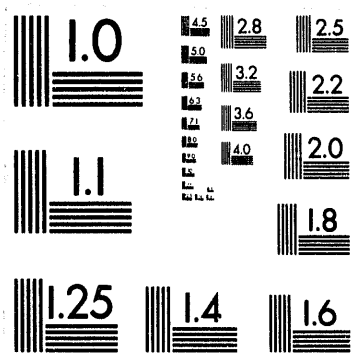




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OF THE
FEDERAL FACILITY COMPLIANCE ACT**

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THE MUNITIONS PROVISIONS OF THE FEDERAL FACILITY COMPLIANCE ACT

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INTRODUCTION

The Federal Facility Compliance Act (FFCA) was signed by President Bush on October 6, 1992. This Act amends the Resource Conservation and Recovery Act (RCRA), the primary law governing hazardous waste management in the U.S. The most significant provision of the FFCA was the waiver of sovereign immunity. This waiver subjects Federal facilities to the same "incentives" as the private sector for compliance. Federal facilities have already begun to feel the effect of the waiver, having been subject to substantial administrative penalties, including some significant fines.

While the waiver has broad implications for all Federal facilities, other provisions of the FFCA impact specific sectors of the Federal complex. The focus of this paper is the FFCA Munitions Provisions, which have the potential to change some aspects of the structure of munitions management within the military. The Munitions Provisions, contained in Section 107 of the FFCA, modifies Section 3004 of RCRA by adding a new subsection (y) on Munitions. Section 107 requires the Environmental Protection Agency (EPA) to develop, after consultation with the Department of Defense (DOD) and appropriate State officials, regulations identifying when military munitions (including conventional and chemical munitions) become hazardous waste, and to provide for the safe transportation and storage of such waste. The FFCA requires EPA to promulgate the final "Munitions Rule" by October 6, 1994. These are the only provisions of the FFCA that require a new rulemaking.

It is clear that the Munitions Rule could have a significant effect on the way in which DOD manages munitions. Demilitarization, range management, training activities, and emergency response actions may be affected. It is important for DOD, the Services, and individual installations, to be aware of potential impacts of the FFCA on munitions management operations. The purpose of this paper is to review several important Munitions Rule issues, and to discuss potential impacts of these issues.

BACKGROUND

The RCRA program establishes a "cradle to grave" system for management of hazardous waste, meaning that waste identified as hazardous is tracked from initial generation to ultimate disposal. The key phrase here is "waste identified as hazardous." EPA has established a complex definition of hazardous waste, contained within 40 CFR Part 261, that has been a subject of controversy since promulgation in 1980. One of the primary issues is "when does a material

¹ Ms. Rosemary Queen, of the U.S. Army Environmental Center (AEC), has been designated the technical lead of the DOD workgroup formed to assist EPA on the Munitions Rule. Mr. Kimmell of the Argonne National Laboratory, and Mr. Green of Brown & Root Environmental, have been supporting AEC and DOD in working with EPA on the Munitions Rule. This work is supported under a military interdepartmental purchase request from the U.S. Department of Defense, U.S. Army Environmental Center through U.S. Department of Energy contract W-31-109-Eng-38.

become a waste," and hence, subject to regulation. This is an extremely complex issue, particularly with respect to products that, for one reason or another, become waste. This issue is not unique to munitions - many industries regulated under RCRA have had to grapple with it. However, some aspects of munitions waste are indeed unique.

Actually, the case of munitions provides an excellent example to illustrate the controversy. First, munitions are essentially products designed for a very specific end use. They are or contain propellants, explosives or pyrotechnics (referred to as "PEP"), and hence when "disposed or intended for disposal," are defined as waste due to reactivity, which is one of the four characteristics of hazardous waste (40 CFR 261.23). While munitions are essentially products, they can become waste for a number of reasons, including exceedance of shelf life, or degradation during prolonged storage. Munitions can also become obsolete due to changing national security conditions, which is a situation currently being faced by the military.

Under RCRA, once the munitions product becomes obsolete, in some cases it becomes a waste. It is important to qualify this statement with the phrase "in some cases" because, for example, although the product may be obsolete for military use, it can be sold to an ally, or it can be reused or recycled. In these cases, there is no "intent to dispose" and the munition does not become a waste. In accordance with the U.S. Army Armament, Munitions and Chemical Command (AMCCOM) "Conventional Ammunition Master Plan," published in March, 1993, the Single Manager for Conventional Ammunition (SMCA) has placed a new focus on resource recovery and recycling (referred to as R3), as opposed to disposal, as the ultimate goal of the SMCA demilitarization program. In accordance with the Master Plan, disposal is a last resort, to be conducted only when there are no other alternatives.

