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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

BEFORE THE ADMINISTRATOR

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In the Matter of )  
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Royster Company, ) Docket No. RCRA-III-195  
 )  
Respondent )

Resource Conservation and Recovery Act - Interpretation of Regulation - Tanks - Structural Support By Nonearthen Materials

Although a building, containing K061 emission control dust, having concrete and masonry walls and a concrete floor was not required to be watertight, or designed to be watertight, in order to comply with the definition of a tank in 40 CFR § 260.10, neither the building or any part thereof was a tank within the meaning of the regulation, because it relied on the earth for support and thus, primary support was not provided by nonearthen materials.

Resource Conservation and Recovery Act - Interpretation of Regulation - Spent Materials - Solid Wastes

Sulfuric acid used in an alkylation process in the refining of gasoline, which in the process was diluted to below the strength or purity at which it was useful for alkylation, was a "spent material" as defined in 40 CFR § 261.1(c)(1), and, because it was used or intended to be used in a manner constituting disposal within the meaning of section 261.2(c)(1), was a solid waste when shipped to a manufacturer of fertilizer. Because the acid had a pH of less than 2, it was also a characteristic hazardous waste in accordance with section 261.22, it was prohibited from land disposal under section 268.32 and containers of acid were required to be marked in accordance with section 268.50.

Appearance for Complainant:

Clay Monroe, Esq.  
Assistant Regional Counsel  
U.S. EPA, Region III  
Philadelphia, PA

**Appearances for Respondent:**

Timothy A. Vanderver, Jr., Esq.  
Paul A. Wilson, Esq.  
Patton, Boggs & Blow  
Washington, DC

**INITIAL DECISION**

This proceeding under section 3008(a) of the Solid Waste Disposal Act, as amended (42 U.S.C. § 6928(a)), commonly referred to as RCRA after the Resource, Conservation and Recovery Act, was commenced on June 29, 1990, by the filing of a Complaint, Compliance Order and Notice of Opportunity for Hearing (complaint) charging Respondent, Royster Company, with violations of the Act and applicable regulations. Specifically, the complaint alleged that at the time of an inspection on October 19, 1989, Royster violated 40 CFR § 268.50(a) by storing hazardous waste (emission control dust, K061), which has been restricted from land disposal since August 8, 1988, in a unit other than a tank or container. The complaint further alleged that at the time of the inspection, Royster was storing hazardous waste restricted from land disposal, i.e., sulfuric acid, in eleven containers (railroad tank cars) which were not marked to identify the contents or the date accumulation began as required by 40 CFR § 268.50. For these alleged violations, it was proposed to assess Royster a penalty totaling \$379,267.

Royster answered, denying the alleged violations, reserving its rights with respect to the determination of an appropriate penalty, if any, and requested a hearing.<sup>1/</sup>

A two-day hearing on this matter was held at EPA Headquarters in Washington, D.C.

Based on the entire record including the proposed findings of fact, conclusions and brief filed by Complainant,<sup>2/</sup> I make the following:

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<sup>1/</sup> Royster admitted that the tank cars containing sulfuric acid were not marked to identify the contents or the date accumulation began. It denied, however, that any such marking was required.

<sup>2/</sup> Subsequent to the conclusion of the hearing, Royster filed a Suggestion of Bankruptcy indicating that it had filed a voluntary petition for reorganization under Chapter 11 of the Bankruptcy Code in the Southern District of New York. Citing the automatic stay provision of the Bankruptcy Code (11 U.S.C. § 362(a)(1)), Royster asserted that its bankruptcy filing had the effect of staying further proceedings in this action. Royster has not filed proposed findings or a post-hearing brief of any kind. Complainant has opposed what it characterizes as a motion for stay, contending that an exception to the stay provisions, 11 U.S.C. § 362(b)(4), allowing the commencement or continuation of actions or proceedings for the enforcement of a governmental unit's police or regulatory power is applicable. It is concluded that Royster's bankruptcy provides no impediment to the ALJ proceeding to decide this matter including assessing a penalty, if appropriate. See, e.g., *United States v. Nicolet, Inc.*, 857 F.2d 202 (3rd Cir. 1988) (cost recovery action by U.S. government under CERCLA not subject to automatic stay). See also *In Re Commonwealth Companies, Inc.*, 913 F.2d 518 (8th Cir. 1990) (automatic stay provision did not bar government's action against debtors under False Claims Act). Enforcement of any order assessing penalties or a money judgment is, of course, subject to control of the Bankruptcy Court.

FINDINGS OF FACT

1. Royster Company is a Virginia corporation doing business in the Commonwealth of Virginia (Stipulation, Joint Exh A).
2. Royster owns and operates a facility located on Foot of Ohio Street, Chesapeake, Virginia. Royster manufactures commercial fertilizers (Stipulation).
3. Royster's facility referred to in finding 2 operates under Interim Status in accordance with RCRA § 3005(e) (42 U.S.C. § 6925(e)). Royster submitted a Part A application on April 28, 1986, and a Part B application on April 1, 1987 (Stipulation).
4. An ingredient used by Royster in the manufacture of fertilizer is "emission control dust" from the primary production of steel in electric furnaces, Hazardous Waste No. K061. Mr. William Perry, a chemist, employed by Royster in charge of formulation, quality assurance, production planning and purchasing, testified that from August 8, 1988, to June 30, 1990, Royster obtained all of its emission control dust from Nucor Steel (Tr. 196-97).
5. Mr. Patrick M. Spivey, melting and casting manager for Nucor Steel, Darlington, S.C., identified Nucor as a primary producer of steel, using scrap metal as the primary raw material (Tr. 38). Emissions from electric furnaces during the melting process include bag-house dust which is collected in closed containers and shipped off-site. He testified that the bag-house dust was classified as K061

and that it contained lead, zinc, cadmium, iron and chromium. Each shipment of K061 is accompanied by a hazardous waste manifest (e.g., C's Exh 8a). Mr. Spivey described emission control dust as having a rust color and identified what appeared to be K061 on the ground on the lower portion of a photo of an entry to the Royster plant (Tr. 43, 48-50; C's Exh 3(a)).

6. Although Mr. Perry, identified finding 4, acknowledged that Royster received several shipments of emission control dust a week during the period August 8, 1988, through December 29, 1988, he denied that Royster was storing the dust continuously during this period (Tr. 197-98). He explained that each shipment was approximately 18 tons, that Royster needed an accumulation quantity in order to commence a production run and that a normal production run was roughly 200 to 250 tons (Tr. 198, 200). Mr. Perry testified that there were several occasions during this period when the material was all used before another shipment arrived. On such occasions, the storage area would be scraped, but not decontaminated. He estimated that the amount remaining during such instances could be placed in a bucket.
7. Mr. Perry stated that Royster's pattern of use of emission control dust in 1989 and until June 27, 1990, was similar to that in 1988 (Tr. 200, 201; Stipulation). He indicated that there were times during these periods when the only

K061 in inventory was what he characterized as "sweepings." Emission control dust, sometimes referred to as "zinc flue dust," was delivered to the Royster plant building by dump trucks and thereafter moved into the production process by front-end loaders (Tr. 199; photos, C's Exhs 1b and 3c; Stipulation).

