

ILLINOIS POLLUTION CONTROL BOARD  
March 31, 1994

IN THE MATTER OF: )  
 )  
STEEL AND FOUNDRY INDUSTRY ) R90-26 (Docket B)  
AMENDMENTS TO THE LANDFILL ) (Rulemaking)  
REGULATIONS (35 Ill. Adm. Code )  
817.309 )

Proposed Rule. First Notice.

OPINION AND ORDER OF THE BOARD (by R.C. Flemal):

By separate action today, the Board issued a supplemental opinion and order in R90-26 (Docket A & B) concerning the merits of the proposed steel and foundry industry amendments to the Board's existing landfill regulations. In that order, the Board also opened this Docket for the purpose of considering additional location restrictions for potentially usable waste (PUW) landfills as proposed by the Illinois Cast Metal Association and the Illinois Steel Group (collectively as SFG).

The Board's responsibility in this matter arises from the Illinois Environmental Protection Act (Act) (415 ILCS 5/1 et seq. (1992)). The Board is charged therein to "determine, define and implement the environmental control standards applicable in the State of Illinois"<sup>1</sup>. More generally, the Board's rulemaking charge is based on the system of checks and balances integral to Illinois environmental governance: the Board bears responsibility for the rulemaking and principal adjudicatory functions, whereas the Illinois Environmental Protection Agency (Agency) is responsible for carrying out the principal administrative duties. The latter's duties include administering any regulation that may result from the instant proceeding.

By today's action the Board authorizes first notice publication in the Illinois Register of the additional location standards. The Board will receive public comments on today's proposal for 45 days following publication in the Illinois Register. The Board anticipates moving the proposal to second notice expeditiously thereafter.

DISCUSSION

This matter concerns the proposed addition of a new Section to the regulations governing wastes from the steel and foundry

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<sup>1</sup> Act at Section 5(b).

industries, as currently under consideration in Docket R90-26. The SFG submitted this proposed new section to address Board concerns<sup>2</sup> regarding PUW landfill standards location. The SFG states that the location standards are based on those specified in the Board's existing regulations for chemical waste landfills at 35 Ill. Adm. Code 811.302, and are intended to restrict the siting of PUW landfills to areas where they cannot cause exceedences of groundwater quality standards. (PC. #19 at 8.)

The Board notes that one of the proposed restrictions, which relates to siting of landfill units in the vicinity of Class I and Class III aquifers, is not clear<sup>3</sup>. It appears that this restriction is derived from the existing regulations at 35 Ill. Adm. Code 811.302(b), which restricts siting of landfill units in the vicinity of sole-source aquifers designated by the USEPA pursuant to Section 1424(e) of the SDWA (42 U.S.C. 300f et seq.) The SFG proposal is the same as the existing requirement, except that the reference to sole-source aquifer is replaced by a reference to Class I and Class III aquifers, as defined at 35 Ill. Adm. Code 620. In this regard, the Board notes that the use of the terms Class I or Class III "aquifers" is uncertain. Part 620 provides, in part, criteria for classification of groundwater, but Class I or Class III "aquifer" is not defined there. Therefore, the implications of the proposed language still needs to be ascertained. In this regard, the Board notes that the SFG has not provided any rationale for the proposed siting restriction at Section 817.302(b). Accordingly, the Board requests that the SFG address this matter during the first notice comment period.

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<sup>2</sup> The Board raised the issue of the proposed standards for PUW landfills at the hearings held on October 1, and November 19, 1993. (Tr4. at 67-70 and Tr5. at 35-43.) Mainly, the Board questioned the adequacy of the proposed PUW landfill standards to protect against groundwater contamination in the absence of safeguards such as location restrictions based on geologic setting, leachate containment systems, or groundwater monitoring. The Board notes that the PUW landfills standards are proposed to be the same as the standards of inert waste landfills in the existing Board regulations at 35 Ill. Adm. Code 811.Subpart B. However, the proposed maximum allowable leachate concentrations (MALCs) for PUW at Section 817.105 are set at twice the allowable leachate levels for inert waste landfills under Section 811.202.

<sup>3</sup> The SFG has proposed that no part of a unit must be located within the recharge zone or 1200 feet, vertically or horizontally, of a Class I or Class III aquifer, unless there is a stratum between the bottom of the waste disposal unit and the top of the aquifer. Minimum requirements relating to thickness, hydraulic conductivity, geologic material, and rate of groundwater movement are specified for the stratum.

ORDER

The following regulations are hereby submitted for First Notice publication. The Board directs the clerk of the Board to submit these regulations to the Secretary of State for publication in the Illinois Register.

