UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY

BEFORE THE ADMINISTRATOR

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| IN THE MATTER OF | ) | |
| | ) | |
| Koppers Company, Inc., | ) | Docket No. RCRA-III-167 |
| | ) | |
| Respondent | ) | |

HEADNOTES

Resource Conservation and Recovery Act - Interpretation of Regulations - Tanks - Watertight Design - Although the question of whether a device leaks cannot be determinative of whether it meets the definition of a tank in 40 C.F.R. § 260.10, a requirement for watertight design is a reasonable interpretation of the regulation and aeration basins, which were not designed to be watertight in accordance with accepted standards for construction of concrete tanks, did not comply with the regulatory definition of tanks.

Resource Conservation and Recovery Act - Interpretation of Regulations - Tanks vs. Surface Impoundments - Aeration basins, the inner surfaces of which were constructed of six-inch reinforced concrete, but which required earthen backfill for structural support, were surface impoundments as defined in 40 C.F.R. § 260.10 rather than tanks and thus were not exempt from RCRA regulation as part of a wastewater treatment unit (40 C.F.R. § 265.1(c)(10)). Complainant held to have sustained its burden of demonstrating that the "Weddle memorandum," which essentially requires that a device be self-supporting when filled to design capacity in order to be a tank as defined in § 260.10, was a reasonable interpretation of the regulation.

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| Appearance for Complainant: | Diane Ajl, Esq.<br>Lawrence Falkin, Esquire<br>Office of Regional Counsel<br>U.S. EPA, Region III<br>Philadelphia, Pennsylvania |
| Appearance for Respondent: | Dean A. Calland, Esq.<br>James A. Bollenbacher, Esquire<br>Babst, Calland, Clements<br>& Zomnir, P.C.<br>Pittsburgh, Pennsylvania |

## INITIAL DECISION

This is a proceeding under § 3008 of the Solid Waste Disposal Act, as amended (42 U.S.C. § 6928), otherwise referred to as the Resource Conservation and Recovery Act (RCRA). The proceeding was commenced on July 2, 1987, by the issuance of a complaint and compliance order by the Director, Hazardous Waste Management Division, U.S. Environmental Protection Agency (EPA), Region III, charging Respondent, Koppers Company, Inc. (Koppers), with violations of the Act and applicable regulations issued under the West Virginia Code, §§ 20-5E-1-12.1/ The complaint alleged that Koppers operates a facility for the production of coal tar products and industrial chemicals located on Route 2, Follansbee, Brooke County, West Virginia. Koppers' operation includes Aeration Basins A and B, which the complaint refers to as "surface impoundments" and which are alleged to contain wastewater treatment sludges generated in the production of creosote (Hazardous Waste No. K035). Koppers submitted a timely Notification of Hazardous Waste Activity and a Part A Permit Application and qualified for interim status as defined in § 3005(e) of the Act.

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1/ West Virginia was granted final authorization to operate its hazardous waste program in lieu of the federal program effective May 29, 1986 (51 Fed. Reg. 17739, May 15, 1986). This authorization does not include provisions of the Hazardous and Solid Waste Act Amendments of 1984 (HSWA) (Public Law 98-616), exclusive enforcement authority of which remains with EPA.

The complaint further alleged that at the time of an EPA inspection of the facility on January 25, 1986, none of the four monitoring wells in the vicinity of the aeration basins were hydraulically upgradient of the basins as required by 40 C.F.R. § 265.91(a)(1).2/ Additionally, Koppers' groundwater monitoring system was allegedly not capable of determining the facilities' impact on the uppermost aquifer as required by § 265.90. It was further alleged that Koppers had failed to develop a sampling and analysis plan as required by § 265.92(a) and to prepare an outline of a groundwater quality assessment program in accordance with § 265.93. Koppers was ordered to correct these violations and a penalty totaling $38,500 was proposed to be assessed against it.

Koppers answered, denying that any hazardous waste was generated, treated or stored in Aeration Basins A and B.3/ Koppers also denied that either of the mentioned basins was a surface impoundment.

