

ORIGINAL

BEFORE THE POLLUTION CONTROL BOARD
OF THE STATE OF ILLINOIS

RECEIVED
CLERK'S OFFICE

AUG 01 2005

STATE OF ILLINOIS
Pollution Control Board

IN THE MATTER OF:)
)
PETITION OF WASTE MANAGEMENT OF)
ILLINOIS, INC., FOR AN ADJUSTED)
STANDARD FROM 35 ILL. ADM. CODE 721)
AND FOR RCRA DELISTING UNDER)
35 ILL. ADM. CODE 720.122 FOR TREATMENT)
RESIDUAL OF CID RECYCLING AND)
DISPOSAL FACILITY BIOLOGICAL LIQUID)
TREATMENT CENTER)

AS 05-07
(Adjusted Standard – Land)

NOTICE


Dorothy M. Gunn, Clerk
Illinois Pollution Control Board
James R. Thompson Center
100 West Randolph Street
Suite 11-500
Chicago, IL 60601

Donald J. Moran
Pedersen & Houpt
161 North Clark Street
Suite 3100
Chicago, IL 60601

PLEASE TAKE NOTICE that I have today filed with the office of the Clerk of the Pollution Control Board a RECOMMENDATION TO PETITION FOR ADJUSTED STANDARD, copies of which are herewith served upon you.

Respectfully submitted,

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY,
Respondent



John J. Kim
Assistant Counsel
Special Assistant Attorney General
Division of Legal Counsel
1021 North Grand Avenue, East
P.O. Box 19276
Springfield, Illinois 62794-9276
217/782-5544
217/782-9143 (TDD)
Dated: July 29, 2005

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RECOMMENDATION TO PETITION FOR ADJUSTED STANDARD

NOW COMES the Illinois Environmental Protection Agency (“Illinois EPA”), by one of its attorneys, John J. Kim, Assistant Counsel and Special Assistant Attorney General, and, pursuant to 35 Ill. Adm. Code 104.416, hereby submits a recommendation to the Illinois Pollution Control Board (“Board”) in response to the petition for adjusted standard (“petition”) filed by Waste Management of Illinois, Inc. (“WMII”) (“Petitioner”). For reasons stated in detail below, the Illinois EPA recommends that the Board deny the adjusted standard request. In support of this recommendation, the Illinois EPA states as follows:

I. INTRODUCTION

The Petitioner is seeking an adjusted standard delisting a lime-conditioned filter cake (“treatment residual”) that results from treatment at the Biological Liquid Treatment Center at generated at WMII’s CID Recycling and Disposal Facility (“CID”). In its petition, WMII asks the Board to incorporate a document (“Delisting Request”) previously submitted to the Board in January 2005 as part of a different adjusted standard proceeding (AS 05-03). The Illinois EPA does not object to this request, and has considered the Delisting Request as part of preparing this recommendation.

To obtain a positive ruling from the Board, the Petitioner must satisfactorily address all factors set forth in Section 104.406 of the Board's procedural regulations (35 Ill. Adm. Code 104.406) as well as in Section 28.1(c) of the Illinois Environmental Protection Act ("Act") (415 ILCS 5/28.1(c)).

II. SECTION 104.406 FACTORS

For the reasons more fully set forth below, the Illinois EPA does not believe the Petitioner has satisfactorily provided all information and/or justification required by Section 104.406 of the Board's procedural rules.

A. Section 104.406(a) – Standard from which adjusted standard is sought

The Illinois EPA does not take issue with the Petitioner's statements on this topic.

B. Section 104.406(b) – Regulation of general applicability

The Illinois EPA does not take issue with the Petitioner's statements on this topic.

C. Section 104.406(c) – Level of justification

The Illinois EPA does not take issue with the Petitioner's statement as to the required level of justification. However, the Illinois EPA does not believe that the justification has been met, in that the Petitioner has not provided sufficient information and argument to meet that level of justification.

D. Section 104.406(d) – Petitioner's activities

The Illinois EPA does not take issue with the Petitioner's statements on this topic.

E. Section 104.406(e) – Efforts necessary to comply

The Illinois EPA does not take issue with the Petitioner's statements on this topic.