8. Royster also uses what it characterizes as "partially consumed" sulfuric acid as a neutralizing agent in the manufacture of fertilizer (Tr. 210, 415; General Plan - S. Norfolk Plant, April 19, 1988, C's Exh 26; Hazardous Waste Report, C's Exh 29). Royster obtained most of its used sulfuric acid requirements from Amerada Hess Corp., Port Reading, N.J., and a small quantity from ICI Americas, Bayonne, N.J. The Royster plant utilized two sulfuric acid storage tanks, one of which contained virgin sulfuric acid for use when insufficient quantities of used or "spent" sulfuric acid were available (Perry, Tr. 416-17; Section D, Hazardous Waste Permit application, C's Exh 1). A photo (C's Exh 1a), indicates that the used and virgin sulfuric acid storage tanks are identical in size. The tank for storage of used acid has a capacity of approximately 180,000 gallons (C's Exh 1, Section D).
9. Mr. Peter J. Barba, Jr., manager of refining engineering and engineering for Port Reading Corporation, a wholly-owned subsidiary of Amerada Hess, hereinafter Amerada Hess, testified that his company purchased high strength sulfuric

acid, 98% to 99% purity by weight, and used it as a catalyst in an alkylation process.<sup>3/</sup> He explained that in the alkylation process the acid was diluted to a range of 88% to 90% weight at which point it was no longer useful to Amerada Hess as a catalyst (Tr. 58). While stating that Amerada Hess did not test the product except for strength, he identified dilutants in the acid as including water and hydrocarbons (Tr. 54, 65). He stated, however, that, because hydrocarbons were product, most of the hydrocarbons were recovered before the acid left the facility (Tr. 59). He denied that the sulfuric acid could be considered contaminated, asserting that it was merely diluted below the strength at which it could be used as a catalyst.<sup>4/</sup>

10. Mr. Barba testified that after use, the low strength sulfuric acid was either shipped to a manufacturer of fertilizer or to a company which makes virgin sulfuric acid (Tr. 55). He pointed out that, if the acid were shipped to a manufacturer of fertilizer, it was accompanied by a hazardous waste manifest, while that requirement did not apply, if the acid were shipped to a producer of virgin

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<sup>3/</sup> Tr. 52, 53, 57. Alkylation is a process whereby a high-octane blending component for gasolines is derived from the catalytic combination of an isoparaffin and an olefin. Hawley's Condensed Chemical Dictionary, Eleventh Ed. (1987).

<sup>4/</sup> Royster's Part B permit application contains a typical analysis of "Spent Sulfuric Acid Alkylation," apparently not the product of Amerada Hess, which reflects sulfuric acid of 87% to 90% and hydrocarbons of 2.3% (C's Exh 1, Appendix A).

sulfuric acid (Tr. 55, 56). Mr. Barba identified a hazardous waste manifest (C's Exh 8b) by which material identified as "Waste Sulfuric Acid, Spent Corrosive Material UN1832RQ Placarded Corrosive Liquid NOS," Waste No. D002, was shipped by Amerada Hess Corporation to Royster Agricultural Products, Chesapeake, Virginia.<sup>5/</sup> He stated that the acid had a pH of less than 2 when it left Amerada Hess's facility. Asked whether the risks of low-strength [sulfuric] acid were in any way different from those posed by virgin acid, Mr. Barba replied that the low-strength acid contained hydrocarbons and acid oils, which make it more flammable and explosive (Tr. 60). He opined that "fresh acid" was basically nonflammable.

11. Royster's Chesapeake, Virginia facility was inspected by representatives of the Virginia Department of Waste Management (VDWM) and/or EPA on June 19, 1986, July 1, 1987, July 21, 1988, and October 19, 1989 (Stipulation). The inspection of most concern here was conducted by Messrs. Glenn Moore and Patrick Grover of VDWM on October 19, 1989 (Tr. 99, 117, 166; C's Exh 4).

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<sup>5/</sup> Tr. 56. Information on the manifest includes the following:

Stow away from fluorides & other corrosives. Materials will be beneficially reused. The position of the generator is that this material is not hazardous waste subject to a requirement for a manifest. This manifest is issued, without prejudice, to satisfy requirements which may be in effect in states through which these materials may pass.



Mr. Grover, area manager for VDWM, testified that, at the time of the October 19 inspection, Royster was managing emission control dust in what he identified as the "waste pile building" (Tr. 100). He estimated that the pile of K061 in the building was at least six feet high (Tr. 101). He knew it was K061, because Mr. Perry identified it as such as there was a sign indicating the material was K061.

12. The inspection report, authored by Mr. Moore (Tr. 120), states that the K061 was sprayed with water to reduce the dust level of the material during handling.<sup>6/</sup> Additionally, the report states that the interim status waste pile area contains both hazardous waste and other raw materials and that trucks move in out, bringing mud, dirt, etc., and carry out K061 as the material adhered to the tires. Mr. Grover testified that at the time of the inspection there were many raw materials stored in the building and that it was possible and likely the materials had become mixed, explaining that front-end loaders were going from one pile to the next and that people were walking between the piles (Tr. 102-03). He further

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<sup>6/</sup> Inspection report, Checklist For RCRA Inspection Of Waste Piles at 2 (C's Exh 4). The inspection report is comprised of several sections, i.e., Survey Sheet For Inspection Of Hazardous Waste Facilities; Checklist For RCRA Inspection Of Waste Piles, Checklist For Hazardous Waste Inspection Of Tanks, Checklist For Hazardous Waste Inspection Of Land-Restricted Waste Management, Checklist For The Inspection Of Hazardous Waste Facilities and Checklist For Hazardous Waste Inspection Of Generators.

testified that there were tire tracks throughout the building and he considered it very likely that material from the various piles would become entrained on the vehicles, on the tires of vehicles and on the clothing and shoes of people in the building (Tr. 100, 142-43).

13. Mr. Perry identified other materials in the building at the time of the inspection as including superphosphate, which he testified was stored "directly across the aisle" from the K061 (Tr. 406-07). He recalled that there was a pile of phosphate in the center of the building, because he had a discussion with Mr. Grover concerning what he termed the "liquid phase" of this material.<sup>1/</sup> Although he didn't specifically recall other materials in the building at the time, he stated that as a general rule other materials stored therein would have included sulphate of ammonia, potassium nitrate, a non[hazardous] manifested zinc

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<sup>1/</sup> Tr. 407. Mr. Grover testified that, because some of the materials appeared to be so wet, he had Mr. Perry run a "paint filter liquids test" on the materials (Tr. 117-18). He, however, identified the material tested as "refinery FOS," sometimes referred to as "spent catalyst." (Tr. 135). Because none of the material came through the filter, it passed the test (Tr. 118-19).

material<sup>8/</sup> and manganese. All of these materials would have been separated by what he termed "Jersey barriers."

14. Mr. Perry described the color of superphosphate as white and the phosphate as "very dark," even black. Because humidity and moisture were problems, he testified that Royster spread lime on portions of the floor where materials were not stored because lime has a drying characteristic (Tr. 408). He described the lime as light grey to almost white in color and stated that vehicles moving through it made the lime dirty (Tr. 409). He stated that lime was sometimes spread outside the building as well and opined that some of the whitish material shown outside the building in a photo of the entrance to the Royster plant (C's Exh 3a) could be lime (Tr. 41). He described the brownish material on the lower portion of a photo (C's Exh 3a) as "crush and run" (Tr. 410), which is apparently a material similar to gravel spread on the unpaved portion of the roadway.

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<sup>8/</sup> Royster apparently obtains potassium nitrate from Philip Morris' "Park 500" facility. Although a letter signed by Mr. Perry, dated December 21, 1989, forwarding revisions to Royster's Part A permit application, states that potassium nitrate has been delisted and is no longer considered a hazardous waste, the real reason the material is not a hazardous waste is that it is a "co-product" and not a "by-product" and thus not a solid waste (letter from VDWM, to William L. Rosbe, Hunton & Williams, dated December 2, 1986, C's Exh 1 at C-3). The letter states, inter alia, that potassium nitrate is purchased from Philip Morris and used by Royster in the form it is produced by Philip Morris to manufacture a fertilizer for general public use.

