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RESPONSE TO U.S. EPA COMMENTS

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1. U.S. EPA COMMENTS:

The initial phase of this removal action will include the placement of slurried bentonite into the K-65 Silos. The amount of bentonite to be placed in the silos will be determined by U.S. EPA after U.S. DOE submits detailed information on the radon attenuation capabilities of the bentonite. U.S. DOE shall submit this information within thirty (30) days of the date of this approval. The amount of bentonite that will be approved to be installed into the silos will be based on a number of considerations including: radon attenuation estimates and waste minimization considerations.

U.S. DOE RESPONSE:

DOE has determined that a one foot bentonite cap over the K-65 residues is the optimum thickness for Radon attenuation. However, DOE recognizes the fact that this thickness of bentonite will not provide adequate protection from the affects of a tornado. (See attached information on radon attenuation).

2. U.S. EPA COMMENTS:

In accordance with requirements of Section IX of the 1990 Consent Agreement, U.S. DOE shall submit a work plan for completion of the above task within thirty (30) days of this approval letter. The work plan shall include radon air monitoring systems, as required by number 4 below, capable of measuring the effectiveness of the bentonite layer. Notification and emergency procedures in the event of dome failure must also be included in the work plan.

U.S. DOE RESPONSE:

The completion of the work plan is dependent upon U.S. EPA concurrence with the responses included in this attachment. The work plan is in preparation and will be submitted 30 days from U.S. EPA approval of the DOE response to comments.

3. U.S. EPA COMMENTS:

U.S. DOE shall complete the installation of the bentonite layer into the K-65 Silos within one-hundred and eighty days (180) days of the date of this approval.

U.S. DOE RESPONSE:

DOE disagrees with the 180 day timeframe for completion of this removal action. The schedule for completion of this

removal action will be included in the work plan which is subject to U.S. EPA approval.

4. U.S. EPA COMMENTS:

Within sixty (60) days of the date of this approval, U.S. DOE shall monitor radon emissions in accordance with the following specifications:

U.S. DOE RESPONSE:

The monitoring equipment and the schedule for installation of the equipment will be included in the work plan for this removal action which is subject to U.S. EPA review and approval.

4.A. U.S. EPA COMMENTS:

Install pressure transducers (sensitivity Pascal, range - up to several inches of water) in Silos 1,2, and 3 (Silo 3 may exceed the radon flux standard of 40 CFR 61, Subpart Q, and as such should be monitored).

U.S. DOE RESPONSE:

The monitoring equipment and the schedule for installation of the equipment will be included in the work plan for this removal action which is subject to U.S. EPA review and approval.

4.B. U.S. EPA COMMENTS:

Install temperature sensors in Silos 1,2, and 3, and in the ambient air outside the silos.

U.S. DOE RESPONSE:

The monitoring equipment and the schedule for installation of the equipment will be included in the work plan for this removal action which is subject to U.S. EPA review and approval.

4.C. U.S. EPA COMMENTS:

Install three or four additional continuous radon monitors at the outer fence line air monitoring stations that are in proximity to nearby residents (AMS 5,6, and 7) and at a location near the western edge of the Production Area, so as to form a triangular (or square).

U.S. DOE RESPONSE:

The monitoring equipment and the schedule for installation

of the equipment will be included in the work plan for this removal action which is subject to U.S. EPA review and approval.

4.D. U.S. EPA COMMENTS:

Use a continuous radon monitor enquired with an environmental radon detector having a sensitivity of approximately 0.1 picocurie per liter (pCi/l), for example, a Pylon AB-5 equipped with "Pylon kettle" to accurately measure background radon levels at AMS BK1, or AMS BK2, or both.

U.S. DOE RESPONSE:

The monitoring equipment and the schedule for installation of the equipment will be included in the work plan for this removal action which is subject to U.S. EPA review and approval.

4.E. U.S. EPA COMMENTS:

U.S. DOE shall use continuous radon monitors to monitor inside the head space of Silos 1,2, and 3.

U.S. DOE RESPONSE:

The monitoring equipment and the schedule for installation of the equipment will be included in the work plan for this removal action which is subject to U.S. EPA review and approval.

4.F. U.S. EPA COMMENTS:

Data from all of the above monitoring systems, except D, and meteorological data from the on-site met tower (wind speed, wind direction, indicators of stability class, etc.) must be fed into real time data loggers. The data loggers must be installed within sixty (60) days of the date of this letter.

U.S. DOE RESPONSE:

The monitoring equipment and the schedule for installation of the equipment will be included in the work plan for this removal action which is subject to U.S. EPA review and approval.

5. U.S. EPA COMMENTS:

Data collected from the radon monitoring and pressure/temperature monitoring systems must be collected in accordance with the requirements of number 4.F above for

radon, and continuously for pressure/temperature. This data must be submitted to U.S. EPA by the 20th of each month, for the previous month. This data should be submitted with the monthly reports required by the 1990 Consent Agreement.

U.S. DOE RESPONSE:

The monitoring equipment and the method of reporting the data will be included as part of the Removal Action Work Plan.

6. **U.S. EPA COMMENTS:**

U.S. DOE shall reduce radon emissions, as measured in accordance with requirements of number 4 above, with the above mentioned bentonite layer to a level of no greater than 0.015 pCi/l above background at the location of the maximally exposed individual at a non-FMPC location. This level is to be determined by monitoring, as required in number 4, above, and computational methods approved by U.S. EPA will evaluate the performance of the bentonite layer in reducing radon emissions. If U.S. EPA determines that this reduction is insufficient, additional removal response action(s) will be required.

U.S. DOE RESPONSE:

U.S. DOE is committed to reducing radon emissions from the K-65 Silos. The performance level outlined above in the EPA comment cannot be measured with known monitoring equipment. DOE and U.S. EPA will evaluate the effectiveness of this removal action in reducing radon emissions and determine if additional response actions are required.