

From: Royal Pond
To: [Burrows, Ronald](#)
Cc: [Mike Griffin](#)
Subject: [External_Sender] RE: Strata Energy External Exposure Monitoring
Date: Tuesday, May 22, 2018 7:05:24 PM
Attachments: [Strata External Exposure Monitoring Memo"s- Nov. 2016.pdf](#)

With attachments.

Royal Pond

From: Royal Pond
Sent: Tuesday, May 22, 2018 4:50 PM
To: 'Burrows, Ronald'
Cc: Mike Griffin
Subject: Strata Energy External Exposure Monitoring

Ron,

Regarding your recent inquires on OSL monitoring of Strata employees, I apologize for the time that it took to respond but most of these actions occurred before I assumed my present position at Strata and the previous RSO is not available so I had to do some digging. Here is a brief summary.

Approved License Application, TR RAI 34 Response (April 2012) stated:
Strata will provide personal monitoring devices (TLD or OSL) as indicated in Section 5.7.2 (page 5-39) of the TR., which states, in part, "to all regular, full time personnel who work at the plant". Based on that definition, TR 5.7.2.3 states all full-time employees will be provided personal monitoring devices (TLD's or OSL's) and that Strata will determine routine monitoring requirements in accordance with the NRC guidance R.G.8.30 (NRC 2002), R.G. 8.34 (NRC 1992) and R.G. 8.36 (NRC 1992).

Safety Evaluation Report, (SER) Section 5.7.2.3.2:
Based on the license application discussed above, the SER references criteria for personnel monitoring per TR 5.7.2.3 and states, "the applicant states that it will administer the external dosimetry program in accordance with Regulatory Guides 8.30 (NRC 2002), 8.34 (NRC 1992) and 8.36 (NRC 1992)."

An evaluation of employee exposures was completed by the previous Radiation Safety Officer and summarized in a memo on November 9, 2016, Justification for Reduced Employee External Exposure Monitoring. In a memo issued November 21, 2016, External Exposure Monitoring for 2017, assigned OSL monitoring beginning in 2017 was reduced to only those personnel that were likely to receive any measurable external exposure, (i.e. 'to all regular, full time personnel who work at the plant', as stated in the TR 5.7.2). Please note that the data included in the first memo indicates that the maximum dose for all Strata employees for the first 3 quarters of operation was 9 mrem. Also please note that in the second memo monitoring was specifically continued for all personnel that worked in the plant or had office in that building.

Redacted copies of both emails are attached. Note that personal identifying information for exposures (names and in some cases titles) have been redacted but the exposure data is provided. If the title was unique and allowed an individual to be identified, the employee group or category is

noted. If you require an un-redacted copy, we will submit that confidentially in accordance with 10 CFR Part 2. In addition, these memos are available for inspection.

Based on the cited guidance and the RSO evaluations that were completed, page changes to the TR were approved by the Strata SERP in May 2017. These changes were included in SERP 17-6, Review and Approval of Technical Report As Built Update, which was provided to NRC in the most recent annual report.

The question of monitoring for external dose has been reviewed and discussed with NRC staff on several occasions. Plans for the program were discussed during the NRC pre-operational inspection. At that time it was expected that after one year of OSL monitoring for all employees was complete, the data and need for monitoring would be re-evaluated. At the time it was expected that monitoring would continue for personnel assigned to the plant, as is the case at this time. The Strata Radiation Protection Program clearly discussed this approach and was reviewed by NRC staff before the preoperational inspection and approval to operate. Those reviews continue through the present time.

Subsequently, NRC has completed three operational inspections of the Ross ISR Project and each time has reviewed the Occupational Exposures and the changes made to the monitoring program. Please refer to the discussion included in the NRC Inspection reports dated July 8, 2016, March 2, 2017 and Sept 21, 2017.

Strata believes that the monitoring program meets the commitments in the approved application and the cited guidance. Strata committed to determining routine monitoring requirements in accordance with the Regulatory Guides 8.30 (NRC 2002), 8.34 (NRC 1992) and 8.36 (NRC 1992).

RG 8.30 (May 2002), Regulatory Position 2.4 states that *“Personnel monitoring and recording of monitoring results are generally required for any individual likely to exceed 10 percent of the limits stated in Regulatory Position 1 of this guide”*.

RG 8.34 (July 1992) states that *“Monitoring of an individual’s external radiation exposure is required by 10 CFR 20.1502(a) if the external occupational dose is likely to exceed 10% of the dose limit appropriate for the individual...”*

RG 8.34 continues with guidance for determining requirements for employee monitoring with dosimetry. Regulatory Position 1.1 discusses Evaluation of Likely Annual Occupational Dose. Regulatory Position 1.2 allows Establishing Categories of Workers for Monitoring. Strata implemented this guidance in the RSO review conducted after the first year of operation to determine categories of employees that required monitoring.

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