



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

REGION III
2443 WARRENVILLE ROAD, SUITE 210
LISLE, ILLINOIS 60532-4352

July 20, 2004

Successor Trust, LePetomane II, Inc., not
Individually but Solely as Trustee; Jay A.
Steinberg, not Individually but Solely as President
55 E. Erie, Suite 1902
Chicago, IL 60611

Custodial Trust, LePetomane III, Inc., not
Individually but Solely as Trustee; Jay A.
Steinberg, not Individually but Solely as President
55 E. Erie, Suite 1902
Chicago, IL 60611

RE: Former Michigan Chemical Company Low Level Radioactive
Waste Disposal Site in Breckenridge, Michigan

Dear Mr. Steinberg:

This letter is directed to the Successor Liquidation Trustee per the Settlement Agreement in the Fruit of the Loom bankruptcy proceeding and the Custodial Trustee as current owner of the Breckenridge, MI site. As discussed more fully in the attached letter dated June 19, 2002, to your predecessor in interest, the NRC has concluded that to ensure compliance with NRC dose criteria, the formerly licensed radioactive material must be removed from the site. Therefore, you or your contractor are directed to submit to this office for review and approval the Breckenridge site remediation plan to accomplish the excavation and shipment of the "filter cake" discussed in the letter referenced above. The plan should be submitted to Dr. Peter Lee.

Please contact me at (630) 829-9653 if you have any questions.

Sincerely,

A handwritten signature in cursive script that reads "Bruce Berson".

Bruce Berson
Regional Counsel

Enclosure: As stated

cc w/enclosure: D. Heidlauf, Environ



UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION III
801 WARRENVILLE ROAD
LISLE, ILLINOIS 60532-4351

June 19, 2002

NWI Land Management
c/o Mr. John E. Hock
Senior Project Manager
Civil & Environmental Consultants
3041 Woodcreek Drive, Suite 210
Downers Grove, IL 60515-5417

Dear Mr. Hock:

This is in response to your letter to Dr. Peter Lee of my staff dated April 17, 2002. That letter transmitted to this office the results of a revised dose assessment performed for the former Michigan Chemical Company low level radioactive waste disposal site in Breckenridge, MI (the Breckenridge site). Your previous letter dated March 19, 2002, transmitted a report describing site characterization activities and results. Together, the two reports provide the technical information needed for evaluating this site.

We have reviewed the characterization report and the revised dose assessment. The characterization effort established that radioactive material in the form of waste "filter cake," which was buried at the Breckenridge site in accordance with federal regulations in effect at the time, contains concentrations of thorium typically in excess of 0.05 percent by weight. This is the concentration above which the NRC may require a license to possess the material.

The revised dose assessment calculated an average exposure to a member of the critical group greater than 25 mrem per year for scenarios in which the material is left buried, and greater than 100 mrem per year for scenarios in which the material is assumed to be excavated but left on the property. These calculated doses are in excess of the criteria established by NRC for unrestricted and restricted release of residually contaminated property. Additional technical information relating to our evaluation of potential doses is enclosed with this letter (enclosure).

Based on the above, we have concluded that the source term must be reduced, to ensure compliance with NRC dose criteria, by removal of the formerly-licensed radioactive material from the site.

The first step is preparation of a remediation plan to include excavating the "filter cake" and shipping it to an authorized final disposal site. We request that you or your contractor prepare a Breckenridge site remediation plan to accomplish the excavation and shipment of the "filter cake" and submit it to this office for review and approval. We would appreciate receipt of the plan by July 31, 2002.

Following NRC review and approval of the remediation plan, implementation of the plan will be accomplished on a schedule which is yet to be established. As you are aware, under the terms of a proposed settlement agreement in the Fruit-of-the-Loom bankruptcy proceeding, NRC will become the beneficiary of a trust account, to be administered by a custodial trustee, for the purpose of funding necessary remediation. You will be informed by separate correspondence regarding finalization of the settlement agreement.

Your continued cooperation in pursuing a permanent resolution of the Breckenridge low-level radioactive waste burial site is appreciated.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the *Publicly Available Records (PARS) component of NRC's document system (ADAMS)*. ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,



Bruce L. Jorgensen, Chief
Decommissioning Branch

Enclosure: As stated

cc w/encl: D. Minaar, State of Michigan
E. Lorenz, Pine River Superfund Citizen Task Force
R. F. Lawrence, Milbank, Tweed, Hadley & McCloy
J. Steinberg, LePetomane III, Inc.

Review of Breckenridge Disposal Site Dose Assessment

The revised dose assessment for the former Michigan Chemical Company low level radioactive waste burial site (the Breckenridge, MI site) which was submitted by Civil & Environmental Consultants, Inc (CEC) by correspondence dated April 17, 2002, was evaluated with the following results.

The subject dose assessment is based on the November, 2001 site characterization conducted under contract to CEC by SCIENTECH, Inc. It serves as a replacement for the preliminary dose assessment prepared in 2000. The revised dose assessment is a dual-simulation model with a resident farmer scenario. Use of a dual-simulation model for this site is appropriate.

The first simulation is based on excavation of subsurface contaminated soil, bringing it to the surface and spreading it out over the site to a depth of 0.35 meters. The second simulation is based on subsurface contaminated soil that remains undisturbed. Based on our review, we concluded that CEC provided sufficient information and analyzed the information in an acceptable manner. The analytical results satisfactorily demonstrate that the Breckenridge, MI site clearly exceeds the dose criteria of Subpart E, Section 20.1402 for unrestricted release (25 mrem/yr).

NRC also conducted an independent dose assessment based on the same characterization data used by SCIENTECH, Inc. For the first simulation (excavation of contaminated soil, which is spread over the land surface), direct radiation will be the dominant factor for the dose. In this simulation, the NRC results were consistent with the result of 214 mrem/yr estimated in the revised dose assessment. For the second simulation (contaminated soil left in place), the NRC result was about 260 mrem/yr. This is different from the result of 82 mrem/yr reported by SCIENTECH, Inc. In the second simulation, groundwater consumption will be the dominant factor for the dose. The difference in dose assessment results is due to different assumptions about well pump intake depths below the water table. NRC used the RESRAD Code default value for well pump intake depth (10 meters below the water table), while SCIENTECH, Inc. assumed a depth of 35 meters. Both results exceed the unrestricted release criteria. Thus, independent NRC calculations also demonstrate that the Breckenridge, MI site clearly exceeds the dose criteria of Subpart E, Section 20.1402 for unrestricted release.