federal register

Tuesday
September 28, 1999

Part II

Environmental Protection Agency

40 CFR Part 262

Project XL Site-specific Rulemaking for University Laboratories at the University of Massachusetts Boston, Boston, MA, the Boston College, Chestnut Hill, MA, and the University of Vermont, Burlington, VT; Hazardous Waste Management System; Final Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 262

[FRL–6444–8]

Project XL Site-specific Rulemaking for University Laboratories at the University of Massachusetts Boston, Boston MA, the Boston College, Chestnut Hill, MA, and the University of Vermont, Burlington, VT; Hazardous Waste Management System

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: Today's rule provides regulatory flexibility under the Resource Conservation and Recovery Act (RCRA), as amended. It allows the participating laboratories at the University of Massachusetts-Boston, Boston, MA, Boston College, Chestnut Hill, MA and the University of Vermont, Burlington, VT (the Universities) to replace certain existing requirements for hazardous waste generators with a comprehensive Laboratory Environmental Management Plan (EMP) designed for each University. EPA is promulgating this rule to implement an XL project for the laboratories at the Universities. The terms of the XL project are defined in the Final Project Agreement (FPA) which is scheduled to be signed by the parties on September 28, 1999. The FPA explains the project in detail, while the promulgation of this federal rule will enable Massachusetts Department of Environmental Protection (MADEP) and Vermont Department of Environmental Conservation (VTDEC) to implement portions of the project requiring regulatory changes. The requirements of this rule will not take effect in Massachusetts and Vermont until they adopt the requirements as state law. For the sake of simplicity, the remainder of this preamble refers to the effects of this rule, although it will be the corresponding state law change that will actually govern this XL project.

In order to qualify for the flexibility that the rule provides, the Universities must implement environmental management plans for the participating laboratories and comply with minimum performance criteria for managing laboratory waste. EPA expects this XL project to result in superior environmental performance in Massachusetts and Vermont, while providing waste minimization opportunities to the participating Universities.

DATES: This final rule is effective September 28, 1999.

ADDRESSES: A docket containing public comments and supporting materials is available for public inspection and copying at the RCRA Information Center (RIC), located at Crystal Gateway, 1235 Jefferson Davis Highway, First Floor, Arlington, Virginia. The RIC is open from 9:00 am to 4:00 pm Monday through Friday, excluding federal holidays. The public is encouraged to phone in advance to review docket materials. Appointments can be scheduled by phoning the Docket Office at (703) 603–9230. Refer to RCRA docket number F–1999-NEUP-FFFFF. The public may copy a maximum of 100 pages from any regulatory docket at no charge. Additional copies cost 15 cents per page.

A duplicate copy of the docket is available for inspection and copying at U.S. EPA, Region 1, 1 Congress Street, Suite 1100 (LIB), Boston, MA 02114–2023 during normal business hours. Persons wishing to view the duplicate docket at the Boston location are encouraged to contact Ms. Gina Snyder or Mr. George Frantz in advance, by telephoning (617) 918–1837 or (617) 918–1883. Information is also available on the world wide web at http://www.epa.gov/ProjectXL.

FOR FURTHER INFORMATION CONTACT: Ms. Gina Snyder or Mr. George Frantz, U.S. Environmental Protection Agency, Region I (SPE), Assistance and Pollution Prevention Division, 1 Congress Street, Suite 1100, Boston, MA 02114–2023. Ms. Snyder can be reached at (617) 918–1837 and Mr. Frantz can be reached at (617) 918–1883.

SUPPLEMENTARY INFORMATION:

Outline of Today's Document

The information presented in this preamble is organized as follows:

I. Authority
II. Background
A. Overview of Project XL
B. Overview of the New England University Laboratories XL Project
1. Introduction
2. Description of the New England University Laboratories XL Project
3. What Are the Environmental Benefits of the Project?
4. What Are the Economic Benefits and Paperwork Reduction Deriving from the Project?
5. Stakeholder Involvement
6. What is the Project Duration and Completion Date?
C. Rule Description
1. Summary of Rule
2. Changes to the Proposed Rule
III. Response to Significant Public Comments
IV. What is the Effective Date of This Rule?
V. Additional Information
A. How Does This Rule Comply with Executive Order 12866?
B. Is a Regulatory Flexibility Analysis Required?
C. Is EPA required to Submit a Rule Report Under the Congressional Review Act?
D. Is an Information Collection Request Required for This Project Under the Paperwork Reduction Act?
E. Does This Project Trigger the Requirements of the Unfunded Mandates Reform Act?
F. RCRA/HSWA
1. Applicability of Rules in Authorized States
2. Effect on Massachusetts and Vermont Authorization
G. How Does This Rule Comply With Executive Order 13045: Protection of Children from Environmental Health Risks and Safety Risks?
H. How Does This Rule Comply with Executive Orders on Federalism?
I. How Does This Rule Comply with Executive Order 13084: Consultation and Coordination With Indian Tribal Governments?
J. Does This Rule Comply with National Technology Transfer and Advancement Act?

I. Authority

EPA is publishing this regulation under the authority of sections 2002, 3001, 3002, 3003, 3006, 3010, and 7004 of the Solid Waste Disposal Act of 1970, as amended by the Resource Conservation and Recovery Act, as amended (42 U.S.C. 6912, 6921, 6922, 6923, 6926, 6930, and 6974).

II. Background

A. Overview of Project XL

Each Project XL project is implemented with a Final Project Agreement (FPA). For this Project XL, the FPA sets forth the intentions of EPA and the Universities with regard to a project developed under Project XL, an EPA initiative to allow regulated entities to achieve better environmental results at less cost. The regulation will facilitate implementation of the project. Project XL—''eXcellence and Leadership'' was announced on March 16, 1995, as a central part of the National Performance Review and the EPA's effort to reinvent environmental protection. See 60 FR 27282 (May 23, 1995). Project XL provides a limited number of private and public regulated entities an opportunity to develop their own pilot projects to provide regulatory flexibility that will result in environmental protection that is superior to what would be achieved through compliance with current and reasonably anticipated future regulations. These efforts are crucial to EPA's ability to test new strategies that reduce the regulatory burden and promote economic growth while achieving better environmental and public health protection. EPA

intends to evaluate the results of this and other XL projects to determine which specific elements of the project(s), if any, should be more broadly applied to other regulated entities for the benefit of both the economy and the environment.

Under Project XL, participants in four categories—facilities, industry sectors, governmental agencies and communities—are offered the flexibility to develop common sense, cost-effective strategies that will replace or modify specific regulatory requirements, on the condition that they produce and demonstrate superior environmental performance. To participate in Project XL, applicants must develop alternative pollution reduction strategies pursuant to eight criteria: superior environmental performance; cost savings and paperwork reduction; local stakeholder involvement and support; test of an innovative strategy; transferability; feasibility; identification of monitoring, reporting and evaluation methods; and avoidance of shifting the risk burden. They must have full support of affected federal, state and tribal agencies to be selected.

For more information about the XL criteria, readers should refer to the two descriptive documents published in the **Federal Register** (60 FR 27282, May 23, 1995 and 62 FR 19872, April 23, 1997), and the December 1, 1995 ''Principles for Development of Project XL Final Project Agreements'' document. For further discussion as to how the New England University Laboratories XL project addresses the XL criteria, readers should refer to the Final Project Agreement and fact sheet that are available from the docket for this action (see **ADDRESSES** section of today's preamble) and the **Federal Register** notice publishing the proposed rule (64 FR 40696, July 27, 1999).

Project XL is intended to allow the EPA to experiment with untried, potentially promising regulatory approaches, both to assess whether they provide benefits at the specific facility affected, and whether they should be considered for wider application. Such pilot projects allow the EPA to proceed more quickly than would be possible when undertaking changes on a nationwide basis. EPA may modify rules, on a site- or state-specific basis, that represent one of several possible policy approaches within a more general statutory directive, so long as the alternative being used is permissible under the statute. Adoption of such alternative approaches or interpretations in the context of a given XL project does not, however, signal EPA's willingness to adopt that interpretation as a general matter, or even in the context of other XL projects. It would be inconsistent with the forward-looking nature of these pilot projects to adopt such innovative approaches prematurely on a widespread basis without first determining whether or not they are viable in practice and successful for the particular projects that embody them. Furthermore, as EPA indicated in announcing the XL program, it expects to adopt only a limited number of carefully selected projects. These pilot projects are not intended to be a means for piecemeal revision of entire programs. Depending on the results in these projects, EPA may or may not be willing to consider adopting the alternative approach or interpretation again, either generally or for other specific facilities.

EPA believes that adopting alternative policy approaches and/or interpretations, on a limited, site- or state-specific basis and in connection with a carefully selected pilot project, is consistent with the expectations of Congress about EPA's role in implementing the environmental statutes (so long as EPA acts within the discretion allowed by the statute). Congress' recognition that there is a need for experimentation and research, as well as ongoing reevaluation of environmental programs, is reflected in a variety of statutory provisions, e.g., section 8001 of RCRA.

B. Overview of the New England University Laboratories XL Project

1. Introduction

On July 27, 1999, the Environmental Protection Agency proposed a rule to implement a Project XL that would provide regulatory flexibility under the Resource Conservation and Recovery Act (RCRA) for the participating laboratories at the University of Massachusetts-Boston, Boston, MA, Boston College, Chestnut Hill, MA and the University of Vermont, Burlington, VT (the Universities). Specifically, the Agency proposed to allow participating laboratories at the Universities to replace existing requirements for hazardous waste generators with a comprehensive Environmental Management Standard that would identify a plan for the effective management of laboratory wastes and the minimum performance requirements for handling such waste in a laboratory (64 FR 40696). Today's final rule promulgates regulations that are very similar to the July 27, 1999 proposal. Readers of this notice are encouraged to refer to the July 27, 1999 (64 FR 40696) notice for a more detailed description of the problems today's rule is intended to address and a more detailed explanation of how the Agency expects the Environmental Management Standard to work.

Today's rule will facilitate implementation of the FPA (the document that embodies EPA's intent to implement this project) that has been developed by EPA, Massachusetts Department of Environmental Protection (MADEP), Vermont Department of Environmental Conservation (VTDEC), the Universities, and other stakeholders. EPA, MADEP, VTDEC and the Universities are scheduled to sign the final FPA on September 28, 1999. The FPA is available for review in the docket for today's action and on the world wide web at http://www.epa.gov/ProjectXL. The FPA addresses the eight Project XL criteria, and the expectation of EPA that this XL project will meet those criteria. Those criteria are: (1) Environmental performance superior to what would be achieved through compliance with current and reasonably anticipated future regulations; (2) cost savings or economic opportunity, and/or decreased paperwork burden; (3) stakeholder support; (4) test of innovative strategies for achieving environmental results; (5) approaches that could be evaluated for future broader application; (6) technical and administrative feasibility; (7) mechanisms for monitoring, reporting, and evaluation; and (8) consistency with Executive Order 12898 on Environmental Justice (avoidance of shifting of risk burden). The FPA specifically addresses the manner in which the project is expected to produce superior environmental benefits.

