundwater, rainfall, or soil moisture so that a release could go undetected for more than 30 days;

d. The level of background contamination in the excavation area will not interfere with detection of releases from the UST system and, when measured in the soil gas, is no greater than 500 parts per million of total hydrocarbons;

e. The vapor monitors are designed and operated to allow the threshold level to be preset specifically for the type of regulated substance stored in the tank system and are capable of detecting any significant increase in concentration of total hydrocarbons above background levels;

f. In the UST excavation area, the site is assessed to assure compliance with the requirements in paragraphs 135.7(3)(a) through (e) of this section and

to establish the number and positioning of monitoring wells that will detect releases within the excavation area from any portion of the UST system; and;

g. Monitoring wells are clearly marked and secured to avoid unauthorized access and tampering.

Date

Larry J. Wilson, Director

(EP135N.MIN/sc)

ENVIRONMENTAL PROTECTION COMMISSION

ITEM 12 DECISION

NOTICE OF INTENDED ACTION -- CHAPTER 100, "SCOPE OF TITLES-DEFINITIONS-FORMS-RULES OF PRACTICE," CHAPTER 103, "SANITARY LANDFILLS," AND CHAPTER 110, "DESIGN, CONSTRUCTION AND OPERATION STANDARDS FOR SOLID WASTE MANAGEMENT FACILITIES"

Iowa Code section 455B.304 requires the Commission to adopt rules establishing standards for hydrologic investigation and for the construction, operation and maintenance of hydrologic monitoring systems in sanitary landfills.

These proposed rules were previously presented to the public at hearings held June 9, 10 and 11, 1987. Because of extensive professional comments received both from the public hearings and from further internal staff review, it is necessary to again present the revised proposed rules to the public for their review and comment.

The proposed rules are intended to add or substitute definitions in rule 100.2(455B), amend subrule 103.2(1), add subrule 103.2(3), amend rules 103.3(455B), 103.4(455B) and 103.5(455B) by deleting subrules (1) in each case and renumbering accordingly, and add a part of Chapter 110, Design, Construction and Operation Standards for Solid Waste Management Facilities.

Paul Lundy
October 6, 1987

(120.MIN)

ENVIRONMENTAL PROTECTION COMMISSION [567]
Notice of Intended Action

Pursuant to Iowa Code section 455B.304, the Environmental Protection Commission proposes to adopt amendments to 567--Chapter 100, "Scope of Titles-Definitions-Forms-Rules of Practice" and 567--Chapter 103, "Sanitary Landfills," Iowa Administrative Code and part of a new 567--Chapter 110, "Design, Construction and Operation Standards for Solid Waste Management Facilities."

This notice of intended action supersedes the notice identified as ARC 7614, under which previously issued notice further action has been dropped as a result of numerous and varied public comments.

In accordance with Iowa Code section 455.304, the Commission is required to adopt rules establishing standards for construction, operation and maintenance of hydrologic monitoring systems in sanitary landfills. In accordance with this authority, the Commission proposes to adopt amendments to existing rules in order to provide quantitative standards and methodology to be used by the landfill authority for applying these standards. These standards are to be applied to facilities which dispose of solid waste by burial.

The Department intends to require submittal of all hydrologic monitoring system plans within a three-year period. Plans must be submitted for review within 60 days of receiving notice from the Department.

The Department proposes to give notice to facilities based on the following priority:

1. Facilities with leachate migration problems and/or minimal groundwater monitoring systems;
2. Facilities applying for a new permit or permit amendments which involve major lateral and/or vertical expansion;
3. With notice of permit expiration and prior to renewal.

These amendments may impact sanitary landfills economically and operationally.

Any interested person may file with the director written comments on the proposed amendments through December 22, 1987. Interested persons may also provide oral comments at public hearings to be held in Des Moines, Iowa City and Council Bluffs as follows:

Wednesday, December 9, 1987 at 3:30 p.m. in the Geological Survey Bureau Conference Room, 123 North Capitol Street, Iowa City, Iowa; on Thursday, December 10, 1987 at 3:30 p.m. in the Community Hall Room, 205 South Main, Council Bluffs, Iowa; and on Friday, December 11, 1987 at 3:30 p.m. in the fifth floor conference room of the Henry A. Wallace Building, 900 East Grand Avenue, Des Moines, Iowa.

The Department is particularly interested in receiving comments regarding the proposed standards pertaining to the number, spacing and depth of wells and other technical requirements specified in 567--Chapter 110.

These rules are intended to implement Iowa Code section 455B.304.

The following amendments are proposed:

---

ITEM 1. Amend rule 567--100.2(455B) by adding or substituting the following definitions in alphabetical order:

"Annular space" means the open space formed between the borehole and the well casing.

"Aquifer" means a saturated geologic formation or combination of formations which has appreciably greater ability to transmit water than do adjacent

formations. Typically, an aquifer is capable of yielding usable quantities of water to a well.

"Confined aquifer" means an aquifer with a confining bed above and below. Water in a confined aquifer is under pressure such that water rises above the top of the aquifer in a well which penetrates the aquifer.

"Confining bed" means a geologic formation exhibiting relatively low ability to transmit water compared to adjacent formations. Confining beds are typically not capable of yielding usable quantities of water to a well.

"Down gradient" means direction of groundwater flow.

"Down gradient well" means a well which has been installed down gradient of the site and is capable of detecting the migration of contaminants from the site.

"Geologic cross section" means a drawing of a subsurface profile showing the various strata encountered based on at least three soil borings.

"Groundwater flow path" means the route of water (and contaminant) travel within the groundwater system.

"Hydraulic head" means the energy contained at a point in the groundwater system. Hydraulic head is measured as the elevation to which water rises in a piezometer.

"Landfill property" means the entire area of the landfill including the disposal site and any other contiguous property proposed for actual landfill use.

"Leachate" means a liquid including suspended components in the liquid that has percolated through or drained from a solid waste landfill.

"Mean" is the sum of all the measurements divided by the number of measurements.

"Perched saturated zone" is a localized saturated zone occurring above the regional zone of saturation. The perched saturated zone's presence is caused by a lens of relatively impermeable material within the unsaturated zone that impedes the downward movement of water toward the zone of saturation.

"Piezometers" are devices used to measure hydraulic head at a specific point in the groundwater system. Piezometers are generally small diameter wells sealed along the entire length and open to water only at the bottom through a short section of well screen, which is the point where hydraulic head is measured. A piezometer may be constructed similar to a monitoring well or may be a driven well point.

"Potentiometric surface" is the imaginary surface that represents the level to which water from a confined aquifer will rise in wells.

"Shelby tube" is a thin-walled, seamless steel tube with a sharp cutting edge which is used to obtain undisturbed samples of cohesive or moderately cohesive soils (silts and clays).

"Site" means any location, place or tract of and used for collection, storage, conversion, utilization, incineration or landfilling of solid waste, to include the landfill area, nonfill work areas, borrow areas plus a 100-foot-wide perimeter surrounding the working areas or the property line if it is closer than 100 feet to the working areas.

"Soil boring" means a hole placed into the subsurface for the purpose of determining subsurface characteristics.

"Specific yield" is a measure of the amount of water that can be drawn from storage in an unconfined aquifer.

"Split spoon sampler" means a device used in conjunction with a drilling rig to obtain undisturbed core samples from unconsolidated strata.

"Standard deviation" means the square root of the variance.

"Storage coefficient" is a measure of the amount of water that can be drawn from storage in a confined aquifer.

"Transmissivity" is a measure of the capacity of an aquifer to transmit water.

"Tremie tube" means a pipe used to fill the annular space in a well from the bottom up.

"Unconfined aquifer" means an aquifer which does not have a confining bed above it. The level of water in a well in a confined aquifer is below the top of the aquifer formation.

Unsaturated zone" is the subsurface zone above the water table in which the interstitial spaces are only partially filled with water.

"Upgradient" means direction of increasing hydraulic head.

"Upgradient well" means a well which is capable of yielding groundwater samples that are representative of regional conditions and are not affected by the landfill site. Such a well is typically placed upgradient of the site, if possible, and, if not, is placed as near the site as feasible.

"Variance" means the sum of the differences between the actual measurement and the mean divided by one less than the number of measurements.

"Water table" means the water surface below the ground at which the unsaturated zone ends and the saturated zone begins. It is the level to which a well screened in the unconfined aquifer would fill with water.

"Zone of saturation" is the subsurface zone below the water table in which the interstitial spaces are completely filled with water.

ITEM 2. Amend subrule 103.2(1) by adding the following new paragraphs "l" and "m." Reletter existing paragraph "l" as new paragraph "n."

l. Information indicating that the portion of the landfill site to be filled is not situated in an unconsolidated sequence that will permit more than 0.004 cubic foot of liquid per day per square foot of area downward leadage into the groundwater beneath or adjacent to the proposed site.

(1) The potential downward leadage shall be evaluated by means of the generalized Darcy's law $Q=P\frac{(h_2-H_1)}{L}A$ where:

Q = feet of liquid/day/square foot of area of the interface

A = one square foot of area at the base of the landfill

P = coefficient of permeability of the unconsolidated confining unit above the high water table.

$h_2$ = maximum final elevation of a contiguous portion of fill of the site

$h_1$ = lowest elevation of the top of the confining unit above the high water table

L = minimum thickness of the confining unit above the high water table

(2) Should conditions in violation of this paragraph exist, the original plan must detail how the site is to be engineered to provide equal protection to the water resources.

m. The required soil and hydrogeologic design information specified in chapter 110.

ITEM 3. Amend subrule 103.2(2) by deleting paragraphs "j" and "k," and relettering the remaining paragraphs.

ITEM 4. Amend rule 103.2(455B) by adding the following subrule:

103.2(3) Hydrologic monitoring system requirements. The owner or operator of a solid waste disposal facility shall operate and maintain a hydrologic monitoring system which includes a sufficient number of groundwater monitoring wells and surface water monitoring points to determine the impact, if any, that the sanitary disposal project is having on the adjacent waters. The hydrologic monitoring systems shall enable early detection of the escape of pollutants from a sanitary landfill

a. Hydrologic monitoring system plan, design and construction requirements. The hydrologic monitoring system shall be planned, designed and constructed in accordance with the provisions in rule 110.1(455B). A hydrologic monitoring system plan shall be submitted to the department for review and approval with any application for a new permit, with an application for permit amendments which involve major lateral and/or vertical expansion, with application for permit renewal, or within 90 days of receiving notice from the department. These requirements apply to any sanitary landfill in operation after July 1, 1987. Within 60 days after the hydrologic monitoring system plan is approved by the department, the construction of hydrologic monitoring system shall be completed in accordance with the plan.

b. Hydrologic monitoring system operating requirements.

1. Operational sampling requirements. All sampling shall be conducted in accordance with an approved sampling protocol, components of which are described in subrule 110.1(4).

