

ILLINOIS POLLUTION CONTROL BOARD  
January 20, 1994

HACO, INC., )  
 )  
 Petitioner, )  
 )  
 v. ) PCB 93-142  
 ) (RCRA Permit Appeal)  
 ILLINOIS ENVIRONMENTAL )  
 PROTECTION AGENCY, )  
 )  
 Respondent. )

G. MICHAEL TAYLOR, OF LONG, MORRIS, MYERS, RABIN, SHUFF & TAYLOR,  
AND ROBERT V. OGREN, OF STRATTON, DOBBS & NARDULLI, APPEARED ON  
BEHALF OF THE PETITIONER;

JAMES GREG RICHARDSON AND JOHN BURDS APPEARED ON BEHALF OF  
RESPONDENT.

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

This matter comes before the Board upon a petition for review filed by HACO, Inc., (HACO). HACO requests that the Board review and reverse certain conditions and modifications imposed by the Illinois Environmental Protection Agency (Agency) on a Resource Conservation and Recovery Act (RCRA) closure plan for a unit at the facility owned by HACO<sup>1</sup> located in Atlanta, Illinois.

The Board's responsibility in this matter arises from the Environmental Protection Act (Act) (415 ILCS 5/1 et seq. (1992).) The Board is charged therein to adjudicate disputes arising out of permit<sup>2</sup> decisions made by the Agency<sup>3</sup>. More generally, the Board's responsibility in this matter is based on the system of checks and balances integral to Illinois environmental

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<sup>1</sup> HACO is the successor in interest to Hopkins Agricultural Chemical Company for the facility in question. Prior to Hopkins' ownership, the facility was owned by Diamond Shamrock. Some of the events recounted herein occurred during the name/ownership tenure of these earlier entities. For simplicity the name HACO is used here for these entities.

<sup>2</sup> The document that is the subject of the instant appeal variously referred to both as a "permit" and as a "closure plan". Both characterizations are correct. The document is a permit in the context of the Act and a closure plan in reference to state and federal RCRA programs.

<sup>3</sup> Act at Title X and Section 40.

governance: the Board is charged with the rulemaking and principal adjudicatory functions, and the Agency is responsible for carrying out the principal administrative duties, including the issuance of permits.

In a review of contested permit conditions it is the burden of the petitioner to prove that there would be no violations of the Act or Board regulations if the permit were to issue without the contested conditions. (e.g., Browning-Ferris Industries of Illinois, Inc. v. Pollution Control Board (2nd District 1989), 179 Ill. App. 3d 598, 534 N.E.2d 616.)

Based on review of the record, the Board upholds in part and strikes in part the contested conditions of HACO's closure plan.

#### PROCEDURAL HISTORY

HACO seeks to close a RCRA storage building<sup>4</sup> at its Atlanta facility. Pursuant thereto, HACO submitted a proposed closure plan<sup>5</sup> to the Agency on April 6, 1993.

On June 23, 1993 the Agency issued approval of the closure plan, but subjected the approval to certain modifications<sup>6</sup>. HACO here objects to certain of these modifications.

HACO filed its petition for review of the modified closure plan with this Board on July 28, 1993. By order of August 5, 1993 the Board accepted the petition for hearing.

The Agency record was filed on August 27, 1993. On September 9, 1993 the Board issued an order allowing filing of the record instanter.

Hearing was held on October 4, 1993 in Lincoln, Illinois, before hearing officer Everett L. Laury. Both HACO and the

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<sup>4</sup> The unit in question is identified in the record by various terms, including "hazardous waste facility", "hazardous waste lock-up", "storage shed", "waste storage building", etc. For purposes of simplicity, the facility in question is herein referred to as the "storage building". The identification number for the storage building is ILD084317425. (R. at 41.)

<sup>5</sup> The proposed closure plan occurs at pages 38-134 of the Agency record (R. at p. 38-134) as filed with the Board on August 27, 1993.

<sup>6</sup> The modified closure plan, as issued by the Agency and subject to review herein, occurs at pages 1-10 of the Agency record (R. at p. 1-10) as filed with the Board on August 27, 1993.