F. Section 104.406(f) – Proposed adjusted standard

The Illinois EPA does not believe the proposed adjusted standard should be granted by the Board in its present form, as the Petitioner has not met the required level of justification to warrant issuance of the adjusted standard.

G. Section 104.406(g) – Quantitative and qualitative impact on the environment

The Illinois EPA does not believe the Petitioner has presented a sufficient and complete risk assessment in its petition and Delisting Request.

H. Section 104.406(h) – Justification of the proposed adjusted standard

The Illinois EPA does not believe the Petitioner has met the required level of justification.¹ As the Petitioner noted, there are three criteria that must be satisfied, pursuant to Section 720.122 of Title 35 of the Illinois Administrative Code (35 Ill. Adm. Code 720.122). The Illinois EPA agrees with the Petitioner that the first two criteria have been satisfactorily addressed. It is the third criterion, that the petitioned waste not exhibit any other factors that could cause the waste to be a hazardous waste, that the Illinois EPA finds has not been met.

To demonstrate compliance with the third criterion, the Petitioner performed risk assessment modeling in accordance with the EPA Delisting Program: Guidance Manual for the Petitioner. Specifically, a risk assessment was conducted using the Delisting Risk Assessment Software (“DRAS”) – Version 2, which is the standard model used by the United States Environmental Protection Agency (“USEPA”) for its hazardous waste delistings. The DRAS model was used to model both a groundwater pathway and a surface pathway. Illinois EPA and

¹ In addition to the concerns regarding the justification of the proposed adjusted standard, the copy of the Delisting Request provided to the Illinois EPA by the Petitioner does not contain a signature on the Certification Statement as found in Section 2.0.7, p. 5. If the original of the Delisting Request filed with the Board does contain a signed statement, then there is no problem. However, the Illinois EPA requests that the Board review the Certification Statement to check for a signature; if no signature is found, then this omission (as otherwise required by 35 Ill. Adm. Code 720.122(i)(12)) is another basis for the Illinois EPA’s recommendation that the petition be denied.

USEPA have traditionally considered waste to be acceptable for delisting if the non-carcinogenic Hazard Index (“HI”) is less than 1.0, and the carcinogenic risk is less than 10^{-6} . The DRAS modeling conducted by WMII showed a HI of 0.02 with carcinogenic risk of 1.53×10^{-4} for the groundwater pathway; and a HI of 0.0552 with a carcinogenic risk of 1.83×10^{-6} for the surface pathway. WMII concludes that these risks are acceptable for delisting. However, there were problems with the methodology used.

In Section 7.5 on page 46 of the Delisting Request, WMII indicates that several metal parameters were excluded from calculation of the Hazard Index based on those constituents appearing to be below background soil levels found in a United States Geological Survey document. The background numbers identified in Table 12 on page 46 appear to be very high compared to background concentrations found in Illinois as indicated in the “TACO” Rules at 35 Ill. Adm. Code 742, Appendix A, Table G. In fact, most of the numbers found in Table 12 are 2 or more orders of magnitude higher than the “Counties Within Metropolitan Statistical Areas” column of 35 Ill. Adm. Code 742, Appendix A, Table G. When compared to the TACO background numbers, several of the constituents in the waste, which are excluded from the calculation of the cumulative Hazard Index, are above background levels.

Of particular concern is arsenic, which was detected in the petitioned waste at a concentration of 80 mg/kg. The proposed “background” number for arsenic is 97 mg/kg. Since the detected concentration is less than the “background” concentration, it was eliminated from the cumulative Hazard Index calculation. However, a check of the TACO background numbers shows that arsenic typically occurs in a range of 11.3 mg/kg (non CMSA) to 13 mg/kg (CMSA).

Thus, arsenic does indeed appear in the waste higher than background, and should definitely be included in the HI calculation. Note that the Hazard Quotient calculated for arsenic

(Table 11) is 2.26. It would cause the cumulative HI to exceed 1.0 by itself. Furthermore, the practice of excluding a constituent because it is below “background” is not sound practice from a risk-assessment standpoint. Regardless of whether the parameter is above or below naturally occurring levels, it does contribute to the overall risk of the waste. The Illinois EPA does not believe USEPA allows this practice in its review of hazardous waste delistings, and accordingly such practice should not be allowed in Illinois either. It appears as though the Petitioner sought a reference document with very high background levels, at least as compared to levels more readily accepted and utilized in Illinois. The prudent course to take would be to use the most conservative levels when assigning background levels, and in this situation the TACO levels are certainly more conservative and therefore should be used.