(a) Groundwater levels. The elevation of water in each monitoring well shall be measured monthly and recorded to the nearest 0.01 foot. Level measurements must be made before a well is evacuated for sample collection.

(b) Surface water levels. The water level or flow rate of each surface water body sampled shall be measured and recorded at the time of sample collection.

(c) First year water sampling. During the first year of operation of the hydrologic monitoring system, samples shall be collected quarterly from each groundwater monitoring well and surface water monitoring point. The purpose of this sampling is to determine baseline water quality information and enable initial estimation of water quality variability. Samples shall be analyzed for the following parameters, plus any additional parameter deemed necessary by the department.

(1) Arsenic, dissolved.
(2) Barium, dissolved.
(3) Cadmium, dissolved.
(4) Chromium, total dissolved.
(5) Fluoride, dissolved.
(6) Lead, dissolved.
(7) Mercury, dissolved.
(8) Magnesium, dissolved.
(9) Magnesium, dissolved.
(10) Silver, dissolved.
(11) Zinc, dissolved.

(12) Copper, dissolved.
(13) Suspended solids, total.
(14) Dissolved solids, total.
(15) Sodium, dissolved.
(16) Alkalinity.
(17) Calcium, dissolved.
(18) Manganese, dissolved.
(19) Hardness.
(20) Potassium, dissolved.
(21) Nitrate and nitrite (as N).
(22) Benzene.
(23) Carbon tetrachloride.
(24) 1,2-Dichloroethane.
(25) Trichloroethylene.
(26) 1,1,1-Trichloroethane.
(27) 1,1-Dichlorethylene.
(28) Paradichlorobenzene.
(29) Vinyl chloride.

(d) Routine quarterly water sampling. After the first year, each monitoring point must be sampled quarterly as specified in the facility's operation permit and analyzed for the following parameters.

(1) Chloride.
(2) Specific conductance (field measurement).
(3) pH (field measurement).
(4) Ammonia nitrogen.
(5) Iron, dissolved.
(6) Chemical oxygen demand.
(7) Temperature (field measurement)
(8) Any additional parameters deemed necessary by the department.

(e) Routine annual water sampling. After the first year, one sample per year from each monitoring point collected in a quarter specified in the facility's operation permit must analyzed for the following parameters.

(1) Total organic carbon.
(2) Total organic halogen.
(3) Phenols.
(4) Any additional parameters deemed necessary by the department.

2. Laboratory procedures.

The owner or operator of the solid waste facility must have the ground and surface water samples analyzed only by laboratories that are certified by the state of Iowa to perform public water supply sample analyses.

All analyses of parameters not covered in the Safe Drinking Water Act (SDWA) must be performed according to methods specified in SW-846 or approved by the United States Environmental Protection Agency. Any analytical method used on non-SDWA parameters deviating from those specified in SW-846 or approved by EPA must be approved by the department.

All analyses must be recorded on forms which, in addition to the analytical results, show the precision of the data set, bias, and limit of detection.

3. Analysis of sampling data. For each parameter analyzed during the first year of operation of the hydrologic monitoring system, as listed in subparagraph 1.(c) above, determine the mean and standard deviation (see Appendix A, Mean and Standard Deviation Calculation) for each upgradient monitoring well using the first year of data. For routine quarterly monitoring parameters, as listed in subparagraph 1.(d) above, mean and

standard deviation should be recalculated annually using all available analytical data.

If the analytical results for a downgradient monitoring point do not fall within the control limits of two standard deviations above the mean parameter(s) level in a corresponding upgradient monitoring point, the owner or operator shall submit this information to the department within 30 days of receipt of the analytical results. If the analytical results from an upgradient monitoring point do not fall within two standard deviations of the mean parameter(s) level for that monitoring point, the department shall also be notified within 30 days.

4. Additional sampling. The department will determine if additional sampling is warranted, after receipt of information indicating a possible release as required in subparagraph 3. above. The department may require any additional samples to be split and analyzed to determine if the values obtained outside the control limits were the result of laboratory or sampling error. Any additional analytical results shall be submitted to the department by the owner or operator within seven days of receipt. The department will review the information and determine if additional monitoring or preparation of a groundwater quality assessment plan, in accordance with paragraph c, is necessary.

5. Record keeping and recording.

(a) The persons conducting the sampling must record the procedures, measurements and observations at the time of sampling. The field records must be sufficient to document whether the procedures and requirements specified in the sampling protocol have been followed. The records must also contain the names of the persons conducting the sampling, the time and date each monitoring point was sampled, the required field measurement or test result. The owner or operator must submit copies of these field records to the department if requested.

(b) The owner or operator shall keep records of analyses and the associated groundwater surface elevations for the active life and postclosure period of the facility. These records shall be kept at the site or in the administrative files of the owner or operator, and shall be available for review in the county which the landfill is located by the department upon request.

(c) The owner or operator shall provide the department with copies of the quarterly monitoring analytical results by the dates specified in the facility's operation permit.

(d) An annual report summarizing the effect the facility is having on ground and surface water quality shall be submitted to the department by November 30 each year. The summary is to be prepared by an engineer registered in the state of Iowa and incorporated in the November semiannual engineer inspection report. The contents of this summary are to include the following items:

(1) Amounts and kinds of wastes accepted under Special Waste Authorizations.

(2) A narrative describing the effects the facility is having on surrounding surface and ground water quality and any changes made or maintenance needed in the monitoring network.

(3) Graphs showing concentrations versus time for all monitoring parameters for each well for as long as records exist for that parameter. Control limits (-two standard deviations from the initial background value) must be shown on each graph. (See Appendix A, Standard Deviation Calculation.)

(4) Results of activities and tests required by the well maintenance and performance reevaluation plan described in paragraph 567--110.1(1)"b"5 shall be submitted to the department.

c. Groundwater quality assessment plan.

1. If leachate migration occurs and, as required by the department, the owner or operator shall develop and submit for approval a specific plan to conduct a ground water quality assessment study at the facility to determine the rate of migration and the extent and constituent composition of the leachate release. At a minimum, the assessment monitoring plan must contain the following elements:

(a) Discussion of the hydrogeologic conditions at the site with an identification of potential contaminant pathways.

(b) Description of the present detection monitoring system.

(c) A description of the approach the owner or operator will take to substantiate any contention that the contamination may have been falsely indicated.

(d) Description of the investigatory approach used to characterize the rate and extent of leachate migration.

(e) Discussion of the number, location and depth of wells that will be initially installed as well as a strategy for installing more wells in subsequent investigatory phases.

(f) Information on well design and construction.

(g) Description of the sampling and analytical program used to obtain and analyze groundwater monitoring data.

(h) Description of data collection and analysis procedures.

(i) Schedule for the implementation of each phase of the assessment study.

2. After the plan has been approved by the department, the owner or operator shall implement the plan according to the schedule in the plan.

3. Within 30 days after the activities prescribed in the groundwater assessment plan have been completed, the owner or operator shall submit a written ground water quality assessment report to the department.

4. If the department determines that no waste or waste constituents from the facility have entered the ground water, the owner or operator shall reinstate the routine monitoring program.

If the department determines that waste or waste constituents have been released from the facility and have entered the groundwater, the owner or operator shall continue to make the determinations described by the assessment plan and develop a remedial action/mitigation plan to alleviate or reduce contamination to the fullest extent possible.

d. Postclosure monitoring requirements.

1. At least six months prior to closing the site, the owner or operator of a sanitary landfill shall submit a plan to the department for approval detailing a 30-year postclosure monitoring program. The plan at a minimum must address the following items:

2. The department will review the facility's post-closure monitoring records at five-year intervals to determine if changes in the monitoring frequencies or parameters are required.

3. The commission may adopt rules on a site-specific basis identifying additional monitoring requirements for sanitary landfills for which the postclosure monitoring period is to be extended.

ITEM 5. Amend rule 103.3(455B) by deleting subrule 103.3(1) in its entirety and renumber remaining subrules accordingly.

ITEM 6. Amend rule 103.4(455B) by deleting subrule 103.4(1) in its entirety and renumber remaining subrules accordingly.

ITEM 7. Amend rule 103.5(455B) by deleting subrule 103.5(1) in its entirety and renumber remaining subrules accordingly.

ITEM 8. Add the following part of new Chapter 110, "Design, Construction and Operation Standards for Solid Waste Management Facilities."

Chapter 110
Design, Construction and Operation Standards
For Solid Waste Management Facilities

567--110.1(455B) Hydrologic monitoring system standards for solid waste disposal facilities.

110.1(1) Hydrologic monitoring system planning requirements. All plans, specifications and other documentation required herein must be developed by an engineer registered in Iowa.

a. Soil and hydrogeologic investigations. The purpose of soil and hydrogeologic investigation is to obtain data which will enable a determination of potential routes of contaminant migration from a site via groundwater. The following items are minimum requirements for such investigations. Additional work and use of other methods (e.g., geophysical techniques) are encouraged.

1. Soil borings.

(a) Number of borings. A sufficient number of soil borings shall be made to accurately identify the hydrogeologic variations of the site. For new sites, the minimum number of borings required is 10 for sites of 10 acres or less, 20 for sites of 10 to 50 acres, and 20 plus an additional boring for every 10 acres above 50 acres for sites larger than 50 acres. Fewer borings may be needed for existing sites, depending on previous work done at the site. Also, no borings will be required in existing fill areas. The department may require additional borings based on the geological complexity of the site.

(b) Depth of borings. All borings must extend a minimum of 25 feet deep and at least 10 feet below the water table. However, borings in proposed fill areas shall be terminated 10 feet above the uppermost aquifer. At least half the borings located outside the existing or proposed fill area shall extend a minimum of 10 feet into the uppermost aquifer, 50 feet below the water table, or 10 feet into bedrock. At lease one boring shall go 10 feet into bedrock, regardless of depth.

(c) Boring method. Borings shall comply with the applicable portions of subrule 567--110.1(3). The preferred boring method is hollow stem auger, although it may be necessary to use other methods at greater depths and in bedrock.

(d) Soil samples. Undisturbed samples shall be collected with a split spoon or Shelby tube sampler at five-foot intervals plus at every change in stratum. When collecting undisturbed samples, the standard penetration test should be conducted in accordance with American Standard Testing Methods (ASTM) Standard D1586. This test simply counts the blows of a 140-pound hammer falling 30 inches on the sampler per foot penetration of the sampler. Samples should be clearly marked, preserved, and maintained for future inspection. Samples selected for laboratory analysis shall be preserved and transported to the laboratory in accordance with ASTM Standard D4220.

2. Groundwater level measurements. The elevation of the water table shall be determined at or near the location of each soil boring which penetrates the water table. The water table may be determined using a completed water table monitoring well, piezometer, or even an open bore hole. The bottom of a piezometer or open bore hole used to measure water table elevation shall be no more than five feet below the water table.