15. Mr. Grover described weather conditions at the time of the inspection as "very wet," and stated that there was moisture in the building and that the floor was not visible, being covered with a mud-like substance (Tr. 100-01, 118). He testified that materials appeared to have been tracked out of the building and because of the mixing referred to previously, it was likely that some of the material was K061 (Tr. 102). Under cross-examination, however, he acknowledged that his belief emission control dust was tracked around the facility was based on knowledge of the procedures utilized by Royster rather than personal observation, because he did not observe loaders moving emission control dust or dust on the tires of dump trucks or on the clothing of workers (Tr. 143). Mr. Grover further acknowledged that he did not take any samples and that he could not make a hazardous waste determination by visual observation (Tr. 144-45). He did see tracks of material he referred to as having a "dark nature" running out of the door (Tr. 144).
16. Mr. Grover observed eleven railroad tank cars at the Royster plant at the time of the October 19 inspection (Tr. 107-08, 149). He was informed that the tank cars contained "spent" sulfuric acid and testified that the cars were not obviously labeled to reflect their contents or the date of accumulation. He acknowledged, however, that "we" did not take a detailed look at each car. He identified a

hazardous waste manifest under which sulfuric acid was transported to the Royster plant (C's Exh 8b). The acid was identified as D002 (Tr. 108). Under cross-examination, he testified that, although he saw markings on the cars which he referred to as "standard," he did not recall seeing the words "spent sulfuric acid" (Tr. 150, 152-53). In other testimony, however, he asserted that labeling required by 40 CFR 268.50, i.e., identification and accumulation date, was not present (Tr. 155). The violation identified in the inspection report was that the eleven tank cars could not be unloaded, and Royster did not have interim status to receive hazardous waste which could not be stored in their waste acid tank (Survey Sheet For Inspection Of Hazardous Waste Facilities, Checklist For Hazardous Waste Inspections of Tanks, C's Exh 4).

17. Mr. Glenn E. Moore, an analytical chemist for VDWM, like Mr. Grover, had inspected Royster's Chesapeake plant twice before the inspection of October 19, 1989 (Tr. 165). He described the inside of the building as crowded and testified that it was full, having more material than he had seen on the other two occasions (Tr. 166). He asserted there were a lot of activities in the building, that trucks were coming in and out and that there was movement of front-end loaders (Tr. 167). He located the K061 pile as being in the upper right-hand corner of the blue-shaded portion of a drawing of the Royster plant (Tr. 167; R's Exh

- 7). He estimated the pile as being between five and seven feet in height (Tr. 170).
18. Mr. Moore took the photographs of the Royster plant which are in evidence as Complainant's Exhibits 3a, 3b and 3c (Tr. 168). The photos of the entrance to the plant (Exhs 3a and 3b) were taken from a point on the north side of the area marked "Truck Entrance" of the blue-shaded area on the drawing of the Royster plant. Exhibit 3b was taken from a point nearer to the entrance as less of the roadway is shown and the inside of the structure as depicted in the photo is too dark to be definitive. A portion of the south side of the structure along the "loading dock" is open and piles of material are visible inside the building (Exh 3a). Mr. Moore pointed out that the piles of material extended above the loading dock (Tr. 169). The material shown is apparently not K061 as Mr. Moore testified that pile was to the left of the entrance (Tr. 170). Referring to the mud-like material shown in tire tracks leading to the entrance to the plant on the photos, Exhibits 3a and 3b, Mr. Moore opined that the material came from the inside of the building (Tr. 171).
19. Mr. Moore also took a photo of the inside of the structure looking west from a point approximately 20 feet from a doorway in the eastern wall of the blue-shaded area on the Royster plant drawing (Tr. 172-73). The photo depicts a front-end loader amid support beams for the structure, and

piles of material which Mr. Moore testified were not K061 (Tr. 175). He opined that one of the tires on the loader was shining because it was wet (Tr. 171). He testified that the K061 pile was disturbed in that there were truck and front-end loader tracks in the pile (Tr. 173). He observed a truck drive through a corner of the pile (Tr. 173-75). In other testimony, he opined that the blue-shaded area on the drawing of the Royster plant (R's Exh 7) was not designed to hold an accumulation of hazardous waste, because the "back wall" was open and wind blowing through the opening and out the truck entrance could move materials in the building (Tr. 189-90). He opined that the wind could cut across a corner of the K061 pile.

20. A copy of a drawing of the Royster plant has been marked in red by Mr. Perry to reflect the location of K061 in the blue-shaded area of the plant (C's Exh 26). The red line indicates that K061 extended from a point north of the doorway in the east wall of the shaded area northward and westward to a point marked "boiler room," which is outside the north wall. Although Mr. Perry testified that the red line probably represented the maximum accumulation of emission control dust, he explained that at the time of the inspection the dust extended to the doorway in the east wall, because "we had been down for practically the entire summer." (Tr. 425; to the same effect, Tr. 439-40).

21. Referring to railroad tank cars on the siding at the south side of the "waste pile" building, a portion of one such car is visible in a photo (C's Exh 3a), Mr. Moore testified that the cars had GATX numbers, weight limits and "this kind of stuff," but no placards (Tr. 182-83). He had previously worked for the railroad and knew where the cars should be marked. He acknowledged, however, that he did not inspect all of the cars, observing closely only the one that was next to him.
22. Mr. Perry testified that the 11 railroad tank cars of partially consumed sulfuric acid, which were on the siding at the time of the October inspection, represented roughly 60 to 80 tons of acid per car (Tr. 211). He explained that the cars were on the siding, because at the time the existing used acid tank was full and Royster did not have the capacity to unload the contents of the cars (Tr. 430). He estimated that the cars were on the siding approximately three to four weeks (Tr. 431). Although he acknowledged that the cars were not marked with an accumulation date, he testified that DOT had some fairly rigid rules concerning hazardous designations and that either spent or virgin acid would come into Royster's plant with such a designation (Tr. 414). He did not personally know that the cars were labeled, but doubted that they were not labeled in accordance with DOT regulations, because "we can't even



return a car to the railroad if it's improperly labeled" (Tr. 211, 212).

23. Although Mr. Perry indicated that the way Royster handled the acid, the risks represented by virgin and used sulfuric acid were practically the same, he opined that the stronger the acid the more corrosive it is and that, if one were concerned about skin contact or that type of exposure, the stronger [virgin] acid would be more hazardous (Tr. 422). Although the used sulfuric acid contained what he termed "sulfonic acids," he opined these acids were not inherently hazardous and had no effect on the fertilizer (Tr. 423). He denied that the sulfonic acids were ignitable or flammable or that their presence represented any risks (Tr. 423-24).
24. By letter, dated December 28, 1989, attorneys for Royster replied to a letter, dated December 11, 1989 (R's Exh 4), alleging violations of Virginia Hazardous Waste Management Regulations which had been issued by VDWM as a result of the inspection on October 19, 1989 (letter from Timothy A. Vanderver, Jr., Esq., Patton, Boggs & Blow, C's Exh 5). With respect to the alleged storage of 11 railroad tank cars of waste sulfuric acid without a permit or interim status, Royster's attorneys maintained that the acid is not a solid waste within the meaning of VHWMR § 3.1.A.8.a. and b., because it is recycled by being used, without reclamation, as an ingredient in an industrial process to

make a product and/or because it is used as an effective substitute for a commercial product (Id. at 2). Because the acid assertedly did not meet the definition of a solid waste, it could not be a hazardous waste. Secondly, even if the acid were deemed to be a solid waste and even if under VHWMR § 3.B.1 [§ 13.2] the acid were used in a manner constituting disposal, because it was used to make a product applied to land, the letter argued that the acid would not be a hazardous waste. This was assertedly because the only basis for considering the acid hazardous was the characteristic of corrosivity, and the acid, having undergone a chemical reaction in the process of producing fertilizer, no longer exhibited that characteristic when applied to land. Therefore, it was argued that the acid no longer exhibits the characteristic that made it hazardous and in accordance with VHWMR Part I.A.C., and D., was not a hazardous waste when reused by Royster.

