ANNEX H to ATTACHMENT F

CLARIFICATION OF DATA REQUIREMENTS

This page intentionally left blank

Sandia National Laboratories
Operated for the U.S. Department of Energy by
Sandia Corporation

P. O. Box 5800
Albuquerque, NM 87185-1395

Phone: (505) 234-0038 (Carlsbad)
Fax: (505) 234-0061
Internet: cdleigh@sandia.gov

Christi Leigh, PhD
4100 National Parks Highway
Carlsbad, NM 88220

March 12, 2003

Dr. Beverly Crawford
Los Alamos National Laboratories
Carlsbad Office
115 N. Main St.
Carlsbad, NM 88220

Subject: Clarification of Requirements for the Transuranic Waste Baseline Inventory Database Revision 2.1 from the Giambalvo Letter dated April 22, 2002

Dear Dr. Crawford:

The stated reference (Giambalvo 2003a) includes the following description of requirements for the Transuranic Waste Baseline Inventory Database Revision 2.1.

"Waste-stream level inventories of radionuclides and nonradioactive waste material parameters supplied by the waste generator sites should include estimates for (1) stored inventory, (2) projected inventory, (3) stored plus projected inventory (anticipated inventory, and (4) inventory scaled to fill the WIPP (disposal inventory). A definition for each type of inventory is given in the TWBIR Rev. 3 [US DOE, 1996]."

The purpose of this letter is to clarify the application of this statement to the waste material parameter data for individual waste streams supplied by the waste generator site. For the performance assessment calculations that will be performed in support of the Compliance Recertification Application, Sandia National Laboratories needs to know the average density of the waste material parameters throughout the repository assuming that waste material parameters are distributed homogenously throughout the repository. That value should be calculated as follows:

Exceptional Service in the National Interest

Dr. Beverly Crawford - 2 - March 12, 2003

$$^{WMP}\rho_{ave\,Rep} = \sum {}^{WMP}\rho_{ave\,i} \cdot (v_p + v_s + v_e) / (V_p + V_s + V_e) \qquad (1)$$

Where

v_p is the projected volume for waste stream i,
v_s is the stored volume for waste stream i,
v_e is the emplaced volume for waste stream i,
V_p is the total projected volume
V_s is the total stored volume
V_e is the total emplaced volume
$^{WMP}\rho_{ave\,Rep}$ is the average density of a WMP throughout the repository
$^{WMP}\rho_{ave\,i}$ is the average density of a WMP in waste stream i

None of the values in Equation 1 should be "scaled" values. This is the average density that will accommodate calculation of gas generation in our repository models.

Please note this clarification and proceed with implementation of Equation 1 for repository waste material parameter density in the TWBID Revision 2.1

If you have any questions or comments regarding this information, please contact Christi Leigh at 234-0038.

Sincerely,

Christi Leigh

Copy to:
Laurie Sparks-Roybal
Sheila Lott
Bill McCulla