The parties have stipulated that the sole issue for determination is the classification of Aeration Basins A & B as tanks or surface impoundments as defined in 40 C.F.R. § 260.10. If the basins are tanks, the facility is exempt from RCRA regulation

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2/ West Virginia regulations (DNR § 11.03.04) incorporate 40 C.F.R. Part 265 by reference.

3/ Koppers has stipulated that it will not pursue this defense (Tr. 12, 13).

in accordance with § 265.1(c)(10).4/ On the hand, if the basins are surface impoundments, Koppers must be in compliance with all applicable groundwater monitoring requirements or cease using the basins for the treatment, storage or disposition of hazardous waste not later than four years after the enactment of HSWA, November 7, 1984 (RCRA § 3005(j)).

A hearing on this matter was held in Pittsburgh, Pennsylvania on September 7, 1988.

Based upon the entire record, including the stipulation read into the record at the hearing and the parties' briefs, I make the following:

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4/ 40 C.F.R. § 265.1(c) states that "(t)he requirements of this part do not apply to: * *(10) (t)he owner or operator of an elementary neutralization unit or a wastewater treatment unit as defined in § 260.10 of this chapter." Section 260.10 defines a "wastewater treatment unit" as a device which:

> (1) (i)s part of a wastewater treatment facility which is subject to regulation under either section 402 or 307(b) of the Clean Water Act; and
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> (2) (r)eceives and treats or stores an influent wastewater which is a hazardous waste as defined in § 261.3 of this chapter, or generates and accumulates a wastewater treatment sludge which is a hazardous waste as defined in this chapter; and
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> (3) (m)eets the definition of a tank in § 260.10 of this chapter.

## FINDINGS OF FACT

1. Koppers Company, Inc., is a Delaware Corporation, doing business in the State of West Virginia.

2. Koppers operates a business on State Route 2 in Follansbee, Brooke County, West Virginia (the Follansbee facility").

3. The Follansbee facility owned and operated by Koppers is a coal tar plant in which Koppers manufactures and produces creosote, other coal tar products and industrial chemicals. Wastewater in production of creosote is part of the influent to Koppers' wastewater system. Koppers' wastewater treatment process consists of an API separator, oil extraction, pH adjustments, equalization, activated carbon addition, aeration and clarification.

4. The parties have stipulated that the interim status groundwater monitoring requirements of 40 C.F.R. Part 265, Subpart F, apply to surface impoundments, landfills, or land treatment facilities and that Koppers has failed to comply with these requirements.

5. Ms. Mary Beck, an engineer for EPA who visited the Koppers' Follansbee site in November 1985, described Aeration Basins A & B (Tr. 35, 37, 38, 40, 41; plan drawing, Exh. 21A).

Although having different dimensions, the design capacity of each basin is 500,000 gallons. The basins are in ground units having a depth of approximately 15 feet and a liquid level at design capacity of 14 feet. The basins are approximately six feet apart, are constructed of six-inch thick reinforced concrete, described as a liner by Ms. Beck, and have sloping sides, 8 1/4 feet of rise to 12 feet of run (horizontal distance) or a slope of approximately 1.4 to 1 (Detail Drawing 19-K, Exh 23A). Concrete in the basins overlies a two-inch layer of bank sand, which in turn overlies a three-inch layer of compacted crushed slag. The mentioned drawing provides for a liner consisting of Dupont Special Membrane to cover the concrete slab.

6. Ms. Beck performed calculations intended to demonstrate the amount of soil required to prevent the walls of the basins from failing and the soil required to keep stresses in the steel and concrete within allowable limits (Exh 31). These calculations were a continuation of calculations by an EPA contractor, Baker Engineers, which showed that the basins would totally fail, if the earth embankment were removed. Ms. Beck determined that when the basins were empty, the walls would collapse, if five feet (vertical depth) of soil were removed (Tr. 67). Filled to design capacity, failure would occur when approximately four feet of soil was removed.

Allowable stresses are a percentage of failure stresses and are utilized in order to incorporate safety margins into construction design. Allowable stresses would be exceeded at three feet above external support with the basins empty and at approximately 2.8 feet with the basins filled (Tr. 68, 69). Additionally, Ms. Beck determined that using failure stresses, the concrete could carry approximately six percent of the load while using allowable stresses, the concrete could carry less than one percent of the load.