EPA is promulgating today's rule to implement the provisions of this Project XL initiative that require regulatory changes. However, as discussed in Section IV.F. below, both Massachusetts and Vermont have received authority to administer hazardous waste standards for generators that are equivalent to, or more stringent than, the federal program. Therefore, the requirements outlined in today's rule will not take effect in these States until each State adopts equivalent requirements as State law, and EPA will not be the primary regulatory agency responsible for implementing the requirements of this rule. Although today's rule references ''EPA,'' for Massachusetts, ''MADEP'', and for Vermont, ''VTDEC'' will be substituted for ''EPA'' when the States adopt these requirements as State law. For this reason, this preamble discussion will use the term ''regulatory agency'' when referring to the ''EPA'' responsibilities identified in today's

rule. In addition, for the sake of simplicity, the remainder of this preamble refers to the effects of this rule, although it will be the corresponding State law change that will actually govern this XL project.

2. Description of the New England University Laboratories XL Project

Integrated Performance-Based System.

The University Laboratory XL project tests the effectiveness of an integrated, flexible, performance-based system for managing hazardous wastes in laboratories which (1) results in pollution prevention and streamlined procedures for managing hazardous wastes and hazardous chemicals at universities, (2) meets the objectives of both the RCRA and OSHA regulatory programs combined and (3) is at least as protective of human health and the environment as the current system.

This project pilots an alternative approach to hazardous waste management in university laboratories which is more systematic and more centralized than the approach implemented by universities under the current system. At the same time, the pilot integrates some of the current RCRA hazardous waste regulations with current Occupational Safety and Health Act (OSHA) regulations by requiring that the Universities develop a plan similar to the OSHA required Chemical Hygiene Plan (CHP). The plan required by the alternative system outlined in this site-specific final rule is to be designed for the management of environmental aspects of their activities to facilitate the creation of an integrated and consistent system for managing laboratory waste in laboratories. As a result of the efficiencies gained from the harmonization of the OSHA CHP and the RCRA-oriented Laboratory Environmental Management Plan, the new system is expected to provide a better management approach for laboratories and to result in increased pollution prevention while still ensuring protection of human health and the environment.

To achieve this objective, the Universities will follow the regulatory model of a Laboratory Environmental Management Standard (EMS) that identifies both the elements for the effective management of laboratory wastes, and the minimum performance requirements for handling wastes in each individual laboratory. The Laboratory EMS sets out all the requirements for the alternative system of managing laboratory waste. First and foremost, the Laboratory EMS includes Minimum Performance Criteria for the management of laboratory wastes within the laboratory and en route to the on-site hazardous waste accumulation area. These criteria are similar to the requirements of 40 CFR 262.34(c). The Minimum Performance Criteria are a set of measurable requirements that are similar to the current RCRA requirements. Each of the elements of the Minimum Performance Criteria is briefly explained below. In addition, the Laboratory EMS also requires the development of a Laboratory Environmental Management Plan (EMP). The EMP is written by each University to document its specific procedures for how it will conform with the Laboratory EMS. The EMP describes the procedures each laboratory must follow in order to meet the Minimum Performance Criteria.

Laboratory Environmental Management Standard (EMS). Today's final rule creates a new subpart to 40 CFR part 262, Subpart J, called the ''Laboratory Environmental Management Standard.'' It includes a definition section (40 CFR 262.102) that sets out the definitions applicable to the requirements in the new Subpart J, the requirements for waste management in the laboratory, or the Minimum Performance Criteria, (40 CFR 262.104) and the specific requirement that each University develop a Laboratory Environmental Management Plan (40 CFR 262.105). Subpart J also contains requirements detailing the organizational responsibilities and the training requirements of each participating University laboratory (40 CFR 262.105). The Laboratory EMS provides the umbrella framework for an effective system for the management of university laboratory waste. It contains all the elements, from definitions through waste determination requirements (40 CFR 262.106), that make up the new systematic approach for the University laboratories. The Laboratory EMS was originally modeled after the general structure and format of the OSHA ''Occupational Exposure to Hazardous Chemicals in Laboratories'' standard which requires a Chemical Hygiene Plan.

Laboratory Environmental Management Plan (EMP). The Laboratory EMS requires the development of a Laboratory EMP which is the mechanism through which each University's EMS is put into practice at each University. The Laboratory EMP, modeled on OSHA's Chemical Hygiene Plan, is a comprehensive plan to be developed by each University. The EMP documents the procedures, practices and programs to (a) manage laboratory waste in a manner that is protective of human health and the environment and (b) ensure implementation to achieve compliance with the requirements of the Laboratory EMS and the Minimum Performance Criteria. It is through the Laboratory EMP that the Universities have the opportunity and the obligation to design a performance-based system to complement the OSHA requirements, to encourage waste minimization, and the redistribution and reuse of laboratory waste. The Laboratory EMP identifies specific elements to be implemented by each University, including requirements for pollution prevention policies and procedures.

One of the objectives of the EMP and the overall XL project is to erase the distinction between unused chemicals and waste chemicals in the laboratory setting, so that the value in reusing chemicals can be realized. This is to be accomplished by defining laboratory waste to include hazardous chemicals that result from laboratory scale activities and which may or may not constitute RCRA hazardous wastes. In the rule, laboratory waste is defined as ''a hazardous chemical that results from laboratory scale activities and includes the following: excess or unused hazardous chemicals that may or may not be reused outside their laboratory of origin; hazardous chemicals determined to be RCRA hazardous waste as defined in 40 CFR Part 261; and hazardous chemicals that will be determined not to be RCRA hazardous waste pursuant to 40 CFR 262.106.'' Thus, all ''laboratory waste'' is managed under a single standard while in the laboratory. The determination that a laboratory waste could not be reused and would be a RCRA solid waste, and as to whether such solid waste would be a RCRA hazardous waste, will be made at a centralized area, by Environmental Health and Safety professionals.

Minimum Performance Criteria. The requirements for the laboratory EMP include a requirement that the EMP include procedures to assure compliance with Minimum Performance Criteria (MPC) specified in the regulation. The Minimum Performance Criteria set forth minimum requirements for the management of laboratory waste and have been designed to ensure that laboratory waste will be managed in a manner protective of human health and the environment. The requirements in the Minimum Performance Criteria include provisions which are consistent with current RCRA requirements, including labeling and container management. The criteria have a wider application than current RCRA requirements because the definition of

laboratory waste includes some materials that are not RCRA hazardous waste.

The New System. Currently, there are two potential impediments to the centralization and coordination facilitated by this rule. The first is the hazardous waste determination requirement under 40 CFR 262.11. If this determination is made in the individual laboratory, decisions with regard to reuse are inevitably decentralized since the hazardous waste determination necessitates a prior solid waste determination. To the extent that these decisions are made by laboratory workers who do not have a complete sense of the chemical needs of the entire university, such decisions are often premature and do not maximize the potential for re-use. The second potential impediment under the current system is the requirement under 40 CFR 262.34(c) that hazardous waste in excess of 55-gallons be removed within three days of reaching the 55-gallon limit. Such a time constraint results in constant, unplanned, episodic pick-ups which are in themselves, time-consuming. In contrast, the extended time period of 30 days allows for a more coordinated and efficient pick-up and delivery system which frees up staff time, and allows for the development of infrastructure and training designed to increase waste minimization and an organized and coordinated campus-wide chemical reuse system.

3. What Are the Environmental Benefits of the Project?

This Laboratory XL project is expected to achieve superior environmental performance beyond that which is achieved by the current RCRA regulatory system, in the three key areas of:

- Setting of Environmental Objectives and Targets and Pollution Prevention: The systematic approach to environmental management will set the stage for better tracking, control, goal setting and pollution prevention.
- Streamlining the Regulatory Process: By coordinating RCRA and OSHA regulatory compliance, the project will streamline the overall regulatory process for University laboratories.
- Environmental Awareness. The implementation and continuous improvement of the Laboratory EMS will enhance environmental awareness among laboratory workers.

These three areas are described more fully below:

In the setting of environmental objectives and targets and pollution prevention, this XL project in the requirements for the Laboratory Environmental Management Plan, is a significant improvement in that it makes explicit to the research community that there is an institutional commitment in the form of a policy to prevent pollution, a procedure for conducting an annual survey of hazardous chemicals of concern and a better system to reduce the potential for hazardous chemicals to accumulate on laboratory shelves and become wastes. Each XL Participant's Laboratory Environmental Management Plan must include or reference:

- A pollution prevention plan.
- Defined procedures for conducting an annual survey of laboratories that potentially store hazardous chemicals of concern (''HCOC'').
- Defined procedures for conducting laboratory decommissionings (e.g., cleanouts).
- Defined procedures for the timely removal of laboratory wastes from the laboratory.

To increase reuse of laboratory waste and laboratory waste reduction: The current regulatory framework does little to encourage researchers to identify hazardous chemicals on the shelf as hazardous waste or to identify institutional opportunities for reuse of such chemicals. One targeted area for the demonstration of superior environmental performance will be enhanced management and reuse of laboratory hazardous chemicals. For example, chemicals that are no longer of sufficient purity for research use may be reused or recycled into teaching laboratories. Additionally, waste reduction will occur as a result of better systems to exchange and reuse hazardous chemicals throughout each university. According to a 1996 survey of approximately 100 academic institutions by the Campus, Safety, Health and Environmental Management Association, nearly 95% of respondents reported that they redistributed or recycled less than 1% of the hazardous chemical waste otherwise destined for disposal. This Laboratory XL Project commits the Universities to achieve better results, with the goals of 10% reduction in waste (from the baseline) and 20% increase in reuse or redistribution of chemicals from measured baseline.

In addition, the EMP includes a requirement that each University define a list of ''hazardous chemicals of concern'' (''HCOC'') and annually conduct a risk evaluation survey of these chemicals in the laboratory. This list will be generated by EHS professionals at each University based on regulatory concerns, risk concerns and potential chemical reactions. The criteria at each University includes:

- Chemicals given an expiration date by the manufacturer due to safety considerations (e.g., peroxide forming chemicals, etc.).
- Chemicals which meet the RCRA definitions of reactive or corrosive (flammables are covered by fire department restrictions; in general, toxics are hazardous during their use, not during storage) and have been determined by professional judgment to present a risk to non-lab workers or the environment.
- Poison Inhalation Hazard designation by DOT (covers serious toxics).
- Other chemicals as determined by professional judgment to present a risk to non-lab workers or the environment.
- Chemicals may be removed from the HCOC list if there are insufficient quantities to pose a risk.

The HCOC list will be developed on a university-by-university basis, because the types of hazardous chemicals at a particular university will vary with the type of research work performed there. This list will be reviewed on an annual basis and updated.

