

## Group O

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Group O Map

Building 4005

*Includes Building 4705, Substation*

Building 4006

*Includes Building 4616, Cooling Tower*

*Includes Building 4706, Substation*

Building 4402

Site 4506

Building 4606

*Includes Building 4816, Hydrogen Recombiner Test Canopy*

Building 4607

Building 4615

Building 4704

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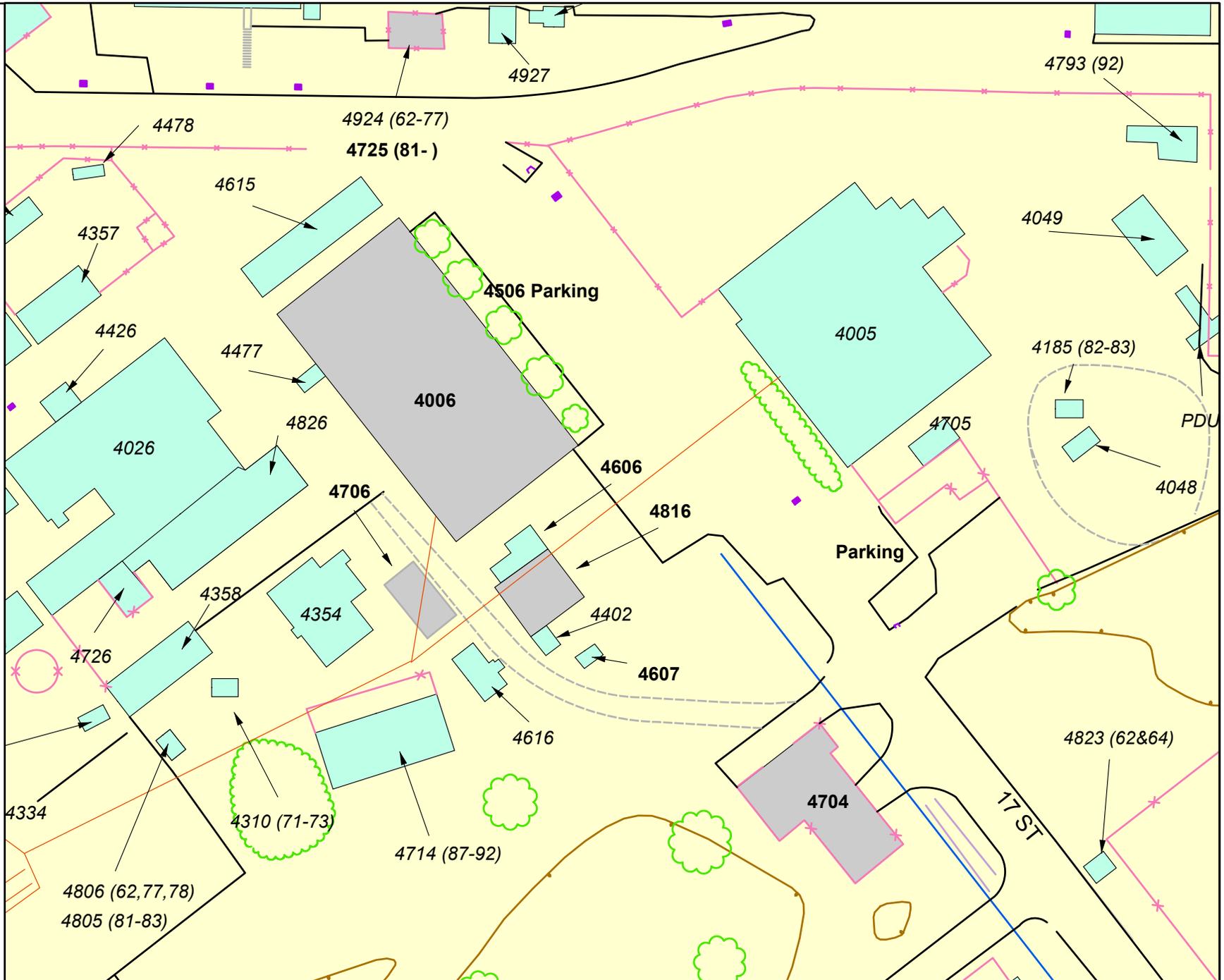
### Legend

**Labeled Features:**  
(Based on SSFL Documents as of October 2004)

-  Buildings/Sites: "Current"
-  Buildings/Sites: "Demolished"

