



## Department of Energy

Albuquerque Operations Office  
Los Alamos Area Office  
Los Alamos, New Mexico 87544

OCT 12 1999



### VIA HAND DELIVERY

Dr. Robert S. Dinwiddie  
Program Manager, Permitting  
Hazardous and Radioactive Materials Bureau  
New Mexico Environment Department  
2044 Galisteo Street, Building A  
P. O. Box 26110  
Santa Fe, NM 87505

Dear Dr. Dinwiddie:

Subject: Status Report of Activities at the TA-53 New Radioactive Liquid Waste Treatment Facility (RLWTF) Plant and Notification of a New Solid Waste Management Unit (SWMU) at Los Alamos National Laboratory (LANL)

The purpose of this letter is to provide you with an update on activities regarding the TA-53 RLWTF and to notify you, as recently agreed upon, of a new SWMU at LANL. This letter will summarize the results of meetings between the Department of Energy (DOE), University of California (UC) staff, and you and your staff during September 1999, and furnish you information that we agreed to provide in the course of those meetings. It will further serve as notification of when operations will commence at the new RLWTF at TA-53.

The RLWTF is the new facility (or "new system") that will manage radioactive effluent that is generated at the TA-53 complex. It replaces the former system, which consisted of delay tanks, the three surface impoundments, and the lines that connected these components. The new system consists of two new lift stations, replacing the old delay tanks located at the Manuel Lujan Center and at the Area "A" site. It also has three new double-wall, leak-detection equipped 30,000-gallon tanks located in a vault in a newly constructed treatment building northeast of the three formerly used surface impoundments, and has two evaporation basins that receive effluent from the tanks.

The new lift stations were installed near the former system delay tanks. New transmission lines take the effluent from the facilities into the new lift stations, which bypass the tanks of the former system. A new line, connected to the existing double-walled polyethylene line, carries radioactive liquid waste to the new storage tanks. The new system will utilize the transmission line of the former system (approximately 8-9 years of age) to the point where it once flowed into the surface impoundments. The line was severed at that point and the connection to the surface impoundments was permanently removed. A new section of line (which is the same brand and type as the existing line to insure continuity) will deliver effluent to the new 30,000-gallon holding tanks and from there to the new evaporative basins.

The line between the lift stations and the 30,000-gallon tanks is equipped with secondary containment. Because effluent is delivered under pressure to the new tanks (the high point along



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the line being near the Lujan Center), the line drains either back into the lift stations or into the tanks when active flow stops. At each end of this line, a sump and alarm have been installed to detect any leakage into the annulus of the line's secondary containment.

Waste entering the new system will be characterized and will adhere to the waste acceptance criteria set for this facility, thereby insuring that RCRA wastes do not enter the system. Additionally, strict administrative controls will be observed and enforced on all liquid wastes entering the system.

The Hazardous and Radioactive Materials Bureau (HRMB) has made it clear to DOE and UC representatives that the three formerly used surface impoundments are to be permanently out-of-service and no longer available to receive any material, with the exception of rain and snow that may naturally fall into and accumulate in the impoundments. We will abide by this condition. The impoundments are now subject to corrective action and will be addressed by LANL's Environmental Restoration Program.

In the course of our meetings, the HRMB expressed concerns about the recent discharge of water through the one section of line from the former system that is to be utilized by the new system. As part of the start-up procedures for the new plant, the new system was flushed with potable water from nearby fire hydrants. This was done to test the pumps and controls in a way that was very similar to actual operating conditions. This resulted in the lines having between 12,000 and 15,000 gallons of water pumped through them. A sample of this water was taken from water in the new 30,000-gallon tank. Analytical data for total metals from samples of the last of the water flushed through the line is enclosed. We have also enclosed our most recent data from the well head of the water supply well that services this area. We believe that the analytical results demonstrate that the water that was flushed through the line and placed into the 30,000-gallon tank was for all practical purposes "clean" water. The analytical data also demonstrates there are no RCRA metals of any significance remaining in the transmission line.

We have also enclosed for your information schematics depicting the new system. These will give you information regarding the length of the pipe run, elevations, material types, and locations of the various components of the entire system.

We believe the information contained in this letter, along with the enclosures, meets our commitment to provide information promised to you and your staff in our recent meetings. It is our plan to proceed and discharge water through this system the week of October 11, 1999. This date is based upon the filling rate of the lift stations. If you have any concerns about this starting date, we request that you let us know immediately.

Finally, as agreed upon with you and your staff, we are providing you notice that the new system is to constitute a solid waste management unit once it becomes operational and begins receiving waste from operations. We are making this notification with the understanding that when the HSWA portion, Module VIII, of the LANL hazardous waste permit is renewed, the new system as a SWMU will not be subject to a compliance schedule for corrective action, but will be included in the permit under a separate schedule for tracking purposes. This will allow the new system to continue operating to the end of its useful life. When this system is removed from service, it will require an evaluation to determine whether or not a release from the system has occurred. Due to the presence of the leak detection system, we do not anticipate any such release. Should we become aware of a release, it will be addressed immediately.

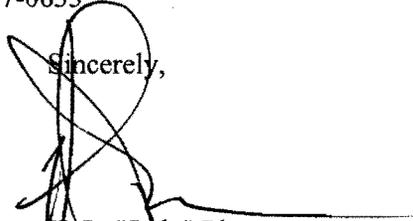
Robert S. Dinwiddie

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We would like to take this opportunity to thank you and your staff for working with us in resolving these issues. If you should have any questions, please feel free to contact me at (505) 665-5042 or Jack Ellvinger at (505) 667-0633.

Sincerely,

A handwritten signature in black ink, appearing to be "H. L. 'Jody' Plum", written over a horizontal line. The signature is somewhat stylized and overlaps the line.

H. L. "Jody" Plum  
Office of Environment

LAAME:6JP-160

Enclosures

# *RLW PROJECTS - What and Why?*

## ■ *Simplified Block Flow Diagram of TA-53 RLW Tank and Treatment Projects*