The annual survey directly addresses the problems associated with the accumulation of old hazardous chemicals on the shelf. Federal EPA and state inspectors have indicated that this problem is a priority concern. This University Laboratory XL Project goes beyond the ''waste'' management regulations prescribed in RCRA by addressing this particular ''upstream'' issue at its source. By providing regular and consistent data on chemicals and chemical storage, such surveys will support university-wide chemical redistribution and/or the timely disposal of hazardous chemicals that are approaching or have exceeded their shelf life. The survey will also document that HCOC's that remain on the shelf have been assessed for product integrity.

In addition, evaluations and audits will be performed to help assure conformance with the University's EMP. Together with the enhanced environmental awareness training, internal audits/corrective actions will provide a way to continually improve the Laboratory EMS and help achieve improved environmental protection.

Another focus of this project is to streamline regulatory requirements: As demonstrated by the effort to develop the Integrated Contingency Plan, Federal agencies have placed high value on coordination between regulatory programs. Laboratories in most states are already regulated by the

requirements of OSHA's 29 CFR 1910.1450 (Occupational Exposure to Hazardous Chemicals in Laboratories) which requires the development of a Chemical Hygiene Plan (CHP) to ensure the health and safety of laboratory workers handling hazardous chemicals. In this project, the requirement to define and implement laboratory waste management policies and procedures will effectively manage laboratory wastes at every stage of their handling and disposition, including full compliance with current RCRA requirements once laboratory waste is received at the on-site hazardous waste accumulation area. The Minimum Performance Criteria and the procedures for complying with the minimum performance criteria which will be included in each University's Laboratory EMP ensure that enforceable safeguards will be in place. Moreover, the effect of a hazardous chemical survey and other procedures defined in the Laboratory EMP will be to minimize hazardous waste by shifting the focus to upstream sources of waste. The result will be performance that will exceed that prompted by the current RCRA program requirements as the focus of the university environmental departments can broaden from the current narrow focus on the issues associated with waste pick-up and handling to include pollution prevention and the attendant issues of chemical substitution and reuse.

Environmental benefits will also result from increased environmental awareness: Training, defined policies and procedures, enhanced audit programs and pollution prevention strategies are key management elements leading to superior environmental performance. Under the current system, these elements often receive less attention than they should because EH&S staff are focused on less pro-active issues such as managing laboratories as satellite accumulation areas. By allowing the institutional EH&S staff to schedule routine pick-ups of laboratory wastes at more suitable intervals (e.g., 3–4 weeks rather than 3-days under the satellite accumulation rule, but limiting the satellite accumulation to a maximum quantity of 55 gallons per laboratory, plus an ''excess'' of 55 gallons), the XL Participants will be able to more pro-actively focus limited resources on training and audit/corrective action programs and the establishment and administration of waste-exchange and hazardous chemical redistribution programs.

Under this project, laboratory workers will receive enhanced hazardous chemical training with respect to laboratory waste, pollution prevention and the environmental management practices at the university. The training requirements are outlined in the Environmental Management Standard (40 CFR part 262, Subpart J). The training will also result in benefits for students who were laboratory workers as they graduate and pursue their careers equipped with an increased environmental awareness and respect for the environmental aspects of their jobs.

4. What Are the Economic Benefits and Paperwork Reduction Deriving From the Project?

Laboratory waste management currently accounts for the most substantial expense for environmental, health and safety programs at the XL Participants. This University Laboratory XL Project will allow academic institutions to more effectively promote and implement waste minimization programs in laboratories. This will result in reduced waste disposal costs and reduced chemical purchasing costs without diminishing the level of environmental protection associated with the proper handling and/or disposal of hazardous laboratory wastes. The opportunity to develop a systematic, planned procedure for the pickup, consolidation and disposal of laboratory wastes will also enable participating institutions to more effectively utilize their EH&S staff for proactive activities. However, since existing RCRA record keeping and reporting requirements will remain in full effect at the institutional level, the XL Participants do not expect to significantly reduce the paperwork associated with compliance.

5. Stakeholder Involvement

MADEP, VTDEC and EPA have been involved in the development of this project, and support it. From the beginning of the Laboratory XL process, there has been a high priority on having diverse stakeholders review and support this project so that both national and local stakeholders have been involved in the development of the Laboratory Environmental Management Standard. This activity is described below and additional information, such as a listing of national stakeholders and letters of support are included in the docket supporting this rulemaking.

The initial stakeholder group was a national assembly of experts in laboratory chemical and environmental safety. The purpose of this group was twofold: (a) to assure that the University Laboratory XL Proposal reflected state of the art thinking with regard to controlling the potential impacts of laboratory chemicals; and (b) to ensure that the Laboratory Environmental Management Standard developed by the XL Participants could reasonably apply to a broad spectrum of small, medium and large institutions.

In addition to the stakeholder group, XL Participants made presentations and gave workshops at the Campus Safety, Health and Environmental Management Association meeting in New Orleans in July, 1998, sponsored a panel of presentations at the American Chemical Society meeting in Boston in August, 1998, gave a presentation at the EPA-New England sponsored workshop on compliance at universities March 24, 1999, and continue to speak to national forums and workshops in order to reach national stakeholders on a continuing basis.

6. What Is the Project Duration and Completion Date?

As with all XL projects testing alternative environmental protection strategies, the term of the New England University Laboratories XL project is one of limited duration. The duration of the regulatory relief provided by this rule is anticipated to be four (4) years from the effective date of this rule. However, a participating University may be terminated or suspended at any time for failure to comply with any of the requirements of the rule.

C. Rule Description

1. Summary of Rule

The rule amends 40 CFR 262.10 to add a paragraph (j) that states that the participating University laboratories are not subject to the requirements of 40 CFR 262.11 and 40 CFR 262.34(c) as long as the Universities comply with all the requirements of 40 CFR part 262, Subpart J. This rule also adds a new section to the Standards Applicable to Generators of Hazardous Waste, 40 CFR part 262, Subpart J. Section 262.100 of the rule specifies which organizations are covered by this site-specific rule (University of Massachusetts Boston, Boston MA, the Boston College, Chestnut Hill MA and the University of Vermont, Burlington VT). Section 262.101 outlines what is in Subpart J. Subpart J provides a framework for a new management system for wastes that are generated in university laboratories. This framework is called the Laboratory Environmental Management Standard. The standard includes some specific definitions that apply to the University laboratories, specific requirements for how to handle laboratory waste, and

requirements for developing and implementing an environmental management plan. Subpart J outlines the responsibilities of the management staff of each participating university and identifies requirements for training people who will work in the laboratories or manage laboratory waste. Section 262.102 of the rule defines terms used in the new rule. The definition of laboratory waste is of particular interest because of its importance in the implementation of the regulation. Section 262.103 defines the scope of the rule and makes it clear that the Laboratory Environmental Management Standard does not affect or supercede any legal requirements other than those described in § 262.10(j). Section 262.104 includes the requirements that a University and participating laboratory will comply with in order to continue to participate in this project, called the Minimum Performance Criteria. Section 262.105 specifies the requirements for the laboratory environmental management plan (EMP). Section 262.106 specifies when a hazardous waste determination must be made for laboratory waste.

Section 262.107 includes a termination provision, in addition to EPA's usual enforcement options [1], which authorizes EPA to remove from this XL project any University that does not comply with the Laboratory Environmental Management Standard as described in the rule. In the event of such removal, the temporary conditional deferral would be revoked and the Universities would be required to submit to EPA an implementation schedule setting forth how the Universities would plan to come into full compliance regulations within 90 days from such notice. The schedule would reflect the Universities' intent to use their best efforts to come into compliance as quickly as practicable within the 90 day transition period. During this 90 day transition period, the provisions of this proposed rule and the University's Environmental Management Plan would apply in full. At the conclusion of the 90 day period, the applicable RCRA regulations would again apply to the Universities in full. For further discussion, see the preamble to the proposed rule and the Final Project Agreement.

The final paragraph of the rule, section 262.108, sets forth the expiration date of the rule, September 30, 2003.

2. Changes to the Proposed Rule

EPA has made several changes to the proposed rule in response to comments. First, EPA has modified the rule in response to comments on the training requirements at 40 CFR 262.105(d). As proposed, § 262.105(d) required each participating university, in general, to ''provide laboratory workers with information and training so that they can understand and can implement the elements of each University's Environmental Management Plan that are relevant to the laboratory worker's responsibilities.'' Similarly, § 262.104(j) required that each university must ''provide laboratory workers with information and training so that they can implement and comply with [the] Minimum Performance Criteria.'' One commenter was concerned that these requirements did not recognize that a laboratory worker may receive training outside of the University and that the University should not have to provide (nor should the lab worker have to receive) training which is merely duplicative. EPA agrees with this commenter that, as proposed, these requirements may lead to duplicative training. As discussed at proposal, the goal of these training requirements is for the University to ensure that all laboratory workers have been trained to understand the hazards of laboratory waste and to take measures to protect human health and the environment. EPA did not intend to preclude appropriate reliance on any relevant training received from outside the University. Thus, EPA is modifying §§ 262.104(j) and 262.105(d) to require that the participating Universities must ''ensure'' that laboratory workers have received training regarding the minimum performance criteria and the EMP. This change clarifies that the participating Universities have the flexibility to consider whether a laboratory worker has received sufficient training outside the University. For example, if a newly assigned laboratory worker has already had other training that enables him/her to implement and comply with the MPC, the training that the University will have to provide may be minimized for that worker.

Also regarding training, another commenter pointed out that, with respect to § 262.105(d)(2), the requirement that laboratory workers must be trained when they are first assigned to a work area is more stringent than under current RCRA requirements, and large universities may find it difficult to provide training upon first assignment to a work area especially at the beginning of an academic year. EPA agrees that this may be a difficult standard to meet for the Universities. As discussed above, the main purpose of the university training requirements was to ensure that all laboratory workers would be trained irrespective of their particular status (e.g., ''student,'' ''employee'') within the laboratory. EPA's intent was not that particular training requirements would be more stringent than required under current RCRA requirements. EPA believes it is appropriate to allow the participating Universities the same flexibility regarding when a newly assigned lab worker will have to be trained as they would have under current RCRA requirements. Thus, EPA has modified § 262.105(d)(2) to read: ''(i) Each University must provide the information to each laboratory worker when he/she is first assigned to a work area where laboratory wastes may be generated. (ii) Each University must ensure that each laboratory worker has been trained within six months of when he/she is first assigned to a work area where laboratory wastes may be generated and must retrain a laboratory worker when a laboratory waste poses a new or unique hazard for which the laboratory worker has not received prior training and as frequently as needed to maintain knowledge of the procedures of the Environmental Management Plan.''

