Legislative Analysis

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REGULATORY EXEMPTION FOR PURGED SOLVENT SYSTEMS IN AUTO PRODUCTION: MAKE STATE LAW MIRROR FEDERAL EXEMPTION

House Bill 6636 as enrolled
Public Act 560 of 2006
Sponsor: Rep. David Palsrok
Committee: Natural Resources, Great Lakes, Land Use, and Environment

First Analysis (2-14-07)

BRIEF SUMMARY: The bill amended Part 111 (Hazardous Waste Management) of the Natural Resources and Environmental Protection Act (NREPA) to adopt in Michigan an exemption mirroring one found in current federal regulations relieving automobile and light-duty truck manufacturers from complying with federal Resource Conservation and Recovery Act (RCRA) Subpart BB regulations controlling air emissions from purged solvents systems in automotive painting operations. To qualify for the exemption, however, a manufacturer must be subject to national emissions standards for the control of air emissions from the surface coating of automobiles and light-duty trucks, which were applicable to new paint operations in 2004 and will be to existing paint operations in April, 2007. Among other things, those air emissions standards require the adoption of work practice plans designed to minimize emissions from surface coating operations, including purge solvent systems. The bill also eliminated certain federal battery regulations incorporated by reference into NREPA that are also addressed in state administrative rules. The bill's provisions will expire in two years.

FISCAL IMPACT: The bill would have no fiscal impact on the state or on local governmental units.

THE APPARENT PROBLEM:

Reducing the adverse impacts of automotive painting operations has arguably been the auto industry's biggest environmental challenge. Automobile manufacturing painting operations use large quantities of coating materials and solvents. Coating materials include primers, primer-surfacers, topcoats, sealers, sound deadeners, and glass bonding adhesives. Solvents are used in automobile factories for many purposes, including removing residual paint from paint booth applicators. In 2004, 70 million pounds of paint fumes were reportedly collected and destroyed by pollution abatement systems in auto plants around the world. In addition, many millions of pounds of paint overspray (paint that doesn't adhere to the vehicle being painted) are captured in spray booths, treated, and consolidated into sludge that in some cases ends up in landfills. Efforts to reduce the environmental and health problems associated with auto painting include improved paint formulations and processes, adoption in some places of technology that turns captured fumes into electricity, solvent recycling, and recycling paint sludge into car parts or other products.

During the painting process, automated paint sprayers often have to switch colors. Solvent is used to clean the sprayers before a new color is introduced. In the past, used solvent was sent to landfills. In recent years, solvent is usually collected and sent through a piping system to collection tanks to be transported off-site for processing and reuse, in whole or part. ("Purged coatings and solvents" within the meaning of House Bill 6636 apparently refers to the residual materials from cleaning paint applicators, containing both solvent and paint solids.)

The U.S. Environmental Protection Agency (EPA) says that the majority of the hazardous emissions from automotive painting operations are produced during the application, drying, and curing of paint and other coatings. The cleaning and purging of paint equipment—the focus of the bill—also contribute hazardous emissions but in a lesser amount. The primary hazardous air pollutants emitted by automotive surface coating operations vary by facility but may include toluene, xylene, glycol ethers, methyl ethyl ketone (MEK), methyl isobutyl ketone (MIBK), ethylbenzene, and methanol. The health effects caused by exposure to these pollutants may include cancer, respiratory irritation, damage to the nervous system, and developmental effects. Emissions from surface coating operations also may contribute to the formation of ground-level ozone, the primary constituent of smog. When inhaled, even at very low levels, ground-level ozone may cause acute respiratory problems, aggravate asthma, reduce lung capacity, inflame lung tissue, and impair a person's immune system.

For a time in the past, the EPA contended, over the objections of auto manufacturers, that emissions standards for equipment leaks contained in RCRA applied to purge solvent systems (and Michigan's Part 111 rules incorporates by reference these federal rules). Accordingly, the EPA brought actions against several automobile manufacturers to enforce those rules with respect to purge solvent systems. See, for example, General Motors v. EPA, 363 F.3d 442 (D.C. Cir. 2004)(GM's petition to review EPA enforcement action regulating purge solvent as a solid waste under RCRA dismissed for lack of jurisdiction). In an enforcement action that culminated in a Consent Agreement and Final Order (CAFO) between the EPA and Ford Motor Company in 2003, Ford agreed to pay a $244,000 civil penalty and agreed to bring all of its auto assembly plants into compliance with the Part BB and Subpart J requirements of RCRA. A similar settlement agreement was reportedly reached by DaimlerChrysler and the EPA.

