MEMORANDUM

SUBJECT: Guidance on RCRA Subpart J Secondary Containment Requirements at Automobile Spray Painting Operations

FROM: Robert Springer, Director
Office of Solid Waste

TO: RCRA Senior Policy Advisors, Regions I-X

This memorandum addresses the Resource Conservation and Recovery Act (RCRA) Subpart J regulations (§265.193) requiring secondary containment requirements for tanks, as they apply to automobile manufacturers who generate hazardous waste in their spray painting operations. In particular, the memorandum provides guidance on where variances of secondary containment requirements, pursuant to §265.193(g), would likely be warranted.

As you know, EPA has determined, with regard to spray painting operations at automobile assembly plants, that solid waste is generated at the point where a paint-solvent mixture exits the spray gun. Thus, piping from the point of generation to a downstream storage tank should be considered ancillary equipment; this piping and any intermediate vessels or tanks are subject to secondary containment requirements of §265.193.[1] In light of this situation, the automobile industry has asked EPA to confirm that a manufacturing building may serve as secondary containment, assuming the conditions of §265.193 are met, and, in the event that these conditions are not met, to provide guidance on when a variance from secondary containment may be appropriate, pursuant to §265.193(g). In particular, the industry's concerns focus on ancillary equipment (e.g., piping used to convey purge solvents from the paint booths) and on intermediate vessels or tanks prior to the final tank in which hazardous waste is stored. The industry's question focuses particularly on equipment located within the building housing the spray paint operations.

First of all, we would like to reaffirm that indoor tanks and ancillary equipment managing hazardous waste at these facilities are subject to the secondary containment requirements of

[1]Note, in some instances a facility may not have tanks, but only containers. In that case, container standards would apply; not tank secondary containment requirements.

§265.193. As a general matter, secondary containment and other tank controls are important components in ensuring that wastes are properly managed, and that they are not released into the environment. At the same time, EPA has indicated in previous guidance that, where tanks and ancillary equipment are indoors, the building itself may be considered to provide secondary containment, if the relevant standards of §265.193(b)/(c) are met.[2] As authorized programs, states necessarily have the ultimate authority to make the determination that secondary containment requirements are met (taking into account all relevant site-specific considerations).

At the same time, there has been considerable discussion, over the years, concerning the circumstances under which a building might provide the secondary containment. This memorandum does not further elaborate on this question, but rather refers readers to existing guidance.[3] Instead, the following sections of this memorandum address the situation where indoor tanks or ancillary equipment at automobile painting operations do not appear to meet the secondary containment standards of §265.193(b)/(c). In such cases, a facility owner may wish to consider pursuing a technology-based variance from secondary containment requirements, as provided in §265.193(g).

It is important to note that the guidance in this memorandum is developed based on typical conditions associated with the management of purge solvent at automobile painting facilities, and it is therefore not designed with other situations in mind. These conditions include the fact that purge solvents in automobile manufacturing plants are managed entirely within closed systems (e.g., they are hard piped to final storage units and are not removed from the process); intermediate vessels or tanks in the process are typically small, and are not used to store purge solvent; the volume of purge solvent is typically accounted for to ensure compliance with air permit requirements; and employees are regularly present within the building and therefore any leak would be promptly observed.[4] This guidance is also specific to ancillary equipment and intermediate tanks or vessels within the building where the automobile paint booth is housed.

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[2]See Hotline faxback 14119 available in RCRA On-Line, www.epa.gov/OSW/rcra.nsf/Documents. Also, EPA stated, in the original tank rule, that "for tank systems located inside buildings, the building floor, if appropriate berms are constructed, would serve as part of the secondary containment system." (51 FR 25451, 25422, (July 14, l986)). In such cases, EPA in fact discouraged technology-based secondary containment variance applications, because "secondary containment is obviously provided." In discussions about automobile spray operations, however, several states requested that EPA particularly clarify potential variance criteria that they might apply where, in their view, the requirements of §265.193(b)/(c) were not met. EPA has done so in this memorandum.

[3]See 51 FR 25452 (July 14, 1986), 53 FR 34084 (September 2, l988); and Cotsworth memos dated November 3, l999, and April 4, l997.

[4]EPA notes that none of the damage cases cited in the original tanks rulemaking requiring secondary containment arose from circumstances that were similar to these conditons.