**Unlabeled Features:**

-  Leachfield (Removed)
-  Tree
-  Rock
-  Concrete Curb
-  Gutter
-  Asphalt/Concrete Berm & Paving
-  Sidewalk
-  Dirt Road
-  Fence
-  Stream/Pond
-  Drain
-  Area IV Boundary



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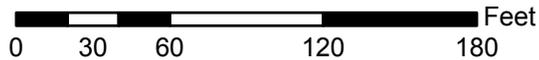


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May 2005



1 inch equals 75 feet



Site Summary Group O

AREA IV

Santa Susana Field Laboratory, CA

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## Site Summary – Building 4005

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### Site Identification:

Building 4005  
Uranium Carbide Fuel Pilot Plant  
Molten Salt Test Facility  
Includes Building 4705, Substation

### Operational Use/History:

- Constructed in 1958.
- Building 4005 was constructed for non-nuclear testing of thermodynamic characteristics of proposed coolants for the Organic Moderated Reactor Experiment and Piqua reactors.<sup>1</sup>
- During the middle 1960s, Building 4005 was converted into a small-scale production facility to study the operations associated with manufacturing reactor fuel assemblies out of uranium carbide. The facility operated for a period of nine months during 1966-1967, first using depleted uranium, and later enriched uranium.<sup>1</sup>
- In 1967, equipment was removed and surfaces decontaminated to permit non-radiological use of the building.<sup>1</sup>
- Beginning in 1972, Building 4005 was used as the Molten Salt Test Facility, a non-nuclear test facility consisting of the Molten Salt Test Bed and the Process Demonstration Unit.<sup>1</sup>
- Completion of removal of contaminated systems was completed in 1993. Previous decontamination efforts in the late 1970s involved removal of the underground radioactive liquid holdup tanks outside the building. The drain lines from the buildings were capped and left in place. The drain lines were removed during another decontamination effort in 1987.<sup>1</sup>
- Demolished in 1996.

### Site Description:

- Building 4005 was a tilt-up concrete structure with Butler aluminum siding and several windows. The structure was 80 feet long (running north to south), and 60 feet wide.
- Building 4005 was divided into several portions, including a small administration area, change rooms, chemistry laboratories, storage rooms and a large high-bay area.<sup>2</sup>
- Several concrete pads sat east of the building and held various equipment from the Molten Salt Oxidation project and the radioactive filter plenums.
- Building 4005 was connected to a holding tank by drain lines.
- Serviced by Substation 4705.

### Relevant Site Information:

- Radioactive material in the form of depleted and enriched uranium was managed at this facility.<sup>2</sup> Accordingly, the contaminant of concern for Building 4005 is uranium.
- During operation as the Uranium Carbide Fuel Pilot Plant, considerable difficulties were experienced with the air exhaust system scrubbers and filters, including a fire in 1967. Radiological contamination was restricted to the exhaust ducts.<sup>2</sup>
- There have been several incidents associated with Building 4005 that could have resulted in a release to the environment:
  - In January 30, 1967, a uranium fire occurred in a retention tank of a vacuum system. Tank ducting was burned through, allowing a release of contaminated smoke to the building. No release outside the building was thought to have occurred (A0606).
  - On August 8, 1991, contaminated oil dripped from a radioactive exhaust duct, contaminating a concrete pad. The total activity for the spill was approximately 4 nCi, and all contamination was successfully cleaned up (A0215).
- Building 4005 was connected to a sanitary leach field by drain lines that extended from various laboratories and work areas in the building to two underground holding tanks. The leach field was disconnected and abandoned in 1960-61, when the Santa Susana Field Laboratory (SSFL) sewer treatment plant was constructed. It is not likely that the leach field, septic tanks and drain lines were impacted by radiological constituents because work involving regulated radiological materials did not begin until 1966.<sup>3</sup> The drain lines and tanks were removed in 2001 at the same time the septic tanks were removed. Sampling of soil under drain lines, leach fields and septic tanks did not detect any contamination.

