



**Department of Energy**  
Washington, DC 20585

November 16, 2015

Mr. David Taylor, Attorney  
Natural Resources Unit  
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Subject: U.S. Department of Energy Office of Legacy Management Response to Response to Navajo Nation Department of Justice Comments on Shutdown of Water Treatment Plant at the Tuba City, Arizona Uranium Mill Tailings Disposal Site

Dear Mr. Taylor:

This letter is in response to your letter to the U.S. Department of Energy (DOE) dated February 13, 2015, with questions about the suspension of the groundwater treatment plant at the Tuba City, Arizona, Uranium Mill Tailings Disposal Site. The treatment plant was placed in an operational standby mode pending completion of an investigation, including corrective actions, associated with an incident that occurred on September 3, 2014, in which an employee was exposed to potentially hazardous conditions. Following the incident, and in light of prior concerns about safety issues, problematic maintenance and operation, and the treatment plant's limited effectiveness in achieving groundwater treatment goals, DOE decided to put operations on hold and to investigate alternative compliance strategies. DOE made a formal decision on October 29, 2014, to place the treatment plant in a safe standby mode. DOE made this decision knowing there is no danger to the public or the environment as a result of the groundwater treatment system shutdown, either in the short term or the longer term. No one is currently being exposed to the site groundwater, and no exposure is expected in the foreseeable future. This conclusion was based on data collected during previous operational suspensions, the limited movement of the groundwater contaminant plume, and recent groundwater modeling. The treatment plant is currently drained and in a safe standby condition, and available in the event a restart is warranted. In addition, the site groundwater monitoring program will continue as it has in the past.

During this standby period, DOE is investigating alternatives to groundwater treatment and discussing those alternatives with regulators, elected officials, and concerned citizens. DOE prepared the report *Alternatives Analysis of Contaminated Groundwater Treatment Technologies—Tuba City, Arizona, Disposal Site* as an analysis of various options for stakeholders to consider as alternatives to the current groundwater treatment system. The report is available on the Legacy Management website, <http://www.lm.doe.gov/Tuba/Documents.aspx>.

In November 2014, DOE developed a plan to describe the process for placing the plant in a standby mode. The plan, titled *Safe Standby Plan for the Tuba City, Arizona, Disposal Site Groundwater Treatment System*, is available on the Legacy Management website, <http://www.lm.doe.gov/Tuba/Documents.aspx>.



Immediately after the incident on September 3, 2014, actions were initiated to place the plant in a safe configuration. These actions included draining systems and implementing freeze protection practices. The work was performed in accordance with the approved integrated work control process as a maintenance activity.

As shown during a previous operational suspension of the treatment plant, which lasted about one year, it is anticipated that there will be essentially no plume movement, but DOE will continue to extract groundwater from the high concentration portion of the plume and transfer it to the existing pond on-site for treatment using direct evaporation. While the evaporation rate of the pond results in a reduced rate of contaminant removal, this process will continue while options for site groundwater remediation are weighed. This *Plan for Interim Treatment During Distillation Shutdown for the Tuba City, Arizona, Disposal Site*, dated January 2014, is available on the Legacy Management website, <http://www.lm.doe.gov/Tuba/Documents.aspx>.

The referenced bullet number 5 in your letter to DOE requires completion of a plan for decommissioning. This document is in an internal draft form but has not been finalized. The plan will not be executed unless and until DOE obtains formal stakeholder agreement for a permanent treatment system shutdown. The preliminary plan includes options for conversion of some of the plant buildings to other uses, such as for an alternative treatment plant, and reuse of existing equipment that may no longer be necessary for a chosen alternative compliance.

As discussed at the DOE/Navajo Nation/Hopi Tribe technical meeting on February 18, 2015, DOE plans to gather stakeholder input over the next several months to guide the next stage of decision making, which will be conducted under the National Environmental Policy Act process. It's important to note that no decisions have been made to discontinue active treatment at the site.

DOE also has been working on a revised groundwater model of the site to determine whether the current pumping scheme has been effective with regard to exposure prevention in the Moenkopi Wash. This groundwater monitoring and modeling report is currently under review by DOE and the United States Geological Survey. After incorporating comments, DOE will provide the model report to stakeholders for further comment. This is expected to be completed in the next several months. The groundwater model will be used to inform the decisions necessary to move forward on management of the site. While this effort is ongoing, we intend to continue the process of communicating with all stakeholders in a number of ways, the situation and concerns, and the decisions necessary for ongoing management of the site.

I understand your concern about DOE's decision, but we believe the decision was warranted and fully communicated to our stakeholders. We have discussed our plans with representatives of the Navajo Nation and Hopi Tribe, as well as the U.S. Nuclear Regulatory Commission, and we will keep all stakeholders informed as we receive input and move forward with our commitment to protect human health and the environment.

Mr. David Taylor

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Please call me at (970) 248-6020 if you have any questions. Please address any correspondence to:

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Sincerely,



Richard P. Bush  
UMTRCA Program Manager

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