7. Making calculations based on a one-foot cross section, Ms. Beck determined that soil formed about 93 percent by volume of the basins (Tr. 70-71). By weight, soil forms approximately 91 percent of the basins. According to Ms. Beck, in order for units constructed in the same manner as Basins A & B to be considered tanks, the walls would need to be about 33 inches thick and have both tension and compression steel. Tension steel would need to be No. 11 bars at four-inch spacing (Tr. 72). She described No. 11 bars as being approximately one and three-eighths inches in diameter. Compression steel for what she referred to as the "backside of the wall" would have to be No. 7 bar at four-inch spacing. No. 7 bar is approximately seven-eighths of an inch in diameter. By reference to a chart of standard reinforcing steel

published by the Concrete Reinforcing Institute (CRSI) (Exh 32), Ms. Beck identified reinforcing actually used in the basins as a No. 4 welded wire fabric.5/

8. Ms. Beck parsed the definition of a surface impoundment in 40 C.F.R. § 260.10.6/ She testified that the basins were man-made excavations of in-place materials and thus met the first clause of the definition as 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)" (Tr. 56-58). She defined "primarily" as meaning more than 50 percent and explained that the comparison of whether the basins were formed primarily of earthen materials could be based on the volume of earthen and non-earthen materials

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5/ A sample of No. 4 welded wire mesh was produced in the hearing room. Mr. J. Eric Mann, a supervisory engineer employed by Baker Engineers, testified that No. 4 wire mesh usually is delivered in a roll (Tr. 181).

6/ A "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 (40 C.F.R. § 260.10). Koppers stipulated that the basins were a facility as contemplated by the quoted definition (Tr. 56).

(Tr. 59). Another possible comparison would be to compare the amount of support provided by earthen and non-earthen materials. She rejected, however, the thought that surface area would be an appropriate comparison, because the surface area would not be representative of properties or materials used in the construction. She explained that a liner was essentially a flat material having no depth.7/ Her conclusion was that Basins A & B are surface impoundments, because the basins are formed of earthen materials and have a concrete or man-made liner (Tr. 60, 61). She opined that the aeration basins were ponds or lagoons and thus within the examples of surface impoundments set forth in § 260.10, i.e., "holding, storage, settling, and aeration pits, ponds, and lagoons."

9. Ms. Beck also parsed the definition of a tank as set forth in § 260.10.8/ She testified indisputably that Aeration

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7/ The regulation (§ 260.10) distinguishes between "inner liners," which are always man-made and designed to protect a tank or container from the wastes therein, and a"liner," which may be earthen and which is designed to restrict the downward or lateral movement of hazardous waste or the constituents thereof.

8/ A "tank" is defined as 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) which provide structural support (40 C.F.R. § 260. 10).

Basins A & B were stationary devices and asserted that the phrase "designed to contain an accumulation of hazardous waste" means that in order to be a tank a device must be designed to be leak-proof (Tr. 62). Referring to the next clause of the definition," i.e., which is constructed primarily of non-earthen materials (e.g., wood, concrete, steel, plastic)," she stated this meant the unit must be formed of non-earthen materials. She again defined "primarily" as meaning greater than 50 percent (Tr. 63). Asked how she determined the boundaries of the basins for the purpose of determining whether the requirement of being constructed primarily of non-earthen materials was met, Ms. Beck replied that she estimated the amount of soil necessary to maintain the impoundments and their contents. She illustrated this estimation by drawing a foundation line immediately below the concrete bottom of both units (Exh 23A). Amplifying on this testimony, she stated that design of an earthen structure included not only an estimate of stresses within the supporting earth mass, but a determination of stability of the material (Tr. 106). From boring logs of the site, she determined that the material was granular and that 45° was the maximum slope at which the soil would be stable. She testified that if soil is a design component of the system, it should be considered part of the unit and opined that the

basins were primarily constructed of soil (Tr. 64). Referring to the phrase of the definition of a tank "which provides structural support," she defined "structural support" as the ability to support itself and to support something else. Elaborating on this assertion, she defined "structural support" as the ability [of a structure] to maintain itself when loaded" (Tr. 65). She testified that the concrete in the Koppers' basins did not comply with this requirement, because, if the soil were removed, the concrete could not support itself. In Ms. Beck's opinion, the basins exactly fit the definition of, and are, surface impoundments (Tr. 66). EPA's proposed regulations distinguished between "basins" and "surface impoundments" upon the basis the former were constructed of artificial (man-made) materials, while structural support for the latter was provided by earthen materials (Background Document, Interim Status and General Standards for Tanks, 40 C.F.R. 264 and 265, Subpart J) (Exh 9 at 22).