### Radiological Surveys:

- Rocketdyne performed a characterization survey in 1987 to confirm that residual contamination remained in ventilation systems and drain lines.<sup>4</sup>
  - The survey showed that several areas were contaminated at levels above Department of Energy (DOE) release limits: room 113, room 110E, four remaining radioactive exhaust ducts and both radioactive exhaust filter plenums.
    - Maximum beta levels: 107,954 dpm/100cm<sup>2</sup> for the rooms (Acceptable limit is 1,000 dpm/100cm<sup>2</sup>).
    - Maximum alpha levels: 2,467 dpm/100cm<sup>2</sup> (Acceptable limit 1000 dpm/100cm<sup>2</sup>).
    - Maximum beta levels: 6,302 dpm/100cm<sup>2</sup> in the exhaust ducts (Acceptable limit 1000 dpm/100cm<sup>2</sup>).
    - No other residual contamination was present.
- Rocketdyne performed a final survey in September 1993.<sup>2,5</sup>
  - Derived concentration guideline levels (DCGLs) for soil were as follows:
    - U-234 < 23.17 pCi/g (total).

- U-235 < 5.54 pCi/g (total).
  - U-238 < 24.55 pCi/g (total).
- The survey found that Building 4005 and adjacent yards were acceptably free of contamination and recommended that the facility be released for unrestricted use.
- Oak Ridge Institute for Science and Education (ORISE) and the California Department of Health Services (DHS) performed verification surveys in 1994.<sup>6</sup>

**Status:**

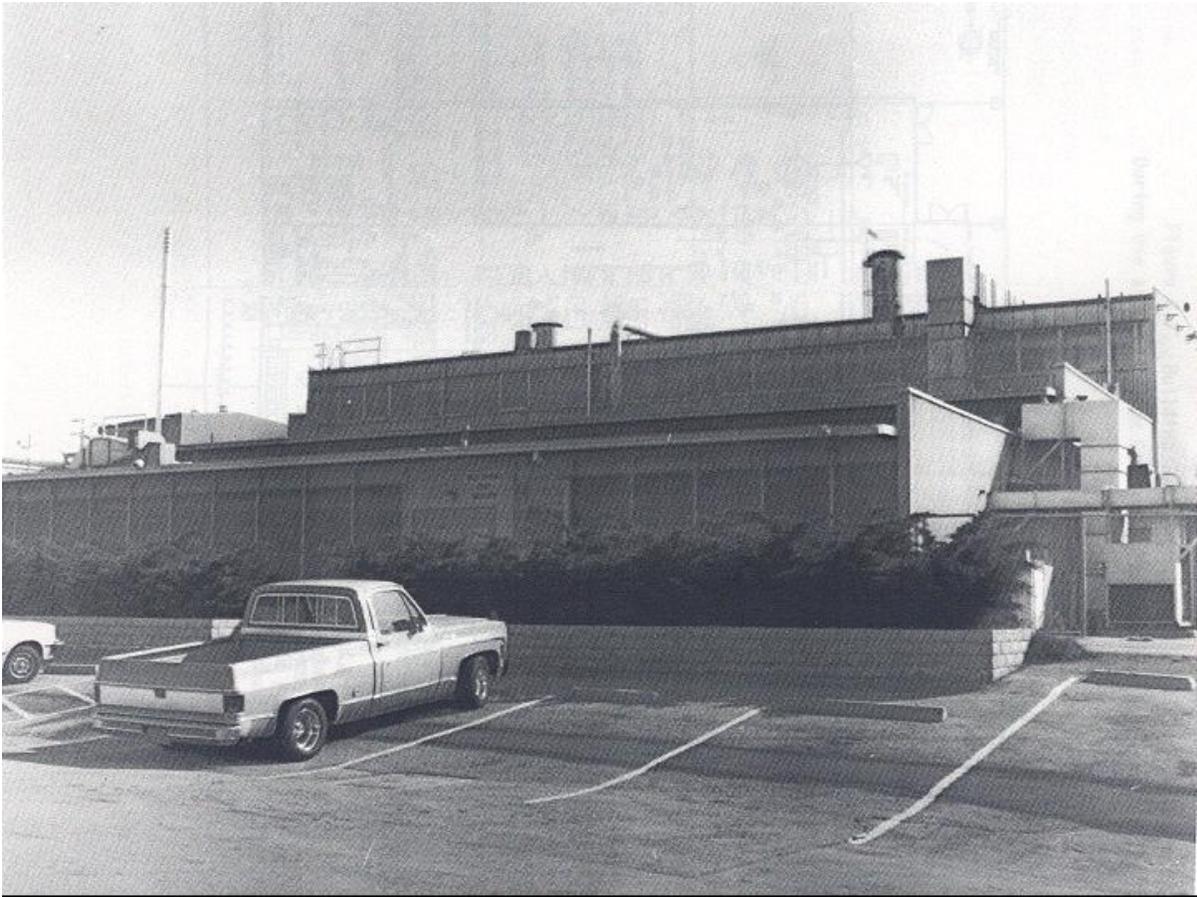
- DHS released Building 4005 and the surrounding soil for unrestricted use in March 1995.<sup>7</sup>
- Building 4005 was demolished in 1996.