25. Regarding VDWM's allegation that K061 was not well separated from other materials in the "waste pile" building and that trucks moving in and out of the building were carrying visual evidence of waste on their tires, some of which was K061, the letter from Royster's attorneys, referred to in finding 24, states that Royster agrees that a means to remove K061 waste from vehicles leaving the waste pile building was desirable and that it would submit plans for appropriate facilities at which such

decontamination can take place to the Department for review (Id. at 5). Mr. Perry testified that trucks [delivering K061 to the waste pile building] would almost certainly contain particles of K061 upon leaving the building, because the beds of the trucks were not cleaned (Tr. 434). He also acknowledged that, because the material flows, the rear tires of a truck dumping K061 would sometimes come in contact with the material. Describing procedures instituted by Royster to prevent tracking of the material, he testified that a set of parallel rails, essentially railroad rails, had been installed at the north entrance [exit] to the blue-shaded area so as to flex the tires and remove as much material stuck between the cleats as possible (Tr. 447). He also referred to a small vacuum cleaner, an air hose and an assortment of brooms, shovels, etc. to clean the trucks. Material removed is reprocessed into product. He indicated that much of this activity was to comply with Royster's NPDES permit concerning rain or storm water run-off (Tr. 447-48).

26. Mr. Perry was not aware that K061 was restricted from land disposal as of August 8, 1988 (Tr. 223). He testified that he was on a committee of The Fertilizer Institute (TFI), which worked closely with EPA to develop a fertilizer exemption from K061, so he did not think the restriction

[on the land disposal of K061] applied.<sup>2/</sup> Mr. Perry had company in this respect, for Mr. Grover testified that at the time of the inspection neither he nor Mr. Moore were aware that K061 was subject to a land ban (Tr. 126). He (Grover) was informed that K061 was subject to land-ban restrictions in a telecon with Ms. Sheila Briggs [EPA, Region III] about one-month after the inspection.

27. Royster's Application For Permit To Manage Hazardous Wastes (C's Exh 1) describes the structure of the storage and processing building as consisting of timber columns and beams (Id. at D10). The application also states that the only tank in the hazardous waste management area is the cylindrical steel tank located south of the processing building for the storage of spent sulfuric acid. The General Plan of Royster's South Norfolk Plant reflects that the plant is approximately 965 feet in length and 150 feet in width at its widest point (R's Exh 7). The plant is bounded on the west by the Southern Branch of the Elizabeth River and extends from west to east a distance of approximately 555 feet and then angles in a southerly direction for approximately 410 feet. The plan in evidence is based on a Royster general plan drawing, dated April 11, 1980, as modified by Royster's experts, SCS

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<sup>2/</sup> Tr. 223-24. The exemption, however (40 CFR § 266.20(b)), merely provides that zinc containing fertilizers using K061 that are produced for use by the general public are not presently subject to regulation.

Engineers, on October 29, 1990. What Royster claims are the walls of the storage or containment tank are represented by a broken line on the drawing. The containment tank occupies over 75 percent of the plant building in terms of area. The western end or edge of the purported tank as shown on the drawing is the left perimeter of the blue-shaded area, which in turn is approximately 225 feet from the western end of the building. Mr. Perry testified that the area to the west of the blue-shaded area on the drawing was the "old superphosphate" manufacturing area which was closed several years back (Tr. 435).

28. The blue-shaded area on the drawing of the Royster plant represents the area where a 6" reinforced concrete floor was poured over the existing floor in 1987 (Tr. 202; R's Exh 7). Mr. Perry testified that, although the old floor was a "good, solid floor," the new floor had been poured over the old in order to cover what he termed "pockets," caused by the storage of superphosphate which is corrosive to concrete (Tr. 203). He stated and the plan reflects that the western edge or wall of the so-called containment tank is represented by the left perimeter of the blue-shaded area and that the tank includes the rest of the building (Tr. 213-14, 217-18; R's Exh 7). The plan drawing shows a two-foot thick brick "fire wall" extending from the floor to the ceiling on the western edge of the blue-shaded

area. Although the plan drawing does not so indicate, Mr. Perry testified that the eastern wall of the blue-shaded area was also of masonry (Tr. 403). This wall contains a doorway affording access to other portions of the building. He stated that the north and south walls of the blue-shaded area were of concrete. The north wall of the blue-shaded area contains a truck entrance, shown at elevation 10.88 feet which is above the 100-year flood plain, while the south wall is represented by the loading dock (Tr. 428). Mr. Perry estimated that the loading dock was less than two feet above the floor of the structure (Tr. 220, 437). The area of the south wall above the loading dock is open vertically for a distance of approximately ten feet (Tr. 445; photo, C's Exh 1a).

29. The plan drawing shows cross-hatch or "hash marks" representing an 18-inch thick concrete wall extending along the north side of the Royster plant from the western edge of the blue-shaded area and continuing for a distance of approximately 495 feet. The top elevation of the wall is at 12.74 feet, which is above the 100-year flood plain, approximately two feet above the 10.88 foot elevation of the truck ramp entrance to the blue-shaded area and over five feet above the lowest point of the floor of the blue-shaded area. Mr. Perry testified that the wall had a minimum height of 18 inches to two feet and that he did not know why the hash marks on the drawing stopped, because

that wall extended "all the way down" (Tr. 222-23). He acknowledged that, if the blue-shaded area were flooded, water would flow through the doorway in the eastern fire wall into the balance of the structure (Tr. 218-19, 221). He claimed, however, that the structure was watertight up to the approximate two feet height of the containment wall and emphasized that the entire unit had a concrete floor.<sup>10/</sup> In his opinion, the structure was designed to contain solid raw materials (Tr. 446). He acknowledged that under normal operating conditions, piles of material, including emission control dust, would extend above the containment wall.

30. Ms. Mary F. Beck, a registered professional engineer, who has bachelor and masters degrees in civil engineering and who has been an employee of EPA involved in RCRA permitting and enforcement actions since 1984 (Tr. 226-30), testified that the difference between a waste pile and a tank rested on the type of waste the unit was designed to manage, a tank being designed to manage liquid, while a pile was designed to manage a solid (Tr. 231). Referring to the definition of a tank in 40 CFR § 260.10,<sup>11/</sup> she stated

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<sup>10/</sup> The purpose of the containment wall was to prevent flooding due to the fact the Royster plant was located within the 100-year flood plain of the Elizabeth River.

<sup>11/</sup> Tank means a stationary device, designed to contain an accumulation of hazardous waste which is constructed primarily of non-earthen materials (e.g., wood, concrete, steel, plastic)  
(continued...)

that EPA interpreted the phrase "designed to contain" as referring to a liquid. As to the phrase "noncontainerized accumulation" in the definition of pile,<sup>12/</sup> she explained that this phrase meant that the waste itself has the ability to stay in one place (Tr. 232).