10. It will be noted that the definition of a "surface impoundment" (note 6, supra) uses the phrase "designed to hold an accumulation of liquid waste or wastes containing free liquids," while the definition of a "tank" (note 8, supra) includes the phrase "designed to contain an accumulation of hazardous waste." Although the dictionary may not support a distinction between

"hold" and "contain," the Guideline Document For The Classification Of A Treatment/Storage Facility As A Tank, prepared by an EPA contractor, hereinafter PEDCO Guideline Document (Exh 11), which outlines steps required in the design of an [apparently concrete] tank provides for watertight integrity by use of quality construction materials and bar reinforcement (if applicable) closely spaced (Id. at 2-2). The Guideline Document also provides for sufficient waterstops in all construction joints. This supports Ms. Beck's opinion (finding 9) that a structure or device must be designed to be watertight or leak-proof, in order to be a tank under the regulatory definition.

11. Mr. Mann, identified note 5, supra, examined drawings of the Koppers' facility in evidence and determined that the concrete in the basins was a lining or pavement rather than a structural member (Tr. 141). He concluded that the basins were surface impoundments, because they were mainly constructed of embankment soils (Tr. 145; 151). He stated that no analysis was necessary in order to reach this conclusion. He indicated that a concrete tank would be from eight inches to two feet thick and be reinforced with No. 6 or 7 bars as illustrated on the CRSI chart, Exhibit 32 (Tr. 147). In contrast, he would expect a concrete

liner in a surface impoundment to be from four- to six-inches in thickness, reinforced with either welded wire fabric or small reinforcement bars such as No. 3 or 4.9/ Describing the construction process for an in-ground concrete tank, Mr. Mann stated that earth would be excavated several feet larger than the intended dimensions of the tank, that a reinforced concrete slab would be poured for the bottom of the tank, that reinforcing steel would then be placed for the walls of the tank and that forms, either wood or steel, would be utilized to hold the concrete and form the sides (Tr. 152). He indicated that the walls would normally be vertical (Tr. 159). After the concrete had sufficiently cured, the forms would be removed and earth backfilled around the walls. By way of contrast, he testified that concrete in the Koppers' basins was poured on grade, on the sand layer and that it did not appear forms were used (Tr. 153).

12. Mr. Mann testified that if the earthen material supporting the walls of the Koppers' basins were removed, the walls would collapse (Tr. 154). He repeated his opinion that the

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9/ Tr. 148. 40 C.F.R. 260.10 defines a liner as follows: "Liner" means a continuous layer of natural or man-made materials, beneath or on the sides of a surface impoundment, landfill, or landfill cell, which restricts the downward or lateral escape of hazardous waste, hazardous waste constituents, leachate.

basins met the [regulatory] definition of a surface impoundment. Referring to techniques for making concrete structures leak-proof, he listed reasonably impermeable concrete mix, reinforcement at the joints, use of water stops or caulking of some sort and providing some kind of a plastic or rubber liner (Tr. 155). He indicated that the amount of reinforcement controls, but does not totally prevent cracking. He testified that the detail on the Koppers' drawings did not show any waterstops or caulking and that reinforcement utilized did not comply with ACI Code 350R, which is the governing code for sanitary structures intended to be essentially watertight (Tr. 156). Under cross-examination, he agreed with Ms. Beck that in order to be a tank as defined in the regulation, the device or structure must support itself (Tr. 163-64, 173-74, 180-81). He appeared to base this opinion in part on the conclusion that the definition requires primary support to be provided by non-earthen materials.

