EXPLOSIVES DELETED FROM THE RMP LIST OF REGULATED SUBSTANCES

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On January 6, 1998, the EPA amended the accidental release prevention regulations (40 CFR Part 68) by deleting the category of high explosives from the list of regulated substances. DOT listed Division 1.1 explosives in 49 CFR 172.101 with a threshold quantity of 5,000 pounds. DOT initially listed explosives because of their potential to cause offsite effects from blast waves. However, the EPA has concluded that current regulations and current and contemplated industry practices adequately protect the public and the environment from the hazards of accidents involving explosives.

BACKGROUND

The Clean Air Act (CAA) Amendments of 1990, section 112 (r), required EPA to promulgate an initial list of at least 100 substances that, in the event of an accidental release, are known to cause or may be reasonably expected to cause death, injury, or serious adverse effects to human health and the environment. The CAA also required EPA to establish a threshold quantity for each chemical. Stationary sources that have more than a threshold quantity of a regulated substance are subject to accident prevention regulations promulgated under CAA section 112(r)(7), including the requirement to develop risk management programs (RMPs).

On January 31, 1994, the EPA promulgated the list of regulated substances and thresholds that identify stationary sources subject to the accidental release prevention regulations. This is 59 FR 4478, the "List Rule." The listed substances included 77 acutely toxic substances, 63 flammable gases and volatile flammable liquids, and Division 1.1 high explosive substances as listed by the U.S. Department of Transportation in 49 CFR 172.101. The list included explosives with a mass explosion hazard (A mass explosion is one that affects almost the entire load instantaneously).

The EPA believed that these materials met the criteria of 112 (r) of the Clean Air Act because of the potential for off-site effects after an accidental detonation. In addition, the EPA believed that there were weaknesses in the explosive industry's emergency planning and response communication programs that made risk management planning appropriate.

The EPA subsequently promulgated a rule requiring owners and operators of stationary sources with listed substances above their threshold quantities to develop programs addressing accidental releases. In addition, the rule required the owners and operators to make publicly available risk management plans (RMPs). The plans were to summarize these programs (61 FR 31668, June 20, 1996). These rules are part of the accidental release prevention regulations contained in 40 CFR Part 68.

OPPOSITION

Commenters objected to the listing of explosives, maintaining that explosives are already regulated by a number of agencies including; the Bureau of Alcohol, Tobacco, and Firearms (BATF), the Department of Transportation (DOT), the Occupations Safety and Health Administration (OSHA), the Mine Safety and Health Administration (MSHA), and the Department of Defense (DOD). They felt that the requirements of the existing regulations serve to prevent accidents and cited the safety record of the explosives' industry as evidence. Also, they believed that the American Table of Distances, used by the BATF to set distances for storage of explosives, provides protection from the effects of an accidental explosion and is actually more conservative than the threshold value used by the EPA.

The American Petroleum Institute (API) and the Institute of Makers of Explosives (IME) filed petitions for judicial review of the List Rule.

AMMENDMENT

On April 15, 1996, the EPA proposed amendments to the List Rule, which included deleting the category of Division 1.1 explosives (as listed by DOT) from the list of regulated substances (40 CFR Part 68.130). In accordance with the Settlement Agreement, IME has developed and will implement safety practices that will provide additional information and enhance the coordination between explosives' facilities and emergency planners and responders.

The EPA concluded that current regulations, in addition to new industry practices, will promote safety and accident prevention in storage, handling, transportation, and use of explosives. The regulations will also adequately protect the public and the environment from the hazards of accidents involving explosives. The Agency believes these actions effectively close the remaining gap in emergency planning and response communications. Therefore, the EPA took a final action to delete explosives from the list of regulated substances under section 112 (r).

OSHA PSM AND EXPLOSIVES

The PSM standard covers the manufacturing of explosives and pyrotechnics in OSHA's 29 CFR 1910.109(k)(2) and (k)(3), respectively. The regulation defines explosives as:

> ". . . any chemical compound, mixture, or device, the primary or common purpose of which is to function by explosion, i.e., with substantially instantaneous release of gas and heat, unless such compound, mixture or device is otherwise specifically classified by the U.S. Department of Transportation (DOT); see 49 CFR Chapter I."

The term "explosives" includes all materials that were formally classified as Class A, Class B and Class C explosives by DOT and are now classified by number designations (49 CFR 173.54).

OSHA considers the manufacture of explosives to include: mixing, blending, extruding, synthesizing, assembling, disassembling, and other activities involved in the making of a chemical compound, mixture or device that is intended to explode. Unlike other highly hazardous chemicals covered by PSM, explosive materials do not have a listed threshold quantity. Therefore, if any quantity of explosives is manufactured as discussed above, then the PSM standard will cover the manufacturing process.

Exceptions to this rule include those activities that: (1) occur in a separate, non-production research or test area or facility; and (2) do not have the potential to cause or contribute to a release or to interfere with mitigating the consequences of a catastrophic release from the explosive manufacturing process.

Also, the PSM standard does not cover pre-manufacture and post-manufacture research and testing activities involving explosives, pyrotechnics or products containing explosives.

The DOE Explosives Safety Manual meets virtually all of the PSM requirements, therefore, it is not necessary to prepare a new, separate manual for PSM compliance for explosives manufacture at DOE facilities. The DOE complies with OSHA regulations as a matter of Agency policy, but OSHA does not have compliance authority over DOE operations. DOE enforces its own compliance and has authority to issue interpretations, exemptions and variances.

References

29 CFR Part 1910, “Process Safety Management of Highly Hazardous Chemicals; Explosives and Blasting Agents, Final Rule," February 24, 1992.

40 CFR Parts 9 and 68, “List of Regulated Substances and Thresholds for Accidental Release Prevention and Risk Management Programs for Chemical Accident Release Prevention; Final Rule and Notice.”

40 CFR Part 68, “Accidental Release Prevention Requirements: Risk Management Programs Under the Clean Air Act, Section 112(r)(7).”

Clean Air Act Amendments of 1990, Section 112 (r), “Prevention of Accidental Releases.”

Federal Register: January 6, 1998 (Volume 63, Number 3), “List of Regulated Substances and Thresholds for Accidental Release Prevention; Amendments.”

OSHA Standards Interpretation and Compliance Letters

- Thiokol Corporation (12/30/93)
- McDonnell Douglas Corporation (12/30/93)
- Alliant Techsystems Inc. (12/30/93)
- Douglas H. Delsemme, VP & General Counsel (no company name) (10/11/94)
- Aerospace Industries Association of America, Inc. (12/2/94)
- Organization Resources Counselors, Inc. (2/4/98)
- OSHA Region X, “Applicability of 29 CFR 1910.119 Process Safety Management (PSM) Standard to the Manufacture of Explosives Required Under 29 CFR 1910.109(k)(2), 11/8/95