ACS Safety Advisory Panel
Committee on Chemical Safety

December 15, 2015

EPA Docket Center
Environmental Protection Agency
Mail Code 28221T
1200 Pennsylvania Ave. NW
Washington, D.C. 20460

Re: Docket No. EPA-HQ-RCRA-2012-0121

The American Chemical Society (ACS) has been actively engaged with the Environmental Protection Agency (EPA) since the promulgation of the Resource Conservation and Recovery Act (RCRA) regulations in 1981 for generators of laboratory scale hazardous wastes. ACS represents scientists working in academic, government, and industrial laboratories and this comment along with the attached policy statement incorporates those perspectives. Upon review of the docket named above, we are concerned that the proposed rule changes to 40 CFR Part 262.11 establish requirements that will place additional ongoing functional and financial burdens on laboratories in many sectors. We do not believe that a balancing of these burdens has been given due consideration in the EPA reasoning for imposing these new requirements.

In preparing this comment, ACS has carefully vetted the concerns raised below with hazardous waste experts at a variety of leading academic institutions and in related professional organizations. These experts have raised concerns in greater detail on the general issues described in this comment. Many of their concerns are related to specific state interpretations of the RCRA regulations, which—as you can see in the attached policy statement—also remain the primary concern of the ACS with regard to RCRA impacts on laboratory waste management. Thus, while this comment addresses the EPA docket request within the general purview of the ACS policy statement, we agree that concerns by other laboratory stakeholders are important to consider in reviewing this rule.

We have three primary concerns related to the rule as proposed:

1. The rule maintains the current ambiguous situation regarding the “point of generation” of hazardous waste and where the application of RCRA requirements begins;

2. The requirements for documentation of hazardous waste determinations, even when the waste is determined not to be hazardous, have significantly more impact on the management of laboratory waste than on other hazardous waste generation settings; and

3. The additional labelling requirements for hazardous waste will impose a significant burden on laboratory waste generators without providing the benefits described in the docket.

The specific elements of these three concerns are outlined below.

Point 1

We recognize that for many years the EPA has worked hard on the issue of the point of hazardous waste generation in the laboratory setting. The outcome of this work was the promulgation of

Subpart K of the RCRA regulations, which apply to academic laboratories in states that have also promulgated this rule. Unfortunately, fewer than half of the states in the union have promulgated Subpart K, and thus this issue remains a problem at the majority of laboratory institutions. The first and second sets of recommendations in the attached ACS policy statement are crucial to addressing the generator issues that are raised in the docket. ACS continues to believe that developing a more uniform and flexible approach to managing laboratory wastes on a national basis is the best way to ensure ongoing improvement of laboratory waste management practices. For the reasons described below, the concerns described in the docket will not be addressed without consistent application and interpretation of Subpart K.

Point 2

While the EPA concern about inadequate waste determination processes by some generators is understandable, the proposed solution does not scale at all with the problem in the laboratory setting. Because laboratories produce many individual containers of different mixtures of hazardous chemicals in a wide variety of sizes and configurations, from 5 milliliter vials to 5 gallon drums, documenting the basis for a hazardous determination on a container by container process will significantly increase the amount of record keeping required to meet these regulatory requirements.

In addition, many hazardous chemicals used in laboratories are not designated “hazardous wastes” by the current EPA definitions, including most new chemicals that have come into use in the 35 years since 1980. The result for chemicals such as ethidium bromide—whose labelling criteria are set by, among others, the Department of Transportation—is that their shipping requirements will be different than for EPA-identified hazardous wastes. Consequently, there will be significant confusion created by the waste determination documentation for both waste handlers and government inspectors when chemicals such as ethidium bromide are lab packed in containers that also contain RCRA hazardous waste.

The proposed heightened requirement for hazardous waste determination documentation parallels and exacerbates the current administrative burden borne by lab pack generators with regard to the Land Disposal Restriction (LDR) documentation that is required as part of the shipping paper package. We have described the burden in previous correspondence and meetings with the EPA and continue to believe that the LDR paperwork is an unreasonable requirement for lab waste generators to meet, particularly because it has been an obsolete program since 2000.

One possible alternative to these documentation burdens required by the RCRA regulations would be to identify the creation of a lab pack as the point of hazardous waste determination and thus the point of imposition of the documentation requirements. As suggested by the EPA, the creation of an electronic tool to facilitate this lab packing process by personnel specifically trained in RCRA waste codes is likely to increase compliance rates that the EPA is seeking with this proposed rule. ACS would be glad to work with the EPA on designing such software to address the EPA and generator’s needs for proper documentation of lab packed wastes.

Point 3

Since laboratory waste is containerized in a wide variety of sizes and shapes, the proposal for additional labelling requirements to include hazard warnings will be 1) impractical for the smallest containers due to the size of the labels and 2) of limited value, since many containers are too small to be considered in developing a response plan to a hazmat incident. Here again, imposing the labelling requirements at the point of lab pack creation is the most reasonable approach to addressing the concerns described in the docket.

We appreciate the EPA’s desire to continue to improve the RCRA hazardous waste management system. However, because the proposed rules impact such a variety of industries and settings, it is very important for the EPA to take a conservative approach in making changes to the system that is the basis upon which many institutional laboratory waste management processes have been

developed. We believe that the three issues described above require rethinking to justify such changes.