At the present time, many munitions that are obsolete have the potential to be recovered or recycled, but there is no currently available recovery/recycling technology. While such technologies are under development, there is no guarantee that these technologies will prove viable. Now consider that many munitions have been maintained in storage for 20 years or more, and clearly, the questions of whether the material is a product or a waste, and if a waste, when it became (or becomes) a waste, are difficult to answer. This issue has become one of RCRA's many "gray" areas.

Several EPA Regions and States maintain that these munitions are waste and subject to RCRA, while installations (and DOD as a whole) have been arguing the opposite case. In at least one State, installations have been forced into classifying these materials as waste and obtaining RCRA permits for munitions storage units. In an effort to address the issue, DOD developed an interim policy and guidance document entitled "Application of the Resource Conservation and Recovery Act (RCRA) Hazardous Waste Management Requirements To Conventional Ordnance Disposal Operations." The document states:

Conventional explosive ordnance will be identified as hazardous waste when an authorized official records in writing a determination that the conventional explosive ordnance will be discarded, and, custodians of the conventional explosive ordnance receive this written determination that the conventional explosive ordnance is to be discarded and, therefore, subject to RCRA regulation.

This policy was developed prior to passage of the FFCA, although it was not released formally until November, 1993, and was not intended to address the requirements of the FFCA. Rather, it was intended to provide DOD installations with interim policy and guidance.

In an attempt to resolve these controversial issues, and at the urging of DOD, Congress included the Munitions Provisions as part of the FFCA, directing EPA to define when these products become waste, and to provide for safe storage and transportation. Although the FFCA did not address treatment or disposal of

waste munitions, EPA is considering going beyond the FFCA mandate to address these equally controversial issues. EPA and DOD both agree that environmental risk associated with storage and transportation is low relative to that posed by treatment and disposal.

Returning to the example used above, regulation of munitions being stored - as a waste under RCRA - could bring literally tens of thousands of munitions storage units (e.g., igloos, magazines) under regulation, at a cost to the taxpayer of many millions of dollars. These storage units, both those containing product and those containing waste, are currently regulated by the Department of Defense Explosive Safety Board (DDESB), and managed in accordance with DOD 6055.9-STD - DOD Ammunition and Explosive Safety Standards. These standards define a stringent program designed primarily to protect life and property. The environmental benefit associated with additional RCRA standards will need to be carefully examined.

EPA/DOD COOPERATIVE EFFORTS

Following passage of the FFCA, the Deputy Under Secretary of Defense (Environmental Security) designated the Assistant Deputy Under Secretary for Compliance as the DOD representative to communicate with EPA regarding the FFCA Munitions Provisions. In addition, DOD established a workgroup, staffed with representatives from the services and the DDESB, with the directive to support EPA on the Munitions Rule. The objective of the workgroup is to promote the development of a Munitions Rule that both makes sense for DOD and meets EPA's mandate of protecting human health and the environment. The DOD workgroup has met with EPA a number of times, provided EPA with information on DOD's munition management programs, briefed EPA on conventional and chemical (surety) munitions management, attended EPA-sponsored meetings with the States and environmental interest groups, hosted tours of several DOD installations, and continues to interface with EPA on rule development activities.

The most recent activity of the workgroup has been to collect data on munitions management to support EPA's economic assessment. EPA is required by Executive Order (EO) 12866, "Regulatory Planning and Review", recently signed by President Clinton, to consider alternatives to regulation, including economic incentives and public information. This EO further directs that "Agencies should weigh the costs and benefits of all available alternatives (including not regulating at all) and should choose the course of maximum net benefits." The EO also defines costs and benefits to include both quantifiable and qualitative (non-monetized) measures. This new EO revoked an EO issued by President Reagan, that required the development of a comprehensive economic analysis, formally known as a Regulatory Impact Analysis (RIA), for major regulations. Under the new EO, decisions regarding regulatory approaches will be based, in part, on an evaluation of economic impact vs. environmental benefit. Economic impact will be a major decision factor. However, unlike the previous EO, the new EO does not require benefits to exceed costs.

EPA therefore required data in order to enable an economic analysis. At EPA's request, DOD developed an aggressive data collection program, with the goal of providing EPA with comprehensive data that will show the full costs associated with the various regulatory alternatives being considered. The data call was initiated in October, 1993, in two phases, with the intent of providing EPA with readily available data on a quick-turnaround basis during Phase I, and with other, less available data, during Phase II. The data collection effort is expected to be completed in the near future.

The DOD munitions workgroup has also offered to assist EPA in other areas. Future activities of the workgroup may include, for example, review of background documents and possibly proposed rule language. In keeping with EO 12866, which was intended to reform the rulemaking process with the intent of eliminating "improper influence, delay and secrecy," and considering the requirements of

Section 107 of the FFCA, the States and other interested parties are also expected to participate in these activities.