Agency presented witnesses. No members of the public participated in the hearing.

On or about October 18, 1993 HACO filed a motion with the hearing officer requesting a 30-day extension of the briefing schedule. That motion was granted, and the Agency timely filed its brief on November 15, 1993. HACO sought and received from the Board by order of December 2, 1993 leave to file its brief by December 1, 1993.

HACO's brief was filed December 13, accompanied by a motion to file instanter; the instanter motion was granted by Board order of January 6, 1994. However, in review of the brief, the Board noted that all copies as filed were missing two pages. The Board nevertheless reluctantly accepted the incomplete copies of the brief as the only method of obtaining benefit of petitioner's summary arguments. The Board stated in its January 6, 1994 order that it "would allow petitioner opportunity to file a corrected brief only upon filing a waiver of the decision deadline". (HACO v. IEPA (January 6, 1994), PCB 93-142.)

Not until January 13, 1994 did HACO file a motion for leave to supplement its brief with those two pages, accompanied by a waiver of the decision deadline to February 25, 1994. However, the January 13, 1994 documents arrived too close to January 20, 1994, the date of the previous decision deadline, to accommodate the deliberative needs of the Board. The Board accordingly denies HACO's motion to supplement its brief.

#### FACILITY DESCRIPTION

The facility at issue is a hazardous waste container storage building located at HACO's facility at 303 S.W. Arch Street in the southwest corner of Atlanta, Logan County, Illinois. The facility is part of a plant at which agricultural chemical products are formulated. Products produced at the plant consist mostly of clay granules impregnated with either herbicide or insecticide compounds; no manufacture of either herbicides or insecticides has occurred at the plant. (Petition at ¶4.)

The hazardous waste container storage unit is a building thirty-nine feet by twenty feet in plan view. The floor is six-inch thick concrete; it has a berm at the entrance and a slope from back to front toward two thirty-gallon containment sumps. The walls are six-inch reinforced concrete. (Petition at ¶5.) The building has two doors, both of which are kept locked. (Tr. at 13-14.)

In pertinent part<sup>7</sup>, HACO has proposed to close the hazardous waste container storage building using a series of cleaning and containment methods. These include a sequence of sweeping, steam cleaning, scrubbing with bleach and water, a second steam cleaning, and a second sweeping. (Petition at ¶6; R. at p. 4.) All solid and liquid residues are to be disposed of at a permitted hazardous waste disposal facility.

#### REGULATORY FRAMEWORK

The instant matter is an appeal of a permit issued by the Agency pursuant to authorization under Subtitle C of RCRA. Illinois RCRA regulations<sup>8</sup> occur at 35 Ill. Adm. Code Subtitle G.

Among other matters, RCRA regulations require closure of hazardous waste storage facilities. Regulations covering closure of facilities such as here at issue occur at 35 Ill. Adm. Code 725.Subpart G.

Of particular importance is 35 Ill. Adm. Code 725.214, which deals with disposal or decontamination of equipment, structures, and soils. In full, Section 725.214 states:

During the partial and final closure periods, all contaminated equipment, structures and soil must be properly disposed of, or decontaminated unless specified otherwise in Section 725.297, 725.328, 725.358, 725.380 or 725.410. By removing all hazardous wastes or hazardous constituents during partial and final closure, the owner or operator may become a generator of hazardous waste and shall handle that hazardous waste in accordance with all applicable requirements of 35 Ill. Adm. Code 722. (emphasis added)

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<sup>7</sup> Those portions of HACO's closure plan that have been approved by the Agency and are not pertinent to the contested issues at hand are not reviewed here.

<sup>8</sup> The Board is required under the Act to adopted all federal RCRA regulations into Illinois law. (See Act at §22.4.)

### MODIFIED CLOSURE PLAN

The provisions of the modified closure plan to which HACO objects<sup>9</sup> concern conditions #5, #6, #7, and #9 (see R. at p. 4-6).

At condition #5 it is required that subsequent to cleaning the storage building HACO provide certification from an independent registered engineer that there are no defects (joints or cracks) in the pad of the storage building that would allow hazardous constituents to migrate through the pad. If the engineer so certifies, no further action, including soil sampling or clean-up, would be required.