31. Ms. Beck reviewed the drawing of the Royster plant (R's Exh 7), the photographs (Exhs 3a, 3b and 3c) and a document entitled "Structural Evaluation," containing force calculations arising from the flue dust and the weight of the wall and the resisting force represented by the wall (R's Exh 9). She concluded that the unit, that is, the structure containing K061, was being managed as a waste pile. Although she acknowledged that a waste pile could be inside a tank, she emphasized that to be considered a tank, the structure would have to be designed to be watertight (Tr. 232-33). She further testified that to be considered a tank the waste would have to be below the elevation of the tank wall or the waste was containing itself. Because the elevation of the wall in the loading dock area was 1½ feet as shown on the drawing (R's Exh 7) and the waste pile extended to a height of five feet [or more], Ms. Beck

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<sup>11/</sup>(...continued)  
which provide structural support.

<sup>12/</sup> Pile means any non-containerized accumulation of solid, nonflowing hazardous waste that is used for treatment or storage. 40 CFR § 260.10.



concluded that the unit should be regulated as a waste pile (Tr. 234-35).

32. Mr. Michael W. McLaughlin, Vice President of SCS Engineers and a director for technical project activities undertaken by the firm, is an engineer and an attorney (Tr. 453-54). He has over 12 years of experience in the field of solid and hazardous waste and has testified as to hazardous waste compliance matters under RCRA and Superfund in several court proceedings (Tr. 454-55). Mr. McLaughlin is familiar with Royster's facility in Chesapeake, Virginia, having visited the facility several times and having supervised the preparation of the plant drawing in evidence (R's Exh 7).
33. Concerning the definition of a tank in 40 CFR § 260.10, Mr. McLaughlin testified that the regulation required compliance with four elements, that is (1) that it be a stationary device; (2) that it be designed to contain an accumulation of hazardous waste; (3) that it be constructed of nonearthen materials and (4) that the nonearthen materials provide structural support for the device (Tr. 457-58). He asserted that there was and could be no controversy that the Royster building was a stationary device and that it was constructed of nonearthen materials. Recognizing that there was a dispute as to whether the building was designed to contain an accumulation of hazardous wastes, he maintained that it was clearly

designed to contain an accumulation of fertilizer raw materials at least one of which was a hazardous waste. He pointed out that there was no definition of "contain" in the regulations, but that Webster's dictionary defined contain as "to hold, include." Mr. McLaughlin concluded that the relevant question was whether the Royster building was designed to contain an accumulation of materials, one of which might be a hazardous waste. He opined that there was not really any serious debate on that point.

34. As to the final criterion required to comply with the definition of a tank, i.e., whether the nonearthen materials provide their own structural support for the facility, Mr. McLaughlin testified that this was a question subject to being evaluated in a detailed and thorough way (Tr. 458). He explained that, in this instance, the task was simplified inasmuch as there were not a huge array of places within the building where K061 was intended to be stored. A structural analysis of the north (concrete) wall of the Royster structure (blue-shaded area on the drawing) was prepared under Mr. McLaughlin's direction (R's Exh 9). The analysis is based on the wall being 5.5' in height and one foot thick and assumes that the weight of the concrete is 150 pounds per cubic foot (pcf), while the weight of the flue dust is 45 pcf (Tr. 459-60). The analysis assumes a maximum height of the flue dust of 5.5' and a lateral earth pressure coefficient of 0.3. Mr. McLaughlin explained that

this meant 30% of the force vertically is exerted horizontally. This calculation ( $45 \text{ pcf} \times 5.5' \times 0.3$ ) resulted in a figure of 74.25 psf and a lateral flue dust force computation ( $\frac{1}{2} \times 74.25 \text{ psf} \times 5.5'$ ) of 204 pcf. This is to be compared with the resisting force represented by the concrete wall of 412.5 pcf calculated:  $150^{\#} \times 5.5' \times 1' = 825 \text{ pcf}$ , multiplied by one-half. Mr. McLaughlin testified that the force of the flue dust would be applied at a point approximately one-third the height of the wall and that the calculation showed that the wall would be stable (Tr. 461). A similar calculation with respect to the resistance of the wall to sliding, using what Mr. McLaughlin characterized as a conservative 0.6 friction factor between the concrete wall and the concrete slab, resulted in a safety factor of over 2.4 calculated thusly:  $825 \times 0.6 = 495$  divided by  $204 = 2.4$ . He opined that this was more than sufficient to make the wall stable and pointed out that this calculation did not consider the fact that the wall was keyed or tied to the floor by reinforcing steel rods referred to as (rebar) (Tr. 462-63). He concluded that these nonearthen materials were able to and, in fact, do provide structural integrity for the unit.

35. Mr. McLaughlin opined that the Royster unit clearly met the definition of a tank (Tr. 463). Asked whether the unit was "leak-free," he replied that he did not understand that term in relation to solid materials and that while the unit

would probably hold some water, he did not regard that as relevant. He discounted the likelihood of "fugitive emissions," asserting that the dust was stored in a quiet corner of the building and that there was no way for air currents to cross there (Tr. 464). In other testimony, he opined that the unit was designed to minimize the possibility of fugitive releases and reasonably assured that material stored therein would not migrate (Tr. 466). On cross-examination, he acknowledged that K061 could leave the building by adhering to vehicles or people's clothing (Tr. 484-85). He also acknowledged that Royster's closure plan (C's Exh 1, Section I) characterized the K061 storage area as a "waste pile" management area (Tr. 483-84). He pointed out, however, that there was nothing mutually exclusive in the definition of a waste pile and the definition of a tank.

36. In rebuttal testimony, Ms. Beck asserted that, if the calculations presented by Mr. McLaughlin (R's Exh 9) were presented to her for a determination as to whether the unit was a tank, she would find the calculations were deficient for several reasons (Tr. 491). She disputed the assumption that there was no passive earth pressure on the wall and testified that a safety factor of 1.1 as to stability at Point A, the base of the wall, was borderline between stable and not stable (Tr. 492). She asserted that she would never accept a safety factor of 1.1. She testified

that the potential for concrete to crack had to be examined and that Royster's calculations didn't consider the ability of concrete to carry or absorb tensile forces. She pointed out that the resultant of the forces acting on the wall included the weight of the wall and that the horizontal load fell outside what she characterized as the "middle third." She concluded that there were tensile forces across that section [where the wall joins the floor] and that the loads or stresses would cause cracking. Ms. Beck explained that the [stability of the wall] should be evaluated as if the waste were a liquid, and, even assuming the liquid had a low density of 45 pcf, the lateral forces from the waste would be about three times the 204 figure [shown on Exh 9] and the wall would not be stable (Tr. 493). She opined that Royster should be required to perform a more sophisticated analysis for reinforced concrete and demonstrate that the stresses were sufficiently low that it could be determined the wall was designed to prevent cracking.

37. Dr. Samuel L. Rotenberg, a toxicologist for EPA, Region III, testified that he was familiar with Royster's plant, having read Royster's Part B permit application, reports of inspection and that he had examined photographs of the facility (Tr. 328-29). He had also examined a topographical map of the area. He identified metals of

concern in K061 as lead, arsenic, cadmium and chromium.<sup>13/</sup> He testified that exposure to lead is known to hinder the development of small children and he was particularly concerned over the potential exposure of children to K061 by the material being brought home by adherence to worker's clothing or if small children were ever on the site and through dispersion in the air surrounding the facility (Tr. 330). He identified arsenic, chromium and cadmium as carcinogens, having no safe threshold level (Tr. 331). He testified there was no doubt that workers were being exposed to K061 and pointed out there were residences within a couple of miles of the facility (Tr. 333). Although he could not categorize the degree of risk, he emphasized that there was actual rather than potential exposure (Tr. 339-40). Under cross-examination, he acknowledged that the damp and moist conditions prevailing at the time of the inspection on October 19, 1989, would greatly reduce the likelihood of exposure to flue dust through the air (Tr. 352). He also acknowledged that, if zinc oxide (not a hazardous waste) having a lead content of two percent to four percent were used as a raw material in the manufacture of fertilizer rather than zinc flue dust

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<sup>13/</sup> He acknowledged being surprised at the presence of arsenic in K061, but based this testimony on a 1979 Report of Analysis from Jennings Laboratories, Inc. included in Appendix A of Royster's Part B permit application (Tr. 341). The report reflects that the sample tested contained .085% arsenic.

and if the particle sizes or degree of fineness were the same, the risks from handling the materials would be essentially the same (Tr. 359-60).

