

## Comments on Draft Rules

567 Chapter 113:1 – 8(1)a4 (initial 35 pages released 3-3-06)

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Our comments are offered for consideration as the Department amends its rules to allow compliance with federal 40 CFR 258 rules referred to as RCRA Subtitle D regulations. The rule revisions also change existing State standards for development and construction of landfill sites. We note that these rules are intended to be completed prior to October 1, 2007, the compliance date deadline established with EPA Region 7. We appreciate the opportunity to present these comments as the Department develops these rule changes.

113.2(10)b Please provide an explanation of your intent of “the new compliant MSWLF unit shall be completed by October 1, 2007 and at least 5-feet of select MSW placed over the liner before December 15, 2007.” We assume the intent is to construct a compliant unit and provide protection of the composite liner from possible frost damage. Will the Department require all future construction to be completed during a summer schedule with similar cover requirements prior to freeze up?

113.3 Definitions. The new rules identify differences between ‘active life’ and “active portion”. Will the provisions of 113.12 address closure of an individual “part of a facility or unit” to allow the start of 30 year closure of “units” of a site rather than extend closure of the entire site until the entire facility is closed.

113.4(7) The terms for permits will be 3 years for Research, Development and Demonstration (RD&D) permit and 5 years for operation of typical Municipal Solid Waste Landfill Facility (MSWLF) permits. Closure permits are issued for a period of 30 years. We recommend that the Department issue a permanent facility permit to avoid the repetitive presentation of data that has not changed. It appears that most current repermitting submittals are based on presenting information to address a presentation format of previously submitted data. The presentation format appears to be driven by the project reviewer, not a previously established format. We have seen not less than 4 format requests for data in the last 18 months. These format changes were for data previously received and approved by Department. The Department can require design changes at any time as necessary to address changes in federal or state regulations as each new regulation has a particular effective date. The use of fixed permit periods does not avoid the changes necessary to respond to effective dates of new regulations.

113.6(2) Location Restrictions:

Landfills have 6 mile, 5 mile, 10,000 foot and 5,000 foot location restrictions from existing airports.

Does the Department maintain a list of airports applicable to FAA Advisory Circular 150/5200-34 and the 6 mile landfill development restrictions it imposes? This restricted area appears to have limitations including regularly scheduled general aviation and air carrier operations with less than 60 passengers, use of FAA Grant funds, and the start of site development after April 5, 2001. The National Plan of Integrated Airport Systems (NPIAS) for 2005 – 2009 lists approximately 70 reliever and general aviation airports with 2 – 102 airport based aircraft in Iowa. The NPIAS list does not define or separate which of those airports have “regularly scheduled flights of aircraft designed for 60 passengers”. EPA’s ruling of October 15, 2003 (FR-vol.68, No.199) indicated that “As a result, the specific limitations of the

Ford Act are not being incorporated into the criteria for MSWLFs under RCRA and are not enforceable as part of MSWLF criteria”. EPA has indicated that the 6 mile rule is for “advisory purposes only”. We believe that, given the extent of ambiguity of the language of the Ford Act and the indication that this would not be recognized as landfill sitting criteria by the EPA, the Department should clarify the airports in Iowa that will be affected by the Ford Act. The State Aviation agency is able to identify current sites and request specific determinations and exemptions by the FAA. We note that Advisory Circular 150/5200-33A also imposes location restrictions for other solid waste operations including transfer stations, compost sites, C&D sites, fly ash sites, storm water management sites, wastewater treatment facilities, wetlands, livestock production facilities, and golf courses. Can we assume that if the FAA, other regulatory departments, the EPA, and all planning agencies have allowed restrictive development around a specific airport that the airport is not a part of the “certain smaller airports”.

Floodplains: 100-year Floodplain restriction information is now required by current planning and can be verified by local structure design and Corp of Engineer data.

Wetlands: Does the State have the ability to identify wetlands by IDNR database information as it is able to identify endangered species and plant locations?

Fault Areas and Seismic Impact Zones: Should this be a required preliminary site clearance provided by the Iowa Geologic Survey?

Wells: The new rules indicate that “A MSWLF shall not be within 1000 feet of any well in existence at the time of receipt of the permit application that is being used or could be used for human or livestock consumption”. The previous rules have allowed MSWLF units to be constructed at closer distances if it were shown that the private well was hydraulically upgradient of the site or that the well would not be adversely affected by the landfill site. This is an important exception that should be included in these rules.

#### 113.6(3) Soil and hydrogeologic investigations:

b. Number of borings: The new rules state under (2)” Excluding existing MSWLF unit areas, a minimum of four borings per acre is required for new MSWLF units”. This amount of borings is an average spacing of approximately 100 feet between borings. Each boring must extend to a minimum of ten feet below the groundwater table, with half of the borings extending to 50 feet below the water table.

This number and depth of borings is excessive in most site explorations. Current rules required 20 borings for sites up to 50 acres with one additional boring required for each additional 10 acres over 50 acres. Current rules would require a minimum of 31 borings for a 160 acre site. The proposed rules require 640 borings for the same area. The twenty fold increase in boring costs cannot be justified unless the site is a complex hydrogeologic system. The Department is able to require additional borings due to complex hydrogeology or potential movement of contaminants. We recommend that the Department return to its previous requirements for number of borings required. Additional borings can be added at the time of the pre-investigation meeting if the area is known for complex site hydrogeology, or after the first phase of site drilling to explore questionable areas that may be better defined by additional borings to be located by information provided initial borings.

d. Boring Method and soil samples: The proposed rules require continuous sampling in the upper 25 feet while boring fine grained soils. One soil sample is required from each major soil stratum encountered at 5 foot intervals below the initial 25 foot boring.

