Orlando, Dominick

From: Kautsky, Mark <Mark.Kautsky@lm.doe.gov>
Sent: Thursday, August 30, 2018 1:33 PM
To: Orlando, Dominick
Cc: joni Tallbull (jtallbull@navajo-nsn.gov); Miller, David (CONTR)
Subject: [External_Sender] RE: Removal of old casings - Shiprock Disposal site

Yes, according to the logs we have from 1988, two of the aluminum access tubes extend into, but not through, the radon barrier, but three tubes penetrate the radon barrier and extend into the upper tailings.

- mark kautsky

From: Orlando, Dominick [mailto:Dominick.Orlando@nrc.gov]
Sent: Thursday, August 30, 2018 11:11 AM
To: Kautsky, Mark
Cc: joni Tallbull (jtallbull@navajo-nsn.gov); Miller, David (CONTR)
Subject: RE: Removal of old casings - Shiprock Disposal site

Mark

Do the casings extend into the radon barrier?

From: Kautsky, Mark [mailto:Mark.Kautsky@lm.doe.gov]
Sent: Thursday, August 30, 2018 12:58 PM
To: Orlando, Dominick <Dominick.Orlando@nrc.gov>
Cc: joni Tallbull (jtallbull@navajo-nsn.gov) <jtallbull@navajo-nsn.gov>; Miller, David (CONTR) <David.Miller@lm.doe.gov>
Subject: [External_Sender] Removal of old casings - Shiprock Disposal site

Hello Nick and Joni-

DOE-LM is planning to remove nine casings from the Shiprock disposal cell cover during the week of September 10, 2018. The casings are relicts from moisture-profile studies that were conducted between 1988 and 2001. These casings are neither wells, nor are they registered as such, and they are no longer useful or needed. Five of the casings are 1.75-inch diameter, thin-walled aluminum neutron-access tube casings. The remaining four are 3-inch diameter steel casings in the vicinity of the aluminum casings, and were probably installed as exploratory borings to estimate lithologic-contact depths, which guided neutron-access-tube installation. Three of the five 1.75-inch-diameter, thin-walled aluminum casings contain minor quantities of stored water.

DOE will decommission the casings in place rather than attempting to pull the casings from the cover material. Any water in the casings will be purged (less than 3 gallons total is expected) from all the casings. The purge water will be transferred to the evaporation pond for disposal. Silty soil from the Shiprock site radon barrier borrow area stockpile will be used to backfill each casing. As 6-inch lifts are added to each casing, they will be compacted until the fill material is 2 feet below the top of the radon barrier. Some clean water may be mixed with the soil, when necessary, to achieve compaction. The casing will be cut at the soil-backfill level and additional silty soil from the radon-barrier borrow area will be used to backfill the existing hole in 6-inch lifts. The final surface will mound slightly (approximately 2 inches) at the top of the radon barrier to avoid future settling or surface water ponding. The sand bedding layer will be replaced, before the rock riprap is replaced, to match the thicknesses of the adjacent cover material.

A Radiological Control Technician will oversee all of the work, and all personnel performing work will follow controls and work practices identified in a Radiological Work Permit, which will be prepared for the task. The excess casing and soil removed from each location will be placed into the temporary Radiation Materials Area next to the evaporation pond and later dispositioned at the Grand Junction Disposal Site, according to the Radiation Control Technician's direction.

All decommissioned casing locations will be surveyed with a GPS unit and flagged to facilitate visual monitoring for any surface subsidence or ponding of water during annual inspections for at least one year subsequent to the decommissioning.

Please contact me if you have questions or concerns.
Thank you,
- mark

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