Condition #7 sets out a list of chemical parameters that constitute the primary constituents of concern for the storage site in question. HACO contests the listing of all of the parameters except three, acetone and the pesticides disulfoton and phorate. Condition #7 also establishes clean-up objectives for the primary constituents of concern.

Conditions #6, and #9 specify the actions that would be required if the independent registered engineers cannot certify that the pad of the storage building is free of defects through which hazardous constituents could migrate. Among pertinent matters, sampling of soil from beneath the pad would be required pursuant to condition #6, and soil sampling beyond the confines of the pad to determine the "horizontal and vertical extent" of contaminated soils would be required pursuant to condition #9. Condition #6 also makes explicit reference to chlordane, methylthiouracil, and mineral spirits, three chemicals of explicit concern in the instant appeal.

### ISSUES AND BOARD FINDINGS

#### Integrity of the Pad

HACO's first request is that the Board reverse the provision at condition #5 that requires a professional engineer's determination of the integrity of the storage building's pad. This the Board declines to do.

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<sup>9</sup> An additional issue, concerning whether a bleach/water solution is acceptable for use in scrubbing the floor of the facility, was also raised in the petition. At hearing the parties accepted use of the bleach/water solution. Inasmuch as this matter is no longer in contention, petitioner has withdrawn its appeal of this issue (Pet. Brief at p. 8).

It is the burden of the petitioner to demonstrate that there would be no violation of the Act or the Board's regulations absent the contested provision. HACO has not carried this burden as regards the matter of the integrity of the pad.

An essential requirement of any RCRA storage facility is that it be constructed, operated, and closed in such manner as to not allow escape of hazardous materials. (Act at Title V; 35 Ill. Adm. Code Part 725.) In the type of facility at issue, the pad (floor) is the essential feature that ensures that hazardous materials do not enter the soil and groundwater beneath the facility. Clearly, this essential nature may be compromised if the pad lacks integrity: if the pad does contain defects through which hazardous substances can migrate, contamination of the soil beneath the pad may have occurred. Any such contamination would be a violation of the Act and Board regulations. Failure to dispose of or decontaminate any contaminated soil would further be a violation of the closure requirement of 35 Ill. Code 725.214.

The Board accordingly finds that HACO must demonstrate the integrity of the storage building pad, pursuant to condition #5, as a necessary element of its burden to close the facility in accord with RCRA requirements and to show that there will be no violation of the Act or of the Board's regulations.

If the pad can be certified pursuant to condition #5, there would be no need for this Board to proceed further on this matter since the remaining contested conditions are evoked only if the certification cannot be made. Nevertheless, since the Board has determined that certification of the pad's integrity is required, the Board will proceed to a review of the related contested conditions.

#### Chlordane

HACO objects to provisions added by the Agency that would require sampling and remedial action with respect to chlordane, should the independent professional engineer not be able to certify the integrity of the pad. In particular, HACO contests those provisions that would impose a clean-up objective for chlordane of 40 parts per billion and that would require (a) testing for the presence of chlordane beneath the pad, (b) testing for the horizontal and vertical boundaries of chlordane contaminated soil, and (c) excavation of chlordane-contaminated soils.

The threshold issue here is whether there is adequate grounds to warrant inclusion of chlordane as a primary constituent of concern in the HACO closure plan. The Board does not believe that best professional judgement would so warrant. Accordingly the Board will direct that all references to chlordane in the closure plan be stricken.

Chlordane is one of the family of cyclodiene<sup>10</sup> insecticides. Chlordane was used for insect control on crops, lawns, and gardens and for control of termites. In 1977 USEPA banned most uses of the cyclodienes based on their carcinogenic potential and their occurrence throughout the food chain. Use of the cyclodienes was fully banned in April 1988.

Chlordane is strongly hydrophobic, and hence has a low solubility and low tendency to migrate with water. (Tr. at 69-70.) Chlordane also has a strong affinity for the organic components of soils. In combination, these properties cause chlordane to exhibit a very low mobility in soils, including a high resistance to leaching.

