

Major Issues: Cabot Reading Slag Pile

Below are DEP's major issues with the Cabot Reading Slag Pile Decommissioning Plan. Most of these issues have been previously communicated to NRC in correspondence from DEP. Several new issues resulted from recently received documentation. None of these issues have been satisfactorily addressed.

Source Term:

- Employee recollections are an inappropriate basis for source term estimates. The specific recollections Cabot used resulted in extremely low source term estimates (i.e., 2 tons of thorium). Contrast this with the PADOH permit that authorized burial of up to 105 tons of natural thorium and uranium (note: authorized amount represents an upper limit, not necessarily the amount disposed).
- Comparing the facility's actual production records to Kaweck's process diagram could provide a more reliable source term estimate.
- If no records exist, actual measurements or realistic, conservative assumptions should be used.

Characterization:

- Cabot's use of split-spoon sampling is inappropriate and ineffective for sampling large blocks of slag.
- No test borings were made on the slag pile slope where the large blocks of slag were dumped.
- Trenching on the slope would yield samples of the large slag pieces. This would settle once-and-for-all what is actually buried on the slope.
- Documentation from Cabot indicates that Kaweck may have deposited sludge containing Thorium-232 up to 3000 pCi/g as fill for the plant site. Previous site surveys may have missed this. It should be evaluated.

Dose Assessment:

- Cabot uses an inappropriate value (55 μ -rem/hr) for external dose from an eroded slag pile. Historical data indicate 1.0 to 1.5 mr/hr from the slag pile without cover and up to 0.2 mr/hr with cover. Measurements on individual slag pieces indicate 100's of microR/hr.
- The dose assessment should use historical data or actual exposure rates prior to cover placement for estimates of eroded pile conditions.

Land Use:

- Excavation of the right-of-way is not highly unlikely despite Cabot's claims. Extending River Road was under consideration within the past two years.
- The existence of a foundation on the slope calls into question Cabot's assumption that heavy industry is the only possible future use of the slope.
- Cabot inappropriately relies on the City's current development plans to rule out future construction of single or multi-unit two-story housing atop the slag pile. The City's plans do not include the slag pile.
- Cabot's agreement with the City involves a payment to the City if they do not contest Cabot's plan. Therefore, the City's support of Cabot's land use scenarios cannot be relied upon.