The apparent horizontal groundwater flow direction should be determined based on water table measurements. Vertical groundwater flow shall then be assessed in at least two profiles approximately parallel to the apparent horizontal flow direction. Vertical groundwater flow shall be assessed using at least two well clusters per profile. Each well cluster shall contain a water table monitoring well or piezometer and additional water level monitoring points based on site conditions as follows:

(a) If the water table is in the uppermost aquifer, one additional water level monitoring point is to be located near the base of the aquifer or at least 20 feet below the base of the water table monitoring point. This additional monitoring point may not be required if the aquifer is less than 20 feet thick.

(b) If the uppermost aquifer is less than 50 feet below the water table, an additional water level monitoring point shall be located at the top of the aquifer.

(c) If the uppermost aquifer is more than 50 feet below the water table, additional water level monitoring points shall be placed at depths of 30 feet and 50 feet below the water table.

(d) If required, the one deeper soil boring into bedrock shall be used as a site for one well cluster. Water table monitoring points in this cluster shall correspond to the other well cluster used for a profile. In addition, water level monitoring points shall be placed at the bottom of the boring and, if possible, at the top and bottom of the uppermost aquifer.

Groundwater level measurements should be made after the water levels have stabilized in the monitoring point; at least 24 hours after completion of the monitoring well, installation of the peizometer, or placement of the boring. Each set of water level measurements shall be made in as short a time frame as possible; within a eight-hour period maximum.

3. In-situ permeability tests. In-situ permeability tests shall be conducted on each monitoring well and/or piezometer in each well cluster.

(a) Pumping test. If more than one monitoring point is located in the uppermost aquifer, a pumping test should be conducted at one or more upper aquifer monitoring point. A pumping test involves pumping at constant rate from one well while observing water levels in other wells. The pumping rate should be as high as possible without dewatering the well. Water level measurements in other uppermost aquifer wells should be measured at frequent intervals near the start of the test and then at progressively longer intervals (e.g., one-minute intervals to 10 minutes, five-minute intervals to an hour, 15-minute intervals to two hours, and half-hour intervals thereafter). Continuous water level recording is preferable. Water levels in wells not located in the uppermost aquifer should be recorded throughout the test at regular intervals (e.g., every half hour). Water levels in all wells should be measured 24 hours prior to the test and just before the test. The test duration should be at least four hours. Longer tests may be necessary if other uppermost aquifer monitoring points are slow to respond.

(b) Bail and slug tests. Monitoring wells and piezometers located in materials with low permeabilities should be tested using bail or slug tests. These tests involve rapidly removing or adding a known volume of water to a well and then recording water levels in the well as it recovers to its original level. Typically, the necessary frequency of measurements will be similar to that required of pumping tests. In materials of very low permeability, less frequent measurements are necessary; and in materials of higher permeability, more frequent measurements may be necessary.

4. Laboratory tests of undisturbed soil samples. Laboratory tests of undisturbed soil samples shall be conducted to: correlate strata between soil borings, obtain permeability data on each strata, and design monitoring wells.

(a) Permeability tests. Permeability tests using a constant-head or falling-head permeameter shall be run on at least three samples of each distinct stratum, if possible. Each sample shall be from a different soil boring representing different areas of the state. If analytical results for each stratum are not within the same order of magnitude, at least three additional samples shall be tested.

(b) Particle size analysis. Particle size analysis should be conducted on at least three samples of each distinct stratum, if possible. Analyses should be conducted in accordance with ASTM standards D4220 and D1140. If results from each stratum are not consistent, additional samples shall be analyzed to enable correlation of strata between borings.

b. Hydrologic monitoring system planning report requirements. The hydrologic monitoring system planning report shall contain the following information:

1. Description of field investigations and presentation of results.

(a) Field and laboratory testing methods shall be described.

(b) Test results and field measurements shall be presented.

(c) An inventory of all active, unused, and abandoned wells within one mile of the facility shall be made. Also, all public water supply wells and wells with water withdrawal permits pursuant to 567--Chapters 50, 51 and 52 within three miles of the facility shall be identified. Well logs, other available information on well construction, static water levels, and usage shall be obtained. The well inventory should be based on thorough reviews of state and local collections of well logs and, when possible, interviews or surveys of well owners.

(d) Maps showing location of soil borings, other field tests/measurements, and existing wells shall be provided.

2. Evaluation of hydrogeologic conditions.

(a) Based on soil boring and other available information, a description of the site geology shall be made. This shall include preparation of geologic cross sections of sufficient number and spacing (no fewer than four at every site) to adequately define all areas of the site and of sufficient detail to adequately depict major stratigraphic and structural trends and reflect geologic structural features in relation to groundwater flow. Each pair of cross sections must be as near to perpendicular as possible to adequately portray the site geology.

(b) A description of the hydrogeologic unit(s) within the saturated zone shall be made including: thickness; depth, hydraulic properties, such as transmissivity and storage coefficient or specific yield; description of the role of each as confining bed, aquifer, or perched saturated zone, and their actual or potential use as water supply aquifers.

(c) All groundwater flow paths from the site shall be identified, including both horizontal and vertical components of flow. A contour map of the water table shall be presented showing horizontal flow paths. A potentiometric surface map of the uppermost aquifer showing horizontal flow paths shall also be presented, if different than the water table. Vertical flow paths shall be shown in at least two profiles approximately parallel to the direction of horizontal flow. Vertical flow paths shall be determined by water level measurements from clustered wells at different depths, if possible. An evaluation of vertical groundwater flow based on the hydrologic properties of

the various strata encountered at the site, estimated groundwater flow and recharge rates, and known information on hydraulic head shall also be made.

(d) The seasonal, temporal and artificially induced variations in groundwater flow shall be evaluated. Temporal variations would occur due to natural events, such as rainfall. The addition of tilelines, removal of overburden, or deposition of wastes would constitute artificially induced variations.

(e) Surface water flow paths from the site shall be identified on topographic contour maps.

3. Monitoring system plan. A hydrologic monitoring system shall be designed to intercept the groundwater and surface water flow paths from the site. The plan shall include proposed locations and depths for monitoring wells in accordance with monitoring well siting criteria in subrule 567--110.1(2). Monitoring wells shall be designed in accordance with subrule 567--110.1(3).

The surface water monitoring plan shall include monitoring points on all standing and flowing bodies of water which will receive surface runoff and/or groundwater runoff from the site. For streams, sampling points upstream and downstream of areas of potential impact from the site should be selected.

4. Sampling protocol.

At a minimum, the sampling protocol must include procedures or descriptions of the following:

(a) Order in which monitoring points are to be sampled.

(b) All tests and procedures needed at each monitoring point and the order in which these procedures will be carried out.

(c) Equipment and containers to be used, procedures and precautions for their use; precautions to avoid introducing contaminants from outside sources into monitoring wells or samples; and how equipment must be cleaned between uses.

(d) Procedures for evacuating each monitoring well prior to each water quality sampling.

(e) Procedures for handling field blanks and other quality assurance samples at the facility and in transit to and from the laboratory.

(f) Procedures for field filtration of samples, if required.

(g) Procedures for sample preservation.

(h) Procedures for sample collection, labeling and handling at the facility and during transport to the laboratory.

(i) Procedures for recording field observations and measurements.

(j) Procedures for records maintenance and data analysis.

(k) Procedures for sampling surface water monitoring points including exact sampling locations and depths.

5. Monitoring well maintenance performance reevaluation plan. A monitoring well performance reevaluation plan shall be included as part of the hydrogeologic monitoring system plan. The plan shall ensure that all monitoring points remain reliable. At minimum, the plan shall include the following items:

(a) Every two years an examination of high and low water levels accompanied by a discussion of the acceptability of well location (vertically and horizontally) and exposure of the screened interval to the atmosphere.

(b) A biannual evaluation of water level conditions in the monitoring wells to ensure the effects of waste disposal or well operation have not resulted in changes in the hydrologic setting and resultant flow paths.

(c) Annually conducting well depth measurements to ensure wells are physically intact and not filling with sediment.

(d) Every five years conducting in-situ permeability tests on monitoring wells; comparing best data with those collected originally to determine if well deterioration is occurring.

110.1(2) Monitoring well siting requirements.

a. Downgradient monitoring wells. Downgradient monitoring wells must be located to provide a high level of certainty that releases of contaminants from the site can be promptly detected. Downgradient monitoring wells should be placed along the site perimeter, within 50 feet of the planned liner or waste boundary, downgradient of the facility with respect to the hydrologic unit being monitored. For those facilities which are long-term, multi-phase operations, the department may establish temporary waste boundaries in order to define locations for monitoring wells.

1. Water table wells. At least three downgradient water table monitoring wells shall be installed at each facility. The maximum spacing between wells shall be 300 feet.

2. Uppermost aquifer monitoring wells. If different than water table monitoring wells, at least three uppermost aquifer monitoring wells shall be installed at each facility. Uppermost aquifer monitoring wells shall be spaced no more than 600 feet apart. If the uppermost aquifer is located more than 50 feet below the water table, this requirement may be relaxed, although at least one downgradient uppermost aquifer monitoring well will be required.

3. Other downgradient monitoring wells. Additional downgradient monitoring wells will be required if the water table and uppermost aquifer monitoring wells do not intercept most vertical flow paths from the site. In such situations, monitoring wells shall be placed at the appropriate depths to intercept the remaining flow paths and shall be spaced at no more than 600 feet apart.

4. Upgradient monitoring wells. Upgradient monitoring wells shall not be affected by the site. At least one upgradient monitoring well shall be installed into each stratum being monitored by downgradient monitoring wells. If it is not possible to actually locate a monitoring well upgradient of the site, the well should be placed as near the site as feasible without being affected by the site. If the uppermost aquifer is more than 50 feet below the water table, a nearby private well into the uppermost aquifer may be utilized.

5. Monitoring point identification system. The various types of monitoring points should be identified as follows:

| | |
|---|---|
| Monitoring well | MW#___ |
| Surface Water Monitoring Point | SW#___ |
| Piezometer | PZ#___ |

Each monitoring point must have a unique number, regardless of the type of monitoring point, and that number must never change.

110.1(3) Monitoring well/soil boring construction standards.

a. General considerations.

1. Contractors involved in construction of monitoring wells and piezometers and soil boring activities shall be registered with the department as required in 567--Chapter 37, Iowa Administrative Code.

2. To the extent possible, all monitoring well construction materials must not absorb, desorb, react or otherwise alter the quality of the groundwater being sampled. Galvanized metal, glues, welding solvents, pipe thread lubricants and other foreign substances must not be used.

3. All monitoring well construction materials must be protected from contamination prior to installation.

4. A typical cross section of a properly constructed monitoring well is shown in Figure 1.

b. Casings.