13. Dr. John E. Ball, President of Ball Engineering, Inc., an engineering service company, and a professor of civil engineering at the University of Alabama, an expert witness for

Respondent,10/ expressed the opinion that Koppers' basins meet the definition of a tank in § 260.10 (Tr. 195). In reaching that conclusion, he has visited the Follansbee facility and, inter alia, reviewed construction details of the basins and the definitions in 40 C.F.R. § 260.10. He testified that the basins were designed to be aeration basins for the treatment of process water (Tr. 198). He disputed the notion that there was a distinction between "hold" as used in the definition of a surface impoundment and "contain" as used in the definition of a tank and testified that he could find no requirement that a tank be leakproof (Tr. 198-200). He asserted that the definitions in § 260.10 should be read together and pointed out that the word "contain" was not used in the definition of a "container,"11/ even though one would expect the same containment from a container as from a tank. He agreed with Ms. Beck and Mr. Mann that "primarily constructed of non-earthen

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10/ Dr. Ball's experience and qualifications include extensive work as a design, construction and consulting engineer. He is the author of numerous publications, several of which deal with surface impoundments. Complainant stipulated that Dr. Ball qualified as an expert (Tr. 190).

11/ Section 260.10 defines container as follows:

> "Container" means any portable device in which a material is stored, transported, treated, disposed of, or otherwise handled.

materials" means that over 50 percent of the unit must be of non-earthen material (Tr. 204). He was of the opinion that 100% of the basins were constructed of reinforced concrete, because the surface area in contact with the waste is reinforced concrete (Tr. 206-09). Regarding the structural support component of the definition of a tank, Dr. Ball opined that the question was whether [the concrete slabs of the Koppers' basins] provided some structural support to themselves (Tr. 210). He answered this question in the affirmative, saying that the slabs were rigid reinforced concrete and were going to maintain their structural strength. Pointing out that there was nothing in the definition of a tank stating what type of tests or criteria were required in order to provide structural strength, he opined the only requirement was that the non-earthen portion have some structural support (Tr. 225). Referring to what he described as the "alternative definition of liners," he said his experience was liners have essentially no structural support compared to the sides of a tank. Supplementing this testimony, he described tests on liners as bursting, puncturing, ripping, tearing-type tests as contrasted with compressive and tensile strength tests (Tr. 232-33).

14. In pre-trial proceedings, Complainant filed a motion for an accelerated decision contending that Koppers' basins did not comply with the definition of a tank in § 260.10 and, must, as a matter of law, be regarded as surface impoundments. Koppers filed a cross-motion, arguing, with equal vigor, that the basins met all of the requirements of the regulatory definition of a tank. Although it was held Koppers prima facie had the better of this argument, its motion for an accelerated decision was denied, because earthen backfill required to support the walls of the basins when filled to design capacity seemingly must be regarded as part of the basin and thus considered in determining whether the basins are constructed primarily of non-earthen materials (Opinion and Order, dated June 30, 1988, at 30). It was pointed out that Koppers had submitted no data or calculations showing that the volume or area of the earthen backfill required to support the walls of the basins is less than that of the reinforced concrete comprising the walls and floors. Asked to state his opinion as an engineer of the validity of these statements, Dr. Ball replied that, to him, the regulatory definition was clear (Tr. 212). He made an analogy to a pad, which was constructed of paper, notwithstanding the fact it happens to sit on wooden podium. He pointed out that everything has a foundation, but that did not change or add to

the material from which an item was constructed, the podium for example. Referring to the calculations contemplated by the ALJ's opinion, Dr. Ball stated this raised a question as to how much earth to include. He said [theoretically] you could include [material] to the center of the earth and noted that, historically, a wooden, steel or concrete bridge was referred to as being constructed of wood, steel or concrete, notwithstanding the bridge rested on, or required, soil for support (Tr. 213). Alluding to the line drawn by Ms. Beck beneath the concrete slabs forming the sides and bottoms of the basins (Exhibit 23A), he stated that this was convenient, but pointed out forces or stresses generated by the slabs would extend beyond the line and therefore, nothing that relied upon soil for some support would fit the definition [of a tank] (Tr. 214). He contended there was nothing in the regulatory definition that would support such a result (Tr. 216-17). He testified that most tanks complying with the parenthetical in the regulatory definition "* * which is constructed primarily of non-earthen materials (e.g., wood, concrete, steel, plastic)" were constructed of reinforced concrete. He characterized this construction as good, economical construction, which makes sense (Tr. 220).

