

Shipments of Decommissioned Material to Kettleman Hills

Statement

Decommissioned material (building debris) from buildings 4059 and 4024 has been sent to Kettleman Hills in full compliance with the Governor's 2002 Executive Order D-62-02. The material has been surveyed and verified clean by the Department of Health Services Radiologic Health Branch. Documented evidence that the material met federal and state cleanup standards was provided to Kettleman Hills prior to their acceptance of the material.

Background

In September 2002, following his veto of Senate Bill 1970, Governor Gray Davis issued Executive Order D-62-02, known as the "Governor's Moratorium." The Executive Order imposed a *"moratorium on the disposal of decommissioned materials into Class III landfills and unclassified waste management units."* The Executive Order defined decommissioned materials as *"materials with low residual levels of radioactivity that, upon decommissioning of a licensed site, may presently be released with no restrictions upon their use."* The Executive Order acknowledged that *"no other state or the federal government monitors the disposal of residual radioactive materials once a site is decommissioned and released for unrestricted use."*

In his SB 1970 veto message to the Senate, Governor Davis stated, *"This bill [SB 1970] redefines the term 'radioactive waste' to include any discarded decommissioned material with the slightest trace of detectable radioactivity not attributable to background sources, and prohibits all such material from being disposed of at all existing hazardous or solid waste disposal facilities in the State of California. As written, this bill is overly broad, unworkable and would do little to significantly enhance protection of the public health."*

The Executive Order was implemented by the State Water Resources Control Board (SWRCB)¹

Since implementation of Executive Order D-62-02, Boeing has complied with the Order and disposed of decommissioned materials to Class I hazardous waste landfills.

Building 4059 SNAP Facility

The remediation/demolition of Building 4059 was split into two phases – Phase I included portions of the building that would be surveyed to demonstrate compliance with federal and state cleanup standards and be "released for unrestricted use." Material from this Phase I would be subsequently classified as decommissioned material. Phase II would encompass the remaining residually contaminated shielding concrete in the building basement. Material from Phase II would be managed as low level radioactive waste (LLRW) and shipped to the Department of Energy's Nevada Test Site (NTS).

In September 1999, Boeing completed a radiological survey of Phase I² of 4059 using MARSSIM protocols³.

¹ Letter from Celeste Cantu, Executive Director of the State Water Resources Control Board to Radioactive Materials Licensees – Facility Owners and Operators, October 11, 2002

² RS-0008, "Building 4059 Final Status Survey Report (Phase I)", September 11, 1999

³ MARSSIM - Nuclear Regulatory Commission NUREG-1575, Environmental Protection Agency EPA 402-R97-016, "Multi-Agency Radiation Survey and Site Investigation Manual", Rev. 1, August 2000

In October 1999, the California Department of Health Services Radiologic Health Branch (DHS/RHB) performed a verification survey of Phase I of Building 4059.

In October 1999, the Oak Ridge Institute of Science and Education (ORISE) completed a verification survey of Phase I of Building 4059. This survey was documented in December 2000⁴.

In October and December of 2000, EPA and their contractor, Tetra-Tech, performed a verification survey of Phase I of Building 4059. This survey was documented in December 2002⁵. In addition the EPA performed a document review⁶ of all prior surveys of Building 4059 performed by Boeing and ORISE.

All surveys confirmed that federal and state cleanup standards had been met and that the Phase I of the building was suitable for release for unrestricted use.

In letters to DHS dated February 28, 2001, December 21, 2001 and November 25, 2002, Boeing petitioned the DHS/RHB to approve release, demolition and disposal of Building 4059 (Phase I)^{7,8,9}.

In December 2003, the DOE gave approval for building demolition and disposal of decommissioned material from Building 4059 to a Class I hazardous waste landfill¹⁰

Demolition of Building 4059 occurred in early 2004. Shipment dates of decommissioned materials to Kettleman Hills occurred in May, August and September of 2004 and September of 2005. Kettleman Hills was provided with the documented evidence, referenced above, demonstrating that the Building 4059 decommissioned materials were suitable for release for unrestricted use.

4626 Concrete Pad

A concrete pad, named site 4626, was used for staging of contaminated concrete blocks from the Building 4059 excavation. Following completion of the 4059 excavation, this concrete pad was surveyed by Boeing and removed. The survey data¹¹ was transmitted to the DHS/RHB December 2004 and they were invited to perform a verification survey of the concrete debris.

⁴ ORISE 2000-1523, "Verification Survey of Building 4059 (Phase I), Santa Susana Field Laboratory, Ventura County, California", December 2000.

