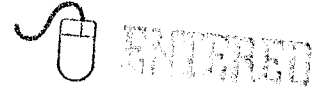


ENVIRONMENTAL EVALUATION GROUP



AN EQUAL OPPORTUNITY / AFFIRMATIVE ACTION EMPLOYER

7007 WYOMING BOULEVARD, N.E.
SUITE F-2
ALBUQUERQUE, NEW MEXICO 87109
(505) 828-1003
FAX (505) 828-1062

October 13, 2003



Dr. Inés Triay, Manager
Carlsbad Field Office
Department of Energy
P.O. Box 3090
Carlsbad, NM 88221

Dear Dr. Triay:

The WWIS reports that EEG retrieved on 10/01 (Nuclide Report), 10/03 (shipment summary Report), and 10/06 (TDOP and 55-gallon drum container reports) included 55-gallon drum number AES006500137BB (the container). This drum was located in ten drum overpack number AETP00008 which was in Argonne East shipment AE030008. The container was reported to contain 230 Ci ^{60}Co , 64.8 Ci, ^{137}Cs , 67.7 Ci, ^{90}Sr and 1.16 Ci of ^{152}Eu . The Waste Container Data Report for the container also reports a TRU alpha activity of 0.123 Ci, a concentration of 2200 nCi/g, a waste matrix weight of 56.2 Kg (including 53.2 Kg of plastics), and beta/gamma and neutron dose rates of zero. There are obvious inconsistencies in this Data Report.

We brought the question of the high ^{60}Co , ^{137}Cs , and ^{90}Sr values to the attention of Roger Nelson for possible discussion at the 10/29 Quarterly Meeting. He replied that the CCP at ANL-E had issued an NCR on this discrepancy but that the WWIS had failed to make the correction prior to our inquiring. We verified on 10/9/03 that the corrections of the ^{60}Co , ^{137}Cs , and ^{90}Sr values had been made. However, there were no changes in the alpha Ci, PE-Ci, waste matrix weights and the beta/gamma and neutron dose rates. Thus, discrepancies still exist.

On 10/9/03, we received a copy of an NDA Data sheet created by Mike Brown on 6/17/03 and modified by QAABA on 7/24/03. This data sheet had the corrected ^{60}Co , ^{137}Cs , ^{90}Sr values and also reported a TRU alpha activity of 5.55×10^{-3} Ci which agrees with the sum of the individual radionuclide activity. This activity was not corrected on the 10/9/03 WWIS container report. Also, the NDA data sheet reports a PE-Ci value of 3.7×10^{-4} (apparently from ^{237}Np only). Addition of PE-Ci weighing values from DOE/EH-0071, July 1988 for ^{243}Cm and ^{249}Cf would result in a correct value of about 4.82×10^{-3} PE-Ci.



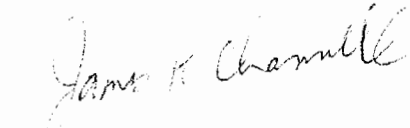
Dr. Inés Triay
April 13, 2003
Page 2

We do not believe it is physically possible to have a zero dose rate from a package containing 1.16 Ci of ^{152}Eu , 0.128 Ci of ^{60}Co , and 0.036 Ci of ^{137}Cs and only 56.2 Kg of low atomic weight material. These radionuclide activities would result in an unshielded dose rate at 1 meter of over 900 mrem/hr.

The TDOP containing this 55-gallon drum had six drums with TRU concentrations less than 100 nCi/g. The two lowest concentrations were 0.7 and 4.9 nCi/g. These six drum should be included in the inventory requested by EPA in the August 8, 2003 letter from Frank Marcinowski to Inés Triay.

The detection of the large error in the ^{60}Co , ^{137}Cs , and ^{90}Sr values is a credit to the QA system. However, the failure to correct the various WWIS Data Sheets prior to our query and the still present discrepancies mentioned above is troubling. Please reply to our concerns about the alpha curie, PE-Ci, and dose rate values. Thank you.

Sincerely,



Matthew K. Silva
Director

MKS:JKC:pf

cc: Ms. Elizabeth Fornash, EPA
Ms. Sandra Martin, NMED
Lindsay Lovejoy, AG's Office
Roger Nelson, CBFO