Another issue is that, as previously indicated, for purposes of delisting hazardous waste, Illinois EPA and USEPA have traditionally considered a cancer risk of 10^{-6} to be the maximum acceptable risk. The petition repeatedly refers to an “acceptable range” for cancer risk of 10^{-4} to 10^{-6} , and ultimately concludes that the results of 53×10^{-4} (groundwater) and 1.83×10^{-6} (surface) are acceptable. The Illinois EPA previously conveyed this concern to WMII in September of 2004. In response, WMII took the step of using the Pollutev6 model to model a Subtitle D disposal scenario rather than the unlined landfill assumed by the DRAS model. The assumption in this modeling was that leachate from the waste was present at the maximum detected concentrations at a depth of 1 foot above the liner system. The liner system modeled consisted of a geomembrane liner overlaying 3 feet of clay. The concentrations directly below the liner from this model were then input into the DRAS model as initial concentrations for modeling the groundwater pathway. With this modification, the aggregate carcinogenic risk predicted was reduced to 1.91×10^{-6} , which is still in excess of the 10^{-6} cutoff normally accepted.

Therefore, for the reasons set forth above, the Petitioner has not met the third criterion for justification in that the methodology and assumptions used in the risk assessment were flawed. The Board should conclude that the Petitioner has failed to justify the proposed adjusted standard.

I. Section 104.406(i) – Consistency with federal law

The Illinois EPA does not take issue with the Petitioner’s statement on this topic.

J. Section 104.406(j) – Hearing

The Illinois EPA does not take issue with the Petitioner’s statement on this topic.

K. Section 104.406(k) – Supporting documents

The Illinois EPA does not take issue with the Petitioner’s statements on this topic, except to note that the concerns described above regarding the content and conclusions of parts of the Delisting Request are incorporated here.

IV. SECTION 28.1(C) FACTORS

The Petitioner did not specifically address the four criteria listed in Section 28.1(c) of the Act, and therefore the Illinois EPA cannot directly respond to what the Petitioner would have offered to address the criteria. The Board should therefore find that, as to at least three of the criteria, the Petitioner has failed to adequately prove the listed requirements.

A. Factors relating to Petitioner are different than those relied on by the Board

The Petitioner did not specifically address this criterion. The Illinois EPA can only assume that the economic hardship described by the Petitioner if the waste in question is not delisted would constitute the factor that is substantially and significantly different from the factors relied on by the Board in adopting the general regulation. However, there seems little doubt that the Board took economic factors into consideration when adopting the general

regulations. There is little else in the petition that could ostensibly be offered up to prove this requirement.

B. Existence of factors that justify an adjusted standard

The Petitioner did demonstrate that there may be higher costs associated with compliance alternatives. But, that demonstration alone does not validate the economic hardship factor itself, and as noted above, that factor does not meet the requirement found in Section 28.1(c)(1) of the Act.

C. Adverse environmental or health effects

As described in more detail above, the Illinois EPA identified flaws in the risk assessment provided by the Petitioner and therefore the Petitioner has failed to adequately prove that there will be no adverse health effects.

D. Consistency with federal law

The Illinois EPA does not take issue with the Petitioner's statement on this topic.

V. CONCLUSION

WHEREFORE, for the reasons stated above, the Illinois EPA hereby respectfully requests that the Board deny the Petitioner's request for an adjusted standard.

Respectfully submitted,

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY,
Respondent



John J. Kim
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Special Assistant Attorney General
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Dated: July 29, 2005

This filing submitted on recycled paper.

CERTIFICATE OF SERVICE

I, the undersigned attorney at law, hereby certify that on July 29, 2005, I served true and correct copies of a RECOMMENDATION TO PETITION FOR ADJUSTED STANDARD, by placing true and correct copies in properly sealed and addressed envelopes and by depositing said sealed envelopes in a U.S. mail drop box located within Springfield, Illinois, with sufficient First Class Mail postage affixed thereto, upon the following named persons:

Dorothy M. Gunn, Clerk
Illinois Pollution Control Board
James R. Thompson Center
100 West Randolph Street
Suite 11-500
Chicago, IL 60601

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