Second, EPA has slightly modified the container labeling requirements. As proposed, § 262.104(a) required that all laboratory waste be labeled with ''the chemical name and general hazard class.'' One commenter was concerned that this requirement did not allow enough discretion for the Universities, while another commenter expressed concern that this requirement did nothing to clarify the confusion resulting from current RCRA labeling requirements. The container labeling requirements included in the proposed rule were part of the University participants' proposal to the Agency. In particular, the participants included both the ''hazard class'' and the chemical contents on the label as an attempt to integrate OSHA and RCRA by including information relevant under both programs. This is an aspect of the project that EPA will be evaluating to determine how it compares to current requirements. EPA did not intend, however, that laboratories should have less flexibility in how they identify

[1] As noted in the proposed rule (64 FR 40696) EPA retains its full range of enforcement options under today's rule. The enforcement response on the part of EPA will vary depending upon the actual performance of each University and the severity of any violation. So that EPA can continue to evaluate this XL project, each University will be evaluated by EPA Region I through regular state and/or federal inspections based on four criteria outlined in both the preamble to the proposed rule and the Final Project Agreement.

chemical contents. EPA's intent in modifying the existing RCRA container labeling requirements was simply to replace the term ''hazardous waste'' because not all laboratory waste will necessarily be ''hazardous waste.'' Thus, EPA has modified § 262.104(a) to require that laboratory waste containers be labeled ''with the general hazard class and either the words ''laboratory waste'' or with the chemical name of the contents.'' This requirement operates in conjunction with the Environmental Management Plan (EMP) that each University must develop. Section 262.105(b) requires each University to write, implement and comply with an Environmental Management Plan that includes the following specific requirement to address container labeling in subparagraph (9) of that section: ''The criteria that laboratory workers must comply with for managing, containing and labeling laboratory wastes * * *'' Therefore, each University must designate the system for identifying the hazard class (for example, if the system that would work best were RCRA, it would utilize the terms ignitible, corrosive, reactive or EP toxic; if an OSHA-type system worked better for a university, it would include flammable rather than ignitible, and would probably include radioactive and biohazard or infectious classes of waste). The chemical name must either include the actual name of the chemical in the container or identify it as ''laboratory waste.'' EPA expects this requirement to be less confusing than current requirements and, when combined with requirements in the EMP (see 40 CFR 262.105(b)(9)), we expect participants to be able to develop labeling protocols that will provide sufficient information to characterize the contents of containers containing laboratory waste.

Finally, one commenter pointed out that the rule, as proposed, would preclude a university from sending laboratory waste directly to a treatment, storage, or disposal (TSD) facility rather than first sending it to the hazardous waste accumulation area. The commenter felt that such an option may be necessary in unusual circumstances. EPA agrees that there may be unusual circumstances when a university would need the flexibility to transfer laboratory wastes from a laboratory directly to a permitted TSD facility, for example, if a laboratory generated a reactive waste where the most protective management of the waste might include minimizing the movement of the waste. Rather than moving the waste to the on-site hazardous waste accumulation area, the University might feel that it is more prudent to ship it directly to the TSD. Therefore EPA has modified § 262.104(i) and other relevant provisions in the rule to clarify that laboratory waste may also be sent to a TSD facility permitted to handle the waste under 40 CFR part 270 or in interim status under 40 CFR parts 265 and 270 (or authorized to handle the waste by a state with a hazardous waste management program approved under 40 CFR part 271) if it is determined in the laboratory by the individuals identified in the EMP to be responsible for waste management decisions that the waste is a hazardous waste and that it is prudent to transfer it directly to a treatment, storage, and disposal facility.

Laboratory waste that will be sent directly to a TSD facility rather than to a hazardous waste accumulation area is still subject to the 30-day limit (§ 262.104(c)), and therefore, solid and hazardous waste determinations must be made in the laboratory by the appropriate personnel prior to the 30-day deadline for removing the waste from the laboratory. Whether sent to a hazardous waste accumulation area or directly to a TSD facility, all laboratory waste that is determined to be hazardous waste is no longer subject to the provisions of today's rule and must be managed in accordance with all applicable RCRA requirements (§ 262.106(c)). For example, waste sent from the laboratory to an off-site TSD facility will have to be accompanied by a manifest.

III. Response to Significant Public Comments

The following presents responses to significant public comments (in addition to those comments already discussed at Section C.2.) received during the public comment period. For EPA's responses to all the comments received during the public comment period regarding the proposal see the **ADDRESSES** section of this preamble to determine where you can obtain a copy, or follow the links to this project on EPA's world wide web Project XL website at http:/www.epa.gov/ProjectXL.

EPA received 9 comment letters during the public comment period from: the California State University, Los Angeles Department of Chemistry and Biochemistry, the University of Wisconsin-Madison (Assistant Vice Chancellor), the American Chemical Society, Boston University, the Howard Hughes Medical Institute, Cynthia Salisbury, the American Council on Education, the University of Wisconsin System Administration—Environmental/Occupational Health & Safety Section, and Harvard University.

(1) Many of the commenters supported EPA's proposed rule and agreed that the proposed rule should result in superior environmental performance and significant cost savings to universities while being protective of human health and the environment but also noted that the rulemaking should not be a model for all universities as this may not be the best approach at all educational institutions.

EPA Response: EPA does not consider this XL project to be a model for all universities, but rather a pilot designed to test one possible approach to the management of hazardous waste within university laboratories. One of the purposes of implementing this XL project, as with all XL projects, is to assess whether it should be considered for wider application. It would be inconsistent with the forward-looking nature of these pilot projects to adopt such innovative approaches prematurely on a widespread basis without first determining whether or not they are viable in practice and successful in the particular projects that embody them. Although EPA hopes that today's rule will result in a successful innovative new system for universities and other research organizations, we recognize that this regulatory approach may not be appropriate at all such institutions.

(2) Several commenters noted that because participating Universities may designate only certain departments to participate in the project, there would be duplicate systems regulating their hazardous waste.

EPA Response: Although this rule does not pilot a strictly performance-based system, nonetheless, each University may design their environmental management plan in the way that most suits their structure and needs. This includes each University having the option not to include all departments operating pursuant to the alternative standard's in today's rule. As several of the comment letters noted, this could result in two sets of rules being applicable at a single institution. EPA would like to stress that it is up to each University to decide, based on its own needs, what departments will be participating in this XL project. If, for example, certain departments determined that the EMP would work well with their Chemical Hygiene Plan, while other departments did not want to implement an EMP, then two sets of requirements for managing hazardous wastes in the laboratories would be applicable at that institution.

(3) Several commenters commented on the definition of ''laboratory,'' indicating that EPA was considering the laboratory process unit or laboratory management unit concept and that the proposal does not specifically delineate what constitutes a laboratory, questioning whether, for example, a photo lab or clinical lab would be a laboratory.

Response: The definition of laboratory, under new Subpart J, is ''an area within a facility where the laboratory use of hazardous chemicals occurs. It is a workplace where relatively small quantities of hazardous chemicals are used on a non-production basis. The physical extent of individual laboratories within an organization will be defined by the Environmental Management Plan. A laboratory may include more than a single room if the rooms are in the same building and under the common supervision of a laboratory supervisor.'' This definition operates in concert with the definition of ''Laboratory Scale'' which is defined as ''work with substances in which containers used for reactions, transfers and other handling of substances are designed to be safely and easily manipulated by one person.'' ''Laboratory Scale'' excludes ''those workplaces whose function is to produce commercial quantities of chemicals.'' These definitions are another example of how this rule parallels the current OSHA Laboratory Standard, as these definitions follow the definitions in the OSHA standard.

Any area on a campus that is designated in the Environmental Management Plan as a laboratory and that meets these definitions will be considered a laboratory for the purpose of this pilot project. However, it would be rare that a typical photographic laboratory would meet the criterion of non-production. For example if a university had a photographic facility on the campus that processed film for students, that would be operating on a production basis and would not be considered eligible under this rule. However, EPA understands that photographic laboratories may also be laboratory scale and could be eligible to participate under this rule, examples would include, labs used to support research and teaching, such as a small photo lab developing X-rays as part of medical research or a small photo lab developing satellite photographs as part of geologic or environmental research. Key factors that would limit the participation of a laboratory include consideration of the scale of the activities and whether they could be viewed as operating as a production process as opposed to the varied small-scale activities described in the proposed rule for teaching and research. EPA did not intend for this rule to be available to production operations. This rule applies to laboratory scale activities as defined in the definitions section at 40 CFR 262.102.

(4) Several commenters suggested that § 262.105(b)(6) of the proposed rule is duplicative since the EMP must include a ''a pollution prevention plan, including, but not limited to, roles and responsibilities, training, pollution prevention activities, and performance evaluation.'' The commenter noted further that an EMP should be an integral part of every pollution prevention plan, or visa versa and ''generic pollution prevention principles'' should not be applied to automatically prevent the use of chemicals essential to research or to require the use of less effective substitutes.

Response: The rule requires each University to write, implement and comply with their EMP. Although the EMP must include a pollution prevention plan there are many elements that the EMP must include in addition to a pollution prevention plan. If a University already has a pollution prevention plan in place, this plan can be incorporated into or referenced by the EMP. There is no requirement for the plans to address or adopt generic solutions. The intent of the regulation is simply for each University to individually develop pollution prevention methods to ensure waste minimization and to document their intended actions or methods. The proposal attempts to recognize the unique activities of university laboratories, many of which, as the comment notes, are conducting innovative research that may lead to the improvement of the quality of life. It is the hope of EPA and the project sponsors that this XL project, once implemented and operational, will create a system that effectively and efficiently supports that research.

Furthermore, if the existing pollution prevention plan had ''an environmental policy, or environmental, health and safety policy, signed by the University's senior management, including commitments to regulatory compliance, waste minimization, risk reduction and continual improvement of the environmental management system'' as required by § 262.105(b)(1), then the EMP could simply incorporate the pollution prevention plan to meet this requirement. There is no requirement to create a new pollution prevention plan and, therefore, the requirement is not duplicative. The project envisions that through annual reviews and continuous improvement, each university will determine whether separate plans or combined plans work best.

(5) The comment suggests that the proposed rule makes no provision for recycling of chemicals between nearby laboratories, which is an efficient waste minimization practice that precedes RCRA; everything that is waste from a laboratory must go to the central accumulation area for evaluation and recycling.

Response: Centralizing the solid and hazardous waste determination is one function that is being piloted with this XL project. The intent of the new alternative is to centralize waste re-use decisions within the EH&S department, which has knowledge of campus-wide re-use opportunities. A participating University may demonstrate that this precludes some internal re-use opportunities, and provide documentation as part of this pilot. Alternatively, if laboratories are working closely together and would like to share used chemicals, the definition of ''laboratory'' allows a participating University to define them as a single laboratory for the purposes of their Environmental Management Plan.

(6) The comment encourages EPA to make a change in the Minimum Performance Criteria with respect to § 262.104—that senior management should be granted authority to make changes in performance criteria.

Response: The minimum performance criteria have been developed as the minimum set of requirements that EPA believes are necessary to protect human health and the environment. Senior management may adopt more stringent criteria, as long as such criteria still comply with the requirements in today's rule.

(7) The comment suggests that § 262.104(b) and (d) be changed to provide some discretion to exceed the amounts when approved by senior management. An example is given that a university may want to describe a laboratory to mean all modules under control of a single researcher.