We would be glad to discuss these ideas with you further at your convenience.

Sincerely,

Ralph Stuart
Chair, ACS Safety Advisory Panel

REGULATION OF LABORATORY WASTE

Environmental regulatory burdens are inappropriately placed on many academic, commercial,-and government laboratories when regulations designed to address large-scale industrial operations are applied to laboratories. Research, development, instructional, and service laboratories generate a broad range of small quantities of hazardous wastes, but are forced to individually manage each type of waste with the same rigor applied to those who create large amounts of relatively few wastes. By applying an industrial regulatory scheme to laboratories, unintended, ineffective, and inappropriate burdens are placed on these facilities.

The American Chemical Society (ACS) is committed to the health and safety of both humans and the environment in all of the operations of the chemical enterprise, but inappropriate regulation of laboratories hampers their efficiency and effectiveness and slows the progress of science and technology. To this end, the ACS makes the following recommendations:

Consistent Interpretation of Regulations by Local, State, and Federal Agencies
The U.S. regulatory system involves multiple federal, state, and local regulators. This often leads to inconsistent interpretations and makes development of "best practices" for waste management treatment difficult. State regulations must be at least as stringent as related federal regulations, and local regulations at least as stringent as related federal and state regulations. For consistency, when a local or state regulation is identical to the federal, that regulation should be interpreted and enforced in an identical manner.

- *ACS encourages consistent interpretation and enforcement of regulations at the local, state, and federal levels.*

Implementation and Expansion of the Environmental Protection Agency's (EPA) Subpart K Regulations for Laboratories
The Subpart K regulations for academic laboratories represent a good, first step towards needed regulatory relief for laboratory facilities. However, until states with authority to regulate hazardous waste activities adopt these rules, they will not be accessible to most laboratories. State environmental agencies need to be aware of the special issues laboratories face in complying with the hazardous waste regulations. In addition, these rules should also be applied to commercial and industrial laboratory facilities that face the same unique challenges as academic facilities. Additional regulatory relief is needed in the form of Subpart K amendments, including the elimination of the six-month limit on storage of waste in the laboratory. This is an onerous requirement that can significantly increase handling of waste without any apparent benefit to either regulators or the regulated community. Laboratory treatment of hazardous waste without a permit to minimize waste and reduce costs has been a

longtime ACS goal. Subpart K appears to allow treatment without a permit, but the allowance has not been confirmed by EPA.

- *ACS recommends that all states adopt Subpart K.*
- *ACS recommends that non-academic laboratories be eligible for Subpart K.*
- *ACS recommends elimination of the six-month limit on removal of unwanted material from the laboratory.*
- *ACS recommends that EPA confirms that treatment of unwanted material in a laboratory without a permit under Subpart K is allowed.*
- *ACS recommends the elimination of other overly restrictive requirements of Subpart K.*

Land Disposal Restriction Forms

All generators of hazardous waste are required to notify waste disposal facilities of allowable disposal technologies for each individual waste generated. This requirement dates to 1984 when a three-phase time frame to eliminate the land disposal of hazardous waste was initiated. The requirement for land disposal restriction notification is now obsolete and duplicative because these facilities already know how they are required to handle the wastes. They also are aware of the relevant health and safety issues for these wastes, which are handled on other required forms. The burden of this useless form is almost exclusively placed on laboratories, since the form must be completed only once for each waste. Laboratories differ from most industries in that the majority of their wastes are not repetitive. Since discarded laboratory reagents and other experimental wastes are considered unique, they require land disposal restriction notifications for each packaging unit and every shipment. The additional cost to laboratories to fill out and submit these useless forms with each shipment is significant. All hazardous waste shipments require generators to sign manifests identifying the hazards associated with the waste (i.e., EPA hazardous waste codes) and waste disposal facilities require waste profiles to further characterize them. The EPA already establishes and restricts waste disposal methods associated with each EPA hazardous waste code. Once wastes are received by the disposal facility, the disposal facility signs the manifest acknowledging acceptance of the wastes. Equivalent notification and acceptance of waste disposal restrictions can be achieved via the hazardous waste manifest process with generator-assigned EPA hazardous waste codes, disposal facility waste profiles, and the EPA's existing disposal restrictions associated with the EPA hazardous waste codes.

- *ACS recommends the elimination of the land disposal restriction notification requirement for laboratories.*

Treatment of Hazardous Waste in the Laboratory without a Permit

EPA and state regulations prohibit the treatment of even very small quantities of waste in laboratories. Many of these wastes could be easily and safely rendered non-hazardous or less-hazardous through controlled laboratory procedures. Instead, regulations require a myriad of packaging, labeling, manifesting, recordkeeping, and shipping requirements for off-site disposal. The procedures for many of these treatment processes are well established, and the expertise to treat these wastes safely is available. Additional controls, including requirements for written plans, training, and quantity limits, would provide assurance of proper handling. These procedures would

reduce the volume of hazardous wastes that must be transported for off-site treatment or incineration and represents good, waste-minimization practice.

- *ACS recommends that legislation, rulemaking, and guidance allow qualified laboratory personnel to treat small quantities of hazardous waste without a permit.*