EPA RESPONSE TO COMMENTS
Disaster Debris Reduction Pilot Project – St. Bernard Parish
June 23, 2008

This Response to Comments document contains the U.S. Environmental Protection Agency's (EPA) responses to written comments received from the Louisiana Environmental Action Network and the Tulane Environmental Law Clinic regarding the EPA's Disaster Debris Reduction Pilot Project, which is discussed in more detail below. These comments were solicited by EPA in connection with two public meetings that were held in the St. Bernard Parish Council trailer on June 11 and June 14, 2008, and a corresponding public comment period that ran from June 11 to June 19, 2008. The submitted written comments are summarized below, followed by EPA's responses.

Background

In light of the widespread devastation caused by Hurricanes Katrina and Rita in 2005, EPA is working to develop debris management options that expedite debris removal in a cost-effective and an environmentally sound manner. To that end, EPA has been working with the State of Louisiana and St. Bernard Parish to evaluate waste reduction processes that might be used to assist in the recovery from future natural disasters. Specifically, EPA has been developing and pursuing pilot evaluations of a thermal treatment process, known as an air curtain destructor (ACD), and a grinding process.

EPA's original plan was to combust and grind vegetative debris, construction and demolition (C&D) debris that does not contain regulated asbestos containing material (RACM), and RACM C&D debris in these processes. The pilot was scheduled to take place during the week of June 11, 2008 in the Paris Road Landfill in St. Bernard Parish.

However, due in part to community concerns and in preparation for the public release of technical information relating to the pilot evaluations, EPA took a harder look at the calculations supporting the risk assessment for the RACM C&D debris burn. On June 10, 2008, EPA decided that the portion of the project involving thermal treatment of RACM should be postponed. In addition, due to logistical difficulties, the test of the grinding process was also deferred.

Nonetheless, during the week of June 23, 2008, EPA expects to proceed with the burn of vegetative debris and non-RACM C&D debris. The data generated from the combustion of vegetative and non-RACM C&D debris will be valuable both in determining the suitability of the process for managing and/or reducing such debris in the future and in informing possible future research on RACM.

Comments and Responses

1. Does the housing stock to be burned still contain toxic materials, furniture, household items, cleaning agents, etc.? The waste in the test should represent hurricane debris – the entire contents of the home.

Response: Some materials were typically removed from the interiors of Katrina-impacted residences as part of general debris management procedures. These include appliances, electronic wastes, and household hazardous materials such as cleaning products and paint. The residential structure that is to be used for the C&D test no longer contains these particular materials, but it does still contain some typical household contents including furniture and clothing.

2. Volatile organic compounds and semi-volatile organic compounds should be added to the list of constituents of concern and tested for in perimeter air samples, worker exposure samples, and site assessment samples.

Response: Constituents to be monitored continuously include visible emissions (opacity), carbon monoxide (CO), carbon dioxide (CO_2), nitrogen oxides (NOx), sulfur dioxide (SO_2), and total hydrocarbons. Temperature will also be continuously monitored. Constituents that will be monitored and that require extractive sampling and subsequent laboratory analyses include volatile organic compounds (VOCs), semi-volatile organic compounds including dioxins and PCBs, acid gases, metals, and particulate matter. Asbestos samples will also be taken before, during, and after the non-RACM C&D test.

3. The testing procedure states that when the wind direction is blowing toward the occupied trailers at the front of the Paris Road Landfill for longer than fifteen minutes, the test will be halted until acceptable wind directions are re-established. This same condition must be maintained even though RACM will not be processed. There is the potential that the construction and demolition debris to be processed does contain asbestos materials and these safety precautions must be maintained to prevent human health exposure.

Response: EPA agrees that there is a small, non-regulated amount of asbestos in the house selected for the non-RACM C&D test. The burning of C&D debris will be stopped if the wind is blowing toward the occupied areas for longer than fifteen minutes. If that condition persists, the test will be aborted until favorable wind conditions are re-established. In addition, at the request of community members attending the public meeting at St. Bernard Parish on Wednesday, June 11th, 2008, EPA added additional asbestos monitoring to the QAPP to address post-burn monitoring. EPA will provide background and downwind asbestos monitoring for an extended period following the burn to address this request.