Following promulgation of the Munitions Rule, the workgroup will also serve as the focal point for DOD implementation of the rule. Planned activities include development of guidance and training programs, and may also include providing compliance assistance.

MUNITIONS RULE ISSUES

In addition to working with DOD on the Munitions Rule, EPA has been soliciting input from State officials and environmental interest groups. As a result, many different issues have been identified, some of which, if addressed by EPA, would go beyond the mandate of the FFCA. There is general agreement that the Munitions Rule must represent a balance between the need to ensure personnel safety and to protect human health and the environment, and must recognize that where there is a conflict between these paramount goals, that personnel safety must prevail. Several of the important issues are identified and briefly examined below.

"Unserviceable" Munitions

The case of unserviceable munitions was examined above. The issue deals with the question of when do munitions become wastes, which is the central issue raised by the FFCA. Further, the issue is associated with many subissues. If indeed, munitions are identified as waste while in storage, the unit(s) used to store these materials become RCRA storage units, and if storage is expected to exceed 90-days, a RCRA hazardous waste storage permit would be required, along with design, operation, maintenance, and closure requirements. Further, if waste munitions are transported to another facility, transportation requirements would apply - hence, Congress' mandate to provide for the safe transportation and storage of waste munitions.

If EPA determines that unserviceable munitions are waste while in storage, the ramifications are considerable. Besides requiring RCRA permits for perhaps many thousands of units, each installation would likely be forced into designating a subset of units for waste munitions storage, which would entail unit upgrades, increased munitions handling, and related safety concerns. In addition, all units used to manage waste would become Solid Waste Management Units (SWMUs), and would require evaluation and potential remediation under the RCRA Corrective Action program (see 55 FR 30796, July 27, 1990).

DOD's focus in dealing with this issue has been to provide EPA with information on the controls maintained on munitions management through the DDESB, DOD 6055.9-STD and other DOD standards. These controls are applicable equally to munitions, and munitions identified as waste, and although their intent is to protect life and property, they also promote protection of the environment. Similarly, for transportation, controls are imposed by Department of Transportation (DOT) requirements, which are strictly enforced by the States. If EPA determines that adequate controls are already in place, the imposition of additional standards can be minimized. DOD is hopeful that the rule will address additional practices that will provide an increase in protection of human health and the environment, and not regulate merely for the sake of regulating.

Training vs. Treatment

During training activities, increment bags of propellant that must go unused to prevent overshooting the impact area, have historically been burned at the gun emplacement as part of the training exercise. This activity is typically conducted under combat conditions to minimize hazards to the gun and gun crew, and to prevent excess propellant from being seized by the enemy if the gun emplacement were abandoned. Thus, burning of excess propellant is an integral part of the training exercise.

A similar issue deals with collection and treatment of unused munitions or unexploded ordnance (UXO) from range management activities. If UXO resulting from training activities is collected and brought to a permitted munitions treatment unit (typically an Open Burning/Open Detonation (OB/OD) unit), the activity becomes regulated under RCRA. However, in most cases UXO is collected and treated on the range as part of range management activities, where historically, EPA has not asserted RCRA authority.

EPA has always maintained that training activities could not be addressed under RCRA because materials used for training are not considered wastes. However, EPA recognizes that there are issues related to UXO and contaminants released during training, and while it is unlikely that EPA will regulate any training activity, they are re-examining this issue to determine if RCRA can be applied to waste resulting from training activities. Hence, this issue, although treated separately, is really another form of the issue of when do munitions become waste.

These regulatory "gray" areas are perhaps the most significant difficulties in the rulemaking. Clouding the issue is the concern raised to EPA by environmental interest groups that some installations are burning propellant not generated during training exercises, which they refer to as "sham" training.

Firing Range Management

As above, this issue is also another form of the when do munitions become waste issue. The issue is whether UXO and other contaminants at firing ranges and impact areas should be subject to RCRA requirements, specifically RCRA Corrective Action. This issue has also come to the forefront as a result of Base Realignment and Closure (BRAC). Not only is this a regulatory issue, but it is also a cost and a technology issue. Firing ranges and impact areas at installations in this country cover literally millions of acres. Clean-up technologies addressing UXO and other contamination are under development, because the only existing technology that currently works is "hunt and peck." Cleanup costs at many installations are estimated to be in the millions of dollars per acre.

Historically, EPA has maintained that the discharge of munitions at firing ranges does not constitute waste disposal under RCRA, and that subsequent treatment of UXO on the range is not considered waste treatment. EPA indicated in a 1988 memorandum, however, that if UXO and other residuals are left in place after the military ceases using these areas, that the materials may be subject to other Federal authorities.