Chlordane was used in the formulation of pesticide products at the HACO facility during the 1970's. The typical formulation was clay impregnated by chlordane. The chlordane was purchased as a liquid and held at the facility but not within the storage building here at issue.

Chlordane has been a compound of environmental concern in the Atlanta area for a number of years. Sampling in the early to middle 1980's indicated unexpectedly high chlordane concentrations in both area soils<sup>11</sup> and in the atmosphere. As a partial outgrowth thereof, a consent decree<sup>12</sup> was entered in Logan County circuit court requiring several actions. In pertinent part, the actions included soil excavation and grading, and capping of all of the HACO site with pavement.

The only chlordane ever stored in the storage building was in the form of chlordane-contaminated soils that had been

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<sup>10</sup> The cyclodienes also include aldrin, dieldrin, heptachlor, and heptachlor epoxide; dieldrin and heptachlor epoxide are degradation (oxidation) products of aldrin and heptachlor.

<sup>11</sup> Observed concentrations were generally in the hundreds to tens of thousands of parts per billion (ppb). (Exh. 2 and 3; R. at 75-77.) The highest observed concentration reported in the record is 75,000 ppb in a sample taken at the Atlanta water tower on property adjacent to HACO's. (Id.)

<sup>12</sup> The consent decree is present in the record as Exhibit 4 to the Petition. Parties to the consent decree are the People of the State of Illinois, by and through the Attorney General of the State of Illinois, and Hopkins Agricultural Chemical Co. The consent decree was entered on April 4, 1984.

excavated during the late stages<sup>13</sup> of the actions dictated by the consent decree. (R. at 43, 57; Tr. at 17.) The soils were contained in sealed 55-gallon drums. (Id.) The amount of soil was 12 cubic yards. (R. at 43, 57.) The Agency engineer who made the determination that chlordane is a primary constituent of concern attests that he was not aware at the time he made the decision of how chlordane came to be in the storage building (Tr. at 127) or of chlordane's low solubility or propensity to attach itself to particulate matter (Tr. at 49).

In light of the physical properties of chlordane and the limited amount and the bound state of the only chlordane known to have been in the storage building, the Board cannot find justification for specifying chlordane as a primary constituent of concern. Accordingly, the Board will direct that explicit reference to chlordane be struck from the closure plan.

HACO accedes that chlordane would be found in any investigation beneath the pad. (Tr. at 83.) However, they maintain that such chlordane is related to the earlier events addressed by the consent decree, and not to any events associated with operation of the storage unit. Further, HACO contends that to now dig up the site would be contrary to the provision of the consent decree that orders the site to be capped; unfortunately, HACO's principal argument regarding the consent decree appears to be at those pages of the HACO brief that were not filed with the Board (see supra). The Agency, in turn, contends that the modified closure plan would not violate the provisions of the consent order. (Agency Brief at p.5.)

Having found that chlordane is not properly a primary constituent of concern to closure of the storage building, the Board does not need to reach the matter of the relationship of the consent decree to the modified closure plan.

#### Methylthiouracil

HACO contests the inclusion of methylthiouracil among the constituents of primary concern listed in conditions #6 and #7.

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<sup>13</sup> The exact date by which the work directed by the consent decree was completed is not found in the record. However, pursuant to provision V of the work plan as attached to the consent decree (Exhibit I of Exhibit 4 to the Petition), all work was to have been completed by November 1984. Similarly, the dates during which the chlordane-contaminated soils were stored in the storage building are apparently not present in the record. However, inasmuch as the record references only storage during the period January 1987 through July 1992 (R. at 57), the soil storage occurred at least thirty-three months after the date of the consent decree and twenty-six months after the work plan was to have been concluded.



There is no record of methylthiouracil ever having been present in the building in question. On this basis, the Board finds that inclusion of methylthiouracil in conditions #6 and #7 is unwarranted and will direct that it be stricken.

The circumstances leading to the listing of methylthiouracil are worth noting. In its closure plan petition HACO at page 3 (see R. at 43) specifies that wastes of waste code U164 had been stored in the storage building; U164 is the code for methylthiouracil. On this basis the Agency listed methylthiouracil in conditions #6 and #7.