1. As a minimum, the diameter of the inner casing (see Figure 1) of a monitoring well must be at least two inches

2. Plastic cased wells must be constructed of materials with threaded, nonglued joints which do not allow water infiltration under natural subsurface pressure conditions or when the well is evacuated for sampling.

3. Well casings must provide structural stability to prevent casing collapse during installation as well as drill hole integrity when installed.

4. Well casings must be constructed of inert materials such as polytetrafluorethylene, stainless steel or polyvinyl chloride. The department may approve other casing materials if the owner or operator can demonstrate the material has a low potential for biasing the water quality parameters of samples. The department may approve the construction of composite well casings (casings with less inert materials in the unsaturated zone).

c. Well Screens.

1. Slot size will be based on sieve analysis of the sand and gravel formations or filter pack. The slot size must hold out 35 percent to 60 percent of the formation material and not less than 90 percent of the filter pack.

2. Slot configuration and open area must permit effective development of the well.

3. Screen length. Maximum screen length shall be 10 feet except for water table wells in which the screen must be of sufficient length to accommodate expected seasonal fluctuations of the water table. Screen length for piezometers should be two feet or less.

Multiple screened single-cased wells are prohibited.

d. Filter pack.

1. To prevent other materials from coming in contact with the well screen, extend the filter pack at least 18 inches above and at least 12 inches below the well screen.

2. Size must be based on sieve analysis of sand and gravel formation. The filter pack material must be 2.5 to 3 times larger than 50 percent grain size of the zone being monitored.

e. Grouting.

1. The annular space above the screened section must be sealed with expanding cement or bentonite grout. The vertical dimension of this seal must be a minimum of three feet.

2. The annular space between the seal and to just below the frostline must be backfilled with an impervious material such as bentonite or expanding cement.

3. The remaining annular space must be grouted with expanding cement to the ground surface.

4. Grouting materials must be installed from the top of the filter pack up in one continuous operation with a tremie tube.

f. Well protection.

1. Plastic cased wells. A protective metal casing must be installed around the well casing. The inside diameter of the protective metal casing should be at least two inches larger than the outside diameter of the well casing. Extend the protective metal casing from a minimum of one foot below the frostline to slightly above the well casing top. The protective casing should be shortened or omitted if it covers part of the well screen. Seal or immobilize the protective casing with a concrete plug around the outside. The bottom of the concrete plug must extend at least one foot below the frostline. The concrete plug should be shortened if it covers part of the well screen.

Extend the top of the plug approximately three to six inches above the ground surface and slope it away from the well approximately three feet. Soil may be placed above the plug. Seal the inside of the protective casing with a bentonite slurry. Place a vented cap on the well casing and a protective locking cap on the metal casing. The lockable cap must be kept locked when the well is not in use.

2. Metal cased wells. Extend the concrete plug from at least one foot below the frostline to approximately three to six inches above the ground surface and slope it away from the well approximately three feet. Soil may be placed on top of the concrete plug. Place a vented, locking cap on the casing. The lockable cap must be kept locked when the well is not in use. See Figure 1.

3. To protect against accidental damage, a ring of brightly colored posts or other protective devices must be installed around all wells.

g. Well drilling.

1. The owner or operator must ensure that in all phases of drilling, well installation and completion, the methods and materials used do not introduce substances that may alter the results of water quality analyses.

2. Well drilling equipment coming into contact with contaminants in the bore hole or above ground must be thoroughly cleaned to avoid spreading contamination to other depths or locations. Contaminated materials or leachate from wells must not be discharged onto the ground surface or into ponds or streams so as to cause environmental harm in the processes of drilling or well development.

3. The owner or operator must ensure that, at a minimum, the following well design and construction log information are retained at the site and a copy of this information sent to the department.

Date/time of construction;
Name and address of the driller;
Drilling method and drilling fluid used;
Soil sampling methods;
Surveyed location (±0.5 ft.);
Soil and rock classifications;
Field observations;
Well name/number;
Bore hole diameter and well casing diameter;
Well depth (±0.1 ft.);
Water level measurements;
Drilling and lithologic logs;
Casing materials, inside diameter and weight or wall thickness;
Screen materials;
Casing and screen joint type;
Screen slot size/length;
Filter pack material/size; (depths from _ to _)
Filter pack volume;
Filter pack replacement method;
Sealant materials; (depths from __ to __)
Sealant volume;
Sealant placement method;
Grouting schedule and materials;
Surface seal design/construction; (depths from __ to __)
Type of protection well cap;
Ground surface elevation (±0.1 ft.)
Well cap elevation (±0.01 ft.);

Top of casing elevation (±0.01 ft.); and
Detailed drawing of well (include dimensions).

h. Well Development. Prior to use of the monitoring well for water quality monitoring purposes, well development is required to ensure the collection of representative groundwater samples. Procedures used in well development involve using a surge block, bailing or surging by pumping to produce a movement of water at alternately high and low velocities into and out of the well screen and gravel pack in order to loosen and remove fine materials. Development of low hydraulic conductivity wells may require the circulation of water down the well casing, out through the screen and gravel pack, and up the open bore hole prior to the placement of grout or seal in the annulus. Any additional water used must be of a quality so as not to interfere with future groundwater quality determinations. Following surging, the well is pumped until the water does not contain sufficient quantities of suspended solids.

i. Sealing abandoned wells and boreholes. Bore holes, piezometers and observation wells not used for groundwater monitoring must be sealed. Document in writing the location of the abandoned well or bore hole with reference to the landfill's coordinate system and method of sealing. The document must be retained at the landfill with a copy sent to the department.

1. Sealing bore holes. Fill the bore hole by extending a tremie tube to the bottom of the hole. Apply bentonite or expanding cement grout through the tube to the bottom of the hole and raise the tremie tube as the hole is filled from the bottom upward. Keep the end of the tremie tube submerged in the grout while filling. Fill the bore hole from the base of the boring all the way to the ground surface.

2. Sealing abandoned monitoring wells.

(a) Well is known to be constructed properly with impermeable grout that was installed from the bottom up using a tremie tube. Remove any existing protective metal casing by vertically pulling it off the well. Using a tremie tube, fill the inner well casing with an impermeable grout slurry from the bottom to ground surface. After 24 hours, retop the grout if it has settled below the existing ground surface.

(b) Well construction is improper or undocumented. Attempt to remove the well casing. If this fails, either drill around the well casing using a hollow stem auger of large inside diameter or drill out the well casing using a standard casing bit or solid stem auger with a boring diameter greater than the initial diameter of the hole. Drill to the maximum depth of the previously drilled boring. Clean the drilling debris from the interior of the auger or bore hole. Seal the bore hole with an impermeable grout using a tremie tube. If the soil conditions permit the sealing to be conducted in a continuous operation, keep the tremie tube submerged in the grout at all times. After 24 hours, retop the grout if it has settled below the ground surface.

(c) Monitoring wells in future fill areas. Remove well and seal as described in the procedures for sealing bore holes. Dig a pit around the well five feet below the ground surface or five feet below the base of the proposed

landfill excavation, whichever is deeper. Fill the pit above the abandoned hole with compacted one foot (maximum) layers of clay which meets the downward leakage criteria (0.004 $ft.^3/day/ft.^2$).

Date

Larry J. Wilson, Director

(EP100A.MIN/sc)

IOWA DEPARTMENT OF NATURAL RESOURCES

ENVIRONMENTAL PROTECTION COMMISSION

ITEM 13 DECISION

DES MOINES METRO LANDFILL: CONTESTED CASE APPEAL

The Proposed Decision of the Hearing Officer regarding an appeal of an Administrative Order to the Des Moines Metro Sanitary Landfill Commission, was issued on August 8, 1987. The decision upheld the order in part and overturned the order in part. The Commission voted at its August meeting to review the Hearing Officer's decision. The decision has been made available to the Commission and representatives of the parties will be available at the October meeting to aid in the Commission's review of this matter.

Michael P. Murphy
Government Liaison Bureau
October 6, 1987

87279DNR0003

BEFORE THE DEPARTMENT OF NATURAL RESOURCES

Des Moines, Iowa

| | | |
|---|---|---|
| IN THE MATTER OF:<br><br>DES MOINES METRO SOLID WASTE AGENCY | )<br>)<br>)<br>)<br>)<br>)<br>) | PROPOSED FINDINGS OF FACT, CONCLUSIONS OF LAW AND ORDER<br><br>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 Speckman)

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 Grgurich)

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 appliction 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 deliberate.
(Department Exhibit 1; 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
Margaret LaMarche
Hearing Officer
Iowa Department of Inspections
and Appeals

cc: James Erick, for the Appellant
Victor Kennedy, for the Department

IOWA DEPARTMENT OF NATURAL RESOURCES

ENVIRONMENTAL PROTECTION COMMISSION

ITEM 14

DECISION

CITY OF LONG GROVE: CONTESTED CASE APPEAL

The City of Long Grove appealed the denial of a wastewater variance by the department, in connection with its Municipal Improvement Program Plan of Action. After hearing, a Hearing Officer's Proposed Decision affirming the department's action was issued on September 10, 1987. The City has appealed the Hearing Officer's decision to the Commission; has requested that the Commission defer its consideration of this matter until June 1988; and has attached purported evidence not submitted at the hearing. The department resists delay of this matter; resists the submission of additional evidence by the City, or in the alternative asks that the hearing be reopened to allow department testimony on that matter; and asks that the Commission affirm the Hearing Officer's decision. Pertinent documents will be supplied to the Commission members.

Michael P. Murphy
Government Liaison Bureau
October 6, 1987

87279DNR0002

BEFORE THE ENVIRONMENTAL PROTECTION COMMISSION

| IN THE MATTER OF: | |
|---|---|
| City of Long Grove<br>Wastewater Facility No.<br>82-51-0-01 | Department's Response to<br>City's Appeal |

COMES NOW, the Iowa Department of Natural Resources (hereinafter referred to as the Department) and for response to the Petitioner's appeal of the proposed order of the Hearing Officer states to the Environmental Protection Commission (hereinafter referred to as Commission) as follows:

1. The facilities proposed by the City do not meet design standards previously approved by the Commission for either a controlled discharge lagoon system or an aerated lagoon system. In order to be operated as a controlled discharge facility, the City should be required either to have three cells with appropriate detention times or to separate the second larger cell by a berm to create in essence two cells, one of which would be a quiescent area. To operate the proposed facility as an aerated lagoon system, the design standards approved by the Commission require at a minimum a floating baffle in the second aerated cell. The City of Long Grove has maintained that the floating baffle is not needed in the second cell but has stated in the amended plan of action submitted in June, 1987 that it would put one in if required to do so following this appeal. Although the City could physically operate its proposed two cell facility in either the fill and draw or continuous discharge mode of operation, the facility would not meet design standards for an aerated lagoon system or a controlled discharge facility. The Department maintains that the City should be required to place a floating baffle in the facility's second cell for operation as an aerated lagoon facility with a continuous discharge mode of operation.

