

5/24/94

State of New Mexico

ENVIRONMENT DEPARTMENT

Harold Runnels Building
1190 St. Francis Drive, P.O. Box 26110
Santa Fe, New Mexico 87502
(505) 827-2850

JUDITH M. ESPINOSA
SECRETARY

RON CURRY
DEPUTY SECRETARY



BRUCE KING
GOVERNOR

FACT SHEET

**NINETY (90)-DAY EMERGENCY PERMIT
for
THERMAL DECOMPOSITION OF MIXED WASTE (PLUTONIUM-IMPREGNATED
NITRATED CHEESECLOTH)**

**US DEPARTMENT OF ENERGY/LOS ALAMOS NATIONAL LABORATORIES
LOS ALAMOS COUNTY, NEW MEXICO**

Activity: Approval of a ninety (90)-day emergency permit for thermal decomposition of plutonium-impregnated nitrated cheesecloth (a mixed waste).

Permittee's Name: US Department of Energy, Los Alamos Office/Los Alamos National Laboratories

State Permit Number: NM5890110518-EP1

Site Description: Room 420, Building 4 (the Plutonium Facility), Technical Area 55, Los Alamos National Laboratories, Los Alamos County, New Mexico. The location, design, and construction of Building 4 prevents releases that may have adverse effects on human health and the environment. The exterior walls of the building are constructed of 14 inch thick concrete. The floors and roof are 10 inch concrete slabs. Room 420 has a concrete floor which has no drain and is sealed with epoxy, preventing the migration of any spill to ground water, surface water, and soil. The aqueous caustic scrubber, the filter in Room 420, the series of three (3) filters in Building 4, and the monitored stack prevent a release to air.

Treatment Purpose: Recovery of plutonium from nitrated cheesecloth (an ignitable and reactive hazardous waste). This permit will regulate the first step in this process, thermal decomposition of the cheesecloth (cellulose). This process will also serve the secondary treatment purpose of rendering the cheesecloth nonhazardous.



4374

TR

**Description
of Process:**

The cheesecloth will be placed in a stainless steel vessel and lowered into a furnace can (the Inert Atmosphere Decomposing Unit), all contained in a stainless steel glovebox inside Room 420. The furnace can will be purged with argon gas to maintain an inert atmosphere for the thermal decomposition process. Complete ashing of the cheesecloth will occur, resulting in the residual material no longer exhibiting the characteristics of ignitability and reactivity.

The offgas produced will pass through a scrubber and then through high energy particulate air filters before being emitted through a monitored stack. Provided that the scope of this project does not change, this project does not require an air quality permit under the New Mexico Air Quality Control Regulations.

**Permit
Availability:**

A copy of the permit is available for public review Monday through Friday between the hours of 8:00 a.m. and 9:00 p.m. at:

Hazardous and Radioactive Materials Bureau
New Mexico Environment Department
525 Camino de los Marquez
Santa Fe, New Mexico 87502

and at:

Los Alamos National Laboratories Reading Room
4150 Central Avenue, Suite 101
Los Alamos, New Mexico 87544

Comments:

Any interested party may comment on this permit through **August 1, 1994**. Comments should be sent in writing to the above Santa Fe address and should include the sender's name and address. These comments will become part of the Administrative Record for the permit.