According to Alliance of Automobile Manufacturers, application of RCRA hazardous waste regulations to purge solvent systems would impose costs without much of a benefit. According to the Alliance, RCRA rules would have required the following actions with respect to the pipes, fittings, flanges, valves, pumps, and tanks that comprise purge solvent piping systems: (1) performing tank system integrity tests; (2) installing tank system secondary containment; (3) performing daily inspections on the entire piping system; (4) keeping daily inspection logs; (5) monitoring valves and pumps, and making records of the same; (6) marking of valves, pumps, flanges, connectors and other equipment associated with the tank; and (7) establishing a labeling, repair, and recordkeeping system relating to potential air emissions from the purge solvent piping system. In the Alliance's view, none of these requirements provided any additional layer of protection against health or environmental risk beyond protections already produced by other federal and state environmental and worker protection laws.

Subsequently, in 2004, the EPA issued new National Emissions Standards for Hazardous Air Pollutants: Surface Coating of Automobiles and Light-Duty Trucks, 69 Fed.Reg. 22602 (April 26, 2004), amending 40 CFR Parts 63, 264, and 265. In those new standards, the EPA amended the RCRA Air Emissions Standards for Equipment Leaks found at 40 CFR parts 264 and 265, subparts BB to exempt air emissions from the collection and transmission of captured purge material from the requirements of subparts BB in facilities subject to the new standards. Existing operations, however, did not have to comply immediately with the new standards. It appears that the NESHAP will become effective for existing affected sources on April 26, 2007 (although it was effective for new sources as early as June 25, 2004).

In the NESHAP, the EPA explained that it created an exemption for purge solvent systems because the emissions from purge solvent would be addressed by the work practice standards that companies must adopt under Section 63.3094 of the NESHAP. The EPA also indicated that the emissions from captured purge materials are very small in comparison with the coating, application, drying, and curing of automotive paint. In addition, the EPA noted that the collected purge mixture is often shipped off-site to a solvent recycler who may pay the manufacturer for the mixture, so the industry has an economic incentive to retain as much of the captured purge material as possible and to repair any leaks as quickly as possible. [Others say that auto manufacturers are not always paid for the purge solvent—it depends on current market prices—but that the industry still has economic incentives to find and repair leaks.] The EPA concluded, therefore, that if a collection and transmission system is subject to the final NESHAP, it is exempt from the requirements of subparts BB of 40 CFR parts 264 and 265. According to the NESHAP, the categories and entities potentially regulated by the NESHAP include automobile and light-duty truck assembly plants and producers of automobile and light-duty truck bodies. [Recently, the EPA has moved to give auto manufacturers the option of following this NESHAP with respect to the surface coating of heavier motor vehicles as well. See 71 Federal Register 246 (Dec. 22, 2006).]

The work practice standards found in Section 63.3094 of the automotive and light-duty truck surface coating NESHAP require that covered manufacturers develop and implement work practice plans to minimize organic hazardous air pollutant emissions from the storage, mixing, and conveying of coatings, thinners, and cleaning materials used in, and waste materials generated by, their coating operations for which emissions limits have been established. The work practice plan must insure that hazardous materials are stored in closed containers, that the risks of spills are minimized, that materials are conveyed from one location to another in closed containers or pipes, and that mixing vessels are kept closed as much as possible. A work practice plan must address emissions from each of the following:

- Vehicle body wipe
- Coating line purging
- Coating system flushing
- Spray booth grate cleaning
- Spray booth wall cleaning
- Spray booth equipment cleaning

- External spray booth area cleaning
- Other housekeeping measures.