2. The Department admits the first sentence of paragraph two (2) of the appeal. The second sentence of this paragraph is denied. The remainder of the paragraph is denied as to its applicability to the portion of the Hearing Officer's proposed order quoted by the City. The City has misread paragraph 9 on page 8 of the order. Evidence was presented in the form of testimony of Department witnesses that there was the potential for operational problems and less effective treatment by the proposed aerated lagoon system if the system were operated in a continuous discharge mode of operation without the floating baffle required by the design standards.

3. Paragraph three is denied. The Department has not approved use of the fill and draw mode of operation for this facility unless the facility is constructed as a controlled discharge facility and the final position of the Department, as demonstrated by Department Exhibits A, C, and E and Petitioner Exhibit 5, is that the City's proposed aerated lagoon system as now designed cannot be operated in a fill and draw mode of operation and that

such a facility is required to have a floating baffle in the second cell to create a quiescent zone.

Additionally, the October 15, 1985 letter attached to the City's appeal was not admitted into evidence as an exhibit by either party and is not a part of the record of the hearing. Therefore, it should not be considered as an evidentiary document in this appeal to the Commission. If the Commission wants to review the letter or consider its evidentiary value, the Department requests that the hearing be reopened in order for this document to be introduced by the City and for the introduction of explanatory testimony and exhibits by the Department to establish that this October 15, 1985 letter from a Department engineer does not represent the final indication of the Department's position on this issue.

Lastly, the October 15, 1985 letter from the Department's engineer is not inconsistent with the Department's position. This letter required the existing one-cell lagoon to be divided by a dike into an aerated cell and a polishing pond and that the facility could then use the fill and draw method of operation. At the time of the October 15, 1985 letter a first cell was to be constructed to precede the present lagoon cell that is to be divided. The letter from Allan Stokes to Thomas Allen, dated August 1, 1986, Department Exhibit A, essentially restates this position that three cells with appropriate storage time are needed to operate in the fill and draw mode of operation.

4. The Department concedes that the City has indicated that it will change from the fill and draw mode of operation to the flow-through mode of operation if proven necessary. However, it probably would take another contested case hearing and appeal to the Commission to establish to the City that such a change in method of operation is necessary.

5. Paragraph five (5) is denied in that the City cannot guarantee that there will be no violations of the required effluent limits of the City's N.P.D.E.S. permit.

6. The City is asking that it be allowed to construct its treatment facility contrary to design standards which the City's engineer repeatedly referred to as arbitrary at the contested case hearing. The Department maintains that the City's engineer should not be allowed to meet only those design standards that the City's engineer agrees are appropriate in constructing wastewater treatment facilities.

7. The Department requests that the Commission add the following sentence to page one of the proposed order, The Record, immediately following Petitioner Exhibit 4:

5 Letter to Rex Watson from Lavoy Haage dated February 24, 1987.

It appears that this particular exhibit was inadvertently omitted from the list of exhibits in the statement of The Record in the proposed order of the Hearing Officer.

**WHEREFORE**, The Department requests that the Commission make the addition requested in paragraph 7. above and review and affirm the proposed order of

the Hearing Officer in this matter. The Department resists any delay in reviewing the proposed order of the Hearing Officer. The Department maintains that the request by the City at the hearing that it be allowed to construct an aerated lagoon facility that does not meet design standards and then operate this facility contrary to the mode of operation used by such facilities should be denied by the Commission.

Iowa Department of Natural Resources

Respectfully submitted,

By: Diana L. Hansen

Diana L. Hansen
Legal Services Section
Henry A. Wallace Building
900 East Grand Avenue
Des Moines, IA 50319

cc: Honorable Robert M. Hamilton
Mayor of Long Grove

Thomas F. Allen

Dated at Des Moines, Iowa, this 14th day of October, 1987

By: Diana L. Hansen
Department of Natural Resources
Henry A. Wallace Building
Des Moines, Iowa 50319-0034

ALLEN WATER & WASTEWATER ENGINEERING INC.
102 S. Iris Road
Mt. Pleasant, Iowa 52641
(319) 385-8740

September 23, 1987

Mr. Larry Wilson, Director
Department of Natural Resources
Henry A. Wallace Building
900 East Grand
Des Moines, Iowa 50319

RE: City of Long Grove - Appeal

Dear Mr. Wilson,

This letter acknowledges the receipt of the Hearing Officer's denial of the appeal by the City of Long Grove to operate its proposed wastewater treatment system in the "fill and draw" mode of operation on a trial basis.

Please consider this letter as a formal request to appeal this denial to the Water, Air, & Waste Management Commission.

The basis of this denial are as follows:

1. The proposed facilities will allow the system to be operated in either the requested fill and draw mode or the approved flow-through mode of operation. A simple valve adjustment is all that is required to make this change.

2. The Hearing Officer on page 8 paragraph #9 makes the following statement: "The Department presented substantial evidence which established that there would be less effective treatment without the baffle wall". No such evidence was presented. It was specifically agreed by both parties that neither party had evidence to either substantiate or refute the effectiveness of the proposed fill and draw mode of operation without the baffle.

3. The Department had committed itself to approving the fill and draw mode of operation on a trial basis if the City of Long Grove committed itself to changing from the fill and draw mode of operation to the flow-through mode of operation if proven necessary. (See attached letter of 10/15/85 from Mr. Billy Chen.)

4. The City of Long Grove has repeatedly given such a committment.

5. The environment will not be damaged by the requested trial.

6. Many Iowa Cities could reduce the cost of both construction and operation of their treatment systems if this trial proves satisfactory.

The City of Long Grove would like to postpone the hearing before the Commission until the meeting of June, 1988 in order to accumulate what test data they can prior to that time. They are expecting to complete the first phase of their improvements this fall. They anticipate accumulating test data until June, 1988 to determine the need for any modifications.

Thank you for your consideration.

Sincerely,

Thomas F. Allen, P.E., President
Allen Water & Wastewater Eng.

TFA/mw

Enclosure

cc: Bob Schlutz, Chairman - WAWM Commission
Rex Watson, Councilman
Diana Hansen, Attorney for Department

Iowa
department of water, air and waste management

October 15, 1985

Mr. Thomas Allen
Allen Water & Wastewater Engineering, Inc.
605 Hillside Drive
Fairfield, IA 52556

RE: Waste Treatment Facility
Long Grove

Dear Mr. Allen:

We have reviewed your letter of October 3, 1985 concerning the Long Grove project and feel that you have totally mispresented our position. From your description of our concerns it is difficult to believe we were in the same meeting. Therefore, we would like to summarize the concerns we expressed during that meeting.

1. Design Basis

The City of Long Grove has nearly doubled its population in the last ten years. Your design for the proposed wastewater treatment facility should have taken this into consideration. This Department cannot approve a wastewater treatment facility that is not even designed to handle the portion of the population that is already being served, much less the population that is likely to be served in the future.

2. Existing Lagoon Modification

A dike shall be constructed to divide the existing lagoon into an aerated cell and a polishing pond. It is our understanding that the aerated cell will be deepened, and the excess dirt will be used to construct the dike.

3. Proposed Wastewater Treatment Facility

Because of the existing large, one-cell lagoon system, we will not require the city to meet our design standard of having two equal size aerated cells of 21 days detention time each. We will, however, require that the design engineer provide documentation to demonstrate that the proposed wastewater treatment facility will be able to produce the required quality of effluent. We need to see the design calculations on which you base your prediction.

BC:rls/WWPW288K01.01

4. Intermittent Discharge Operating Method

We will modify the NPDES permit to allow using the "fill and draw" method for operating the polishing pond if this method would be advantageous to the city and if the city would commit to changing its discharge method if needed to meet effluent quality requirements.

5. Site Separation Distance Requirement

We would like to call to the city's attention that the city may have difficulty complying with the required site separation distance from existing homes.

6. Standby Aeration Capacity

The City of Long Grove intends to request our approval to satisfy the "standby aeration capacity" requirement by keeping a spare aerator motor on hand. We will review this request with the project.

7. Future Enforcement Action on the Upgraded Facility

A well designed, operated and maintained wastewater treatment facility will be able to handle a greater wasteload than a poorly operated facility. Our enforcement actions are generally targeted against facilities that fail to comply with the effluent limitations in their NPDES permits.

From your summary of our last meeting, it is clear to us that any future meetings on this project, without the city's participation, could result in serious misunderstandings. We, therefore, request that the city's representative be present in any future meetings.

We want to clarify that, despite what you implied in your October 3 letter, this Department has not approved your proposal. We are waiting for you to provide all the engineering information we need to complete our review of the project.

Sincerely,

PROGRAM OPERATIONS DIVISION

Billy C. Chen, P.E.
Wastewater Permits Branch

BCC:rls/WWPW288K01.03

cc: City of Long Grove
Region 6

BEFORE THE IOWA DEPARTMENT OF NATURAL RESOURCES

| | | |
|---|---|---|
| IN THE MATTER OF:<br><br>CITY OF LONG GROVE | ) | PROPOSED FINDINGS OF FACT, CONCLUSIONS OF LAW AND ORDER<br>DIA NO. 870135 |

The City of Long Grove, Iowa submitted a Plan of Action for its municipal sewage treatment facility to the Department of Water, Air and Waste Management (predecessor agency to the Department of Natural Resources, hereinafter, the department) in summer, 1985. The plan requested that the City of Long Grove be allowed to operate its aerated lagoon in a fill and draw mode of operation. The plan was not approved, and after discussion with the Department the City of Long Grove appealed on March 19, 1987. A Notice of Hearing set the hearing for July 15, 1987. The City of Long Grove filed its Petition on June 25, 1987. The Department filed its Anser on July 15, 1987.

The hearing was held on July 25, 1987 in the fifth floor conference room, Wallace State Office Building, 900 E. Grand, Des Moines, Iowa 50319. Representing the parties were Diana Hansen, counsel for the Department, and Thomas F. Allen, P.E., for the City of Long Grove. The undersigned hearing officer presided.

THE RECORD

The evidentiary record in this case consists of the recorded testimony of the witnesses, the above pleadings, the briefs of the parties and the following Exhibits:

| | | |
|---|---|---|
| Petitioner Exhibit | 1 | Plan of Action for City of Long Grove dated May,1985. |
| | 2 | Letter dated 6/19/85 from Ralph Turkle to Thomas Allen. |
| | 3 | Addendum No. 1 to Plan of Action dated June, 1987. |
| | 4 | Preliminary Engineering Drawings for City of Long Grove's Wastewater Treatment System Improvement. |
| Department Exhibit | A | Letter dated 8/1/86 from Allen Stokes to Thomas Allen. |
| | B | Letter dated 4/24/87 from Stokes to Allen. |

C Request for Variance form for Long Grove Wastewater Treatment Plant.

