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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

EPA PAV

WPO 47196

APR 17 1997

OFFICE OF
AIR AND RADIATION

George Dials, Manager
Carlsbad Area Office
U.S. Department of Energy
P.O. Box 3090
Carlsbad, NM 88221-3090

Dear Mr. Dials:

This letter is a follow-up to the letter I sent to Alvin Alm, Assistant Secretary for Environmental Management, on March 19, 1997, regarding the U.S. Environmental Protection Agency's (EPA) review of the U.S. Department of Energy's (DOE) Compliance Certification Application for the Waste Isolation Pilot Plant (WIPP). In that letter, EPA identified a list of performance assessment (PA) input parameters for which EPA had questions about the value(s) selected.

Since the March 19, 1997 letter was sent, my staff have been reviewing parameter values based on information provided by DOE and Sandia staff, and conducting sensitivity analyses to determine the impact of relevant parameters on the overall performance of the disposal system. Based on those activities, twelve parameters are no longer in question (see Enclosure 1).

As you are aware, some parameters and associated values used as inputs to the PA submitted on October 29, 1996, have been found by my staff to not be representative of the data. Therefore, EPA requires DOE to use the parameter values found in Enclosure 2 to this letter in a PA verification test. EPA understands that DOE is anxious to receive guidance on parameters and associated values that are inputs to the test. For this reason, my staff examined BRAGFLO parameters first, since BRAGFLO is the first computer code to be activated in producing the results of the test. The BRAGFLO parameters and associated values are those listed in Enclosure 2. DOE should use these parameter values as the Department conducts the PA verification test.

My staff are still examining the remaining parameters identified in my March 19, 1997 letter. EPA will provide the associated input values to DOE by April 25, 1997. In the meantime, DOE can begin the PA verification test, so no time is lost in producing its results.

Should you have questions, please call Frank Marcinowski at (202) 233-9310.

Sincerely,

E. Ramona Trovato, Director
Office of Radiation and Indoor Air

Enclosures (2)

cc: Mary D. Nichols (EPA)
Alvin Alm (DOE/HQ)

Enclosure 1. Parameters identified in the March 19, 1997 letter, which have subsequently been determined by EPA, based on information provided by DOE and Sandia staff or through sensitivity analyses, to no longer be in question.

ID #	Material ID	Parameter ID	Description
259	PAN_SEAL	PRMX_LOG	Panel Seal Permeability
528	S_ANH_AB	POROSITY	Effective Porosity
567	S_MB138	POROSITY	Effective Porosity
588	S_MB139	POROSITY	Effective Porosity
1992	WAS_AREA	DIRNCCHW	Bulk Density of Iron Containers CH Waste
1993	WAS_AREA	DIRNCRHW	Bulk Density of Iron Containers RH Waste
3147	CONC_PLG	POROSITY	Effective Porosity
656	WAS_AREA	GRATMICH	Gas Production Rate - Microbial Humid Conditions
2040	WAS_AREA	DIRONCHW	Average Density of Iron-Based Material in CH Waste
2274	WAS_AREA	DCELLRHW	Average Density of Cellulosic in RH Waste
2041	WAS_AREA	DCELLCHW	Average Density of Cellulosic in CH Waste
657	WAS_AREA	GRATMICI	Gas Production Rate - Microbial Inundated Conditions

Enclosure 2. WIPP Performance Assessment Parameters Identified in the March 19, 1997 Letter Which Have Been Determined To Not Be Representative of the Data. DOE Must Use the Parameter Values Identified Below in the Performance Assessment Verification Test.

ID #	Material ID	Parameter ID	Description	Parameterization to be Used in Verification Test			
				Dist Type	Min	Median	Max
198	DRZ_1	PRMX_LOG*	Log of Intrinsic Permeability, x-direction; disturbed rock zone; time period 0 to 1000 yrs	Log Uniform	-19.4	-15.6	-12.5
3184	BH_SAND	PRMX_LOG*	Log of Intrinsic Permeability, x-direction	Log Uniform	-16.3	-13.4	-11
2907	STEEL	CORRMCO2	Inundated Corrosion Rate for Steel w/o CO2 Present	Uniform	0	1.59E-14	3.17E-14
61	CASTILER	COMP_RCK	Bulk Compressibility	Triangular	2.00E-11	4.00E-11	1.00E-10
3185	CONC_PLG	PRMX_LOG*	Log of Intrinsic Permeability, x- direction	Uniform	-19	-17.3	-17.0

* PRMY_LOG and PRMZ_LOG need to be set equal to PRMX_LOG