Response: For the purposes of this pilot, EPA will not be allowing additional flexibility in the amount of waste that can be temporarily held in a laboratory although EPA agrees that it might be useful to gather data on the need for additional flexibility on the amount of laboratory waste that can be temporarily held in the laboratory, especially in view of the fact that some laboratories may currently contain numerous points of generation resulting in limits far beyond the 110 gallons

currently imposed by this proposal. EPA expects the participating universities to indicate in their reports whenever such limits result in less than optimal implementation of the new rule. The rule currently includes the flexibility for the participating universities to identify the laboratories in their individual EMPs. In the process of continuous improvement and periodic reviews conducted by the universities during this project, the configuration of participating laboratories as identified in the EMP may be changed. Additionally, the Final Project Agreement (FPA) does envision that other participants may come forward with new proposals to pilot test these concepts.

(8) The comment suggests that the ''in-line waste collection'' at § 262.104(e)(1) interpretation augment the closed container rule for certain repetitive manual operations, under the discretion of senior management.

Response: EPA disagrees that discretion is appropriate in this area. EPA believes the requirements in the rule are necessary to protect human health and the environment. In the discussions during development of the rule, EPA considered the possibility of manual operations in terms of ''in-line waste collection'' and concluded that under such operations waste would be being added to the container under the control of the operator of the process and therefore would fit under the requirements as they are written at § 262.104(e): ''containers of laboratory wastes must be: (1) closed at all times except when wastes are being added. . . .'' EPA understands that repetitive manual operations such as a pipetting process where a researcher takes a supernatant from a beaker and pours it into a waste container could be interpreted as ''wastes being added to the container.'' EPA was not provided with specific scenarios to describe repetitive manual operations where a container would be left open to add waste and yet would not meet the requirement that ''containers must be closed at all times except when wastes are being added or removed.'' Thus, EPA sees no need to augment the closed container rule for manual operations where there is an operator of the process present.

(9) The comment suggests eliminating the inspection requirements at §§ 262.104(e)(4) and 262.105(b)(15) (the latter which specifically requires a regular inspection of each laboratory) since such requirements do not seem feasible for a large university that has thousands of laboratories.

Response: EPA does not agree that the inspection requirement should be removed at § 262.104(e)(4) as it performs an important function. Under current RCRA requirements, § 262.34(c) requires satellite accumulation containers to be ''at or near any point of generation where waste initially accumulates which is under the control of the operator of the process generating the waste.'' This requirement helps ensure that containers in satellite accumulation areas will be naturally subject to inspection. Under today's rule, containers holding laboratory waste may not always be (and are not required to be) located at an area which is similarly subject to such naturally occurring inspections. Thus, EPA believes it is necessary to include a requirement that inspections of containers in laboratories be conducted on a regular (at least annual) basis to ensure that they meet the minimum performance criteria for container management.

40 CFR 262.105(b)(15) requires the EMP to include, ''the procedures for regularly inspecting a laboratory to assess conformance with the requirements of the Environmental Management Plan.'' Based on the proposal submitted, EPA expects that this is a feasible requirement and is not unduly burdensome. (The New Hampshire state RCRA program, for example, already has such a requirement in place.) Nonetheless, this pilot will test the feasibility of the requirement. In this pilot, each University is expected to develop a system that will work within the constraints of their campus systems, and to define the personnel to perform the inspections and the timetable for these inspections, which may vary for each laboratory. For example, one participant currently utilizes a ''peer review'' type process for inspecting laboratories which has the added advantage of networking and the potential to create a system of informal exchange of best practices.

(10) The comment questions how university laboratories are accumulating 55 gallons of hazardous waste at the point of generation and whether this is a realistic problem for university laboratories.

Response: The project embodied in today's rule focuses on the approach that the University participants believe to be a common sense, cost effective approach for managing laboratory waste. EPA has determined that this particular XL project is beneficial to human health and the environment and is worth evaluating as an alternative to the existing system. The proposed rule was developed in view of current Federal RCRA regulations for satellite accumulation areas that require that any hazardous waste accumulated at any point of generation in excess of 55 gallons (or one quart of acutely hazardous laboratory waste) be removed within three days. Current regulations do not limit the number of points of generation within an individual laboratory as long as hazardous waste is accumulated in accordance with all the requirements of 40 CFR 262.34(c). Thus, a given laboratory could potentially accumulate well over 55 gallons under the current rules. However, under the proposed rule, the Universities would be limited to temporarily holding 55 gallons of laboratory waste per laboratory, and no matter how many points of generation there are within a laboratory, any laboratory would be limited to 110 gallons. EPA noted in the preamble to the proposed rule (64 FR 40703) that ''while this proposed restriction may prove to be more restrictive than the current system, this approach represents an experiment to be tested under this XL project.''

The size of laboratory waste streams varies greatly, and although many laboratories do not produce large quantities of waste, there are some activities and some laboratories that may generate larger amounts on a discontinuous basis, making it difficult to schedule pick-ups.

(11) The comment addressed the regulatory implications of commingling RCRA regulated lab wastes and non-RCRA laboratory wastes (e.g., nonhazardous wastes). The comment noted that the commingling of RCRA regulated laboratory wastes and non-RCRA laboratory wastes would result in the entire mixture being designated a RCRA hazardous waste (assuming the laboratory waste is a determined to be a RCRA waste) due to the mixture rule (see 40 CFR 261.3(a)(2)), and thus would result in an increase in hazardous waste generation. Likewise, the scenario would be the same for the commingling of RCRA acutely hazardous wastes (e.g., P-listed hazardous wastes) and acutely hazardous laboratory wastes (AHLW), only the impact could be more substantial because of the ''1 kilogram of acute hazardous waste/month'' definition of a Large Quantity Generator (LQG). The commenter went further to say that the only way to prevent this scenario would be if the laboratory workers identify which laboratory wastes are RCRA hazardous wastes and keep those wastes segregated from the non-RCRA wastes. The comment concludes with the statement that a primary objective of this XL project is to take the waste determination out of the

hands of laboratory workers; however, to efficiently implement the proposal, these laboratory workers must continue to make these waste determinations (presumably in order to segregate RCRA hazardous wastes from non-RCRA wastes). The commenter believes this would have the effect of creating ''another layer in the waste determination scheme—and a layer that will likely result in consternation at the central accumulation area.''

Response: EPA believes the commenter misunderstands the objective of this rule. It is not the goal of the XL project to take all waste determinations out of the hands of the laboratory workers, but rather to centralize the point at which RCRA hazardous waste determinations are made within the university such that more effective and informed determinations are made with regard to whether the chemicals in question are truly wastes that require further management as solid and hazardous waste or whether they may be reused within the university and, thus, are not wastes.

While EPA acknowledges that the commenter is correct in that the mixture rule does apply and could have the regulatory effect described in the comment, the Agency does not believe that the applicability of the mixture rule to such commingling scenarios is a regulatory impediment. A ''superior environmental benefit'' of this project is to encourage and increase the reuse of laboratory wastes. Since the commingling of these chemicals (i.e., laboratory wastes) would likely result in rendering such chemicals unusable and thus precluding reuse opportunities, the Agency believes a regulatory change that would encourage such commingling would be counter to the goal of this XL project.

In EPA's experience under this project, laboratories do not commonly mingle acutely hazardous and hazardous waste. Additionally, under this project, the specific concern of the comment should be addressed by two of the requirements of the EMP working together. Under the EMP, the laboratories will be required to include (see § 262.105(b)(6)) a pollution prevention plan, including, but not limited to, roles and responsibilities and training as well as (see § 262.105(b)(9)) ''the criteria that laboratory workers must comply with for managing, containing and labeling laboratory wastes, including: an evaluation of the need for and the use of any special containers or labeling circumstances, and the use of laboratory wastes secondary containers including packaging, bottles, or test tube racks.'' Each EMP must address the labeling and containing of wastes and ensure that laboratory workers are trained to implement the EMP (see 40 CFR 262.104(j) and 262.105(d)(1)).

EPA does not agree that today's rule will, in effect, impose a second (and complicating) layer of waste determinations. Rather, the regulatory modifications being promulgated in today's rule recognize that while laboratory workers may have specific knowledge of the chemicals in question, they may not have access to information pertinent to whether the chemical is also a solid waste under RCRA (*e.g.*, information regarding potential reuse of a chemical in another part of the university). The Agency also notes that today's rule provides the flexibility for specific procedures (including procedures regarding the commingling of these materials) to be set by the laboratory (*e.g.*, in the environmental management plan (EMP)). To the extent that RCRA regulations discourage the commingling of laboratory wastes, encourage the segregation of RCRA acutely hazardous wastes (a designation that assumes the chemicals are discarded rather than reused), and that these regulatory considerations are reflected in the EMP or standardized laboratory procedures, EPA considers this a benefit of the current regulatory framework.

(12) The comment questions the need for a deferral of the requirements of 40 CFR 262.34(c) within the laboratory because that deferral would follow as a direct consequence of deferring the § 262.11 hazardous waste determination.

Response: The deferral of the § 262.11 hazardous waste determination does not mean that laboratories are not handling hazardous waste; the effect of the ''deferral'' is only to identify with precision the point at which these Universities will be held responsible for their solid and hazardous waste determinations. For this reason, EPA has explicitly deferred those portions of 40 CFR Part 262 that could otherwise have applied within the laboratory to the handling of material that was later determined to be hazardous waste.

(13) The comment makes the statement that Clean Water Act notification may no longer apply to any laboratory waste discharged down the drain by participating institutions.

Response: The proposal specifically addresses releases of hazardous constituents as noted at 64 FR 40703–40704 of the preamble: ''Today's proposed rule would contain a statement that laboratory waste management must not result in the release of hazardous constituents into the land, air and water where such release would be prohibited by federal law.'' The rule itself includes two provisions to prevent such releases, including § 262.103 (the scope of the laboratory environmental management standard) and § 262.104(e). The Laboratory Environmental Management Standard will not affect or supersede any legal requirements other than those described in § 262.10(j). The requirements that continue to apply include, but are not limited to, OSHA, Fire Codes, wastewater permit limitations, emergency response notification provisions, and other legal requirements applicable to University laboratories. Also, the rule states at § 262.104(f) ''the management of laboratory waste must not result in the release of hazardous constituents into the land, air and water where such release is prohibited under federal law.'' Additionally, with respect to regulations concerning POTW's, local limits as specified under 40 CFR 403.5 would continue to apply.

(14) The comment expresses concern over the scope of wastes covered under the definition of ''laboratory wastes'' in the rule and questions how the definition applies to such waste products as broken labware, towels, bench coverings, gels and protective equipment that have come into contact with chemicals.

Response: Today's rule requires that the EMP include (see § 262.105(b)(9)) ''the criteria laboratory workers must comply with for managing, containing and labeling laboratory wastes, including: an evaluation of the need for and the use of any special containers or labeling circumstances.'' The EMP must identify how such waste products as broken labware, towels, bench coverings, gels and protective equipment that have come into contact with chemicals would be managed, contained and labeled when they are appropriately considered to be laboratory waste. The determination of the status of such material will depend on the characterization of the waste. This is no different than current RCRA requirements. As noted in response to a previous comment, it is not the goal of the XL project to take all waste determinations out of the hands of the laboratory workers, but rather to centralize the point at which RCRA hazardous waste determinations are made within the University such that more effective and informed determinations are made with regard to whether the chemicals in question are truly wastes that require further

management as solid and/or hazardous waste.