D Information from Department's Field Office 6 on effluent testing results for Long Grove's Wastewater Treatment Plant for 1986 and first six months of 1987.

E Letter dated 12/10/86 from LaVoy Haage to Thomas Allen.

F Current N.P.D.E.S. permit for City of Long Grove.

FINDINGS OF FACT

1. The City of Long Grove's present Wastewater Treatment Plant consists of a single, non aerated lagoon with dimensions of 558 feet by 220 feet. The water flows into the cell and is stored for a period of time. The cell is drawn down (water discharged) on a periodic basis, monthly or bi-monthly. The water is tested prior to the discharge. The N.P.D.E.S. permit for the facility indicates that the current one cell waste stabilization lagoon system is to be operated as a controlled discharge facility using a storage drawdown method of operation. The draw down is to occur twice per year in the spring and fall. (Testimony of Thomas Allen; Exhibit F).

2. The quality of the effluent being discharged from Long Grove's Wastewater Treatment Facility does not meet current effluent limits. (Testimony of Thomas Allen, Daryl McAllister, Department Exhibit D).

3. The Department has set up the Municipal Improvement System which is designed to bring municipal facilities into compliance with the requirements of the Federal Water Pollution Control Act, 33 U.S.C.A § 1311, by July 1, 1988. Municipalities which are not in compliance are notified and required to submit a Plan of Action within six months. The Plan of Action must detail the type of improvements proposed, a schedule, and the estimated costs. The Department must determine whether the Plan of Action is approvable. (Testimony of Thomas Allen).

4. The City of Long Grove submitted its Plan of Action to the Department in summer, 1985. The plan was deemed not approvable by the Department but negotiations, meetings, and correspondence between Long Grove and the Department continued. Long Grove appealed the non approval of its Plan of Action, which was essentially a variance denial, on March 19, 1987. (Testimony of Thomas Allen, Daryl McAllister).

5. In June, 1987 the City of Long Grove submitted an addendum to its Plan of Action which renders the Plan of Action approvable. In submitting the plan, however, Long Grove specifically reserved its right to continue with its pending appeal. It was clear at the hearing that on appeal Long Grove is seeking approval of their Plan of Action, as originally submitted, i.e. using the fill and draw mode of operation and without using a baffle wall to create the quiescent zone. (Petitioner's Exhibit 3, Testimony of Thomas Allen, Daryl McAllister).

6. Pursuant to statutory authority, the Department has adopted the Iowa Wastewater Facilities Design Standards (hereinafter Design Standards). Chapter 18C of those standards apply to Wastewater Treatment Ponds (Lagoons). Two design types are described in the Standards: Controlled Discharge Pond Design and Aerated Facultative Pond Design. (Iowa Wastewater Facilities Design Standards, Adopted April 25, 1979, Amended May 20, 1986 and May 20, 1987).

7. The City of Long Grove's original Plan of Action proposed the following improvements to its current treatment system: a) installation of a new aerated lagoon to pre-treat the wastewater prior to the existing lagoon, b) addition of 5 h.p. aerator to the existing lagoon, c) improvement of the piping and valve system at the discharge of the existing lagoon, and d) changing the operation of the treatment system to a modified "fill and draw-down" system. (Testimony of Thomas Allen, Petitioner's Exhibit I).

8. A "fill and draw down system" discharges water when the lagoon is full or near full. The lagoon is then lowered three to four feet, the valves are shut, and the water is allowed to build up again. Thomas Allen, P.E., the design consulting engineer for the City of Long Grove, is not sure how often it will be necessary to draw down the lagoon under this system, although he estimates the frequency at every three to four months. (Testimony of Thomas Allen).

9. The Department refuses to approve the "fill and draw down" method of operation because it does not conform to the Design Standards and because there is no evidence that the city of Long Grove will be able to meet its effluent limits using this method of operation. The Department wants the City of

Long Grove to use a continuous flow through mode of operation. (Testimony of Daryl McAllister, LaVoy Haage).

10. The proposed effluent structure in Long Grove's original plan of action will have valves on each of two draw off pipes, one of which is located two feet below high water level, and one of which is located four feet below high water level. The city will be able to convert from a fill and draw method of operation to a continuous flow through method by leaving the two valves closed. Long Grove requests the opportunity to try the fill and draw method of operation for approximately a year, with the understanding that they would voluntarily convert to a continuous flow through mode if they are not meeting effluent limits. Long Grove concedes that they cannot show they will meet effluent limits with the fill and draw mode of operation. They could cite to no similar system currently in operation, and they had no test data. (Testimony of Thomas Allen).

11. In a continuous flow through mode of operation both cells of the lagoon are full at all times so that when water flows in, an equal amount of water also flows out. (Testimony of Thomas Allen).

12. The Design Standards for a normal aerated lagoon system (aerated facultative pond design) require two or more aerated cells and one quiescent cell with a two day retention time. The first two cells shall be of equal size and no one cell shall provide more than 50% of the total required volume. The quiescent cell theoretically helps solids settle out just prior to discharge. The quiescent cell may be formed by baffling off an area in the final aerated cell, but all other cells must be separated by earthen dikes. Baffling off an area is accomplished by installing a floating baffle wall, which has holes in it to allow the water to flow from one section to another. The Design Standards for an aerated facultative pond design require a continuous flow through mode of operation. (Testimony of Thomas Allen, Daryl McAllister, Iowa Wastewater Facilities Design Standards 18C.1.4, 18C.6, 18C.6.1.2, 18C.7.1.1).

13. The Design Standards for a Controlled Discharge Pond Design require three lagoons and 180 day detention of wastewater. Discharges are allowed only twice per year during high stream flows in spring and fall. More frequent discharges could be potentially dangerous to the receiving stream if water is not stored long enough to be properly treated or if there is low stream flow. Controlled Discharge and "fill and draw" are the same mode of operation, although Long Grove's proposed "fill and draw" would have more frequent draw downs than twice per year. (Testimony of Daryl McAllister, Iowa Wastewater Facilities Design Standards, Department Exhibit A).

14. The City of Long Grove does not want to install a floating baffle wall in its large lagoon. Long Grove feels that a floating baffle is unnecessary because the lagoon is so large that a quiet area, unaffected by the 5 h.p. aerator, will naturally occur. A baffle would help prevent short circuiting within the wastewater treatment system. Short circuiting is when wastewater flows out of the first cell and moves directly to discharge without being mixed and treated in the second cell. (Testimony of Thomas Allen, Daryl McAllister, Exhibit 3).

15. Long Grove's Plan of Action, as originally presented is a hybrid aerated lagoon. It does not meet the Design Standards for a Controlled Discharge Pond Design or for an Aerated Facultative Pond Design, but has elements of each. (Testimony of Thomas Allen, Daryl McAllister).

16. Long Grove points out that even their Revised Plan of Action, which the Department has indicated is approvable, does not strictly adhere to the Design Standards for Aerated Facultative Pond Design. Specifically, the Design Standards call for the first two cells to be of equal size. In Long Grove's Plan the first cell is much smaller than the second cell. The Department would grant Long Grove a variance on the requirement of equally sized cells. (Testimony of Thomas Allen, Daryl McAllister).

17. Thomas Allen, P.E. testified that he perceives his proposed design for the Long Grove Wastewater Treatment Facility to be based on McKinney's approach to an aerated lagoon system. McKinney is a professor of Wastewater Engineering at the University of Kansas. Dr. Richard Dage, an engineering professor at the University of Iowa, had advocated the McKinney approach for years and has tried, unsuccessfully, to get the Commission to incorporate McKinney's approach into the Design Standards. McKinney's design concept is basically a modified aerated lagoon where an initial, smaller cell with a 1 1/2 to 2 1/2 day detention time is followed by a large quiescent cell where additional treatment is done and solids settle out. However, the McKinney approach is a continuous flow through aerated lagoon. (Testimony of Thomas Allen).

18. During wet periods the flow to the lagoon would considerably exceed the design flow given in the plan of action. With the greater flow, the actual storage time above the two-foot level would be much less than initially projected, drawdown would be more frequent than initially estimated and there would be more chance for short circuiting. (Testimony of Daryl McAllister).

19. The Commission specifically examined the quiescent zone when it was considering modifications to the Design Standards and refused to waive the requirement. However, the Commission did modify the Design Standards to allow the quiescent zone to be created by the floating baffle wall, instead of by earthen dikes. Since this was specifically examined and rejected by the Commission, the Department feels it lacks authority to grant a variance for the quiescent cell requirements.

## CONCLUSIONS OF LAW

1. Iowa Code 455B.173(3) provides that "The Commission shall establish, modify or repeal rules relating to the location, construction, operation, and maintenance of disposal systems and specifying the conditions under which the director shall issue, revoke, suspend, modify or deny permits for the operation, installation, construction, addition to or modification of any disposal system. . .

2. Iowa Code 455B.173(8) provides in relevant part that the Commission shall formulate and adopt specific and detailed statewide standards pursuant to chapter 17A for review of plans and specifications and the construction of sewer systems. . .not later than October 1977. The standards shall be based on criteria contained in the "Recommended Standards for Sewage Works" and "Recommended Standards for Water Works" (Ten States Standards) as adopted by the Great Lakes-Upper Mississippi River board of state sanitary engineers, design manuals published by the department, applicable federal guidelines and standards, standard textbooks, current technical literature and applicable safety standards. . ."

3. Iowa Code 455B.174(4) provides in relevant part that "The director shall approve or disapprove the plans and specifications for the construction of disposal systems. . . The director shall issue, revoke, suspend, modify or deny permits for the operation, installation, construction, addition to or modification of any disposal system. . ."

4. 567 Iowa Administrative Code 64.2(1) provides that "no person shall construct, install or modify any wastewater disposal system or part thereof or extension or addition thereto without, or contrary to any condition of, a construction permit issued by the director. . ."

5. 567 Iowa Administrative Code 64.2(9)(a) provides that "review of applications for construction permits shall be based on the criteria contained in the "Iowa Wastewater Facilities

Design Standards", The Ten State Standards, applicable federal guidelines and standards, standard textbooks, current technical literature and applicable safety standards. To the extent of any conflict between the above criteria the "Iowa Wastewater Facilities Design Standards" standards shall prevail."

6. 567 Iowa Administrative Code 64.2(9)(b) describes the chapters of the "Iowa Wastewater Facilities Design Standards" that apply to wastewater facilities projects. Chapter 18 of the Design Standards relates to Biological treatment and subsection C of chapter 18 pertains to Wastewater treatment ponds (lagoons) Chapter 18C was adopted April 25, 1979 and amended May 20, 1986 and May 20, 1987.