15. The PEDCO Guideline Document (Exh 11), quotes the definition of a surface impoundment in § 260.10 and states some general characteristics of a surface impoundment are that it is: "[1] [p]rimarily composed of earthen materials, [2] [s]haped to the contour of the land and [3] [i]ts liner is not a rigid structure" (Id. at 3-3). Dr. Ball reiterated his opinion the Koppers' basins were constructed of non-earthen materials (Tr. 227). He denied that the basins were shaped to the contour of the land, saying that Koppers did not locate natural depressions and decide to make aeration basins out of the depressions (Tr. 228-29). He pointed out the basins have sloped sides to a specific dimension, retaining walls and a constant elevation at the bottom. He described the concrete slabs as rigid and as definitely constituting a structure (Tr. 231). Asked on cross-examination whether there was such a thing as surface impoundment lined with concrete [within the regulatory definitions], Dr. Ball replied that he had wrestled with that point and did not know whether there was or not (Tr. 253).

16. The PEDCO Guideline Document quotes the definition of a tank and lists some general characteristics of tanks:

"[1] [p]rimarily made of man-made materials[,]

[2] [i]ts capacity is generally "small" relative to surface impoundments[,]

[3] [h]as its own shape and does not depend on surroundings for structural support[,]12/

[4] [h]as a continuous rigid structure[,]

[5] [i]s nonpermeable [and]

[6] [s]hould be "inspectable[.]"13/

17. In addition to stipulations referred to previously, the parties have stipulated that, in the event the EPA complaint is sustained, i.e., the basins are determined to be surface impoundments, the penalty will be $30,000 in lieu of $38,500 and that Respondent may choose to comply with the compliance order or it may choose to close Aeration Basins A and B. In

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12/ On April 8, 1983, Bruce R. Weddle, Acting Director, State Programs and Resource Recovery Division issued a memorandum to Thomas W. Devine, Director Air and Waste Management Division, Region IV, subject Determination of Tanks vs. Surface Impoundments (Exh 10), which provided 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 evaluated 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.

13/ It is clear there is nothing in the definition of a tank in § 260.10 which requires that in order to be a tank, a device must be inspectable.

the event Koppers elects to close the aeration basins, it has agreed to submit to the West Virginia DNR within ten days of receipt of the initial decision, a closure plan complying with 40 C.F.R. Part 265, Subpart G.

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

1. Aeration Basins A and B at Koppers' Follansbee facility are surface impoundments as defined in 40 C.F.R. § 260.10.

2. The parties having stipulated that the basins store or treat wastewater treatment sludges generated in the production of creosote (Hazardous Waste No. K035), the basins are subject to RCRA regulation.

3. West Virginia regulations incorporate 40 C.F.R. Part 265 by reference (DNR § 11.03.04) and Koppers, having failed to comply with Subpart F of Part 265, is liable for a civil penalty in accordance with § 3008 of the Act. Koppers is required to comply with Subpart F of Part 265 or to close the facility in accordance with Subpart G.

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

In the opinion and order denying motions for accelerated decisions (finding 14), Complainant's contention that a device must be self-supporting in order to comply with the definition of a tank in § 260.10 was rejected, because a self-supporting requirement is not expressly in the regulatory definition "nor is it included by necessary implication" (Id. at 27). Upon further reflection and consideration of the record herein, it is concluded that the mentioned determination will not withstand analysis. Leaving aside for the moment the matter of whether a tank must be designed to be leak-free, there can be no question that a tank must be designed to hold or contain materials, usually liquids. A device that is unable to support itself or maintain its structural integrity can hardly be said to comply with this requirement. Moreover, although the mentioned opinion correctly pointed out that "primary" in the regulatory definition of a tank preceded and modified "non-earthen materials" rather than structural support, it is reasonable to determine compliance with the requirement that the device be "constructed primarily of non-earthen materials" by reference to materials providing structural support, because, as indicated in the PEDCO Guideline Document (finding 16), the essence of a tank is that it is a continuous, rigid structure having its own shape.

