

Camp Minden Response to Feedback on Work Plan – August 28, 2015

Comment:

Explosive Service International

The EPA announcement that the Camp Minden Draft QASP and Work Plan for Public Feedback dated August 7, 2015 states the Work Plan was prepared by the Louisiana Military Department Contractor, Explosive System International. EPA is also making available for public input the Quality Assurance Sample Plan prepared by Explosive System International.

The name of the company to perform the contained burn of M6 and CBI is Explosive Service International not Explosive System International.

EPA Response:

That has been corrected.

Comment:

Magazine Prioritization Plan

The ESI Work Plan, on page 5, states ESI will update and maintain the magazine priority plan to address present and ongoing material stability conditions in the ninety (90) magazines. The ESI Quality Assurance Sample Plan, on page 1 of 18 states ninety-seven (97) magazines are filled with M6 propellant and other explosive materials.

The number of magazines to be addressed in the Camp Minden M6 Destruction project must be consistent in the two plans.

EPA Response:

Following the initial response as directed by the LA State Police, the M6, CBI, nitrocellulose, extracted aluminum and other materials occupied 97 magazines, M6 and CBI, the materials to be addressed in this action, were primarily in 90 of those magazines. The assessment was on the 90 magazines with M6 and CBI. During the response to the other materials, some M6 had to be moved to provide access. As a result, M6 now occupies some of the other magazines.

Comment:

ESI plans to assess, at least quarterly, the material stability conditions in the storage magazines throughout the duration of the contract, to insure safety (pages 5 and 33 of Work Plan). ESI developed a magazine Priority Decision Matrix based on physical stability in the storage magazines and proximity to military or commercial operations. The updated magazine

assessment, priority data and the magazines that have been cleared of all contaminants and certified as closed should be made available to the public on an ongoing basis through the Louisiana Military Department and acknowledged by ESI that the data will be made available to the public.

EPA Response:

In the Community Involvement Plan that is currently in development, one of the elements is communication with the public. Included in that communication will be a status of the magazines completed. As that plan nears completion, we look forward to additional community feedback for such things as suggested here.

Comment:

Community Relations

On page 9 of the Work Plan, section 1.1 Community Relations states ESI will not develop a Community Involvement Plan directly, but will support the LMD with the requested documentation and information required to support a Community Involvement Plan. It is extremely important that ESI indicate that they are available and willing to participate with LMD and the EPA in community meetings that will provide updates on the progress of the destruction of the M6 and CBI.

ESI will issue reports to LMD on a regular basis throughout the M6 Destruction project (pages 47 and 48 of Work Plan). The reports will describe all significant developments, actions performed, problems encountered, analytical data received and developments during next reporting period, actions to be performed, anticipated problems, and planned resolution of past or anticipated problems. This is the type of information the community will be very interested in as they track the process of the M6 Destruction project. ESI should indicate in the Work Plan their willingness to present this data with the concurrence of the LMD to community members at regular meetings and their availability to answer questions and discuss the information as well as the magazine status information.

The Work Plan should further identify specific information associated with the M6 Destruction project that ESI will provide for public release.

EPA Response:

LMD believes the support to be provided meets the expectations that are described in the comment.

Comment:

Comprehensive Performance Test – Stack Monitoring

On page 10 of the Work Plan under Phase 1 – Mobilization and Site Preparation, a third task should be added. The third task should be Comprehensive Performance Test. This phase is described beginning on page 18 but is also very important to include in the important phases presented on page 10, where the phases are outlined and identified.

EPA Response:

That has been added.

Comment:

Stack testing will be performed for gas velocity, gas composition, oxygen, moisture content, particulate matter, sulfur dioxide, oxides of nitrogen, carbon monoxide, methane, ethane, volatile organic compounds, semi-volatile organic compounds and dioxins/furans. The semi-volatile organics are speciated as dinitrotoluene, diphenylamine and dibutylphthalate on page 19 of the Work Plan. In the QASP on pages 3 of 18 through 18 of 18, parameters to be analyzed in soil, surface water, sediment, ground water and waste feed list the specific semi-volatile organics compounds as 2,4-dinitrotoluene, 2,6-dinitrotoluene, dibutylphthalate and diphenylamine. These specific four chemicals should be listed under the semi-volatile organics to be tested for in the air on page 19 of the Work Plan and included in the CEMS Stack Monitoring plan.

