# Los Alamos

Los Alamos National Laboratory
Los Alamos, New Mexico 87545

## memorandum

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Jim Coffey, DOE/WPIO

DATE: 5/15/92

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THRU: John Phillips, CLS-1 Group Leader

SYMBOL: CLS-1/92-521-BV

SUBJECT: SUMMARY AND BRIEF RESPONSES TO QUESTIONS FROM DOE-AL/LANL MEETING ON 5/11/92

This letter provides a response to the questions and issues that were discussed at the prelimary meeting on the feasibility and technical capabilities of LANL to conduct the Bin-Scale Analyses if the WIPP site opening is delayed as the WIPP technical capabilities could be enhanced through LANL involvement. I have chosen to provide you with the information you need by responding to the questions listed in the agenda of the meeting.

1. Establish feasibility of transporting bins to Los Alamos National Laboratory?

   a. Regulatory
   b. Political
      1. Federal
      2. State
   c. Agreements
   d. Permits
   e. DOT

LANL'S Hazardous waste facility permit prohibits receiving hazardous waste for treatment, storage, or disposal from off-site. Although the intent of the experiment is not to treat hazardous wastes, it must be stored according to RCRA regulations.

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5. Why perform the bin scale tests at Los Alamos National Laboratory?

1) To take advantage of the technical expertise and capabilities of the CLS-1 and other groups at LANL.
2) To take advantage of expertise that has already been amassed for other associated WIPP projects.
3) Because, I believe, we can accomplish this project in a short time and have the Bin Scale analyses on-going with within a few months.
4) To address the transport of Bins on a Trupact-II from Idaho to LANL for experimental purposes prior to shipment to WIPP.

6. What are the major problems?

The major problems are regulatory and political. We would run into stumbling blocks with transportation and TRUPACT-II handling capabilities.

7. What does CLS-1 need to initiate, implement, and complete the Bin-Scale Program?

a. Formal DOE-WASH Request to LANL director to conduct bin-scale experiments and analyses via CLS-1.
b. Assurance from DOE-WASH that they will actively pursue alternative disposition of bins after the experiments or that the bins will have highest priority to be transferred to WIPP as part of the completion of the experiments.
c. LANL upper management will provide full support to this program prior to CLS-1 commitment to initiation of program.
d. CLS-1 will not compete with other labs for this program unless DOE provides funding for the exercise.

8. What can LANL do now to help the Bin-Scale Program?

1. Determine capability of CMR building to house the Bins.
2. Collaborate with SNL and DOE-WIPP on design and applicability of LANL proposed bin headspace gas analyses system.
3. Have a typical Bin sent to LANL for study and to demonstrate headspace gas analyses system.
4. Continue to tackle the sticky regulatory problems that are obviously the primary hurdles to overcome.

9. What can LANL do for Bin Scale Program if WIPP opens?

LANL can help WIPP by doing all the aforementioned work and transfer the bins or a number of select items to WIPP along with the technology gained.

CY: Tony Grieggs, EM-8, MS K490
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At LANL, all hazardous and mixed wastes must be stored within a permitted or interim status storage area. Wing 9 of the CMr building has interim storage for mixed waste with a current capacity of about 18000 gallons. An estimate of the total volume required for the Bin-Scale program approaches that capacity. Increasing the capacity of the interim status storage in Wing 9 will require an addendum to the Mixed Waste Part A permit application which must be approved by NMED.

LANL's capability to load/unload TRU PAC II containers is limited at this time. The equipment is available but the TRAMPAC documentation and training of personnel must be initiated.

An RD&D Permit will probably not be required but if it is, it may take up to 18 months to complete. RD&D permits are issued for one year with a maximum of 3-one year renewals. Using LANL waste will sure simplify the process.

2. Determine possibility of returning bins to INEL?

   LANL could communicate with DOE-ID and the state of Idaho about this possibility in collaboration with DOE-ALB or DOE-ALB or DOE-HQTRS could pursue this issue.

3. If bins can be received at Los Alamos National Laboratory, where could experiments be housed? For how long?

   We would plan to do these experiments in the LANL CMR building for a period of about five years.

4. What are the technical capabilities Los Alamos National Laboratory needs to perform all needed experiments and analyses?

   a) A thorough knowledge and understanding of the regulatory issues.
   b) A comprehensive technical understanding of the objectives of the Bin Scale tests.
   c) An ability to work collaboratively with DOE-ALB and SNL.
   d) A technical understanding of the engineering associated with the different Bins.
   e) A thorough understanding of methods to purge the bin and the appropriate ways to exhaust bin gases.
   f) A comprehensive knowledge and understanding of performing headspace gas analyses for inorganic and a suite of organic analytes at the low ppm or ppb level.
   g) An understanding of the limitations of performing these tests of WIPP.
   h) Some innovative thinking on how to automate the entire analyses process.
   j) The capability to design and devise a practical and user friendly system that provides total analytical capability and can be demonstrated on a short time schedule.
   k) Finally, a capability to demonstrate such a system and transfer the technology to WIPP.