The conclusion that whether a device is a tank may properly be measured by the earthen or non-earthen materials providing structural support is supported indirectly by the definition of a surface impoundment which, though silent on materials supporting the structure, provides that an impoundment must be formed primarily of earthen materials. By necessary implication, structural support for a surface impoundment is provided by earthen materials and structural support for a tank is provided by non-earthen materials. The mentioned conclusion is also supported by Ms. Beck's view that a possible comparison in determining whether Koppers' basins were formed primarily of earthen materials would be to compare support provided by earthen and non-earthen materials (finding 8). Both Ms. Beck and Mr. Mann testified that in order to be a tank as defined in § 260.10, the device or structure must be capable of supporting itself (findings 9 and 12). Although Dr. Ball's credentials and experience are impressive and disagreement with his opinions is not action lightly to be taken, his view that the materials of which a device is constructed may be determined by materials in contact with the wastes (finding 13) more readily describes a liner (note 9, supra) and places insufficient emphasis on the requirement for structural support. Accordingly, it may

reasonably be concluded that the ability to support itself is an inherent property of a tank as contemplated by the regulation.14/

As indicated previously (finding 14), Koppers' cross-motion for an accelerated decision was denied, because earthen backfill required to support the walls of the basins when filled to design capacity must be regarded as part of the basins and thus considered in determining whether the basins are constructed primarily of non-earthen materials. Koppers argues that this position confuses the question of materials which provide support for the structures with the question of the materials of which the basins are constructed and is fundamentally flawed (Posthearing memorandum at 6-8). Koppers asserts that EPA [prior to the ALJ's opinion on the motions] had never argued this position and points to Dr. Ball's testimony to the effect that including supporting soil as part of a structure is not in accordance with general engineering practice in that there is not a readily acceptable method of determining how much earth to include (finding 14). Be that as

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14/ This conclusion is in accord with the "Weddle" memorandum (note 12, supra). In the opinion of June 30, 1988, it was concluded that, because EPA regarded the memorandum as controlling, it was a "legislative" rather than an "interpretative rule and invalid as not having been subjected to notice and comment as required by the Administrative Procedure Act. While in no sense binding, the "Weddle" memorandum may, nevertheless, be a reasonable interpretation of the regulation.

it may, it is evident that including any amount of soil supporting the slabs at the bottom of the basins in the determination as to whether the basins are constructed primarily of non-earthen materials would make the result more clearly unfavorable to Koppers.15/ Moreover, Koppers has acknowledged that requiring earthen backfill necessary to support the basins to be included as part of the structures necessarily defines a tank as self-supporting (Posthearing memorandum at 7). For reasons previously stated, the self-supporting requirement is a reasonable interpretation of the regulation.

The opinion of June 30, 1988, correctly pointed out that the question of whether a device leaks cannot be determinative of whether it is a tank (Id. at 27, note 27). It should be noted that among the dictionary definitions of "contain" is "to hold."16/ Accordingly, any contention a tank must be "leak-free" or "leak-proof" based on the requirement that it must be "designed to contain an accumulation of hazardous wastes," while a surface impoundment need only be "designed to hold an accumulation of

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15/ Mr. Mann's testimony that the walls of a concrete tank are normally vertical (finding 11) lends support to the conclusion a tank is self-supporting.

16/ Webster's Third New International Dictionary (1967).

hazardous wastes," cannot be supported. Nevertheless, Ms. Beck and Mr. Mann testified that a device or structure must be designed to be leak-proof in order to be a tank (findings 9 and 12). Ms. Beck appeared to rely on the "designed to contain" language of the definition, while Mr. Mann referred to ACI (American Concrete Institute) Code 350R, which he said was the governing standard for concrete structures intended to be essentially watertight.17/ It is clear that the Koppers' basins do not have "waterstops" or sufficient reinforcing to comply with the ACI code for watertight structures (finding 12). Although the ACI code is not controlling for reasons stated (note 17, supra), it is nevertheless, evidence of usual or customary standards for watertight [or nearly so] concrete construction. Additionally, the PEDCO Guideline Document (finding 10) supports the conclusion that watertight construction is a requirement for a concrete tank.

