

Baca, Bernadette

From: Mike Griffin <MGriffin@stratawyo.com>
Sent: Wednesday, August 29, 2018 12:09 PM
To: Baca, Bernadette; Poston-Brown, Martha
Cc: Ralph Knode; Royal Pond
Subject: [External_Sender] Strata Response to NOV's

Dear Bernadette:

Following is a summary of completed and planned corrective actions identified by Strata Energy to address two violations identified by NRC staff during the most recent routine inspection conducted between July 17 and 19, 2018.

Transportation Characterization:

As an immediate response to this violation Strata collected a number of samples of the different types of filter media used in the lixiviant circuit. These samples were submitted to a contract laboratory for radiological analysis including radium-226. Strata expects the results of these analyses will be received the week of August 27, 2018. These results will be used to update the data used to calculate the radiological content of future shipments of byproduct material for shipment.

In addition to sampling filter media, Strata is in the process of collecting gamma dose rate data from various types of filter media after they are removed from service and before placement in the shipping container. This gamma data is being compiled and will be used to determine the current range of gamma dose rates, which will correspond with the sampling and radium-226 analysis conducted as the immediate response. The gamma dose rates vary considerably depending on the type of filter media, the areas of the mine where the media was used, how long they are left in service and the percent moisture at the time of the survey. Strata expects that development of the dose rate range will be completed by September 30, 2018.

The filter media gamma dose rate range will be used going forward to compare with the dose rates from future spent media. For future shipments, Strata will conduct spot gamma surveys of bags of spent media before emplacement in the shipping containers to track and trend gamma dose rates. This data will be used for comparison against the gamma dose rate range currently being developed. Any significant increase in the gamma rates above the current range will indicate that the radium-226 concentration may have increased and will indicate that updated laboratory analysis is required.

Determination of Dose to the Public:

For the correction of the potential dose to a member of the public inside the licensed area, the immediate action completed by Strata was to submit errata to the 2017 Annual Report that provided the internal exposure for a postulated individual that worked within the CPP for 100 hours. This corrected the calculated dose for that individual.

For the dose to the public outside the licensed area, Strata has assessed the operational monitoring data for both sites that had the highest estimated dose based on the MILDOS-Area modeling results in the original application and compared that data with the preoperational baseline data. For air particulate, radon, and direct gamma monitoring conducted at these locations, the 2017 semiannual reports stated that the data were consistent with concentrations obtained during the preoperational monitoring period and during 2015

and 2016 and that there was no evidence of any impacts from the current operations. Based on these monitoring results, Strata does not anticipate a dose to the public that is distinguishable from background.

In addition, the current operations at the Ross project are significantly less than those allowed by the license and used as the basis for the MILDOS model. Specifically, the MILDOS model was based on a full production operation at the licensed flow rate of 7,500 GPM and including yellowcake elution, precipitation, drying, and packaging circuits. The current Ross operation consists of a satellite IX facility without yellowcake processing and in 2017 operated at an actual flow that was less than half the licensed flow rate. Total wellfield area for MILDOS modeling purposes was estimated at approximately 110 acres with associated injection and production wells. The actual current wellfield area in Mine Units 1 and 2 are less than half this total, with a similar limitation on the number of wells in service. These factors significantly decrease the projected releases of radon gas from the wellfield, which is the predominant source term from licensed operations. These factors indicate that the anticipated dose to the public outside the license boundary should be well below that calculated by MILDOS in the original application.

As a corrective action going forward, Strata will complete the analysis of dose to the public at these two locations in comparison with the original MILDOS model results and will submit errata to the 2017 Annual Report to update the results. Strata expects to complete this action by September 30, 2018.

Please let me know if you have any questions on these corrective actions.

Mike Griffin
Vice President of Permitting, Regulatory and Environmental Compliance
2929 New Haven Road
Oshoto, WY 82721
W 307-467-9377
C 307-257-3033

mgriffin@stratawyo.com