7. 567 Iowa Administrative Code 64.2(9)(c) provides that variances from the design standards and siting criteria which provide in the judgement of the department for substantially equivalent or improved effectiveness may be requested when there are unique circumstances not found in most projects. The director may issue variances where circumstances are appropriate. The denial of a variance may be appealed to the commission.

64.2(9)(d). When reviewing the variance request the director may consider the unique circumstances of the project, direct or indirect environmental impacts, the durability and reliability of the alternative, and the purpose and intent of the rule or standard in question.

64.2(9)(e). Circumstances that would warrant consideration of a variance (which provides for substantially equivalent or improved effectiveness) may include the following:

(1) The utilization of new equipment or new process technology that is not explicitly covered by the current design standards.

(2) The application of established and acceptable technologies in an innovative manner not covered by current standards.

(3) It is reasonably clear that the conditions and circumstances which were considered in the adoption of the rule or standard are not applicable for the project in question and therefore the effective purpose of the rule will not be compromised if a variance is granted.

8. No evidence was presented to establish that Long Grove's original Plan of Action would create a treatment system that would provide "substantially equivalent" or "improved effectiveness". Long Grove conceded that it had no data or

projections on whether the proposed plan could meet effluent standards. The Department rules only authorize a variance where the proposal will provide for substantially equivalent or improved effectiveness. Long Grove, as the proponent for the variance, had the burden to establish that its proposal provided for substantially equivalent or improved effectiveness. It did not meet this burden.
(567 Iowa Administrative Code 64.2(9)(c), 64.2(9)(e). Findings of Fact 3, 7-19).

9. It would be improper to grant a variance allowing Long Grove to create a quiescent zone without using a floating baffle to separate the zone from the rest of the treatment cell. The Commission has recently amended the Design Standards to allow that the quiescent cell or zone may be formed by baffling off an area in the final aerated cell. Prior to this change, the quiescent cell was required to be separated by earthen dikes. Long Grove presented no evidence or data to establish that they would achieve substantially equivalent or improved effectiveness without a baffle wall. The Department presented substantial evidence which established that there would be less effective treatment without a baffle wall. Furthermore, it is not reasonably clear that the conditions and circumstances which were considered in the adoption of this rule are not applicable to the project in question, and therefore it is likely that the effective purpose of the rule would be compromised if a variance is granted.
(Findings of Fact 12, 14, 18, 19, 567 Iowa Administrative Code 64.2(9)(c); Iowa Wastewater Facilities Design Standards, Chapter 18C).

## ORDER

It is therefore ORDERED that the denial by the Department of the City of Long Grove's variance request is affirmed.

DATED THIS 9th DAY OF September, 1987.

Margaret LaMarche
Margaret LaMarche, Hearing Officer
Iowa Department of
Inspections and Appeals

cc: Thomas F. Allen, P.E., President
Allen Water & Wastewater Engineering, Inc.
102 S. Iris Road
Mt. Pleasant, Iowa 52641

Diana Hansen, Compliance Officer
Department of Natural Resources

IOWA DEPARTMENT OF NATURAL RESOURCES

ENVIRONMENTAL PROTECTION COMMISSION

ITEM 15 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 Shields (~~tabled item~~) - Flood Plain
City of Ankeny - Wastewater
City of What Cheer - Wastewater
The Giese Construction Company (Eagle Grove) - Solid Waste
Kenneth Cooper (Minburn) - Gasoline Spill
Lakewood Sanitary Sewer District - Wastewater
Country Corner Cafe (Pacific Junction) - Drinking Water
Glen Mark Subdivision (Burlington) - Drinking Water

Michael P. Murphy
October 5, 1987

87278DNR0030

Iowa
department of water, air and waste management

June 19, 1985

Allen Water & Wastewater Engineering Inc.
605 Hillside Drive
Fairfield, Iowa 52556

RE: Long Grove

Dear Mr. Allen:

This is to confirm the effluent limitation for Long Grove. Based on a discharge of less than 1.0 mgd the facility is limited to standard secondary treatment. For an aerated lagoon, this is 30 mg/l (avg) and 45 mg/l (max) for $BOD_5$ and 80 mg/l (avg) and 120 mg/l (max) TSS.

Please feel free to contact this department if questions arise.

Sincerely,

PROGRAM DEVELOPMENT DIVISION

Ralph Turkle

Ralph Turkle
Water Resources Development Branch

RT:blb/WRW170001.01

cc: Region 6
City Clerk - ~~Fairfield~~, Iowa
Long Grove

Appendix "E-2"



A

Iowa
department of water, air and waste management

October 15, 1985

Mr. Thomas Allen
Allen Water & Wastewater Engineering, Inc.
605 Hillside Drive
Fairfield, IA 52556

RE: Waste Treatment Facility
Long Grove

Dear Mr. Allen:

We have reviewed your letter of October 3, 1985 concerning the Long Grove project and feel that you have totally mispresented our position. From your description of our concerns it is difficult to believe we were in the same meeting. Therefore, we would like to summarize the concerns we expressed during that meeting.

1. Design Basis

The City of Long Grove has nearly doubled its population in the last ten years. Your design for the proposed wastewater treatment facility should have taken this into consideration. This Department cannot approve a wastewater treatment facility that is not even designed to handle the portion of the population that is already being served, much less the population that is likely to be served in the future.

2. Existing Lagoon Modification

A dike shall be constructed to divide the existing lagoon into an aerated cell and a polishing pond. It is our understanding that the aerated cell will be deepened, and the excess dirt will be used to construct the dike.

3. Proposed Wastewater Treatment Facility

Because of the existing large, one-cell lagoon system, we will not require the city to meet our design standard of having two equal size aerated cells of 21 days detention time each. We will, however, require that the design engineer provide documentation to demonstrate that the proposed wastewater treatment facility will be able to produce the required quality of effluent. We need to see the design calculations on which you base your prediction.

BC:rls/WWPW288K01.01



B/

4. Intermittent Discharge Operating Method

We will modify the NPDES permit to allow using the "fill and draw" method for operating the polishing pond if this method would be advantageous to the city and if the city would commit to changing its discharge method if needed to meet effluent quality requirements.

5. Site Separation Distance Requirement

We would like to call to the city's attention that the city may have difficulty complying with the required site separation distance from existing homes.

6. Standby Aeration Capacity

The City of Long Grove intends to request our approval to satisfy the "standby aeration capacity" requirement by keeping a spare aerator motor on hand. We will review this request with the project.

7. Future Enforcement Action on the Upgraded Facility

A well designed, operated and maintained wastewater treatment facility will be able to handle a greater wasteload than a poorly operated facility. Our enforcement actions are generally targeted against facilities that fail to comply with the effluent limitations in their NPDES permits.

From your summary of our last meeting, it is clear to us that any future meetings on this project, without the city's participation, could result in serious misunderstandings. We, therefore, request that the city's representative be present in any future meetings.

We want to clarify that, despite what you implied in your October 3 letter, this Department has not approved your proposal. We are waiting for you to provide all the engineering information we need to complete our review of the project.

Sincerely,

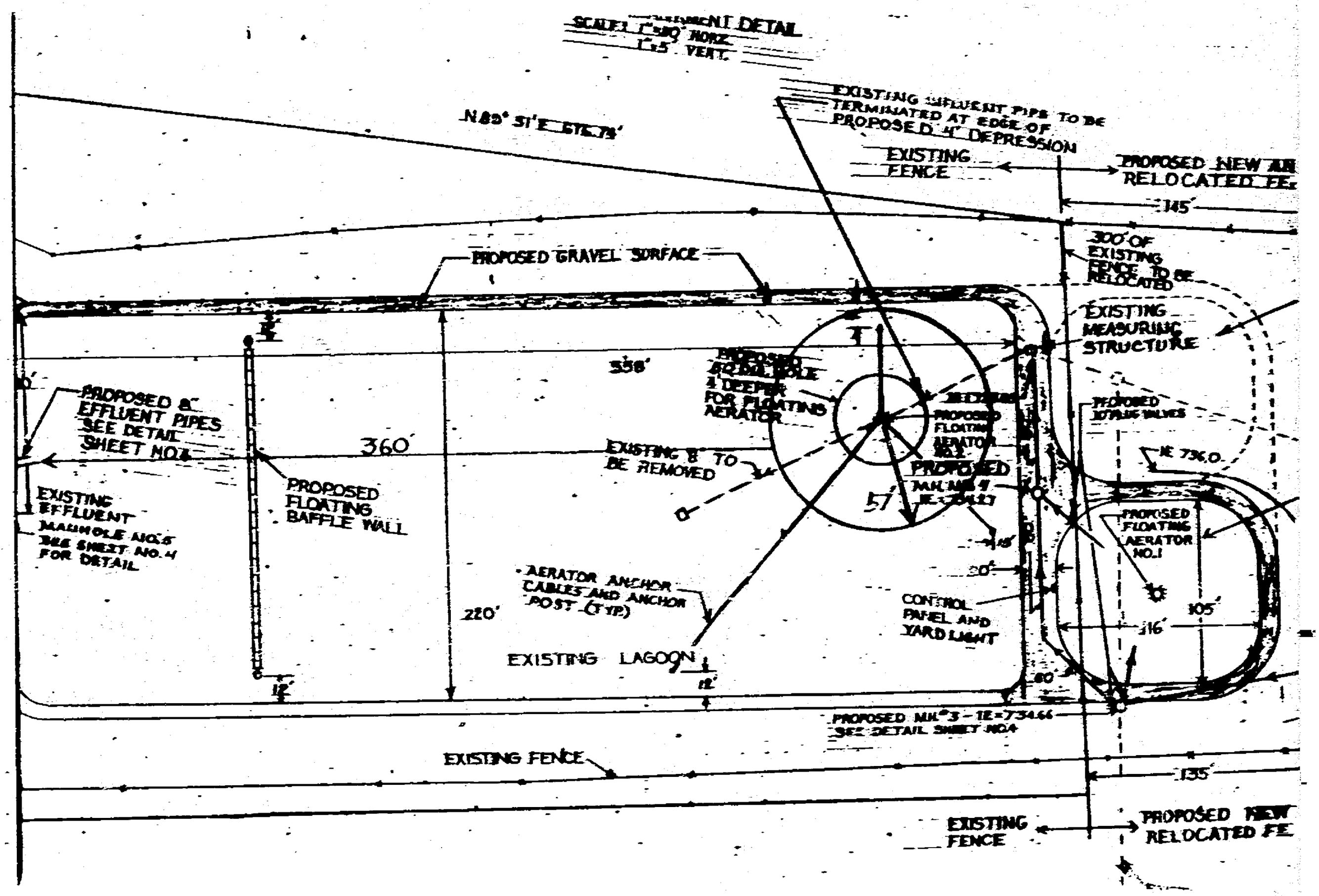
PROGRAM OPERATIONS DIVISION

Billy C. Chen, P.E.
Wastewater Permits Branch

BCC:rls/WWPW288K01.U3

cc: City of Long Grove
Region 6

B2


DETAIL
EXISTING EFFLUENT PIPE TO BE TERMINATED AT EDGE OF PROPOSED 4' DEPRESSION
EXISTING FENCE
PROPOSED NEW
RELOCATED FE
145'
300' OF EXISTING FENCE TO BE RELOCATED
PROPOSED GRAVEL SURFACE
EXISTING MEASURING STRUCTURE
558'
PROPOSED 8' EFFLUENT PIPES SEE DETAIL SHEET NO.4
360'
EXISTING 8" TO BE REMOVED
PROPOSED FLOATING AERATOR NO.2
PROPOSED FLOATING AERATOR NO.1
PROPOSED MANHOLE NO.4
PROPOSED BUTTERFLY VALVES
IE 736.0
EXISTING EFFLUENT MANHOLE NO.5 SEE SHEET NO.4 FOR DETAIL
PROPOSED FLOATING BAFFLE WALL
57'
AERATOR ANCHOR CABLES AND ANCHOR POST (TYP)
220'
CONTROL PANEL AND YARD LIGHT
105'
116'
EXISTING LAGOON
PROPOSED MH #3 - IE=734.66 SEE DETAIL SHEET NO.4
EXISTING FENCE
135'
EXISTING FENCE
PROPOSED NEW RELOCATED FE