38. Mr. David M. Friedman, a chemist in the RCRA Programs Branch of EPA, Region III, responsible for what he termed the "waste identification portion" of the RCRA regulations, testified that he was asked to make hazardous waste determinations regarding the waste streams received by Royster (Tr. 68, 69). Regarding sulfuric acid shipped to Royster by Amerada Hess, he determined that it was a solid waste, because the acid was a "spent material" being used in a manner constituting disposal. He reached this conclusion by referring to the definition of solid waste in 40 CFR § 261.2(a)(1) as any "discarded material" that is not excluded [by § 261.4(a) or by a variance granted under §§ 260.30 and 260.31] and by the definition of discarded material in § 261.2(a)(2)(ii) as including material which is "recycled" as explained in Paragraph (c) of this section (Tr. 70). He also referred to the definition of a spent material in § 261.1(c)(1) as "a material that has been used, and, as a result of contamination, can no longer serve the purpose for which it was produced without processing." He concluded that the "spent sulfuric acid was used in a manner constituting disposal" within the meaning of § 261.2(c)(1). He pointed out that the used sulfuric acid was a hazardous waste, because it had a pH of

less than 2, and that storage of the acid prior to use in a manner constituting disposal was regulated (Tr. 72, 73).

39. Under cross-examination, Mr. Friedman asserted that in determining whether material was in continuous use or was spent material being recycled, he would look at whether the uses were similar or dissimilar and that, in this case, use of the acid [for making fertilizer] was strikingly dissimilar [to alkylation] (Tr. 78). He explained that, if a solvent being used to clean electronic parts became sufficiently dirty that it was no longer useful for that purpose, but was still useful for degreasing operations, the solvent would not be a spent material, because the uses were essentially the same (Tr. 79). Although this distinction is not in the regulations, he claimed it was a reasonable interpretation thereof.

40. Ms. Sheila A. Briggs, a compliance officer with the RCRA State Enforcement Section, EPA Region III, testified as to the calculation of the proposed penalty (Tr. 280). She stated that the proposed penalties were calculated using the 1984 Penalty Policy (C's Exh 13) as supplemented by a 1990 Draft Penalty Policy. Referring to Count I, which alleged a violation of 40 CFR § 268.50 for storing K061 in other than a tank or container, she testified, and the policy provides, that the first step is to determine a gravity-based penalty (GBP) (Tr. 281; C's Exh 13 at 3-6). The GBP is determined by considering the potential for harm



to human health and the environment and the extent of deviation from a statutory or regulator requirement. These two factors constitute the "seriousness of a violation" under RCRA § 3008. Ms. Briggs testified that she determined a major potential for harm based on the "Background Document" for the listing of dust/sludges from the primary production of steel in electric furnaces (C's Exh 18), which indicates that constituents of K061 include lead, cadmium and chrome. Because of the risks presented by these constituents and because there were several routes by which the material was escaping the building, she considered there was a substantial likelihood of exposure and a substantial threat to [human] health and the environment (Tr. 282). She considered that the manner in which K061 was stored and that it was allowed to be placed on the land to be major deviations from the statutory purpose. The penalty computation worksheet (C's Exh 12), however, reflects that the potential for harm was considered to be moderate and the extent of deviation major.

41. The penalty computation worksheet reflects that the foregoing determinations were applied to the matrix in the penalty policy, which indicates a cell range of from \$8,000 to \$10,999, and that the mid-point of this range was chosen, resulting in a per-day penalty assessment of \$9,500 (C's Exh 12). This figure, adjusted upwards by ten percent

due to an alleged history of noncompliance, was used to determine a penalty for the first day of the alleged violation. Although Ms. Briggs testified that Royster had previously stored K061 improperly (Tr. 287), reports of previous inspections (C's Exhs 11a-11d) do not substantiate this testimony and counsel for Complainant conceded that any outside pile observed in previous inspections was not K061 (Tr. 314-15). The balance of the proposed penalty for Count I was determined using the multi-day penalty matrix in the 1990 penalty guidance, which contains a major/major cell reflecting a range of from \$1,000 to \$5,000.<sup>14/</sup> Because the violation was considered to have continued until June 30, 1990, or 691 additional days, she indicated this would have resulted in a penalty of over \$700,000. Supervisory review, however, resulted in a determination that the daily amount should not exceed \$500. Accordingly, the proposed penalty for Count I is \$360,017, which consists of \$9,500 plus ten percent or \$10,450 for the first day, plus \$345,500 for 691 days of additional violation and \$4,067 for the economic benefit of noncompliance. Ms. Briggs testified that the economic benefit from noncompliance was determined by finding the cheapest price for a tank which would possibly comply with

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<sup>14/</sup> Tr. 285-87. A multi-day penalty matrix is contained in the 1990 RCRA Civil Penalty Policy at 24.

the regulatory requirement and putting that data into a computer model (Tr. 287-88).

42. Regarding Count II, Ms. Briggs testified that the acid [in the railroad tank cars at the time of the October inspection], which she referred to as D002, had been used by the primary facility and was no longer useful for its purposes (Tr. 289). She asserted that the acid had been shipped as waste and was subject to the land disposal restrictions, if it had a pH of less than 2.<sup>15/</sup> She pointed out that the waste had to be stored in a tank or container and the tank had to be marked with the date of accumulation and identification of its contents. As to the penalty, she considered that there was a major potential for harm and a substantial risk to human health and the environment, because emergency response personnel would not know how to respond to this waste (Tr. 290). She determined that the violation represented a moderate deviation from the requirements, resulting in a matrix cell range of from \$15,000 to \$19,999 (penalty computation worksheet). She selected the mid-point of the range or \$17,500, added 10% for an alleged history of noncompliance

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<sup>15/</sup> This overlooks or ignores the disclaimer placed on the manifests by Amerada Hess to the effect that the acid was considered not to be a hazardous waste (supra note 5). Amerada Hess's position, however, appears to be based on the fact the acid was to be "beneficially reused" and apparently fails to recognize extensive changes to the definitions of solid and hazardous wastes with respect to recycling activities promulgated in 1985 (50 Fed. Reg. 614 et seq., January 4, 1985).

to arrive at the amount claimed of \$19,250. She asserted that a review of previous inspections indicated that Royster had improperly stored D002 in the past (Tr. 291). Although she stated there were indications that the acid was stored for more than one day, she could not verify that fact and did not consider a penalty of more than one day appropriate.

#### C O N C L U S I O N S

1. At the time of an inspection by VDWM on October 18, 1989, Royster was storing hazardous waste No. K061, which has been restricted from land disposal since August 8, 1988, 40 CFR § 268.33(a), in a structure or device other than a container or a tank. Thus, Royster violated the prohibitions on the storage of hazardous waste, 40 CFR § 268.50.
2. Sulfuric acid in 11 railroad tank cars on hand at the Royster facility at the time of the inspection on October 19, 1989, was a "spent material" as defined in 40 CFR § 261.1(c)(1), a solid waste in accordance with § 261.2(c)(1), and having a pH of less than 2, was a hazardous waste. By failing to mark the cars so as to identify their contents and with the date accumulation began, Royster violated 40 CFR § 268.50(a).

3. The Commonwealth of Virginia was given prior notice of the issuance of the complaint, as required by section 3008(a)(2) of the Act.
4. An appropriate penalty is \$163,996.