(15) The comment notes that § 262.106 requires a hazardous waste determination ''as soon as the laboratory waste reaches the University's Hazardous Waste Accumulation Area,'' and believes that the words ''as soon as'' should be replaced with ''at the first opportunity'' to allow waste management personnel adequate time to characterize containers when many are received.

Response: In developing the rule, EPA considered several alternatives for this provision. EPA feels that ''at the first opportunity'' would be too vague and subject to interpretation of when the appropriate ''opportunity'' arose. The intent of the regulation is that waste be characterized as soon as it arrives. EPA understands that waste characterization is a process, and in some cases that process could require that a sample be sent out to confirm the contents of a container. EPA also acknowledges that there could, at times, be a large number of containers that will take some effort to characterize. The intent of the regulation is not to impose an impossible standard, but to ensure that the process of characterizing the waste will commence as soon as the waste reaches the accumulation area.

IV. What Is the Effective Date of This Rule?

This rule is effective immediately. Section 3010(b) of RCRA generally requires that EPA's hazardous waste regulations and revisions thereto take effect within six months after their promulgation. The purpose of this requirement is to allow persons handling hazardous wastes sufficient lead time to prepare to comply with new regulatory requirements. The Hazardous and Solid Waste Amendments of 1984 amended section 3010 of RCRA to allow rules to become effective in less than six months when the regulated entities do not need the six-month period to come into compliance. That is the case here. This rule will not take effect in the relevant states unless and until it is adopted as state law. In addition, the rule itself does not require immediate compliance. Once adopted as state law, its effect will be to exempt certain entities from identified RCRA regulations so long as the entities comply with the requirements in this rule (*i.e.*, it is up to the regulated entities to determine when they want to take advantage of the exemption). These reasons also provide a basis for making this rule effective immediately, upon publication, under the Administrative Procedure Act, pursuant to 5 U.S.C. 553(d).

V. Additional Information

A. How Does This Rule Comply With Executive Order 12866?

Because this rule affects only three specific universities, it is not a rule of general applicability and, therefore, is not subject to OMB review and Executive Order 12866. In addition, OMB has agreed that review of site-specific rules under Project XL is not necessary.

B. Is a Regulatory Flexibility Analysis Required?

The Regulatory Flexibility Act (RFA) generally requires an Agency to conduct a Regulatory Flexibility analysis of any rule subject to notice and comment rulemaking requirements unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small not-for-profit enterprises, and small governmental jurisdictions. EPA has concluded that this rule will not have a significant impact on a substantial number of small entities because it affects only three entities: the University of Massachusetts-Boston, Boston, Massachusetts, Boston College, Chestnut Hill, Massachusetts, and the University of Vermont, Burlington, Vermont. These Universities are not small entities. Therefore, EPA certifies that today's rule will not have a significant economic impact on a substantial number of small entities.

C. Is EPA Required To Submit a Rule Report Under the Congressional Review Act?

The Congressional Review Act, 5 U.S.C. 801 *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and the Comptroller General of the United States. Section 804, however, exempts from Section 801 the following types of rules: rules of particular applicability, rules relating to agency management or personnel, and rules of agency organization, procedure, or practice that do not substantially affect the rights or obligations of non-agency parties. 5 U.S.C. 804(3). EPA is not required to submit a rule report regarding today's action under Section 801 because this is a rule of particular applicability.

D. Is an Information Collection Request Required for This Project Under the Paperwork Reduction Act?

This action applies only to three universities, and therefore requires no information collection activities subject to the Paperwork Reduction Act, and therefore no information collection request (ICR) will be submitted to OMB for review in compliance with the Paperwork Reduction Act, 44 U.S.C. 3501, *et seq.*

E. Does This Project Trigger the Requirements of the Unfunded Mandates Reform Act?

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Public Law 104–4, establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local, and tribal governments and the private sector. Under section 202 of the UMRA, EPA generally must prepare a written statement, including a cost-benefit analysis, for proposed and final rules with ''Federal mandates'' that may result in expenditures to State, local, and tribal governments, in the aggregate, or to the private sector, of $100 million or more in any one year. Before promulgating an EPA rule for which a written statement is needed, section 205 of the UMRA generally requires EPA to identify and consider a reasonable number of regulatory alternatives and adopt the least costly, most cost-effective or least burdensome alternative that achieves the objectives of the rule. The provisions of section 205 do not apply when they are inconsistent with applicable law. Moreover, section 205 allows EPA to adopt an alternative other than the least costly, most cost-effective or least burdensome alternative if the Administrator publishes with the final rule an explanation of why that alternative was not adopted. Before EPA establishes any regulatory requirements that may significantly or uniquely affect small governments, including tribal governments, it must have developed under section 203 of the UMRA a small government agency plan. The plan must provide for notifying potentially affected small governments, enabling officials of affected small governments to have meaningful and timely input in the development of EPA regulatory proposals with significant Federal intergovernmental mandates, and informing, educating, and advising small governments on compliance with the regulatory requirements.

As noted above, this rule is applicable only to the three Universities. The EPA has determined that this rule does not contain a Federal mandate that may

result in expenditures of $100 million or more for State, local, and tribal governments, in the aggregate, or the private sector in any one year. Thus, today's rule is not subject to the requirements of sections 202 and 205 of the UMRA. EPA has also determined that this rule contains no regulatory requirements that might significantly or uniquely affect small governments.

F. RCRA/HSWA

1. Applicability of Rules in Authorized States

Under section 3006 of RCRA, EPA may authorize qualified States to administer and enforce the RCRA program for hazardous waste within the State. (See 40 CFR part 271 for the standards and requirements for authorization.) States with final authorization administer their own hazardous waste programs in lieu of the federal program. Following authorization, EPA retains enforcement authority under sections 3008, 7003 and 3013 of RCRA.

After authorization, rules written under RCRA provisions that predate the Hazardous and Solid Waste Amendments of 1984 (HSWA) no longer apply in the authorized State. New Federal requirements imposed by those rules do not take effect in an authorized state until the state adopts the requirements as state law.

In contrast, under section 3006(g) of RCRA, new requirements and prohibitions imposed by HSWA take effect in authorized States at the same time they take effect in nonauthorized States. EPA is directed to carry out those requirements and prohibitions in authorized States until the state is granted authorization to do so.

2. Effect on Massachusetts and Vermont Authorization

Today's rule is promulgated pursuant to RCRA provisions that predate HSWA. Massachusetts and Vermont have received authority to administer most of the RCRA program; thus, authorized provisions of the States' hazardous waste program are administered in lieu of the Federal program. Massachusetts and Vermont have received authority to administer hazardous waste standards for generators. As a result, today's rule will not be effective in Massachusetts and Vermont until the States adopt equivalent requirements as State law. It is EPA's understanding that subsequent to the promulgation of this rule, Massachusetts and Vermont intend to propose rules containing equivalent provisions. EPA may not enforce these requirements until it approves the State requirements as a revision to each of the authorized State programs.

G. How Does This Rule Comply With Executive Order 13045: Protection of Children From Environmental Health Risks and Safety Risks?

The Executive Order 13045, ''Protection of Children from Environmental Health Risks and Safety Risks'' (62 FR 19885, April 23, 1997) applies to any rule that (1) is determined to be ''economically significant'' as defined under Executive Order 12866, and (2) concerns an environmental health or safety risk that EPA has reason to believe may have a disproportionate effect on children. If the regulatory action meets both criteria, the Agency must evaluate the environmental health or safety effects of the planned rule on children and explain why the planned regulation is preferable to other potentially effective and reasonably feasible alternatives considered by the Agency.

This rule is not subject to Executive Order 13045 because it is not economically significant as defined in Executive Order 12866, and because the Agency does not have reason to believe the environmental health or safety risks addressed by this action present a disproportionate risk to children.

H. How Does This Rule Comply With Executive Orders on Federalism?

Under Executive Order 12875, EPA may not issue a regulation that is not required by statute and that creates a mandate upon a State, local or tribal government, unless the Federal government provides the funds necessary to pay the direct compliance costs incurred by those governments or EPA consults with those governments. If EPA complies by consulting, Executive Order 12875 requires EPA to provide to the Office of Management and Budget a description of the extent of EPA's prior consultation with representatives of affected State, local and tribal governments, the nature of their concerns, copies of any written communications from the governments, and a statement supporting the need to issue the regulation. In addition, Executive Order 12875 requires EPA to develop an effective process permitting elected officials and other representatives of State, local and tribal governments ''to provide meaningful and timely input in the development of regulatory proposals containing significant unfunded mandates.'' Today's rule does not create a mandate on State, local or tribal governments. The rule does not impose any enforceable duties on these entities. Accordingly, the requirements of section 1(a) of Executive Order 12875 do not apply to this rule.

On August 4, 1999, President Clinton issued a new executive order on Federalism, Executive Order 13132 (64 FR 43255 (August 10, 1999)) which will take effect on November 2, 1999. In the interim, the current Executive Order 12612 (52 FR 41685 (October 30, 1987)) on federalism still applies. This rule will not have a substantial direct effect on States, on the relationship between the national government and the States or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 12612.

I. How Does This Rule Comply With Executive Order 13084: Consultation and Coordination With Indian Tribal Governments?

Under Executive Order 13084, EPA may not issue a regulation that is not required by statute, that significantly or uniquely affects the communities of Indian tribal governments, and that imposes substantial direct compliance costs on those communities, unless the Federal government provides the funds necessary to pay the direct compliance costs incurred by the tribal governments or EPA consults with those governments. If EPA complies by consulting, Executive Order 13084 requires EPA to provide to the Office of Management and Budget, in a separately identified section of the preamble to the rule, a description of the extent of EPA's prior consultation with representatives of affected tribal governments, a summary of the nature of their concerns, and a statement supporting the need to issue the regulation. In addition, Executive Order 13084 requires EPA to develop an effective process permitting elected officials and other representatives of Indian tribal governments ''to provide meaningful and timely input in the development of regulatory policies on matters that significantly or uniquely affect their communities.'' Today's rule does not significantly or uniquely affect the communities of Indian tribal governments. Accordingly, the requirements of section 3(b) of Executive Order 13084 do not apply to this rule. There are no communities of Indian tribal governments located in the vicinity of the University laboratories.

J. Does This Rule Comply With National Technology Transfer and Advancement Act?

As noted in the proposed rule, section 12(d) of the National Technology Transfer and Advancement Act of 1995

(NTTAA), Public Law 104–113, section 12(d) (15 U.S.C. 272 note) directs EPA to use voluntary consensus standards in its regulatory activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (e.g., materials specifications, test methods, sampling procedures, and business practices) that are developed or adopted by voluntary consensus standards bodies. The NTTAA directs EPA to provide Congress, through OMB, explanations when the Agency decides not to use available and applicable voluntary consensus standards. This rulemaking does not involve technical standards. Therefore, EPA did not consider the use of any voluntary consensus standards.