However, it is apparent that HACO was using the code U164 in error. At the one point in the petition where HACO gives both the waste code and the chemical name it was associating with the code, it identifies U164 as methanol (R. at 57); the correct waste code for methanol is U154.

Although the error that led to the listing in conditions #6 and #7 of methylthiouracil is clearly all HACO's, the record supports a finding that methylthiouracil should not be a constituent of primary concern because it was never stored at the site. Therefore, the Board finds no reason now to perpetuate the error.

### Solvents

HACO also contests the inclusion of six solvents<sup>14</sup> among the constituents of primary concern listed in condition #7. As with methylthiouracil, there is no record of any of these solvents ever having been stored in the building in question. (Tr. at 19-22.) On this basis, the Board finds that their inclusion in condition #7 is unwarranted and will direct that they be struck. Additionally, the listing of mineral spirits in condition #6 is unwarranted and it will be struck.

The inclusion of the six solvents likewise appears to be rooted in misunderstanding associated with waste code designations. The record discloses that HACO intended to list acetone among the constituents that have been housed in the storage building. (see R. at 57.) HACO correctly associated acetone with the waste code D001 due to the ignitability of acetone. However, at page 3 of the closure plan (see R. at 43) HACO listed only the code number D001. The Agency thereafter took the D001 listing as grounds for concluding that the six solvents, which also have high ignitability and are D001 wastes, had been stored in the building. (Tr. at 114-115, 125.)

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<sup>14</sup> Methyl ethyl ketone, benzene, ethyl benzene, toluene, xylene, and mineral spirits.

Inasmuch as the record now dispels the belief that the six solvents were ever stored in the storage building, the Board finds no reason for them to be listed in condition #6 or #7.

Disulfoton, Phorate, and Acetone

The Board notes that the modified closure plan lists three parameters, two in conditions #6 and #7 and the third only in condition #7, that HACO does not contest and the Board will let stand. These are disulfoton and phorate in conditions #6 and #7 and acetone in condition #7. Both disulfoton and phorate have been stored in substantial amount in the storage building, both as liquid (disulfoton = 3,804 gallons; phorate = 13,551 gallons) and as residual solids. (R. at 57.) Acetone has also been stored. (Id.)

CONCLUSION

HACO has demonstrated that the following chemicals listed as primary constituents of concern are not essential for the closure plan to meet the requirements of the Act and the Board's regulations: chlordane, methylthiouracil, methyl ethyl ketone, benzene, ethyl benzene, toluene, xylene, and mineral spirits. HACO has not demonstrated that the closure plan can be issued without the other contested provisions and still comply with the Act and with Board regulations.

Accordingly, the Board will direct that the constituents in question be struck from the closure plan. The Agency's determinations with regard to the remaining contested provisions will be affirmed.

This opinion constitutes the Board's findings of fact and conclusions of law in this matter.

ORDER

The Board hereby directs that the following constituents be struck from the conditions contained in the June 23, 1993 modified closure plan issued to HACO, Inc.: chlordane, methylthiouracil, methyl ethyl ketone, benzene, ethyl benzene, toluene, xylene, and mineral spirits. All other aspects of the June 23, 1993 modified closure plan are hereby affirmed.

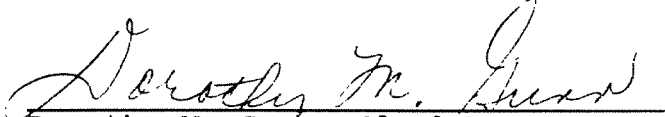
IT IS SO ORDERED.

Board Member M. Nardulli abstains.

Section 41 of the Environmental Protection Act (415 ILCS 5/41 (1992)) provides for the appeal of final Board orders within 35 days of the date of service of this order. The Rules of the

Supreme Court of Illinois establish filing requirements. (See also 35 Ill.Adm.Code 101.246 "Motions for Reconsideration".)

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, hereby certify that the above opinion and order was adopted on the 30<sup>th</sup> day of January, 1994, by a vote of 6-0.

  
Dorothy M. Gunn, Clerk  
Illinois Pollution Control Board