#### D I S C U S S I O N

##### A. Whether The Royster Structure Is a Tank

The definition of a tank as defined in 40 CFR § 260.10 (supra note 11), was thoroughly parsed by the Chief Judicial Officer, In The Matter Of Koppers, Inc., RCRA (3008) Appeal No. 88-4 (Final Decision, March 21, 1990).<sup>16/</sup> At issue in Koppers was whether aeration basins, containing liquid hazardous waste, were tanks or surface impoundments as defined in 40 CFR § 260.10. The CJO determined that the "structural support" language of the definition of a tank should be read to require not just some or any structural support, but at least enough support to ensure that the tank [filled to design capacity] will not rupture or collapse. He held that the "structural support" language must exclude basins [devices] that rely on the surrounding soil for structural support and that an interpretation of the regulation, which essentially required that a device be self-supporting when filled to design capacity in order to be classified as a tank, was the only reading of the

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<sup>16/</sup> This decision has been upheld by the courts, sub nom Beazer East, Inc. v. EPA, 33 ERC 1725 (E.D. Pa. 1991), affirmed, 963 F.2d 603, 34 ERC 1937 (3rd Cir. 1992).

regulation which fit harmoniously into the overall regulatory context.<sup>17/</sup> This interpretation of the regulation was upheld as reasonable by the Third Circuit, Beazer (supra note 16).

Regarding the designed to contain "language of the tank definition, the CJO held that the basins at issue were not "designed to contain" waste within the meaning of the tank definition precisely because the basins were not designed to be watertight. He ruled that "designed to contain" meant "designed to prevent waste migration" (Slip Opinion at 20-22).

Applying the foregoing principles to the instant matter (in inverse order), it should be noted that the aeration basins at issue in Koppers contained liquids and that the definition of "surface impoundment" in 40 CFR § 260.10 obviously contemplates

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<sup>17/</sup> Slip Opinion at 18. A Memorandum, dated April 15, 1983, from Bruce R. Weddle, Acting Director, State Programs and Resource Recovery Division, to Thomas W. Devine, Director, Air and Waste Management Division, Region IV, Subject: "Determination of Tanks vs Surface Impoundments" provides in pertinent part:

Distinguishing a tank from a surface impoundment is, as you suggest, primarily an assessment of what provides the unit's structural support. In making this assessment, the unit should be elevated as if it were free standing, and filled to its design capacity with the material it is intended to hold. If the walls or shell of the unit alone provide sufficient structural support to maintain the structural integrity of the unit under these conditions, the unit can be considered a tank. Accordingly, if the unit is not capable of retaining its structural integrity without supporting earthen materials, it must be considered a surface impoundment.

that impoundments will hold liquids.<sup>18/</sup> Moreover, the definitions of tank and surface impoundment are mutually exclusive, i.e., a device cannot be both a tank and a surface impoundment. In contrast, as Mr. McLaughlin pointed out (finding 35), there is nothing mutually exclusive in the definition of a tank and a waste pile (supra note 11). Because it is unlikely that a waste pile would or could be considered a tank, what he most likely meant was that there is nothing to preclude a waste pile from being stored in a tank.

Because most tanks are used to contain liquids (or perhaps gasses), a requirement that a device be designed to be watertight in order to be considered a tank under the regulation is reasonable where the device holds or is intended to hold liquids. Where the device contains or is intended to contain solids such as the K061 dust at issue here, a requirement that the device be reasonably designed to prevent the migration of hazardous waste is all that is encompassed within this prong of the tank definition.<sup>19/</sup> Although the evidence is ambiguous

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<sup>18/</sup> Surface impoundment or impoundment means a facility or part of a facility which is a natural topographic depression, man-made excavation, or diked area formed primarily of earthen materials (although it may be lined with man-made materials), which is designed to hold an accumulation of liquid wastes or wastes containing free liquids, and which is not an injection well. Examples of surface impoundments are holding, storage, settling, and aeration pits, ponds, and lagoons.

<sup>19/</sup> Koppers, supra, Slip Opinion at 20. See also Reilly Tar & Chemical Corp., 718 F.Supp. 630 (N.D. Ohio, 1988), where a large steel box originally designed for cooling and solidifying liquid coal tar pitch and now used for loading and  
(continued...)

(findings 19 and 35), storage of K061 in a corner of the Royster structure makes it unlikely that there would be any significant or measurable emissions caused by wind blowing through the partially open south wall and out the truck entrance at the north side of the structure or vice versa. Moreover, there is evidence that Royster sprayed K061 with water to reduce dust levels (finding 12) and Dr. Rotenberg acknowledged that moist conditions, such as those prevailing at the time of the inspection on October 19, 1989, would greatly reduce the likelihood of exposure through the air (finding 37). More troubling, is the fact, as Royster acknowledges, that, albeit small in quantity, K061 could and did leave the structure on vehicles. It is likely that an even smaller amount was carried out of the structure on the clothing and shoes of Royster's employees. These facts tend to support a finding that the Royster structure was not reasonably designed to prevent migration of K061 dust within the meaning of the definition of a tank in section 260.10, but do not conclusively resolve the issue.

It is, of course, true that the requirement a device be self-supporting when filled to design capacity in order to be considered a tank under the regulation as set-forth in the

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<sup>19/</sup>(...continued)  
unloading unidentified waste, was held to be a tank within the meaning of the regulation. The box contained a vehicle entrance ramp which could be sealed and closed by a mechanically controlled gate. Existence of the gate does not, however, appear to have been crucial to the decision.



"Weddle Memorandum" (supra note 17), which interpretation was sustained in Koppers, contemplated that the device would be filled with liquids. The concerns set forth in Koppers regarding uneven or shifting soils, cracking, etc., however, apply as well to a device filled with a fine dust such as K061. It is therefore reasonable to apply the self-supporting criterion to the Royster structure.

The capacity of the Royster structure insofar as K061 is concerned appears as a minimum to have been in the range of 200 to 250 tons (finding 6), Mr. McLaughlin's calculations (finding 34) were directed solely to the integrity of the wall and there are no calculations in the record showing that the structure would be self-supporting under such a load. It is highly unlikely that the structure could be considered to be self-supporting irrespective of the load when filled to design capacity. Be that as it may, it is clear that the floor of the structure relies upon the earth for support and thus, nonearthen materials do not provide sufficient structural support to comply with this criterion of the tank definition. Koppers, supra. Cf. Reilly Tar & Chemical, supra note 19, where a steel box, held to be a tank, was elevated approximately three feet above the ground and supported by concrete piers and wooden beams. It is concluded that Royster hasn't sustained its contention that the structure or any part thereof is a tank within the meaning of the regulation, 40 CFR § 260.10.

The exemption from regulation for fertilizers using K061 emission control dust, provided by 40 CFR § 266.20(b) (supra note 8), obviously does not apply to the storage and handling of the dust prior to its incorporation into the manufactured product.

B. Sulfuric Acid As A Solid Waste

Although not definitely established, it is likely that the 11 railroad tank cars containing sulfuric acid on hand at the Royster facility at the time of the inspection on October 19, 1989, were shipped by Amerada Hess. Royster characterizes the acid as "partially consumed" (findings 8 and 22) and there is no dispute but that the acid had previously been used. If it were used by Amerada Hess as a catalyst in an alkylation process as described by Mr. Barba (finding 9), the acid had been diluted and was no longer useful for that purpose. Prima facie, the used sulfuric acid met the definition of a "spent material" in 40 CFR § 261.1(c)(1) as "any material that has been used and as a result of contamination can no longer serve the purpose for which it was produced without processing." Although Mr. Barba denied that the acid could be considered contaminated (finding 9), the dictionary definition of that term is sufficiently broad to include dilutents, such as water, hydrocarbons and acid oils, which make the acid no longer useful in an alkylation

process.<sup>20/</sup> Being within the definition of a "spent material," the acid was a solid waste as defined by 40 CFR § 261.2(c)(1)<sup>21/</sup> and having a pH of less than 2, was also a characteristic hazardous waste in accordance with 40 CFR § 261.22.

