

Response to Comments:

Excavate and Remove all Plutonium

Concerns-

- long half-life 24,000 years
- suspect of success of institutional controls over long term
- budget limitations not deciding factor
- partial removal not enough – get it all from the high salt waste group
- surgical removal at Z-Ditches instead of mixing clean soil during remediation
- mobility, get to the river
- don't rely on IC's -don't rely on government as LTS- take a more conservative approach because of long timelines and uncertainty.
- Tribal concerns

Response-

- not currently in river
- assumption it won't move
- no unacceptable risk to the public and the environment
- remove ~98% from the low salt waste group and settling tanks
- remove 2' below bottom of the structure for the High Salt Waste group
- Pu 239 and 240 levels assessed after excavation may “consider” additional removal
- IC's will insure no access by people wanting to use the plutonium (DOE responsible)

Remove all Cesium

Comment-

- Preference is for removal as ERDF is more secure
- Capping is not effective

Response -

- Remedy meets the threshold criteria for CERCLA
- 15' depth of soil cover is effective Maintain/enhance existing soil cover (MEESC)

Dig Deeper than 2' at High Salt Waste Sites

Comment-

- observational approach should be used.
- Digging to two feet below a waste site is not sufficient
- worry that residual could be used to build bombs
- insufficient data to support digging to 2 feet below when plutonium is found 121 feet below

Response-

- acknowledges public sentiment to dig
- acknowledges concern about the protectiveness of leaving waste in place

- use of ICs to protect disturbance of the soils (15' clean backfill)
- identified Risk pathways are broken, thus risk is eliminated
- based on anticipated future land use (which is industrial)
- Construction worker could potentially be at risk if conducting digging activities, - really depending on ICs to prevent access
- Pu will remain in place
- Assessment of Pu 239/240 levels after excavating to specified depth
- DOE will "consider removing further material"

Ship Plutonium Off-site

Concerns-

- future migration to the Columbia River
- should go to a deep geologic repository regardless of cost

Response-

- Columbia River protected
- Must be TRU to go to WIPP
- if not TRU, then packaged for ERDF
- the RI/FS documented that PU will stay in place

Plutonium is Mobile-

Concerns-

- plutonium is mobile and can move to groundwater and the Columbia River
- no certainty that it will remain immobile over the long-term
- some feel it will reach the river soon
- some concern over potential for future, unexpected exposure

Response-

- Pu at depth driven by acidic liquid discharges (110 feet)
- Pu not mobile under the environmental conditions at these sites
- Evapotranspiration barrier over remaining Plutonium
- based on soil pH, it won't travel
- protective of groundwater, Columbia River and ecological resources from degradation

Do not rely on Barriers/Caps

Concern-

- not efficient, can't be maintained in perpetuity, deteriorate over time
- too close to the Columbia River to consider caps

- lateral water movement potential
- use trenched walls to stop water movement
- surface barriers should not impede soil vapor extraction activities

Response-

- Used balancing criteria to select a remedy, CERCLA
- not mobile (cesium 137) under existing conditions
- ICs will work
- no lateral movement of water
- won't impede the SVE system

Government is not long-term stewardship

Concern-

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- remedy can't be dependent on the existence of government long into the future
- 24,000 year half-life of Pu makes it impossible to guarantee protectiveness for 240,000 years into the future

Response-

- Institutional Controls are part of the remedy and will be maintained
- Industrial use
- Site conditions will remain in place
- Used Native American Exposure Scenario for the Z-ditches
- barriers will work
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Insufficient Scientific data

Concern-

- insufficient data – settling tanks, Z-ditches and High Salt waste group
- no data on values of depths of contamination nor costs info for removing contaminated soil at various depths.
- Old data – suspect – collect new data
- risk to gw not calculated and the baseline risk assessment can't be conducted without further evaluation

Response-

- used historical – process – data as there have been no leaks from the settling tanks
- no major contaminant transport mechanisms for Z-ditches and High Salt Waste sites
- typically, highly technical documents are used to write the FS, but are not included in their entirety

- The baseline risk assessment was conducted with sufficient data and information

Public Involvement Process

Concern-

- identifying OUs only - did not identify Cesium and Plutonium as the issue
- not easily accessible info in records or Administrative Records
- complex, not easy to understand
- not sufficient notice for meeting dates and times

Response-

- fact sheets for the public are a high level summary
- technical info must be included and available
- acknowledge the complexity
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Regulatory Stds

Concern

- use RCRA on settling tanks and Z-ditches
- integrity of the tanks – should be removed
- TCWM-EIS is not completed – should dovetail cumulative impacts

Observational Approach

Concern

- Ideal for the High Salt Waste groups
- more effective and efficient process for determining depth of contaminated soil removal
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Response -

- soil concentrations are highest in the region just 2 feet below the bottom of the waste sites for the High Salt trenches
- remaining Pu not a risk, but will assess after remediation if further excavation is warranted