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Sent: Thursday, June 02, 2005 2:04 PM
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Subject: CMR NEPA Document tables

Attachments: CMR_BG_Tables_1,_2.doc

CMR_BG_Tables_1,
_2.doc (31 KB)...

Kirk, attached are tables 1&2 from the CMR NEPA Determination Document that have been updated.

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Table 1. Principal Buildings and Structures of CMR Building

Technical Area	Principal Buildings and Structures
TA-3	CMR Building: 3-29 Low Level Waste Storage and Transfer Facility: 3-154

Table 2. CMR Building

Capability	Operations Examples
1. Analytical Chemistry	1.1 Sample analysis in support of a wide range of actinide research and processing activities. Approximately 4,000 samples/year.
2. Uranium Processing	2.1 Activities to recover, process, and store LANL highly enriched uranium inventory by 2011. Includes possible recovery of materials resulting from manufacturing operations.
3. Destructive and Nondestructive Analysis	3.1 Evaluate less than 5 secondaries/year through destructive/nondestructive analysis and disassembly. 3.2 Receive, disassemble, and analyze assemblies and components used to measure radiologic effects on different materials such as metals, metal alloys, and ceramics. These activities could include machining, cutting, grinding, and polishing. 3.3 Performance Demonstration Program to test nondestructive analysis/nondestructive examination equipment.
4. Nonproliferation Training	4.1 Nonproliferation training involving SNM. No additional quantities of SNM, but may work with more types of SNM than in 1995.
5. Actinide Research and Development	5.1 Introduce research and development effort on spent nuclear fuel related to long-term storage, and analyze components in spent and partially spent fuels. 5.2 Metallurgical microstructural/chemical analysis and compatibility testing of actinides, and other metals. Primary mission to study long-term aging and other material effects. Characterize about 100 samples/year. 5.3 Analysis of TRU waste disposal related to validation of the Waste Isolation Pilot Project (WIPP) and other waste facilities performance assessment models. 5.4 TRU waste characterization. 5.5 Analysis of gas generation such as could occur in TRU waste during transportation to WIPP or other waste facilities. 5.6 Demonstrate actinide decontamination technology for soils and materials. 5.7 Develop actinide precipitation method to reduce mixed wastes in LANL effluents. 5.8 Develop small-scale (less than 1 kg/year) actinide processing capability. 5.9 Perform gas-solid interfacial studies using surface science instrumentation and associated techniques. 5.10 Investigate physical and mechanical properties of plutonium metal

	alloys.
6. Fabrication and Processing	6.1 As part of the Isotope Production Program, produce up to 100 Curies per year of industrial or medical radioisoptopes. 6.2 Process up to 5,000 Ci/year plutonium-238/beryllium and americium-241/beryllium neutron sources. 6.3 Produce up to 4 kg/year of americium oxide. 6.4 Stage up to 1,000 beta/gamma/neutron sources such as plutonium-238/beryllium, americium-241/beryllium, americium-241, plutonium-238, cobalt-60, cesium-137, strontium-90, californium-252, iridium-192, radium-226, and curium-244 in Wing 9 floor holes. 6.5 Support complete highly enriched uranium processing, research and development, pilot operations, and casting. 6.6 Fabricate metal shapes, including up to 50 sets of highly enriched uranium components, using 1 to 10 kg highly enriched uranium per operation. 6.7 Material recovered and retained in inventory. Up to 1,000 kg annual throughput. 6.8 Fabricate actinide metal alloys. 6.9 Study/perform fabrication methods and effects of thermo-mechanical processing on actinide materials.

a: Source: Modified from SWEIS 1998 Yearbook (LANL 1999).
b: Includes installation of UF/RO and nitrate reduction processes in Building 50-01 and installation of above-ground tanks for the collection of influent radioactive liquid waste.