Royster's argument that the acid in the railroad tank cars at its facility on October 19, 1989, was not a solid waste within the meaning of VHWMR §§ 3.1.A 8.a. and b. [and corresponding 40 CFR § 261.2(e)], because the acid is used, without reclamation, as an ingredient in an industrial process to make a product and/or as an effective substitute for a commercial product (finding 24), while plausible at first blush, is rejected. This is because, while the used or spent sulfuric

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<sup>20/</sup> Among the definitions of contaminate is to render unfit for use by the introduction of unwholesome or undesirable elements. Webster's Third New International Dictionary (1986).

<sup>21/</sup> Section 261.2(c)(1) provides in pertinent part:

(c) Materials are solid wastes if they are recycled--or accumulated, stored, or treated before recycling--as specified in paragraphs (c)(1) through (4) of this section.

(1) Used in a manner constituting disposal. (i) Materials [which includes spent materials] noted with a "\*" in Column 1 of Table I are solid wastes when they are:

(A) Applied to or placed on the land in a manner that constitutes disposal; or

(B) Used to produce products that are applied to or placed on the land or are otherwise contained in products that are applied to or placed on the land (in which cases the product itself remains a solid waste).

acid at issue would prima facie be within the exclusion cited by Royster,<sup>22/</sup> the mentioned exclusion, which is applicable to recycled materials, is inapplicable to materials "used in a manner constituting disposal." See VHWMR § 3.3A.2.a. and corresponding section 261.2(e)(2).<sup>23/</sup> The definition of

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<sup>22/</sup> VHWMR § 3.1. Exclusions.

A. The following materials are not solid wastes for the purposes of this part:

\* \* \*

8. Materials recycled by being:

a. Used or reused as ingredients in an industrial process to make a product, provided the materials are not being reclaimed; or

b. Used or reused as effective substitutes for commercial products; or

\* \* \* \*

<sup>23/</sup> Section 261.2(e)(2) provides in pertinent part:

(e) Materials that are not solid waste when recycled. (1) Materials are not solid wastes when they can be shown to be recycled by being:

(i) Used or reused as ingredients in an industrial process to make a product, provided the materials are not being reclaimed; or

(ii) Used or reused as effective substitutes for commercial products; or

(iii) Returned to the original process from which they are generated, without first being reclaimed. The material must be returned as a substitute for raw material feedstock, and the process must use raw materials as principal feedstocks.

(2) The following materials are solid wastes, even if the recycling involves use, reuse, or return  
(continued...)

recycled, section 261.2(c)(7), however, includes being "used, reused or reclaimed," and the sulfuric acid in question, while a recycled material, was used or intended to be used, in a manner constituting disposal within the meaning of section 261.2(e)(2) and was thus a solid waste.

Royster's other argument, i.e., that because the acid is neutralized in the process of producing fertilizer, it is no longer hazardous, is rejected, because what is obviously at issue here is the storage and handling of the acid prior to its use as an ingredient to produce fertilizer.

The status of this or similar "used" or "spent" sulfuric acid when shipped to a manufacturer of virgin sulfuric acid is easily clarified, because spent sulfuric acid is expressly excluded from the definition of solid waste when used to produce virgin sulfuric acid (40 CFR § 261.4(a)(7)).<sup>24/</sup>

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<sup>23/</sup>(...continued)  
to the original process (described in paragraphs (e)(1) (i) through (iii) of this section):

(i) Materials used in a manner constituting disposal, or used to produce products that are applied to the land; or

\* \* \* \*

<sup>24/</sup> The regulation, 40 CFR § 261.4(a)(7), provides:

(a) Materials which are not solid wastes. The following materials are not solid wastes for the purposes of this part:

\* \* \*

(continued...)

C. Penalty

Royster violated 40 CFR § 268.50 by storing K061 emission control dust, which has been prohibited from land disposal by section 268.33(a) since August 8, 1988, in its building which is not a tank or a container.<sup>25/</sup> Complainant considered that this was a major deviation from the requirements, having a moderate potential for harm and determined the penalty for the first day of violation by selecting the mid-point of the major/moderate cell in the May 1984 RCRA Civil Penalty Policy of \$9,500.<sup>26/</sup> This figure was adjusted upwards by ten percent, because of Royster's alleged history of noncompliance. Although the prior noncompliance did not involve storage of K061 (finding 41), Royster was delinquent in complying with several aspects of the RCRA regulations, chiefly financial assurance for closure and

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<sup>24/</sup> (...continued)

(7) Spent sulfuric acid used to produce virgin sulfuric acid, unless it is accumulated speculatively as defined in § 261.1(c) of this chapter.

<sup>25/</sup> Section 260.10 defines a "container" as meaning any portable device in which a material is stored, transported, treated, disposed of, or otherwise handled.

<sup>26/</sup> Findings 40 and 41. Matrices for one-time violations in the 1984 and the October 1990 RCRA Civil Penalty Policies are identical.

accidental occurrences,<sup>27/</sup> and the 10 percent upward adjustment is considered to be proper.

The balance of the proposed penalty for Count I was computed by multiplying 691, the number of additional days the violation is alleged to have continued, by \$500, and adding \$4,067, the alleged economic benefit from noncompliance. The purpose of the prohibition in section 268.33(a) is to prevent the land disposal of hazardous wastes, such as K061 emission control dust, and it is concluded that, for the purpose of penalty computation, the deviation from the requirements may appropriately be regarded as major. The determination that there was a moderate potential for harm is, however, rejected, because the quantities of K061 transported or emitted from the Royster facility or likely to be transported or emitted therefrom were very small, risks of exposure or potential exposure to K061 were limited and the risks to human health and the environment insignificant. In concluding that the multi-day penalty should not exceed \$500, Complainant has essentially conceded that the major/minor cell of the multi-day penalty matrix is appropriate. This conclusion is applicable to the first as well as the succeeding days of violation. The penalty for Count I is, accordingly, calculated:

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<sup>27/</sup> Inspection Reports, C's Exhs 11a-11d.

1st day of violation [mid-point of major/minor cell] - \$2250 + 10% =	\$ 2,475
691 X \$200 =	138,200
Economic benefit	<u>4,071</u>
	\$144,746

For Count II, Complainant's calculation of \$19,250 (finding 42) is accepted as reasonable. The total penalty is thus \$163,996.

O R D E R

Having determined that Royster Company violated the Act and regulation as charged in the complaint, a penalty of \$163,996 is assessed against it in accordance with section 3008(a) of the Act (42 U.S.C. § 6928(a)). The penalty shall be paid by sending a cashier's or certified check in the amount of \$163,996 payable



to the Treasurer of the United States to the following address within 60 days of the date of this order:<sup>28/</sup>

Regional Hearing Clerk  
U.S. EPA, Region III  
P.O. Box 360515M  
Pittsburgh, PA 15251

Dated this 17<sup>th</sup> day of December 1993.

  
Spencer T. Nissen  
Administrative Law Judge

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<sup>28/</sup> Unless appealed to the Environmental Appeals Board (EAB) in accordance with Rule 22.30 (40 CFR Part 22) or unless the EAB elects sua sponte to review the same as therein provided, this decision will become the final decision of the EAB in accordance with Rule 22.27(c).