



December 03, 2003

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Mr. Schmidt:

In response to your letter dated November 24, 2008 requesting additional information for Shaw Environmental & Infrastructure's application for new radioactive materials license, the following information is submitted for your review.

1. The summary of your radiation safety program included as Item 2 of Attachment 2 did not provide a listing or description of the instrumentation that you will have available to perform required surveys. Please provide a listing of the specific instruments that you intend to have available, as appropriate, for use to support the licensed activities requested. Additionally, please confirm that any radiation protection instrumentation utilized will be calibrated at least annually.

Response #1

Shaw maintains an inventory of radiation detection equipment. A summary is provided below. Any detection that is not in inventory but is required for any specific application will be purchased or rented from a vendor. All radiation detection equipment is calibrated at least annually.

Typical Survey Instruments

Portable Instruments used for Contamination and Ambient Radiation	
Ludlum Model 3 (or equivalent)	GM or scintillation detectors
Ludlum Model 9 (or equivalent)	Ion Chamber
Ludlum Model 19 (or equivalent)	1" X 1" Gamma Scintillation
Ludlum Model 2221 (or equivalent)	Scaler/Ratemeter
Ludlum Model 2224 (or equivalent)	Scaler/Ratemeter

Ludlum Model 2241 (or equivalent)	Scaler/Ratemeter
Ludlum Model 2350 (or equivalent)	Scaler/Ratemeter
Ludlum Model 2360 (or equivalent)	Scaler/Ratemeter
Eberline RO-20 (or equivalent)	Gamma survey meter
Ludlum Probe 43-2 (or equivalent)	Alpha scintillation
Ludlum Probe 43-5 (or equivalent)	Alpha survey
Ludlum Probe 43-37 (or equivalent)	Floor monitor
Ludlum Probe 43-65 (or equivalent)	Alpha survey
Ludlum Probe 43-68 (or equivalent)	Alpha Beta survey
Ludlum Probe 43-93 (or equivalent)	Alpha Beta survey
Ludlum Probe 44-1 (or equivalent)	Beta scintillation
<b>Stationary Instruments for Smears and Samples</b>	
Ludlum Model 3030 (or equivalent)	Alpha Beta sample counter
Ludlum Model 2929 (or equivalent)	Alpha Beta sample counter
Ludlum Model 177 (or equivalent)	Multi purpose frisker
Protean IPC – 9025 (or equivalent)	Low background alpha beta sample counter

2. Section 6.4.3 of Procedure No. SOP T-RA-005 references the use of Attachment 3 as the surface contamination release criteria; however, this Attachment does not exist in version of the procedure submitted. The summary of your radiation safety program included as Item 7 of Attachment 2 states that you will comply with the contamination levels published in NUREG-1556, Vol. 18, "Program-Specific Guidance About Service Provider Licenses", dated November 2000. Please confirm that surface contamination criteria that is at least as conservative as that listed in Table 8.6 of NUREG-1556, Vol. 18 will be incorporated into your procedures and utilized to support licensed activities.

### **Response #2**

Surface contamination release criteria that are at least as conservative as that listed in Table 8.6 of NUREG-1556, Vol. 18 will be incorporated into site specific procedures and utilized to support licensed activities.

3. Section 6.4.1 of Procedure No. SOP T-RA-001 states that an ALARA plan will be prepared, and dose budgets established, where there is a potential for personnel to exceed administrative dose limits. No mention is made relative to the collective dose threshold(s) that would mandate the use of an ALARA plan. Please provide the collective dose trigger(s) that would be used to initiate the use of an ALARA plan, or provide a description of

the mechanism(s) that will be used to assure that appropriate ALARA planning is performed for tasks involving significant estimated or actual collective doses.

### **Response #3**

Using SOP T-RA-001, 6.4.1 as the general basis for our approach to radiological work under this license, state that a Project-Specific ALARA Plan shall be developed to deal with potential collective annual project exposure over 10% of the Shaw Administrative Limit of 4.0 Rem. These plans shall include, but not be limited to the following:

- Estimated dose
- The established annual ALARA goal
- Methods to be used to reduce estimated exposure
- Method to be used to monitor/control progress towards that goal
- Feedback to management as to progress in achieving the ALARA goal(s)

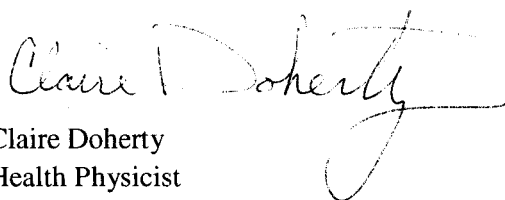
4. Please describe the mechanism(s) that you will use to define, communicate, and monitor the physical security requirements that will be used at each temporary job site.

### **Response #4**

Specific mechanisms used to monitor the physical security of radioactive materials should include the following:

- Posted and controlled using lines, fences or physical walls
- Radiological surveys of posted areas, or if in a locked facility, locks (or seals) shall be verified as being in tact are performed, and radiological boundaries remain within posted restriction requirements.

Please do not hesitate to contact me with any additional comments or questions and thank you for your timely response to this application.



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