4. Federal regulations require EPA to provide the public adequate notice and sufficient opportunity to comment on its pilot project plans. EPA did not give adequate notice of the project or provide sufficient opportunity for public comment. Specifically, the public

meetings did not give adequate advance notice or opportunity for comment on the construction debris burn. Prior outreach to the Parish did not adequately describe the project. Parish residents did not have access to all relevant information before the June meetings, and the acceptance period for written comments was not long enough. EPA should publish notice in the Federal Register of any project involving burning or grinding of asbestos containing materials or other hazardous air pollutants.

Response: EPA is not aware of, nor has the commenter cited, any statutory or regulatory authority mandating that EPA provide notice and an opportunity for comment on pilot projects like those at issue here. EPA is well aware of the notice and comment process required to put in place an alternative means of emission limitation under the Clean Air Act and the asbestos NESHAP, and EPA would expect to follow this process if and when EPA possesses sufficient data that warrants proposing the subject technology as an alternative means of emission limitation for use under the asbestos NESHAP.

As a practical matter, and although not required by federal law, EPA has conducted outreach as appropriate concerning this project at many junctures during its development. In September 2005, EPA's Office of Enforcement and Compliance Assurance (OECA) received a request from the Louisiana Department of Environmental Quality to allow the use of air curtain burners to process C&D debris, including RACM C&D debris, from homes to be demolished following hurricane Katrina. OECA consulted with the EPA Office of Research and Development (ORD) on the technical feasibility and safety of using the air curtain burners; ORD responded that there was insufficient data to support such use. ORD requested a review of the concept and the proposed pilot test program from EPA's Science Advisory Board (SAB). The SAB subsequently provided recommendations for conduct of such a pilot program including the monitoring to be conducted. A copy of the SAB recommendations has been posted on the EPA website and the recommendations were included in the sampling protocol for this pilot project. In October 2005, ORD observed a demonstration of an air curtain burner processing vegetative debris at a landfill in New Orleans. This testing is described in an August 2007 journal article by Miller and Lemieux.

Locally, in addition to the public meetings described in the preamble above, EPA has engaged in e-mail correspondence since October of 2007 responding to the questions of concerned citizens regarding the Disaster Debris Reduction Pilot Project. On Nov. 6, 2007, representatives from EPA Region 6 and ORD met with the St. Bernard Parish Council at a publicly-scheduled Parish meeting (with the press present) to request a variance from the Parish's no burning ordinance for this pilot project. EPA made a brief presentation; the Council asked questions, and then members of the public (who had signed up to speak) were allowed to offer questions or comments about the proposed project. On November 20, 2007, there was a second St. Bernard Parish Council meeting with representatives from EPA Region 6 and ORD, during which EPA addressed questions that it had been unable to answer during the previous meeting.

Then, by letter of January 29, 2008, St. Bernard Parish's technical representative posed questions about the pilot project. EPA made an initial response on Jan. 30, 2008, which was met with

follow-up questions from the Parish technical representative on Feb. 4, 2008. On Feb. 5, 2008, EPA submitted a revised response to the Parish technical representative's questions. On Feb. 7, 2007, at a third Parish Council meeting, representatives from EPA Region 6 and ORD responded to additional questions and agreed to the conditions placed by the Council upon approval of the permit to conduct the pilot project at the Paris Road Landfill. In April, 2008, EPA again requested and received comments from the Parish toxicologist on the Quality Assurance Project Plan (QAPP). Finally, significant documents associated with the pilot project have been posted on the EPA Region 6 website at <http://www.epa.gov/region6/6xa/debris_reduction.htm> beginning on February 8, 2008.

5. All public notices and the Quality Assurance Project Plans should include a description of the health effects and risks associated with exposure to toxins.