Section 265.193(g) establishes two grounds for a variance: (1) the alternative design and operating practices will prevent the migration of hazardous waste "into the groundwater or surface water at least as effectively as secondary containment...," and (2) in the event of a release, "no substantial present or potential hazard will be posed to human health or the environment." The preamble to the 1986 rule likewise makes clear that a variance applicant making a showing under the first prong of the variance should be able to demonstrate that its alternative design and operating practices are equally effective at preventing releases to groundwater or surface water as the combination of secondary containment and monitoring provided by the rule. See, e.g., 51 FR at 25451. The guidance in this memorandum speaks to the first, technology-based standard.[5] Section 265.193(g)(1) identifies items the regulator would consider in granting a technology-based variance. The facility should provide information on the (1) nature and quantity of waste; (2) the proposed alternative design and operation, focusing on the role of the building in preventing releases; management of material to minimize loss; maintenance procedures; procedures for promptly identifying and responding to any releases; and management controls; and (3) other factors that would influence the quantity and mobility of hazardous constituents and their potential to reach ground water or surface water. The other element under §265.193(g) (that is, (g)(iii) -- hydrological setting) is not a meaningful consideration in this case, assuming that the facility is successful in demonstrating that the hazardous waste will not leave the building.

In determining whether a variance is appropriate, EPA expects that the regulatory agency will focus its attention on the containment provided by the building, the facility's operating practices, and its management controls. Below, we have listed design and operating criteria that, if met, would likely be sufficient to support a secondary containment variance for indoor vessels, tanks, and piping used to manage purge solvent (prior to final storage) at an automobile assembly plant (depending of course on case-specific evaluation of the facts).

(1) The concrete floor beneath the intermediate tanks, vessels, and ancillary equipment is in good condition (e.g., no gaps or cracks that could lead to a release), and there are no floor drains to points of release, other than those that lead to a POTW or to a treatment unit. An impermeable coating would not typically be needed as long as the other criteria for the variance are met.

(2) All tanks and ancillary equipment subject to the variance are in the same protected indoor environment as the equipment used for spray painting operations. This is particularly important when demonstrating that an alternative design and associated management conditions will prevent the migration of any hazardous waste into the soil at least as effectively as secondary containment. This criterion would exclude outdoor and underground piping from the variance.

(3) The presence of an accredited plan and practices (e.g., an Environmental Management

[5]Of course, a facility owner may also choose to seek a risk-based variance.

System or ISO certification) to ensure that spills/leaks within the building will be minimized; that, where they occur, they will be promptly identified; and that they will be promptly remediated. These plans and practices are important in ensuring that any possible releases are promptly identified, contained, and cleaned up; they provide protection equivalent to monitoring required in secondary containment systems.

(4) Barriers to prevent releases from doors and other openings that are possible migration pathways to the outside of the building.[6] Engineering analysis of the slope of the floor, potential volume of spill, and similar factors can be used to demonstrate potential migration pathways. This would prevent the migration of hazardous waste to the outside environment should a leak occur where the ancillary equipment and intermediate tanks are located; and

(5) A permit issued under the Clean Air Act, under which the facility accounts for purge solvent emissions. This provides strong incentive for the manufacturer to minimize releases from tanks/piping.

If an automobile manufacturing facility could demonstrate that it met these criteria, we believe it would be a good candidate for a technology-based secondary containment variance. Procedures for issuing the variance are laid out in §265.193(h)(4) and (5).

In conclusion, we want to stress that the criteria (1)-(5) above are not intended to define how facilities would meet secondary containment requirements. Instead, they identify conditions that would be used to justify a variance from those requirements. The criteria also assume typical operating and management conditions within a well run automobile assembly and painting operation – e.g., purge solvents are hard-piped, employees are regularly present and would promptly identify a leak during operations, solvent is accounted for through air permits, etc.; the criteria would not necessarily apply or be relevant in other circumstances, where waste management conditions might be quite different.

Authorized states will be implementing the guidance in this memorandum, and will be responsible for issuing any variances from secondary containment. As explained earlier, states would have to take into account all relevant site-specific considerations when doing so. And, while the Agency strongly encourages states to apply this guidance when assessing potential variance applications, states obviously may adopt other approaches.

If you have any questions regarding this memorandum or RCRA Subpart J in general, please contact Mike Svizzero of the Office of Solid Waste at (703) 308-0046.

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[6]These barriers would be comparable to the berms recommended for tanks within buildings in the original tank regulations (July 14, 1986; 51 FR 25452).

cc: Tom Kennedy, ASTSWMO