The distinction made by EPA in 1988 is important, as it was the first time differentiation was made between active and inactive firing ranges. While it appears that EPA will maintain its position that firing ranges are not subject to RCRA requirements, EPA is re-examining this issue in cases where the firing range is no longer in use. When a firing range is permanently inactive, as is the case for many installations undergoing BRAC, EPA is re-examining its authority under RCRA to address the contamination through RCRA Corrective Action.

Emergency Responses

Another issue related to the question of when do munitions become waste is in emergency response actions. These actions include emergency responses required to abate an immediate threat. DOD Explosive Ordnance Disposal (EOD) personnel conduct emergency response operations to protect life and property and to return military munitions to DOD control. EOD emergency response actions include on- and off-site treatment or transportation to the extent necessary to abate the immediate threat. While emergency response actions are specifically excluded from RCRA facility standards and permitting requirements, these materials are nevertheless hazardous waste and subject to RCRA's emergency provisions (e.g.,

emergency permits and RCRA Section 7003 imminent and substantial endangerment actions).

In developing regulations to address the FFCA mandate, EPA is re-examining its emergency provisions to ensure that there is a balance between regulatory requirements and the need to let the EOD experts abate immediate threats without the regulations "getting in the way." At the same time, EPA may consider actions to preclude use of emergency conditions to address non-emergency situations. However, the very nature of these situations requires a conservative approach to ensure the public safety, and situations need to be approached as if they were an emergency, even if later analysis reveals that the situation was not truly "explosive."

Other Issues Within the FFCA Mandate

Conventional vs. Chemical Munitions - The FFCA requires EPA to address both conventional and chemical (surety) munitions. DOD has recommended to EPA that separate rulemaking efforts be initiated for these two major classes of munitions, primarily because there are substantial differences as to how these munitions programs are currently managed within DOD.

Munitions Storage and Transportation - If EPA determines that current DOD controls during storage and transportation are adequate, or that they are adequate but require additional controls as well, EPA may opt to codify DOD requirements. If codified as part of RCRA, DOD would be required to follow RCRA rulemaking procedures in order to change these requirements. Individual issues are also likely to be associated with specific additional requirements, if any.

Issues Beyond the FFCA Mandate

Pollution Prevention and Waste Minimization - There are a number of opportunities for minimizing generation of munitions waste and for preventing pollution that may potentially result from munitions waste management. DOD has recognized these opportunities, as evidenced by the Demilitarization Master Plan and the new focus on R3. Although EPA is unlikely to develop regulations addressing these areas, the issue may be addressed in preamble sections to the rule. EPA, for example, may recommend that DOD examine ways in which to remove lead from propellants.

Explosive Hazard vs. Toxicity Hazard - The focus of the debate on munitions centers around the fact that munitions are reactive (e.g., explosive). Environmental interest groups and several States have recommended to EPA that rules consider that munitions also contain materials that are toxic. The FFCA directs EPA to determine when munitions become hazardous waste - not to re-examine the reason why munitions are hazardous.

Munitions Treatment/Disposal - In the past, munitions identified as waste were primarily destroyed through OB/OD, an activity that requires a RCRA Subpart X permit for a Miscellaneous Unit. Subpart X defines a generic performance standard for miscellaneous units, which provides for flexibility in establishing standards for unit performance. Because of this flexibility, the EPA Regions and States vary widely in terms of the standards that are applied. EPA may consider establishing unit-specific standards for these units.

PROPOSED AND FINAL RULE

The FFCA munitions provisions require EPA to issue a proposed rule not later than 6 months after the date of enactment, and a final rule not later than 24 months after enactment. A proposed rule was therefore required by March 6, 1993, and a final rule is required by October 6, 1994. EPA has already missed the FFCA proposed rule date and is likely to miss the final rule date. EPA has indicated that it hopes to issue the proposed rule by Summer 1994, and a final rule within a year after the proposed rule.

REVIEW AND CONCLUSION

DOD is encouraged by EPA's delay in issuance of the proposed Munitions Rule, as it indicates that EPA is taking the time it truly needs to carefully weigh all the issues and examine all the alternatives. The DOD workgroup has worked hard to ensure that EPA understands current DOD munitions management programs. EPA and DOD agree that regulation of waste munitions is a complex undertaking. There is no doubt that the rule, when final, could change some aspects of DOD's munitions waste management program. Hopefully, the result will be a Munitions Rule that makes sense for DOD and the Nation.

There is one thing to keep in mind, however. RCRA was intended to be a State implemented program. States develop their own "RCRA" regulations, and after a demonstration of equivalency, become authorized by EPA to administer their own program. States are not precluded from developing a program that is more stringent than the Federal program. Hence, although EPA may indeed develop a rule that makes sense for DOD and the Nation, the States may choose to be more stringent.

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