Please review the intent of the information the Department wants from the boring program. The surface soils located in the upper 25 feet of excavations at a landfill site may serve primarily as daily cover

material with little value being derived from their sampling. Clay soils, confining units, and other distinctively important materials will normally or often be encountered below the 25 foot nominal depth. Continuous sampling in soil stratum boundary areas, clay soils, and confining unit soils will provide data necessary to select soils needed for development of cell base seals and cell cap materials, and will provide better physical data needed to define possible contaminate pathways. Sand lenses, layering features, and other detailed information will not normally be available or accurate unless continuous sampling procedures are utilized. This portion of the rules should address the collection of split spoon, and Shelby tube samples at the proposed landfill base grade, immediately above the groundwater table, within the saturated zone below the groundwater table, and at each distinctive clay soil or confining soil unit. Split spoon samples should be collected using standard penetration procedures to provide soil stability information. Shelby tube samples should be of adequate diameter to provide samples for permeability testing. The rules should address the number of samples the Department will find acceptable (or desirable) to identify individual soil stratum types.

f. Soil and hydrogeologic investigation description and analysis: The proposed rules should , as provided by current rules provide approved methods for field and laboratory analysis, including the type and extent of testing required for particle size distribution, material composition, cementation, horizontal and vertical permeability, material porosity, and other factors deemed necessary by the Department. The Department should allow the use of a limited number of representative samples to be laboratory tested if material types and characteristics are similar. In example, ten to fifteen samples of a glacial clay till layer may be collected from site borings, but laboratory analysis of five samples indicates similar permeability and can be used to characterize the soil type.

f.(3)3 Chemical constituents as listed in Appendix I are to be tested in hydrologic units. These test parameters are not included for review and discussion. Will these be the same as background water sample parameters, or parameters from Table 1 on draft page 26, or parameters from an EPA 8260 scan, or another list of parameters? How many well sites will be tested to accomplish this analysis?

f(5) and (6) Groundwater movement and contaminate pathways are to be modeled at numerous time intervals. What conditions are required as initial assumptions for contaminate pathway modeling? What modeling programs are acceptable for use by the Department?

### 113.7(3) General Site Design and construction requirements:

h. At least a 25-foot wide fire lane around the outside of the active portion and within the perimeter fence. Please define the construction and use of this fire lane? Is this fire lane a strip of soil dicsed bare to prevent the spread of a fire from the working area to the surrounding cover crops? Does this lane require grading for vehicular traffic? Does this lane require surfacing? Could this access better be served from an adjacent roadway where available? Does this fire lane need to be relocated to be within a specified distance of the working face as the working face moves during development? Could this better be accomplished by access from an all weather access to the working face? The site access road provides access to the working face and the location of the majority of landfill fires. Grass fires at a landfill site can be accessed most easily if the finish slopes and surfaces are well graded and well maintained. This item may be better addressed within the ERRAP as a part of fire emergencies as it is dependent on local emergencies services equipment and procedures.

113.7(5)a3 This rule requires compacted soil to be placed in lifts no thicker than 6-inches. Current rules allow the use of an 8-inch lift. Equipment used for construction of compacted base seals can easily achieve compaction of an 8-inch lift and compaction testing is required by the proposed rule. The use of the thinner lift is unnecessary as construction is verified by testing. The lift thickness will be decreased

by the constructor if they cannot achieve satisfactory results. We recommend that these rules be changed in numerous places to allow the use of an 8-inch lift of compacted soil.

113.7(5)b(5) “The collection pipes shall be of a cross sectional area that allows for annual cleaning and inspection throughout the entire length of all collection pipes. Current rules require inspection and cleaning once every three years or more often if the leachate head or the volume of leachate collected indicates cleanout is necessary. Current rules are adequate and the increased cost of requiring annual inspection and cleanout is unproductive and unnecessary. The word annual should be deleted from this language.

113.7(5)b(8)3i This standard uses a combination of metric and English units. We suggest that the reference to “40 millimeter gravel free of fines” be changed to 1 1/2” diameter screened rock free of fines to reflect the material actually desired by this rule. Gravel as supplied is defined by upper and lower particle size limitations. The construction of the leachate collection system generally utilizes clean rock bedding around the collection pipe and a 12” gravel bed above the cell base, liner and pipe collection system.

113.7(5)b(14) This rule requires the use of valves to control the flow of leachate during maintenance. The rule should allow the use of use of compression type caps or plugs as an alternate. Valves are subject to increased failure in the landfill environment and a compression fitting can easily serve this function during maintenance.

113.7(7) Vertical and Horizontal Expansions of MSWLF units.

a(3) The slope stability of the horizontal expansion is to be analyzed. We understand this rule to mean that the slope and underlying waste materials must be stable (i.e. waste has been compacted) and not expected to settle unevenly. The construction of the intermediate seal and drainage layer must remain intact and stable during placement of solid waste as the abutting area is filled.

113.7(7)b Vertical expansion area.

Can the state allow a vertical expansion of an existing site without a composite liner and leachate collection system if the material to be disposed is only Construction and Demolition and if an intermediate base seal is provided that is equal to or better than the required base seal of a Construction and Demolition Landfill? Such vertical expansions can be utilized to reduce the potential generation of leachate from existing sites by improving the final cover grades. Will the state approve such a design if it can be demonstrated that the potential generation of leachate will be reduced and operation by the alternate design will be beneficial?