

## Roles, Gary W.

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**From:** Sherrie Halstrom [REDACTED]  
**Sent:** Thursday, May 15, 2014 5:12 PM  
**To:** Roles, Gary W.  
**Cc:** Johnny Bowne; Joe Heckman  
**Subject:** FW: Remediation and D&D of SSFL in Simi Valley, CA

Good afternoon Gary,

Per your below email, we have added info to Table 2 regarding Clive remaining landfill capacity. Also you will find a couple short paragraphs reflecting information related to our NNSS Certification program.

Best regards,  
-Sherrie

**Sherrie Halstrom | EnergySolutions**  
[REDACTED]

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**From:** Roles, Gary W. [REDACTED]  
**Sent:** Tuesday, May 13, 2014 2:06 PM  
**To:** Johnny Bowne  
**Subject:** RE: Remediation and D&D of SSFL in Simi Valley, CA

Johnny:

I realize that you probably have a lot on your plate but I was wondering if you had a chance to take a look at our draft Table 2 in the attached thread below. We want to make sure that we describe your capabilities completely and correctly.

Best regards,

Gary

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**From:** Johnny Bowne [REDACTED]  
**Sent:** Tuesday, May 06, 2014 10:55 AM  
**To:** Roles, Gary W.  
**Subject:** RE: Remediation and D&D of SSFL in Simi Valley, CA

Hello Gary,

I was wondering if you could provide a phone number I could call you to answer questions. If you are free sometime this afternoon we can talk then.

Let me know.

Thanks,

**Johnny Bowne**  
**EnergySolutions**  
Office (801) 649-2104  
[REDACTED]

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**From:** Roles, Gary W. [REDACTED]  
**Sent:** Friday, May 02, 2014 4:47 PM  
**To:** Johnny Bowne  
**Subject:** Remediation and D&D of SSFL in Simi Valley, CA

Johnny!

I am contacting you at the suggestion of Scott Baskett of your office. I am hoping that you could provide some information regarding the acceptance of waste at your Clive site (or any other sites that may be suitable).

My company, Leidos, Inc. (we used to be called SAIC) is participating in preparation of an environmental impact statement (EIS) for the U.S. Department of Energy addressing alternatives for remediation of a portion of the Santa Susanna Field Laboratory (SSFL) in Simi Valley, CA. This EIS will address remediation of the Energy Technology Engineering Center (ETEC) at SSFL, where remediation will principally involve remediation of contaminated soil and decontamination and demolition of structures. Remediation of the remaining portion of SSFL is the responsibility of the NASA, which has already issued an EIS for this activity. In addition, the State of California plans to issue its own environmental document addressing the entire SSFL.

Based on agreements with the State of California, ETEC will be cleaned to background concentrations, where background concentrations are to be determined for chemicals by use of a look-up table established by the California DTSC. (Look-up table values for over a hundred chemicals are attached. Look-up values for additional chemicals may be developed.) Additional information can be found at [www.etc.energy.gov](http://www.etc.energy.gov).

Remediation of ETEC alone may result in generation of very large volumes of contaminated soil and rock (up to 1.7 million cubic yards) and much smaller volumes of demolition debris. Common chemical contaminants that will be addressed during soil cleanup include PCBs, PAHs, petroleum hydrocarbons, and metals such as lead, mercury, or silver. **Table 1** summarizes the projected waste categories that may require offsite shipment, plus projected disposition pathways (e.g., landfill, recycle). At this time we expect two principal categories of contaminated soil: soil that would be classified as hazardous under California requirements, and soil that would not be classified as hazardous, but would contain chemicals in concentrations that exceed the required look-up values. Thus, there could be large quantities of soil that are only very slightly contaminated. Similarly, there may be soil that contains radionuclides as well as regulated chemicals (either in hazardous or nonhazardous concentrations). Other waste streams include ordinary trash, demolition debris either clean or contaminated with radionuclides, and hazardous waste from demolition activities (e.g., lead, PCB light ballasts, asbestos) that may or may not be contaminated with radionuclides. (It is expected that most of the hazardous waste from building demolition will be asbestos.) Finally, some possible soil remediation methods could generate a contaminated wastewater stream that will require offsite disposition.