EPA Response:

That change has been made.

Comment:

Comprehensive Performance Test –Stack Monitoring under normal operating conditions without packaging are being required by EPA to be provided in a complete report and must be reviewed by EPA before ESI can commence destruction of the M6 and CBI materials. As a result there will be operational down time during the period of data and report generation and EPA review. However, these same analytical data, report and EPA review prior to commencing destruction of M6 and CBI with packaging component, worse case operating conditions, is not being required. The destruction of packaging materials along with the M6 and CBI under worse case operating conditions has the potential to release a host of toxic chemicals into the air and should be required to have the Comprehensive Performance Test completed, report completed and EPA review prior to initiation of destruction of M6 and CBI with packaging components.

If there is inadequate resources and/or time frame constraints, the worst case operating conditions should be required to be conducted initially to insure the Contained Burn Chamber

and pollution control units are meeting regulatory requirements prior to commencing destruction of the M6 and CBI materials with packaging materials.

EPA Response:

The reasoning behind the process was to minimize the downtime. First testing with the “neat” M6, without packaging, allows for a faster turnaround time and subsequent review. The analysis of the worst case feed stream will be based on the analysis of the feed stream itself; this could complicate the analyses and lengthen the turnaround time, thus resulting in a longer downtime.

Comment:

Continuous Emissions Monitoring System

In the Quality Assurance Sample Plan on page 10 of 18 under section 4.7, CEMS Stack Monitoring, the sampling plan states “The Continuous Emissions Monitoring System Performance plan will be provided as a separate plan.”

On page 20 of the Work Plan, under CEMS, information is provided on additional stack emissions monitoring. The parameters listed for the additional stack emissions monitoring include VOC’s and SVOC’s, on a quarterly basis and dioxin and furan on a semi-annual basis. The monitoring is to be conducted throughout the duration of the project. A time frame for the initial sampling events should be included in the Work Plan.

EPA Response:

The Work plan has been changed to address this comment.

Comment:

Cooling and Process Water

The Quality Assurance Sample Plan refers to waste streams and waste characterization of process water and cooling water from the trolley loading system. These liquid waste streams are not addressed in the Work Plan.

EPA Response:

The system is designed to not use any process water. Design modifications have evolved since the original concept with regard to the trolley. Initially, no cooling was to be used, then when concern about the temperature, the idea of using a water spray was considered. However, the current design uses a closed loop with the water never coming into contact with exterior surface.

Comment:

Environmental Samples Analytical Parameters Differ Between the Work Plan and the Quality Assurance Sample Plan

Surface soils will be collected and analyzed prior to commencement and upon project completion. The Work Plan is missing the analytical parameters explosives and nitrocellulose when compared to the QASP. In addition, the analytical method for dioxin /furan is inconsistent between the two plans.

EPA Response:

The QASP is accurate with the listed analytes; the work plan is an overview only. The method in the work plan for dioxin/furan has been corrected to reflect the accurate method in the QASP.

Comment:

Surface water samples will be collected and analyzed prior to commencement and upon project completion. The Work Plan included TCLP metals and pH. The QASP did not.

EPA Response:

The Work Plan has been corrected, to remove TCLP metals and pH.

Comment:

Ground water samples are to be collected. Explosives are listed as an analytical parameter in the QASP but not in the Work Plan. Dinitrotoluene is listed as one compound in the Wok Plan and as 2,4-dinitrotoluene and 2,6-dinitrotoluene in the QASP.

EPA Response:

The work plan has been corrected to reflect 2,4 & 2,6 DNT. The work plan identifies the semivolatiles to include the DNT, DBP, DPA. The Work Plan discusses a general description of the analytical procedures whereas the QASP has greater detail.

Comment:

Sediment samples are to be collected at the same locations as surface water samples. The Work Plan included TCLP Metals and pH. The QASP did not.

EPA Response:

The Work Plan has been corrected to remove TCLP metals and pH.