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17/ In its motion for an accelerated decision, Complainant relied on 40 C.F.R. § 264.191 (1986) to support its argument ACI or similar design standards were applicable. The cited section provides in pertinent part: "In reviewing the design of the tank, the Regional Administrator shall rely upon appropriate design standards and other available information." Koppers argued that the quoted provision was not applicable, because the Federal Register notice by which it was published (46 Fed. Reg. 2831, January 12, 1981) provided "[t]he interim status standards for tanks will be finalized later." Moreover, § 264.3 provides that a facility owner or operator who has fully complied with the requirements for interim status must comply with Part 265 in lieu of the regulations in this Part until final administrative disposition of the permit application is made.

Although Dr. Ball's point that the definitions in § 260.10 must be read together and that one would expect the same containment from a container (the definition of which doesn't use the word "contain") as from a tank (finding 13) is well-taken, it is concluded that, irrespective of whether a device is actually watertight, "designed to be watertight" may reasonably be regarded as a requirement of a concrete tank as defined in § 260.10.

Turning to the question of whether the Koppers' basins comply with the definition of a surface impoundment, it is undisputed that the basins are man-made excavations. Accordingly, Dr. Ball's testimony that Koppers did not locate natural depressions and decide to make aeration basins of the depressions (finding 15) confirms, rather than contradicts, the conclusion the basins are man-made excavations. The previous discussion as to whether the basins comply with the definition of a tank reflects that, whether measured by volume, weight or materials providing structual support, the earthen materials far exceed the non-earthen. It is therefore concluded that the basins are formed primarily of earthen materials and that the concrete is merely a liner, which, of course, may be man-made. It is arguable whether the basins are" shaped to the contour of the land," a requirement for a surface impoundment stated by the PEDCO Guideline Document (finding 15). Moreover, it is undeniable that the concrete has some rigidity and, thus, at first blush, appears not to comply with

with the third requirement for a surface impoundment stated by the Guideline Document, i.e., that the liner "is not a rigid structure." Because, however, the concrete in the basins requires earth for support and is not a structural member (finding 11), it is concluded that the concrete is not a "rigid structure" within the meaning of the Guideline Document and is in compliance with the mentioned requirement. The basins are aeration ponds or lagoons as listed in the examples of surface impoundments in § 260.10. For the above reasons, it is concluded Aeration Basins A & B are surface impoundments as defined in the cited regulation.

It is well-settled that an agency's interpretation of a statute it administers is entitled to deference.18/ This principle is even more readily applied to an agency's interpretation of its own regulations.19/ Accordingly, if the definitions of surface impoundment and tank in § 260.10 be regarded as reasonably susceptible to differing interpretations, the Agency's interpretation should prevail. On this record, the Agency has sustained the "Weddle" memorandum (notes 12 and 14, supra) as a reasonable interpretation of the regulation.

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18/ Chevron USA v. NRDC, 467 U.S. 837 (1984).

19/ See, e.g., Ashland Exploration v. FERC, 631 F.2d 1018 (D.C. Cir. 1980), cert. denied 101 S.Ct. 1358.

## O R D E R [20/]

Having determined that Koppers has violated the Act and regulations as charged in the complaint, a penalty of $30,000 is assessed against it in accordance with § 3008 of the Act (42 U.S.C. § 6928). Payment of the penalty shall be made by sending a certified or cashier's check in the amount of $30,000 payable to the Treasurer of the United States to the following address within 60 days of the receipt of this order:

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

The compliance order which essentially requires compliance with the requirements of 40 C.F.R. §§ 265.90-93 is affirmed. Alternatively, and in accordance with the stipulation of the parties, Koppers may elect to close the facility in accordance with 40 C.F.R. Part 265, Subpart G. If Koppers elects the latter alternative, it shall submit a closure plan complying with Subpart G of Part 265 to the West Virginia DNR within ten days of the receipt of this order.

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20/ Unless appealed in accordance with Rule 22.30 (40 C.F.R. Part 22) or unless the Administrator elects sua sponte to review the same as therein provided, this decision will become the final order of the Administrator in accordance with Rule 22.27(c).

Dated this 14th day of October 1988.

Spencer T. Nissen
Administrative Law Judge