**Table 1. Principal SSFL Waste Categories Requiring Offsite Shipment**

Waste Category	Typical Materials	Projected Disposition
Trash	Paper, plastic, food or drink cans	Class III landfill, recycle
Contaminated soil (nonhazardous)	Soil, rock	Class II or Class III landfill, depending on acceptance criteria
Demolition debris (nonhazardous)	Asphalt, concrete steel, wires, cable, machinery	Inert or Class III landfill, depending on acceptance criteria, recycle
Contaminated soil (hazardous)	Soil, rock	Class I landfill
Contaminated demolition debris (hazardous)	Lead, lead-based paint, mercury switches, asbestos or asbestos-	Class I landfill

	containing material, PCB light ballasts.	
LLW – soil with radioactive material only	Soil, rock	LLW or MLLW disposal facility
MLLW – soil with radioactive and hazardous material in any concentrations	Soil, rock	MLLW disposal facility
LLW – demolition debris with radioactive material only	Asphalt, concrete steel, wires, cable, machinery	LLW or MLLW disposal facility
MLLW – demolition debris with radioactive and hazardous material	Lead, lead-based paint, mercury switches, asbestos or asbestos-containing material, PCB light ballasts.	LLW or MLLW disposal facility
Wastewater from soil treatment	Contaminated water	
LLW = low-level radioactive waste; MLLW = mixed low-level radioactive waste; PCB = polychlorinated biphenyl.		

No decisions have been made about where any waste from ETEC remediation could be sent. What we are trying to do at this time is to scout for candidate sites for the various waste categories, and develop an information base for the candidate sites in terms of: (1) the types of services provided (e.g., disposal, processing for disposal or recycle), (2) materials accepted (and not accepted) for disposition, and (3) remaining landfill capacities. This type of information would be used to help make assumptions for purposes of environmental analysis, such as the environmental impacts associated with waste transportation. (These impacts differ, for example, based on population densities along the transportation routes and the distances the materials are transported.) Basically, the intent is to provide a summary of as much information as possible in a table such as Table 2. We drafted this table based on publicly available information (e.g., internet searches), but are unsure regarding its completeness and accuracy. For example, we were unable to find any estimates of remaining land disposal capacities of your facilities.

**Table 2. Example Waste Treatment and Disposal Facilities**

Site <sup>a</sup>	Location	Approximate Distance (miles)	Waste Types Accepted and Services	Approximate Remaining Landfill Capacity
<i>LLW or MLLW Treatment/Disposal Facilities</i>				
EnergySolutions	Clive, UT	711	Accepts Class A LLW and MLLW, and NORM waste for disposal, including decommissioning debris, metal, soil and debris, PCBs, asbestos, and liquids. Treatment services include thermal desorption, oxidation/reduction, macroencapsulation, chemical stabilization, mercury amalgamation, neutralization/deactivation, and debris spray washing.	The landfill has more than 8 million cubic yards of currently licensed/permitted capacity. Additional capacity exists at the facility subject to licensing/permitting.

- EnergySolutions has significant experience in performing waste certification and brokerage services for waste destined for disposal at NNSS. Our NNSS certification personnel have successful track records providing support services to ensure that NNSS-bound waste is fully and accurately characterized, packaged, certified, manifested, and transported in accordance with NNSS protocols and waste acceptance criteria.

To add to our existing capabilities, EnergySolutions developed a program that was approved by NNSS to ship LLW and MLLW from our Bear Creek Operations facility in Oak Ridge, Tennessee to NNSS. This program also allows for portability of our NNSS waste certification program for use on client site projects requiring shipment of waste to NNSS.

- EnergySolutions owns and operates the Bear Creek Facility in Oak Ridge, TN which is a low-level radioactive waste processing facility, providing specialty waste processing operations, waste volume reduction, and metals recycling.

We understand that EnergySolutions operates facilities that may be suitable for some waste categories, such as your facility at Clive, UT. We were hoping that you could assist us in filling out this table, making note of any important restrictions or limitations. If you believe that that this facility would be unsuitable for particular hazardous materials, we would appreciate your informing us. We would also greatly appreciate any suggestions you may have for other EnergySolutions sites that may exist and that may be suitable for any of the waste categories, or any treatment requirements based on land disposal restrictions that may be required before the waste could be received. For example, some wastewaters contaminated with hazardous constituents may be generated that would require management.

Thank you very much for any assistance that you can provide. I can be reached at the above email address or by telephone (office: 301-353-8354; [REDACTED]). Having said that, it is also true that these days I seem to be in and out of the office a lot. Use of email or my cell could reduce incidents of phone tag.

Best Regards

Gary Roles

Leidos, Inc.