Response: Separate Health and Safety Plans were developed to address safeguards to protect the workers and the public. For this pilot test (i.e., the vegetative and non-RACM C&D debris burn), EPA has considered the risk to the public and based upon a risk screening analysis considers this safe for potentially exposed populations.

6. Construction and demolition ("C&D") debris from one home does not qualify as a significant sample size.

Response: The size of the sample is adequate for the objectives of this test. From this pilot test, EPA will develop valuable information on well-defined residential debris. Two of the key objectives of this pilot are to provide a better understanding of the emissions associated with the burning of the test materials, and improving operational control over the combustion process.

7. The validity and reliability of ambient air monitoring for asbestos is untested and therefore cannot be used to determine the safety or effectiveness of the air curtain destructor burn.

Response: The asbestos sampling method to be used for the burn consists of two concentric rings of eighteen air monitors plus an additional 18 settled dust monitors in each ring, plus background locations upwind, plus specific locations near or adjacent to the site where there are potential receptors (people), In addition, EPA will be attempting to measure the asbestos concentration directly from the plume of the burner. Importantly, the burn Quality Assurance Project Plan (QAPP) specifically requires continuous meteorological monitoring and if the wind blows for a significant duration in the direction of those potential receptors, the study will be aborted.

The sampling protocol was originally developed for asbestos research studies on building demolitions by the EPA QAPP Technical Development Team, which was a select group of senior EPA scientists and engineers with vast experience in asbestos and asbestos monitoring, both indoor and outdoor, plus asbestos experts from industry. The USEPA participants in the QAPP Technical Development Team consisted of experts across the Agency from various disciplines including air quality, risk assessment, and regulatory compliance. The original plan was externally peer reviewed by individuals from public and private organizations including Ohio

State University, Lawrence Livermore National Laboratory, George Washington University, University of Illinois, and companies specializing in asbestos analysis. A copy of the QAPP peer review document has been made available on the EPA website at < http://www.epa.gov/region6/6xa/debris_reduction.htm>.

The predecessor asbestos analytical protocol/sampling protocol is required by the Asbestos Hazard Emergency Response Act (AHERA), has been in use for over twenty years, has been used in Agency ambient monitoring in many Agency assessments and research efforts and has been used for ambient monitoring by industry.

8. EPA's use of the air curtain destructor and ambient air monitoring does not protect the health and safety of St. Bernard Parish residents, because it lacks real-time air monitoring for asbestos and immediate shut-down capability.

Response: The health and safety of St. Bernard Parish residents is a priority to the EPA and has been thoroughly considered for this test. Operationally, EPA has chosen a somewhat remote site in which to conduct this test. The predominant wind direction is away from inhabited areas and should the wind shift for a significant duration in the direction of Parish residents, the test burn will be aborted until favorable wind conditions are re-established. Additionally, the EPA has conducted a risk screening analysis and has concluded that any contaminants that may be emitted do not present unsafe conditions for potentially exposed populations.

While real-time monitoring for asbestos is not possible as no real-time monitors for asbestos currently exist, EPA will rely on other real-time indicators of the effectiveness of the combustion process, such as opacity, carbon monoxide and others, to determine if the combustion process is functioning satisfactorily. If not, the process will be terminated. We have an abort criteria established based on extended periods with opacity in excess of 20% for 30 minutes. An abort would consist of an orderly shut down by way of ceasing to feed C&D debris and increasing the feed of vegetative material, if necessary to enhance combustion stability. Also, if necessary, emergency shut down would be accomplished through dumping of soil into the combustor, not water.

9. EPA should not burn debris near natural waterways due to the risk of toxin runoff into local waterbodies in the event that EPA wets the debris to cease burning in the air curtain destructor.

Response: In the event that the combustion process must be shut down, EPA will use soil, not water, to quench it.

10. EPA has not obtained appropriate permits for air emissions from the State.

Response: EPA received a No Action Assurance and Exemption to Test from the Louisiana Department of Environmental Quality by letter dated May 19, 2008. The document is posted on EPA's webpage at http://www.epa.gov/region6/6xa/pdf/ldeq_no_action_assurance_051908.pdf>.