

Observer Inquiry Form



Observer: Walker/Pepper Date: 6/19/03 Tracking No. \_\_\_\_\_

Discussion of Request: Inquiry regarding use of RFETS  
sampling and analysis data for Hanford Ash  
See attached sheet

ATL Response: INQUIRY RELATIVE RFETS  
ASH (53000 SOLIDS) TO BE FORWARDED  
TO CBFO/INTP FOR EVALUATION.

RFETS ASH SUBJECT TO FURTHER  
DOCUMENTATION / ANALYSIS BY HNF.  
1/2 FURTHER CBFO ASSESSMENT. THIS  
PROCESS DEEMED INDETERMINATE. *ML 6/19/03*

Observer: Accept Response  Do Not Accept Response \_\_\_\_\_  
(Provide Reason)

Will await result of CBFO evaluation.  
SOB

Inquiry Closed: \_\_\_\_\_ ATL \_\_\_\_\_ Date \_\_\_\_\_

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## NMED Observer Inquiry, Hanford Recertification Audit A-03-14

Hanford accepted more than 400 containers of Rocky Flats-generated ash waste ("Hanford ash") between 1983 and 1986 for plutonium recovery tests, but the vast majority of the ash waste remained at Rocky Flats ("RFETS ash"). Hanford asserts that the Hanford ash and the RFETS ash were generated from the same activities and are similar in material, physical forms, and hazardous constituents, and that the headspace gas and homogeneous solids sampling and analyses conducted by RFETS are sufficient for characterizing the Hanford ash without further sampling and analysis.

For their characterization program, RFETS statistically selected ash containers for solid sampling from the population of containers at their site. RFETS also chose to demonstrate that the ash was thermally treated, thus making it eligible for reduced headspace gas sampling as specified by Permit Attachment B, Section B-3a(1)(ii). Containers were then selected by RFETS for reduced headspace gas sampling.

Regarding statistical selection of containers for totals analysis, the Permit specifies in Permit Attachment B2, Section B2-2a, "Once segregated by waste stream, random selection and sampling of the waste containers followed by analysis of the waste samples shall be performed to ensure that the resulting mean contaminant concentration provides an unbiased representation of the true mean contaminant concentration for each waste stream. The Permittees shall require each site project manager to verify that the samples collected from within a waste stream were selected randomly."

NMED believes that the RFETS data is inappropriate as a substitute for either headspace gas or solid sampling by Hanford for several reasons, including but not limited to:

- The total population from which random samples were collected by RFETS did not include the Hanford ash; that is, Hanford ash was not considered part of the RFETS ash population when random sampling from the total population was performed at RFETS. The Hanford ash was not included in the population selected for preliminary sample collection, nor was it included in the subsequent population that was sampled as a result of the preliminary assessment.
- The ash containers sent to Hanford for plutonium recovery in the mid-1980's were not randomly selected from among the total RFETS ash population. Waste selected for shipment was done based on accessibility or availability, and Hanford made no demonstration to show that the Hanford ash waste was representative of the total RFETS ash waste population at the time of shipment.
- The Hanford ash waste was subsequently calcined at Hanford after plutonium recovery efforts ceased. The calcining process changed the characteristics of the Hanford ash waste with respect to the chemical composition of RFETS ash waste that was sampled and analyzed at RFETS, as the ash at RFETS was not calcined.

Given the above information, NMED requests that the Permittees justify, based upon Permit requirements, the use of RFETS headspace gas and solid sampling/analysis data as proposed by Hanford. In responding, please include at a minimum all relevant data and information addressing the above concerns.