Comment:

In the Work Plan the analysis of M6, CBI, and packaging (cardboard boxes and drums, plastic bags, and super sacks) lacks the analytical parameters VOCs, semi-VOC, explosives and nitrocellulose. The QASP lacks the analytical parameters beryllium, manganese and nickel.

R6 Response:

The Work Plan did not list all the parameters. The QASP provides more details and is correct.

Comment:

Waste Streams

In the text of the Work Plan the phrases in association with waste streams consist of profile for off-site disposal, clarify as inert and characterized for RCRA Hazardous Waste disposal. The phrases are used in a number of locations in the Work Plan text. Examples are on page 21, plastic material collected and profiled for off-site disposal. Page 22, packaging materials will be inspected and certified as inert prior to release for recycle/reuse. Page 47, ashsampled and profiled for disposal.

On page 43 the following statement is included - all off-site shipments of any materials will be characterized for RCRA hazardous waste designation.

The question is will all waste streams be required to be characterized for RCRA hazardous waste designation or will some of the packaging material be able to be certified as inert without the RCRA characterization?

Will there be an acceptable concentration of residual M6 and/or CBI that will be allowed to remain on materials that are destined for recycling/reuse?

How will pallets, cardboard and plastics be evaluated to identify the lack or presence of M6 and CBI residues?

EPA Response:

Not all material will be required to be certified as inert. RCRA regulations do not require laboratory analysis for all materials that will be removed. However, the material will meet all standards for what the receiving facility is allowed to accept.

The contractor will follow the procedures in the Department of Defense Manual for inspection and determining the lack or presence of the M6 and CBI.

Comment:

Demolition, Decontamination, Removal

On page 8 of the Work Plan, under the second bullet, the operational readiness test is described. The last portion of the bullet item states “demolition, decontamination or removal of ancillary structures is not required, except as detailed in ESI’s site restoration/demobilization phase;” This item perhaps should have been a separate bullet. In addition, this item, without further details on the ancillary structures that possible could remain, will be a red flag for community members.

EPA Response:

The language has been modified. The reference to the ancillary structures meant to refer to structures already existing at Camp Minden. All structures constructed for the project will be removed. The ground will be contoured to a stable grade, erosion controls used, etc.

Comment:

EPA should consider requiring the use of liquid nitrogen to prevent M6 containers that have a heat signature from auto igniting in the Work Plan.

EPA Response:

EPA has utilized liquid nitrogen (LN) in the past for applications such as extinguishing tire fires and landfill fires so we have an appreciation of the effectiveness of this material. However there are a number of technical issues associated with the application of liquid nitrogen at Camp Minden:

- Bathing the outside of sealed boxes and bags may not result in quick chilling to the center of the containers due to the layers of plastic and low thermal conductivity of the material.
- If the container were opened before application of the LN, extra handling would be needed and the LN may not fully penetrate the contents to fill the voids between the pellets nor the voids manufactured into the pellets.
- The movement of vapor into an open container could either push or entrain fresh air into the hotspot, increasing the chance of auto-ignition.
- The LN will dissipate quickly unless the M6 material is placed in a special sealed container to keep the LN in full contact with the M6. This would introduce extra handling steps. Introduction of liquid phase LN into a warm container could result in a boiling liquid expanding vapor explosion.

- If the M6 is to be cooled down using the vapor phase on LN, nitrogen vapor would have to be pumped from the top of a truck before it would be introduced. This would require a lengthy time to reduce the temperature of equipment.
- If moisture exits in the containers, there is a possibility of creating an ice dam that would prevent the vapor from reaching the hotter pockets of the M6. As the ice dam is broken by the introduction of LN, the violent expansion of LN when encountering the hot M6 would result in an explosion.
- Limitations of the length of piping to handle LN in field conditions means that the LN operator would have to be close to the application area. An additional vehicle in the tight quarters around many bunkers would create potential safety issues and would result in introducing another person into the danger zone.

The area around the application may become oxygen depleted and would require the use of supplied air for personnel. That increases the difficulty of personnel operating, reduced vision and increases the time required to accomplish a time sensitive task. A component of the contract with ESI is to have a safe process to respond to potential issues such as deteriorating M6 containers. ESI has an international reputation and experience in this area. Because of the technical concerns outlined above, EPA has decided that the use of LN would not be appropriate at Camp Minden.