



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

November 7, 2002

OFFICE OF  
AIR AND RADIATION

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

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Dear Dr. Triay:

The Environmental Protection Agency (EPA) has completed our review of the Department of Energy's (DOE) proposed change in the schedule for testing of passive institutional controls for the Waste Isolation Pilot Plant (WIPP). The proposal, which DOE sent to EPA in May 2002, consisted of an introductory section and three supporting documents: a materials analysis, a survey of monuments, and a testing program plan.

EPA has determined that the schedule changes proposed by DOE, as listed in Table 1 below, are non-significant with respect to the Certification Decision (63 FR 27396, May 18, 1998). Based on our review, the revised schedule will still provide data well in advance of the anticipated decommissioning of the WIPP facility, when a final passive institutional controls (PICs) plan will be required. Furthermore, the testing plan provides significant detail to support the need for additional testing time. Therefore, DOE may proceed with the proposed changes. Additionally, we have several comments on the material contained in the proposal. We advise DOE to consider these comments when implementing the PICs conceptual design.

1. The Permanent Markers Testing Program Plan is a welcome development. EPA appreciates the thoroughness of DOE's approach to this topic, especially the inclusion of references to the Quality Assurance Program Document. The use of reference standards and established quality processes, as well as a methodical approach to testing, will be important factors in demonstrating to EPA that any future changes to the conceptual design have an adequate technical basis.
2. DOE is obligated to execute site markers as described in the Compliance Certification Application and subsequent DOE correspondence (February 7, 1997 letter from G. Dials to R. Trovato; Air Docket A-93-02, Item II-I-07). If DOE determines that the original marker design (including location, number, materials, and configuration) should be

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altered or improved, the Department must notify EPA and receive the Agency's approval before proceeding.

Certain changes (such as different component materials or dimensions) may be possible without modifying the certification, as long as the design itself remains essentially the same. However, the introductory section of the proposal (page 2) states, "DOE plans to re-examine whether. . . all of the components of the permanent marker system proposed in the CCA are needed." Elimination of one or more components may require modification.

3. Condition 4 of the Certification Decision requires DOE to show that PICs will be implemented "as soon as possible following closure of the WIPP." DOE's change notice states that all measures in their final form will be presented in the last recertification application before site closure (approximately 2033). Throughout the operational phase of the WIPP, DOE should present information in each recertification application showing the progress that has occurred with regard to testing and implementation of all PICs (markers, archived records, et al.).
4. Based on conclusions reached by John Hart and Associates, DOE suggests that "portions of the permanent marker system originally conceptualized. . . are impractical" (page 1 of the introductory section). Concerns about the specific design of the surface granite monoliths led us to require further information about the monoliths in section (a)(2) of Condition 4 of the WIPP Certification. Nevertheless, EPA explicitly concluded in the Certification Decision that the proposed marker system – including the salt-core based berm – was practicable. To justify a departure from the markers that were proposed, DOE would be expected to provide an adequate technical basis showing that an alternative is likely to be more durable and more effective as a marker. EPA believes that further testing and analysis of materials (e.g., basalt), processes (e.g., granite exfoliation) and configurations (e.g., salt core of the berm) should be done before DOE concludes that certain features of the marker system are impractical.

Please contact Betsy Forinash, Director of the Center for Federal Regulations at (202) 564-9310, if you have any questions.

Sincerely,



Frank Marciniowski, Director  
Radiation Protection Division

cc: Russ Patterson, CBFO  
Lynne Smith, DOE/HQ  
Matthew Silva, EEG

Table 1: Approved Schedule Changes for PICs Testing

<b>Activity</b>	<b>Original Time Frame</b>	<b>New Time Frame</b>
Identification of suitable source material	1999-2004	2007
Submit plans for test marker system to EPA	2003	2007
Construct and test berm and test markers	2004-2009	2008
Monitor performance of test berm and test markers	2007-2083	2009-closure
Develop final design of markers	2083-2090	2033 (anticipated)
Finalize messages	n/a	2033 (anticipated)

Source: Department of Energy, Proposed Change Request, May 16, 2002