List of Subjects in 40 CFR Part 262

Environmental protection, Hazardous waste.

Dated: September 22, 1999.

Carol M. Browner,

Administrator.

For the reasons set forth in the preamble, part 262 of title 40, chapter I of the Code of Federal Regulations is amended as follows:

PART 262—STANDARDS APPLICABLE TO GENERATORS OF HAZARDOUS WASTE

1. The authority citation for part 262 continues to read as follows:

Authority: 42 U.S.C. 6906, 6912, 6922–6925, 6937, and 6938.

Subpart A—General

2. Section 262.10 is amended by adding paragraph (j) to read as follows:

§ 262.10 Purpose, scope, and applicability.

* * * * *

(j) (1) Universities that are participating in the Laboratory XL project are the University of Massachusetts Boston in Boston, Massachusetts, Boston College in Chestnut Hill, Massachusetts, and the University of Vermont in Burlington, Vermont (''Universities''). The Universities generate laboratory wastes (as defined in § 262.102), some of which will be hazardous wastes. As long as the Universities comply with all the requirements of subpart J of this part the Universities' laboratories that are participating in the University Laboratories XL Project as identified in Table 1 of this section, are not subject to the provisions of §§ 262.11, 262.34(c), 40 CFR Parts 264 and 265, and the permit requirements of 40 CFR Part 270 with respect to said laboratory wastes.

TABLE 1.—LABORATORY XL PROJECT PARTICIPANT INFORMATION

Institution	Approx. number of labs	Departments participating	Location of current hazardous waste accumulation areas
Boston College, Chestnut Hill, MA	120	Chemistry, Biology, Geology, Physics, Psychology.	Merkert Chemistry Building, 2609 Beacon St., Boston, MA, Higgins Building, 140 Commonwealth Ave., Chestnut Hill, MA.
University of Massachusetts Boston, Boston, MA.	150	Chemistry, Biology, Psychology, Anthropology, Geology and Earth Sciences, and Environmental, Coastal and Ocean Sciences.	Science Building (Bldg. #080); McCormack Building (Bldg. #020); and Wheatley Building (Bldg. #010), 100 Morrissey Blvd., Boston, MA.
University of Vermont, Burlington, VT.	400	Colleges of: Agriculture and Life Sciences, Arts and Sciences, Medicine, and Engineering and Mathematics; and Schools of: Nursing, Allied Heath Sciences, and Natural Resources.	Given Bunker, 89 Beaumont Ave., Burlington, VT.

(2) Each University shall have the right to change its respective departments or the on-site location of its hazardous waste accumulation areas listed in Table 1 of this section upon written notice to the Regional Administrator for EPA-Region I and the appropriate state agency. Such written notice will be provided at least ten days prior to the effective date of any such changes.

3. Part 262 is amended by adding Subpart J to read as follows:

Subpart J—University Laboratories XL Project—Laboratory Environmental Management Standard

Sec.

262.100 To what organizations does this subpart apply?
262.101 What is in this subpart?
262.102 What special definitions are included in this subpart?
262.103 What is the scope of the laboratory environmental management standard?
262.104 What are the minimum performance criteria?
262.105 What must be included in the laboratory environmental management plan?
262.106 When must a hazardous waste determination be made?
262.107 Under what circumstances will a university's participation in this environmental management standard pilot be terminated?
262.108 When will this subpart expire?

§ 262.100 To what organizations does this subpart apply?

This subpart applies to an organization that meets all three of the following conditions:

(a) It is one of the three following academic institutions: The University of Massachusetts Boston in Boston, Massachusetts, Boston College in Chestnut Hill, Massachusetts, or the University of Vermont in Burlington, Vermont (''Universities''); and

(b) It is a laboratory at one of the Universities (identified pursuant to § 262.105(c)(2)(ii)) where laboratory scale activities, as defined in § 262.102, result in laboratory waste; and

(c) It complies with all the requirements of this subpart.

§ 262.101 What is in this subpart?

This subpart provides a framework for a new management system for wastes that are generated in University laboratories. This framework is called the Laboratory Environmental Management Standard. The standard includes some specific definitions that apply to the University laboratories. It contains specific requirements for how to handle laboratory waste that are called Minimum Performance Criteria. The standard identifies the requirements for developing and implementing an environmental management plan. It outlines the responsibilities of the management staff of each participating university. Finally, the standard identifies requirements for training people who will work in the

laboratories or manage laboratory waste. This Subpart contains requirements for RCRA solid and hazardous waste determination, and circumstances for termination and expiration of this pilot.

§ 262.102 What special definitions are included in this subpart?

For purposes of this subpart, the following definitions apply:

Acutely Hazardous Laboratory Waste means a laboratory waste, defined in the Environmental Management Plan as posing significant potential hazards to human health or the environment and which must include RCRA ''P'' wastes, and may include particularly hazardous substances as designated in a University's Chemical Hygiene Plan under OSHA, or Extremely Hazardous Substances under the Emergency Planning and Community Right to Know Act.

Emergency means any occurrence such as, but not limited to, equipment failure, rupture of containers or failure of control equipment which results in the potential uncontrolled release of a hazardous chemical into the environment and which requires agency or fire department notification and/or reporting.

Environmental Management Plan (EMP) means a written program developed and implemented by the university which sets forth standards and procedures, responsibilities, pollution control equipment, performance criteria, resources and work practices that both protect human health and the environment from the hazards presented by laboratory wastes within a laboratory and between a laboratory and the hazardous waste accumulation area, and satisfies the plan requirements defined elsewhere in this Subpart. Certain requirements of this plan are satisfied through the use of the Chemical Hygiene Plan (see, 29 CFR 1910.1450), or equivalent, and other relevant plans, including a waste minimization plan. The elements of the Environmental Management Plan must be easily accessible, but may be integrated into existing plans, incorporated as an attachment, or developed as a separate document.

Environmental Objective means an overall environmental goal of the organization which is verifiable.

Environmental Performance means results of the data collected pursuant to implementation of the Environmental Management Plan as measured against policy, objectives and targets.

Environmental Target means an environmental performance requirement of the organization which is quantifiable, where practicable, verifiable and designed to be achieved within a specified time frame.

Hazardous Chemical means any chemical which is a physical hazard or a health hazard. A physical hazard means a chemical for which there is scientifically valid evidence that it is a combustible liquid, a compressed gas, explosive, flammable, an organic peroxide, an oxidizer, pyrophoric, unstable (reactive) or water-reactive. A health hazard means a chemical for which there is statistically significant evidence based on at least one study conducted in accordance with established scientific principles that acute or chronic health effects may occur in exposed employees. The term ''health hazard'' includes chemicals which are carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, corrosives, sensitizers, hepatotoxins, nephrotoxins, neurotoxins, agents which act on the hematopoietic system and agents which damage the lungs, skin, eyes or mucous membranes.

Hazardous Chemical of Concern means a chemical that the organization has identified as having the potential to be of significant risk to human health or the environment if not managed in accordance with procedures or practices defined by the organization.

Hazardous Waste Accumulation Area means the on-site area at a University where the University will make a solid and hazardous waste determination with respect to laboratory wastes.

In-Line Waste Collection means a system for the automatic collection of laboratory waste which is directly connected to or part of a laboratory scale activity and which is constructed or operated in a manner which prevents the release of any laboratory waste therein into the environment during collection.

Laboratory means, for the purpose of this Subpart, an area within a facility where the laboratory use of hazardous chemicals occurs. It is a workplace where relatively small quantities of hazardous chemicals are used on a non-production basis. The physical extent of individual laboratories within an organization will be defined by the Environmental Management Plan. A laboratory may include more than a single room if the rooms are in the same building and under the common supervision of a laboratory supervisor.

Laboratory Clean-Out means an evaluation of the chemical inventory of a laboratory as a result of laboratory renovation, relocation or a change in laboratory supervision that may result in the transfer of laboratory wastes to the hazardous waste accumulation area.

Laboratory Environmental Management Standard means the provisions of this Subpart and includes the requirements for preparation of Environmental Management Plans and the inclusion of Minimum Performance Criteria within each Environmental Management Plan.

Laboratory Scale means work with substances in which containers used for reactions, transfers and other handling of substances are designed to be safely and easily manipulated by one person. ''Laboratory Scale'' excludes those workplaces whose function is to produce commercial quantities of chemicals.

Laboratory Waste means a hazardous chemical that results from laboratory scale activities and includes the following: excess or unused hazardous chemicals that may or may not be reused outside their laboratory of origin; hazardous chemicals determined to be RCRA hazardous waste as defined in 40 CFR Part 261; and hazardous chemicals that will be determined not to be RCRA hazardous waste pursuant to § 262.106.

Laboratory Worker means a person who is assigned to handle hazardous chemicals in the laboratory and may include researchers, students or technicians.

Legal and Other Requirements means requirements imposed by, or as a result of, governmental permits, governmental laws and regulations, judicial and administrative enforcement orders, non-governmental legally enforceable contracts, research grants and agreements, certification specifications, formal voluntary commitments and organizational policies and standards.

Senior Management means senior personnel with overall responsibility, authority and accountability for managing laboratory activities within the organization.

Universities means the following academic institutions; University of Vermont, Boston College, and the University of Massachusetts Boston, which are participants in this Laboratory XL project and which are subject to the requirements set forth in this Subpart J.

§ 262.103 What is the scope of the laboratory environmental management standard?

The Laboratory Environmental Management Standard will not affect or supersede any legal requirements other than those described in § 262.10(j). The requirements that continue to apply include, but are not limited to, OSHA, Fire Codes, wastewater permit limitations, emergency response notification provisions, or other legal

requirements applicable to University laboratories.

§ 262.104 What are the minimum performance criteria?

The Minimum Performance Criteria that each University must meet in managing its Laboratory Waste are:

(a) Each University must label all laboratory waste with the general hazard class and either the words ''laboratory waste'' or with the chemical name of the contents. If the container is too small to hold a label, the label must be placed on a secondary container.

(b) Each University may temporarily hold up to 55 gallons of laboratory waste or one quart of acutely hazardous laboratory waste, or weight equivalent, in each laboratory, but upon reaching these thresholds, each University must mark that laboratory waste with the date when this threshold requirement was met (by dating the container(s) or secondary container(s)).

(c) Each university must remove all of the dated laboratory waste from the laboratory for delivery to a location identified in paragraph (i) of this section within 30 days of reaching the threshold amount identified in paragraph (b) of this section.

(d) In no event shall the excess laboratory waste that a laboratory temporarily holds before dated laboratory waste is removed exceed an additional 55 gallons of laboratory waste (or one additional quart of acutely hazardous laboratory waste). No more than 110 gallons of laboratory waste total (or no more than two quarts of acutely hazardous laboratory waste total) may be temporarily held in a laboratory at any one time. Excess laboratory waste must be dated and removed in accordance with the requirements of paragraphs (b) and (c) of this section.