TITLE 35: ENVIRONMENTAL PROTECTION  
SUBTITLE G: WASTE DISPOSAL  
CHAPTER I: POLLUTION CONTROL BOARD  
SUBCHAPTER i: SOLID WASTE AND SPECIAL WASTE HAULING

PART 817  
REQUIREMENTS FOR NEW STEEL AND FOUNDRY INDUSTRY WASTES LANDFILLS

SUBPART A: GENERAL REQUIREMENTS

Section

- 817.101 Scope and Applicability
- 817.103 Determination of Waste Status
- 817.104 Sampling Frequency
- 817.105 Waste Classification
- 817.106 Waste Classification Limits
- 817.107 Waste Mining

SUBPART B: STANDARDS FOR MANAGEMENT OF BENEFICIALLY USABLE  
STEEL AND FOUNDRY INDUSTRY WASTES

Section

- 817.201 Scope and Applicability
- 817.202 Limitations on Use
- 817.203 Notification
- 817.204 Long-Term Storage

SUBPART C: STEEL AND FOUNDRY INDUSTRY POTENTIALLY  
USABLE WASTE LANDFILLS

Section

- 817.301 Scope and Applicability
- 817.302 Design Period
- 817.303 Final Cover
- 817.304 Final Slope and Stabilization
- 817.305 Leachate Sampling
- 817.306 Load Checking
- 817.307 Closure
- 817.308 Nuisance Precautions
- 817.309 Facility Location

SUBPART D: NEW STEEL AND FOUNDRY INDUSTRY LOW RISK WASTE  
LANDFILLS

Section

- 817.401 Scope and Applicability
- 817.402 Facility Location

- 817.403 Design Period
- 817.404 Foundation and Mass Stability Analysis
- 817.405 Foundation Construction
- 817.406 Liner Systems
- 817.407 Leachate Drainage System
- 817.408 Leachate Collection System
- 817.409 Leachate Treatment and Disposal System
- 817.410 Final Cover System
- 817.411 Hydrogeologic Site Investigations
- 817.412 Plugging and Sealing of Drill Holes
- 817.413 Groundwater Impact Assessment
- 817.414 Design, Construction and Operation of Groundwater Monitoring Systems
- 817.415 Groundwater Monitoring Programs
- 817.416 Groundwater Quality Standards
- 817.417 Waste Placement
- 817.418 Final Slope and Stabilization
- 817.419 Load Checking

SUBPART E: CONSTRUCTION QUALITY ASSURANCE PROGRAMS

Section

- 817.501 Scope and Applicability

Section

- 817.Appendix A Organic Chemical Constituents List

AUTHORITY: Implementing Sections 5, 21, 21.1, 22, 22.17, 28.1, and authorized by Section 27 of the Environmental Protection Act (Ill. Rev. Stat. 1991, ch. 111½, pars. 1005, 1021, 1021.1, 1022, 1022.17, 1028.1 and 1027 [415 ILCS 5/5, 5/21, 5/21.1, 5/22, 5/22.17, 5/28.1, and 5/27]).

SOURCE: Adopted in R90-26(A) at 18 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_; amended in R90-26(B) at 18 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_.

Section 817.309 Facility Location

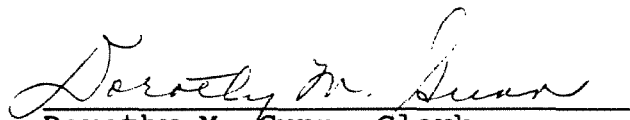
- a) No part of a unit shall be located within a setback zone established pursuant to Section 14.2 or 14.3 of the Act;
- b) No part of a unit shall be located within the recharge zone or within 366 meters (1200 feet), vertically or horizontally, of a Class I or Class III aquifer as defined at 35 Ill. Adm. Code Part 620, unless there is a stratum between the bottom of the waste disposal unit and the top of the aquifer that meets the following minimum requirements:
  - 1) The stratum has a minimum thickness of 15.2 meters (50 feet);

- 2) The maximum hydraulic conductivity in both the horizontal and vertical directions is no more than  $1 \times 10^{-7}$  centimeters per second, as determined by in situ borehole or equivalent tests;
  - 3) There is no indication of continuous sand or silt seams, faults, fractures or cracks within the stratum that may provide paths for migration; and
  - 4) Age dating of extracted water samples from both the aquifer and the stratum indicates that the time of travel for water percolating downward through the relatively impermeable stratum is no faster than 15.2 meters (50 feet) in 100 years.
- c) Subsection (b) shall not apply to units that accept only beneficially useable waste.
- d) A facility located within 152 meters (500 feet) of the right of way of a township or county road or state or interstate highway shall have its operations screened from view by a barrier of natural objects, fences, barricades, or plants no less than 2.44 meters (8 feet) in height.
- e) No part of a unit shall be located closer than 152 meters (500 feet) from an occupied dwelling, school, or hospital that was occupied on the date when the operator first applied for a permit to develop the unit or the facility containing the unit, unless the owner of such dwelling, school, or hospital provides permission to the operator, in writing, for a closer distance.

IT IS SO ORDERED.

Member Emmett E. Dunham, II abstains.

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, hereby certify that the above opinion and order was adopted on the 31<sup>st</sup> day of March, 1994, by a vote of 4-0.

  
Dorothy M. Gunn, Clerk  
Illinois Pollution Control Board