Although some other states have reportedly amended their state regulations to create a state exemption for purged coatings and solvents analogous to the federal exemption for surface coating operations subject to the NESHAP, Michigan had not yet done so at the time the bill was enacted (although the DEQ was expected to promulgate such an exemption in 2007). Certain automobile manufacturers were reportedly faced with the prospect that they could be deemed not in compliance with existing settlement agreements or Michigan environmental regulations if previous compliance extensions they had obtained expired before the DEQ promulgated its expected new exemption in 2007.

In short, House Bill 6636 was apparently an attempt to expedite the adoption of a Michigan exemption mirroring the federal exemption relieving automobile manufacturers from RCRA regulations as to purged coatings and solvents so long as their paint operations are subject to the pertinent EPA air emission rules. The bill directs the DEQ to promulgate the exemption within one year.

The bill also eliminated a reference to federal standards for universal waste management pertaining to batteries. According to the DEQ, the administrative rules promulgated under Part 111 of NREPA (R 229.9228) provide the necessary standards for batteries that may be regulated as universal wastes.

THE CONTENT OF THE BILL:

The bill amended Part 111, Hazardous Waste Management, of the Natural Resources and Environmental Protection Act (NREPA) to do the following:

- Eliminate the current language of Section 11105a which adopts by reference federal regulations concerning universal waste management standards for batteries, 40 CFR 273.1 to 273.81, part 273 (May 11, 1995).

- Adopt by reference 40 CFR 264.1050(h) and 40 CFR 265.1050(g), which exempts purged coatings and solvents used for the surface coating of automobiles and light-duty trucks from RCRA subpart BB regulations so long as the company is subject to the automobile and light-duty truck surface coating NESHAP.

- Require the DEQ to promulgate a rule incorporating 40 CFR 264.1050(h) and 40 CFR 265.1050(g) (the federal regulations exempting purge material from RCRA subpart BB regulations) by reference within one year of the bill's effective date, pursuant to the Administrative Procedures Act of 1969.

- Include a sunset provision that would repeal the section after two years (by which time presumably, the DEQ would have promulgated the exemption required by the bill and obtained any federal approval of the new rule that might be required).

BACKGROUND INFORMATION:

Michigan is authorized by the EPA to administer the state's Hazardous Waste Program under Part 111 of NREPA in lieu of the federal Hazardous Waste Program under RCRA. As part of this authorization, the DEQ is required to maintain a program that is consistent with, and not less than stringent than, the federal program. At the time the bill was taken up, the DEQ was in the process of amending the Part 111 Rules to include, in part, the exemptions required by the bill. In November 2006, the DEQ projected that those revisions would be in place by late summer or early fall 2007.

The automotive surface coating NESHAP and other related materials can be found on the Environmental Protection Agency's Automobile and Light-Duty Truck website at www.epa.gov//ttn/atw/auto/autopg.html. The recent expansion of this NESHAP to allow the manufacturers the option of including the surface coating of heavier motor vehicles under this rule is found at 71 Fed.Reg. 246 (Dec. 22, 2006).

ARGUMENTS:

For:

Given that the DEQ was already planning to promulgate the exemption mandated by the bill—and the exemption simply mirrors one that already exists on the federal level—the bill simply expedites the adoption of an exemption that was in the works. Some other auto manufacturing states have already adopted this exemption, so if Michigan did not follow suit, its auto manufacturing facilities would be placed at a competitive disadvantage. Given the current challenges faced by Michigan's auto industry, now is not the time to subject automakers to unnecessary burdens.

In addition, there is no need to subject automakers to two separate and potentially overlapping regulations—both air quality rules and hazardous wastes rules pertaining to air quality. The air quality standards in the automobile and light-duty truck surface coating NESHAP—and the work plans required by those standards—adequately address emissions concerns related to purged coatings and solvents. The bill exempts automakers from RCRA regulations that add little or additional protection for the environment or workers beyond the protections contained in other state and federal laws and regulations with which they still must comply.

Against:

Michigan should push manufacturers towards the use of better materials and processes that do not create a problem in the first place. Although automakers have been working to improve their materials and processes for applying automotive paint, adopting this exemption at the state level sends the wrong message. Instead, we should encourage all manufacturers to use materials and methods that do not pose hazards.

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■ This analysis was prepared by nonpartisan House staff for use by House members in their deliberations, and does not constitute an official statement of legislative intent.