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HARVARD UNIVERSITY
UNIVERSITY OPERATIONS SERVICES

ENVIRONMENTAL HEALTH AND SAFETY

August 26, 1999

RCRA Information Center Docket Clerk (5305W)
U. S. Environmental Protection Agency
410 M St, S.W.
Washington, DC 20460
Attention: Docket Number F-1999-NEUP-FFFFF

Re: Project XL Site-specific Rulemaking for University Laboratories

Dear Environmental Protection Agency:

Harvard University provides the following comments in support of the proposed Project XL "Site-specific Rulemaking for University Laboratories" (the "Project") as proposed by the EPA on July 27, 1999 in Federal Register 64 FR 40695 – 40715.

The prescriptive, "command-and-control" requirements of the Resource Conservation and Recovery Act ("RCRA") were developed in response to a recognized threat to human health and the environment from improper disposal of industrial hazardous wastes. RCRA has been successfully applied to industry, a sector whose systems are better suited to the command-and-control process than are university laboratories. The application of RCRA to university laboratories has highlighted the difficulty in applying RCRA's command-and-control requirements to the performance-based environment of teaching, research and development in higher education. Prescriptive command-and-control requirements are contrary to the collaborative nature of the academic environment, and may confuse regulatory process with measurable environmental results. Concern over the strict application of RCRA to the laboratory environment has been echoed by many nationally recognized organizations including the American Chemical Society, the National Institutes of Health, the Government-University-Industry Research Roundtable and the National Research Council.[1]

The EPA's university-focused compliance and enforcement initiative in Region I has recently been augmented by similar efforts now underway in other EPA Regions of the country, including Region III and Region IX. The EPA's recent inspections of institutional facilities including the academic, medical and research community has underscored the challenges that this sector faces in implementing programs in strict accordance with RCRA. EPA is encouraged to consider ample evidence that RCRA requirements are not well suited to the laboratory environment, and

[1] The Government-University-Industry Research Roundtable is sponsored by the National Academy of Sciences, the National Academy of Engineering, and the Institute of Medicine.

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is encouraged to work vigorously towards more appropriate compliance regulations for the higher education community, while simultaneously implementing the Project XL for University Laboratories.

Project XL Site-specific Rulemaking for University Laboratories

The performance-based approach envisioned by the proposed Project XL will serve to harmonize laboratory hazardous waste management with the existing requirements of the Occupational Safety and Health Act (OSHA) as embodied in OSHA's requirements for the laboratory Chemical Hygiene Plan (29 CFR 1910.1450). This consistency of approach will enable academic institutions to refocus resources on the laboratory practices and activities that impact waste generation, as opposed to the current compliance model, which requires intense emphasis on the management of waste materials after these wastes are created. The propose approach will result in environmental benefit by reducing the waste generation at the participating Universities.

The proposed Project addresses only laboratory activities and does not appear to allow flexibility for project proponents to apply similar waste management practices to non-laboratory waste generating activities. Many higher education campuses are comprised of many, if not hundreds, of separate buildings. Each of these buildings may generate small quantities of hazardous waste associated with non-laboratory activities such as graphic arts, equipment operation, painting, grounds keeping, etc. Waste generation from these operations has several attributes that are similar to the waste generated in the laboratory environment, including numerous generation sites, low waste volume and intermittent generation. As part of this project, EPA is encouraged to provide non-laboratory buildings the same waste management flexibility that will be afforded to laboratory areas.

Section 262.105 of the Project proposal includes a detailed set of requirements for a Laboratory Environmental Management Plan. We agree that a Laboratory Management Plan affords opportunity for embodiment of best management practices in laboratory waste management. The EPA is encouraged to provide the Universities participating in the Project with reasonable flexibility in the implementation of Environmental Management Plan criteria, similar to that provided in the OSHA Chemical Hygiene Plan. The performance-based Chemical Hygiene Plan provides the laboratory with reasonable latitude to develop practices and procedures commensurate with the hazards and operating conditions of the individual laboratory. The level of detail required in the Environmental Management Plan may prove challenging to implement, especially in the decentralized structure of larger higher education institutions. For example, Section 262.105 (d)(2) of the Project requires that the University provide information and training to each laboratory worker when he/she is first assigned to a work area. Narrowly interpreted, this is more restrictive than the current Federal RCRA requirement at 40 CFR 265.16, requiring completion of a personnel training program "within six months ... after the date of their employment or assignment to a facility. ." With a relatively sudden influx of large numbers of new students in the autumn of each year, large universities may find it difficult to provide training upon first assignment to a work area. This example is provided to illustrate the need for the EPA to grant reasonable latitude to the Universities in the implementation of their Environmental Management Plans.

Proposed Section 262.104 generally requires that containers be closed at all times except when wastes are being added to or removed from the container. Container closure has long been problematic for laboratories, where frequent usage of waste containers during laboratory procedures has made strict application of container closure requirements a significant challenge We welcome the fact that the EPA is beginning to address the issue of container closure in the proposed Project by acknowledging the acceptability of in-line waste collection devices for satisfaction of container closure requirements. We feel that Section 262.104 of the Project should allow the Universities greater flexibility to employ a variety of prudent practices, including container closure, as a means to minimize the potential for release of hazardous constituents to the environment. Consistent with this approach, containers must be closed at all times that there is not an active laboratory practice involving the use of the waste container by a trained individual. EPA is encouraged to recognize the need for flexible approaches to this issue.

Proposed Section 262.105(b)(vii) includes a requirement for an upstream survey of all "hazardous chemicals of concern" on an annual basis. The process of conducting this survey may require significant commitment, especially at larger research universities, where the survey could encompass a great number of chemical substances or chemical storage locations. EPA is asked to provide the Universities with flexibility in implementing this requirement. Such flexibility may include annual distribution of safe handling guidelines and/or special container markings to accompany the distribution of hazardous chemicals of concern when issued from University stockrooms. For chemicals purchased directly from non-University stockrooms, Universities could work with their third-party suppliers to provide a similar communication at the time of purchase.

Proposed Section 262.106 requires a hazardous waste determination "as soon as the laboratory waste reaches the University's Hazardous Waste Accumulation Area." We believe that the words "as soon as" should be replaced with the phrase "at the first opportunity" to allow waste management personnel adequate time to characterize the many containers of waste that may be received.

Harvard supports the Project XL Site-specific Rulemaking for University Laboratories, and commends the EPA and the Universities for their effort to address the issue of hazardous waste management in laboratories. The EPA is asked to provide consideration to our comments on this Project.

Sincerely,

Joseph Griffin
Director, Environmental Health & Safety Department