⁵ EPA, "Final Oversight Verification and Confirmation – Radiological Survey Report for Building 4059", December 20, 2002.

⁶ EPA, "Final Rocketdyne Technical Support and Field Oversight – Document Review for Building 4059", December 20, 2002.

⁷ Letter from Phil Rutherford (Boeing) to Steve Hsu (DHS), "Building 4059 SNAP Ground Prototype Test Building, SSFL, Phase I, Release for Unrestricted Use", February 8, 2001.

⁸ Letter from Phil Rutherford (Boeing) to Steve Hsu (DHS), "Building 4059 Demolition", December 21, 2001.

⁹ Letter from Phil Rutherford (Boeing) to Ed Bailey (DHS), "Timely Response to Boeing's Written Communication with the Radiological Health Branch", November 25, 2002.

¹⁰ Letter from Mike Lopez (DOE) to Majelle Lee (Boeing), "Release of Building 4059", December 17, 2003.

¹¹ Letter from Phil Rutherford (Boeing) to Steve Hsu (DHS), "Disposition of the Building 4626 Concrete Pad and Request for Approval to Ship to Kettleman Hills", December 20, 2004.

This verification survey was documented in an April 2005 letter to Boeing¹², verifying that the concrete debris was released for unrestricted use. This debris was shipped to Kettleman Hills in September 2005.

Building 4024 SNAP Environmental Test Facility

The demolition of Building 4024 is also planned in two phases. The above ground portions and non-contaminated below ground portions are being surveyed and released prior to being shipped to Kettleman Hills as decommissioned material. The contaminated/activated test cells will be managed as low level radioactive waste (LLRW) and shipped to the Department of Energy's Nevada Test Site (NTS).

In January 2005, Boeing sent a radiological survey data package¹³ to DHS/RHB documenting surveys of 4024 office areas, work areas, control rooms, change rooms, mechanical equipment rooms, associated hallways and lead blocks. Subsequently, DHS performed a verification survey. This was documented in a May 27, 2005 letter¹⁴ releasing the material for unrestricted use.

In April 2005, Boeing sent a radiological survey data package¹⁵ to DHS/RHB documenting surveys of the 4024 high bay, high bay vault, high bay mezzanine, HEPA filter room, electro-mechanical room, associated plant equipment and lead glass window. Subsequently, DHS performed a verification survey. This was documented in a September 26, 2005 letter¹⁶ releasing the material for unrestricted use.

In September 2005, Boeing sent a radiological survey data package¹⁷ to DHS/RHB documenting survey of the 4024 stack, lead waste & shot, and penetrations M1 to M28, B-1 to B-67 and wall plugs 1 to 10. Subsequently, DHS performed a verification survey on September 5, 2006. Boeing is currently awaiting the DHS letter documenting results of this survey

Shipments of decommissioned materials from Building 4024 have been sent to Kettleman Hills in August, September and December of 2005, and June of 2006. Kettleman Hills was provided with documented evidence, referenced above, demonstrating that the Building 4024 decommissioned materials were suitable for release for unrestricted use.

¹² Letter from Ed Bailey (DHS) to Phil Rutherford (Boeing), "Response to 2004RC03521 - Disposition of the Building 4626 Concrete Pad and Request for Approval to Ship to Kettleman Hills", April 27, 2005.

¹³ Letter from Phil Rutherford (Boeing) to Steve Hsu (DHS), "Request to Perform Confirmatory Surveys of the Office Areas of Building 4024, Santa Susana Field Laboratory (SSFL)", January 25, 2005.

¹⁴ Letter from Ed Bailey (DHS) to Phil Rutherford (Boeing), "Response to 2005RC002061 - Request to Perform Confirmatory Surveys of the Office Areas of Building 4024, Santa Susana Field Laboratory (SSFL)", May 27, 2005.

¹⁵ Letter from Phil Rutherford (Boeing) to Steve Hsu (DHS), "Request to Perform Additional Confirmatory Surveys of the Upper Portion of Building 4024 (Phase I), Santa Susana Field Laboratory (SSFL)", April 20, 2005.

¹⁶ Letter from Ed Bailey (DHS) to Phil Rutherford (Boeing), "Response to 2005RC001000 - Request to Perform Additional Confirmatory Surveys of the Upper Portion of Building 4024 (Phase I), Santa Susana Field Laboratory (SSFL)", September 26, 2005

¹⁷ Letter from Phil Rutherford (Boeing) to Steve Hsu (DHS), "Request to Perform Confirmatory Surveys of the Building 4024 Stack, Lead Shot and Facility Penetrations, Santa Susana Field Laboratory", September 9, 2005.