# Simplicity, efficiency and affordability.

| HP | Model | Pumping Rate GPM | Zone of Complete Mix | Zone of Complete Oxygen Dispersion 5' | $O_2$ Transfer Lbs/Hp/Hr | Weight of Complete Unit | Energy Reg. KW |
|---|---|---|---|---|---|---|---|
| 1 | EEES-1 | 1640 | 28' | 88' | 3.8 | 94 | 1.3 |
| 2 | EEES-2 | 1850 | 32' | 147' | 3.9 | 94 | 2.2 |
| 3 | EEES-3 | 2925 | 51' | 182' | 4.0 | 98 | 3.1 |
| 5 | EEES-5 | 3510 | 57' | 197' | 4.0 | 110 | 5.0 |

Manufactured by Environmental Equipment Engineering, Inc.
P.O. Box 389
Mechanicsville, Virginia 23111
(804) 730-1280
Marketed by Bisanco, Inc.
200 Rich Lex Drive
Lexington, South Carolina 29072
803-796-9231

D

## COST SUMMARY

| City | Facility Plan Cost Estimate/ Date (By Others) | 1987 Inflated Facility Plan Cost Estimate (A) | Plan of Action Cost Estimate (By AWWE) | Bid Price * or Current Cost Estimate (B) | % Savings $\frac{A - B}{B}$ |
|---|---|---|---|---|---|
| New Sharon | $322,000/ /1976 | $560,000 | $184,000 | $194,000 * | 188% |
| Mt. Pleasant ** | $4,317,590/ /1981 | $5,200,000 | $2,627,000 | $2,700,000 * | 93% |
| New London *** | $582,000/ /1983 | $625,000 | $346,500 | $340,300 * | 83% |
| Donnellson | | $1,000,000 | $370,000 | $370,000 | 170% |

**References:**

**City of New Sharon**
**Mayor Keith Miller**
(515) 637-4124 (City Hall)
(515) 637-4186 (Home)

**City of New London**
**Mayor Junior Williams**
(319) 367-5623 (City Hall)
(319) 367-5885 (Home)

Paula Turner, City Clerk
(319) 367-5623 (City Hall)

Ron Barron, Operator
(319) 367-2342 (Home)

**City of Mt. Pleasant**
**Roger Grunow, City Engineer**
(319) 986-5225 (City Hall)
(319) 986-5782 (Home)

Ron Duprée - Past Chairman of the Sanitation Committee
(319) 385-2231 (Work)
(319) 385-8225 (Home)

City of Donnellson
Mayor Dewey McLerran
319-835-5335

** Mt. Pleasant Bid Dates - 4/20/87 and 2/20/88
*** New London Bid Date - 3/16/87

Allen Water &
Wastewater Engineering
Mt. Pleasant, Iowa

Effluent Test Results
for
City of New Sharon
with
2 of 3 Cells Operational

| Date | BOD | SS |
|---|---|---|
| 9/12 | 11 | 31 |
| 9/19 | 6 | 27 |
| 9/29 | 14 | 61 * |
| 10/3 | 8 | 19 |
| 10/10 | 12 | 15 |
| 10/17m | — | 19 |

*Operator suggests that this is incorrect data but hasn't checked to determine error.

F

Iowa
department of water, air and waste management

May 19, 1986

Mrs. Charlotte Mohr
Route 1
Eldridge, Iowa 52748

Dear Mrs. Mohr:

I am writing to give you the current status of our department's involvement with the Plan of Action (POA) submitted by the City of Long Grove per 900--64.6(6), the Municipal Improvement Program (MIP), as requested of Merritt Van Lier, R.A., Region #6.

To summarize:

On June 24, 1985, a POA was submitted for review by IDWAWM engineers. The Plan entailed renovation of the existing 2.5 acre one cell facultative lagoon by constructing a new small aerated lagoon ahead of the existing cell, adding an aerator to the existing cell, modifying the valve and piping at the effluent, and operating the system as a modified "fill and draw-down" system.

This design is unique and our engineers needed several questions answered before they could consider approving the POA for Long Grove.

After several meetings and extensive discussion with the City's engineer and City representatives, limited progress has been made toward resolving design and operation problems seen in the proposed system; however, approval of the POA has not been given.

The last correspondence between the City's engineer and our Department Director, Stephen W. Ballou, was on January 30, 1986. Six major points of contention are outlined.

1) Justification of the design flow for the proposed project has been requested by our department.

2) Our department is requiring that a polishing pond be a part of the design. The City's engineer feels that a polishing pond will be more of a detriment to effluent quality than an aid.

3) The City's engineer proposes to 'wet dredge' the existing lagoon in order to deepen it for placement of the aerator, maintaining that the lagoon will be self-sealing. Our department does not agree that lagoons are self-sealing.

4) The equations used to design the lagoon are for a more 'conventional' design. Our department engineers question whether they can be applied to the 'non-typical' design proposed by the City's engineer.

5) Our department asks that a standby aerator be supplied in the design in the case of mechanical breakdown. The City engineer has requested that just an aerator motor and prop assembly be required.



G,

This department has attempted to negotiate our differences with the City Engineer but we have not had any proposals to bring the POA into compliance with our rules and standards. We have reached the point that we may have to consider some enforcement actions to resolve the differences so that Long Grove can begin to complete the changes necessary to enable their facility to meet the July 1, 1988 deadline.

Please feel free to call me if you have any questions or comments.

Thank you for your time.

Sincerely,

FIELD SERVICES DIVISION

Peter R. Hamlin
Director

PRH:ssl/FSM135D01.01

cc: Tom Allen
Mayor of Long Grove

ALLEN WATER & WASTEWATER ENGINEERING INC.
102 S. Iris Road
Mt. Pleasant, Iowa 52641
(319) 385-8740

October 20, 1986

Mr. Lavoy Haage
Department of Natural Resources
Henry A. Wallace Building
900 East Grand
Des Moines, Iowa 50319

RE: Long Grove - Plan of Action

Dear Mr. Haage,

I have been authorized by the City of Long Grove to submit the testing program we discussed at our meeting in Des Moines relative to the fill and draw mode of operation. (See attached letter of October 14, 1986 from Councilman Rex Watson.) As you recall, it was agreed that a special testing program to determine the ability of this operating mode to meet effluent standards would be given consideration.

It would be normal to test the contents of any fill and draw system prior to discharge. I propose to expand this testing procedure to include testing for CBOD and suspended solids on a daily basis during the draw-down process. This additional testing would start 24 hours after initiating the draw-down process and would be repeated at 24 hour intervals until the draw-down process was completed.

This additional testing would begin with the first discharge period after the proposed improvements are completed and continue for a 12 month period. This full year of test results should amply determine the ability of this operating mode to meet the permit effluent quality of 25 ppm of CBOD and 80 ppm of suspended solids.

Please note paragraph #3 of Mr. Watson's letter. I realize that the Department would normally not consider postponing the installation of the divider baffle. The City's willingness to undertake the additional testing program as a research project, however, seems to deserve some special consideration. The additional testing that Long Grove is willing to pay for might well establish guidelines that could benefit many small Iowa communities. It would be nice if the Department would undertake the testing program but I suspect budget limitations would not permit it. Please give the City's request your consideration.

HI

As expressed by Mr. Watson in paragraph #4, the City of Long Grove is very concerned about the basis upon which their NPDES permit will be written. At both meetings the City has attended in Des Moines, Mr. Watson has inquired as to whether population, effluent quality, or pounds per day would be the basis of their discharge limitations. The most consistent response has been "effluent quality". Based upon Mr. Turkle's determination that a discharge of 25 ppm of CBOD and 80 ppm of SS would not violate stream standards up to a discharge rate of 1 MGD, this seems to me to be the correct response. I would very much appreciate your confirmation of this discharge permit criteria so that the Long Grove City Council can proceed with the assurance that their discharge quality will be the basis upon which their treatment system will be evaluated.

Thank you for your assistance and consideration.

Sincerely,

Thomas F. Allen, P.E., President
Allen Water & Wastewater Eng.

TFA/mw

Attachment

cc: Rex Watson
Jed Nagle
Ed Moreno, Region 6
Bob Polonus

From: EDO RENO --DNR/M  Date and time  07/14/87 13:09:16
To: DINCALLI --DNRVM

FROM: Ed Moreno
Subject: Long Grove WWTP, MOR Review
Continuous

| Date | Discharge (y/n) | BOD5(mg/l) avg/max | TSS(mg/l) avg/max |
|---|---|---|---|
| '86 | | | |
| Jan. | n | [redacted] | NR |
| Feb. | n | [redacted] | NR |
| March | y | 32/66 | 32/32 |
| April | y | [redacted] | NR |
| May | y | 27/38 | 46/46 |
| June | y | 30/37 | 20/21.3 |
| July | y | 26/32 | 18.1/21.2 |
| Aug. | y | 23/33 | 28/28 |
| Sept. | y | 30/55 | 82/82 |
| Oct. | y | 28/42 | NR |
| Nov. | y | 21/26 | NR |
| Dec. | y | 25/38 | NR |
| '87 | | | |
| Jan. | y | 35/46 | 24/24 |
| Feb. | y | 54/80 | NR |
| March | y | [redacted] | 65/65 |
| April | y | [redacted] | NR |
| May | y | 34/54 | 266/266 |
| June | y | 92/[redacted] | 113/113 |

I