(e) Containers of laboratory wastes must be:

(1) Closed at all times except when wastes are being added to (including during in-line waste collection) or removed from the container;

(2) Maintained in good condition and stored in the laboratory in a manner to avoid leaks;

(3) Compatible with their contents to avoid reactions between the waste and its container; and must be made of, or lined with, materials which are compatible with the laboratory wastes to be temporarily held in the laboratory so that the container is not impaired; and

(4) Inspected regularly (at least annually) to ensure that they meet requirements for container management.

(f) The management of laboratory waste must not result in the release of hazardous constituents into the land, air and water where such release is prohibited under federal law.

(g) The requirements for emergency response are:

(1) Each University must post notification procedures, location of emergency response equipment to be used by laboratory workers and evacuation procedures;

(2) Emergency response equipment and procedures for emergency response must be appropriate to the hazards in the laboratory such that hazards to human health and the environment will be minimized in the event of an emergency;

(3) In the event of a fire, explosion or other release of laboratory waste which could threaten human health or the environment, the laboratory worker must follow the notification procedures under paragraph (g)(1) of this section.

(h) Each University must investigate, document, and take actions to correct and prevent future incidents of hazardous chemical spills, exposures and other incidents that trigger a reportable emergency or that require reporting under paragraph (g) of this section.

(i) Each University may only transfer laboratory wastes from a laboratory:

(1) directly to an on-site designated hazardous waste accumulation area. Notwithstanding 40 CFR 263.10(a), each University must comply with requirements for transporters set forth in 40 CFR 263.30 and 263.31 in the event of a discharge of laboratory waste en route from a laboratory to an on-site hazardous waste accumulation area; or

(2) to a treatment, storage or disposal (TSD) facility permitted to handle the waste under 40 CFR part 270 or in interim status under 40 CFR parts 265 and 270 (or authorized to handle the waste by a state with a hazardous waste management program approved under 40 CFR part 271) if it is determined in the laboratory by the individuals identified in § 262.105(b)(3) to be responsible for waste management decisions that the waste is a hazardous waste and that it is prudent to transfer it directly to a treatment, storage, and disposal facility rather than an on-site accumulation area.

(j) Each University must ensure that laboratory workers receive training and are provided with information so that they can implement and comply with these Minimum Performance Criteria.

§ 262.105 What must be included in the laboratory environmental management plan?

(a) Each University must include specific measures it will take to protect human health and the environment from hazards associated with the management of laboratory wastes and from the reuse, recycling or disposal of such materials outside the laboratory.

(b) Each University must write, implement and comply with an Environmental Management Plan that includes the following:

(1) The specific procedures to assure compliance with each of the Minimum Performance Criteria set forth in § 262.104.

(2) An environmental policy, or environmental, health and safety policy, signed by the University's senior management, which must include commitments to regulatory compliance, waste minimization, risk reduction and continual improvement of the environmental management system.

(3) A description of roles and responsibilities for the implementation and maintenance of the Laboratory Environmental Management Plan.

(4) A system for identifying and tracking legal and other requirements applicable to laboratory waste, including the procedures for providing updates to laboratory supervisors.

(5) Criteria for the identification of physical and chemical hazards and the control measures to reduce the potential for releases of laboratory wastes to the environment, including engineering controls, the use of personal protective equipment and hygiene practices, containment strategies and other control measures.

(6) A pollution prevention plan, including, but not limited to, roles and responsibilities, training, pollution prevention activities, and performance review.

(7) A system for conducting and updating annual surveys of hazardous chemicals of concern and procedures for identifying acutely hazardous laboratory waste.

(8) The procedures for conducting laboratory clean-outs with regard to the safe management and disposal of laboratory wastes.

(9) The criteria that laboratory workers must comply with for managing, containing and labeling laboratory wastes, including: an evaluation of the need for and the use of any special containers or labeling circumstances, and the use of laboratory wastes secondary containers including packaging, bottles, or test tube racks.

(10) The procedures relevant to the safe and timely removal of laboratory wastes from the laboratory.

(11) The emergency preparedness and response procedures to be implemented for laboratory waste.

(12) Provisions for information dissemination and training, provided for in paragraph (d) of this section.

(13) The procedures for the development and approval of changes to the Environmental Management Plan.

(14) The procedures and work practices for safely transferring or moving laboratory wastes from a laboratory to a location identified in § 262.104(i).

(15) The procedures for regularly inspecting a laboratory to assess conformance with the requirements of the Environmental Management Plan.

(16) The procedures for the identification of environmental management plan noncompliance, and the assignment of responsibility, timelines and corrective actions to prevent their reoccurrence.

(17) The record keeping requirements to document conformance with this Plan.

(c) Organizational responsibilities for each university. Each University must:

(1) Develop and oversee implementation of its Laboratory Environmental Management Plan.

(2) Identify the following:

(i) Annual environmental objectives and targets;

(ii) Those laboratories covered by the requirements of the Laboratory Environmental Management Plan.

(3) Assign roles and responsibilities for the effective implementation of the Environmental Management Plan.

(4) Determine whether laboratory wastes are solid wastes under RCRA and, if so, whether they are hazardous.

(5) Develop, implement, and maintain:

(i) Policies, procedures and practices governing its compliance with the Environmental Management Plan and applicable federal and state hazardous waste regulations.

(ii) Procedures to monitor and measure relevant conformance and environmental performance data for the purpose of supporting continual improvement of the Environmental Management Plan.

(iii) Policies and procedures for managing environmental documents and records applicable to this Environmental Management Standard.

(6) Ensure that:

(i) Its Environmental Management Plan is available to laboratory workers, vendors, employee representatives, visitors, on-site contractors, and upon request, to governmental representatives.

(ii) Personnel designated by each University to handle laboratory wastes and RCRA hazardous waste receive appropriate training.

(iii) The Environmental Management Plan is reviewed at least annually by senior management to ensure its continuing suitability, adequacy and effectiveness. The reviews may include, but not be limited to, a consideration of monitoring and measuring information, Laboratory Environmental Management Standard performance data, assessment and audit results and other relevant information and data.

(d) What are the Information and Training Requirements for Each University?

(1) Each University must ensure that laboratory workers receive training and are provided with the information to understand and implement the elements of each University's Environmental Management Plan that are relevant to the laboratory workers' responsibilities.

(2) When must each University ensure that laboratory workers receive training and information?

(i) Each University must provide the information to each laboratory worker when he/she is first assigned to a work area where laboratory wastes may be generated.

(ii) Each University must ensure that each laboratory worker has had training within six months of when he/she is first assigned to a work area where laboratory wastes may be generated. Each University must retrain a laboratory worker when a laboratory waste poses a new or unique hazard for which the laboratory worker has not received prior training and as frequently as needed to maintain knowledge of the procedures of the Environmental Management Plan.

(3) Each University must provide an outline of training and specify who is to receive training in its Environmental Management Plan.

(4) Each University must ensure that laboratory workers are informed of:

(i) The contents of this Subpart and the Laboratory Environmental Management Plan(s) for the laboratory(ies) in which they will be performing work;

(ii) The location and availability of the Environmental Management Plan;

(iii) Emergency response measures applicable to laboratories;

(iv) Signs and indicators of a hazardous substance release;

(v) The location and availability of known reference materials relevant to implementation of the Environmental Management Plan; and

(vi) Environmental training requirements applicable to laboratory workers.

(5) Each University must ensure that Laboratory workers have received training in:

(i) Methods and observations that may be used to detect the presence or release of a hazardous substance;

(ii) The chemical and physical hazards associated with laboratory wastes in their work area;

(iii) The relevant measures a laboratory worker can take to protect human health and the environment; and

(iv) Details of the Environmental Management Plan sufficient to ensure they manage laboratory waste in accordance with the requirements of this Subpart.

(6) Requirements pertaining to Laboratory visitors:

(i) Laboratory visitors, such as on-site contractors or environmental vendors, that require information and training under this standard must be identified in the Environmental Management Plan.

(ii) Laboratory visitors identified in the Environmental Management Plan must be informed of the existence and location of the Environmental Management Plan.

(iii) Laboratory visitors identified in the Environmental Management Plan must be informed of relevant policies, procedures or work practices to ensure compliance with the requirements of the Environmental Management Plan.

(7) Each University must define methods of providing objective evidence and records of training and information dissemination in its Environmental Management Plan.

§ 262.106 When must a hazardous waste determination be made?

(a) For laboratory waste sent from a laboratory to an on-site hazardous waste accumulation area, each University must evaluate the laboratory wastes to determine whether they are solid wastes under RCRA and, if so, determine pursuant to § 262.11 (a) through (d) whether they are hazardous wastes, as soon as the laboratory wastes reach the University's Hazardous Waste Accumulation area(s). At this point each University must determine whether the laboratory waste will be reused or whether it must be managed as RCRA solid or hazardous waste.

(b) For laboratory waste that will be sent from a laboratory to a TSD facility permitted to handle the waste, each University must evaluate such laboratory wastes to determine whether they are solid wastes under RCRA and, if so, determine pursuant to § 262.11 (a) through (d) whether they are hazardous wastes, prior to the 30-day deadline for removing dated laboratory waste from the laboratory.

(c) Laboratory waste that is determined to be hazardous waste is no longer subject to the provisions of this

subpart and must be managed in accordance with all applicable provisions of 40 CFR Parts 260 through 270.

§ 262.107 Under what circumstances will a university's participation in this environmental management standard pilot be terminated?

(a) EPA retains the right to terminate a University's participation in this Laboratory XL project if the University:

(1) Is in non-compliance with the Minimum Performance Criteria in § 262.104; or

(2) Has actual environmental management practices in the laboratory that do not conform to its Environmental Management Plan; or

(3) Is in non-compliance with the Hazardous Waste Determination requirements of § 262.106.

(b) In the event of termination, EPA will provide the University with 15 days written notice of its intent to terminate. During this period, which commences upon receipt of the notice, the University will have the opportunity to come back into compliance with the Minimum Performance Criteria, its Environmental Management Plan, or the requirements for making a hazardous waste determination at § 262.106 or to provide a written explanation as to why it was not in compliance and how it intends to return to compliance. If, upon review of the University's written explanation, EPA then re-issues a written notice terminating the University from this XL Project, the provisions of paragraph (c) of this section will immediately apply and the University shall have 90 days to come into compliance with the applicable RCRA requirements deferred by § 262.10(j). During the 90-day transition period, the provisions of this subpart shall continue to apply to the University.

(c) If a University withdraws from this XL project, or receives a notice of termination pursuant to this section, it must submit to EPA and the state a schedule for returning to full compliance with RCRA requirements at the laboratory level. The schedule must show how the University will return to full compliance with RCRA within 90 days from the date of the notice of termination or withdrawal.

§ 262.108 When will this subpart expire?

This subpart will expire on September 30, 2003.

[FR Doc. 99–25137 Filed 9–27–99; 8:45 am]

BILLING CODE 6560–50–U