**References:**

- 1- Rockwell International Document, 005-AN-0002, "Decontamination and Decommissioning (D&D) of the Uranium Carbide Pilot Fuel Facility – Building T005," September 28, 1993.
- 2- Rocketdyne Report, 005-ZR-0001, "Final Radiological Survey of Building 005," September 21, 1993.
- 3- Rocketdyne, Internal letter, "Sanitary Leachfield at T005," from R.J. Tuttle, October 29, 1987.
- 4- ETEC Document, GEN-ZR-0003, "Radiological Survey of Building T005," November 16, 1987.
- 5- Rocketdyne Report, 005-SP-0001, "Building 005 Final Survey Procedure," December 9, 1992.
- 6- ORISE Report, 94/K-14, "Verification Survey of Buildings 005, 023, and 064, Santa Susana Field Laboratory, Rockwell International, Ventura County, California," October 1994.
- 7- DHS/RHB, Untitled letter, from Ben Kapel (DHS/RHB) to Phil Rutherford. April 5, 1995.
- 8- Historical Site Photographs from Boeing Database.
- 9- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

Photograph – Building 4005

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## Site Summary – Building 4006

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### Site Identification:

Building 4006  
Sodium Laboratory  
Includes Building 4616, Cooling Tower  
Includes Building 4706, Substation

### Operational Use/History:

- Building 4006 was operated as a non-nuclear sodium laboratory.<sup>1,2</sup>
- Building 4006 closed for operations in 1999.<sup>3</sup>
- The septic tank was removed in 2000.<sup>3</sup>
- The leach field was removed in 2001.<sup>3</sup>
- Building 4006 is still standing but no longer in use.

### Site Description:

- Building 4006 was constructed with a steel frame and steel walls and measures 13,284 square feet, including 2,268 square feet of office space and 7,674 square feet of lab space.<sup>1</sup>
- The building had an associated cooling tower that was removed in the early 1980s in order to make room for a Power Pak associated substation.<sup>3</sup>
- Serviced by Substation 4706.

### Relevant Site Information:

- Use Authorization No. 66, dated September 28, 1973, specified that Na would be added to canisters containing UO<sub>2</sub> in Building 4006.<sup>4</sup>
- Use Authorization No. 81, dated June 26, 1974, permitted the use of tritiated titanium foils as gas chromatograph detectors. The foils were declared excess in 1986 and removed from the building.<sup>5</sup>
- Use Authorization No. 101, originally dated April 8, 1976, permitted the handling of 0.5 µCi of Mn-54 contained in sections of activated piping with frozen sodium. This piping was packaged in aluminum piping; the unpacking occurred in Building 4006.<sup>6</sup>

### Radiological Surveys:

- Radiological surveys specific to the interior of Building 4006 have not been conducted.
- A radiation survey conducted on the contents of the septic tank returned removable alpha levels <20 dpm/cm<sup>2</sup> and removable beta levels <100 dpm/cm<sup>2</sup>. Total alpha and beta levels were non-detect.<sup>7</sup>

## Group O

- Soil sampling performed during excavation of the leachfield, drain lines and septic tank did not detect any contamination.<sup>7</sup>

### Status:

- Building 4006 is still standing but no longer in use.

### References:

- 1- DOE Document, N-083E-A02-DV001, Rev. A, "Site Development and Facility Utilization Planning: FY 1984-FY 1989" April 1984.
- 2- Personnel Interview, Phil Rutherford, September 4, 2003.
- 3- Personnel Interview, Dan Trippeda, September 9, 2003.
- 4- North American Rockwell, Letter, "Adding Na to Cannisters [sic] Containing UO<sub>2</sub> in the Fabrication of Lower Axial Blanket Shielding Experiment," L. M. Haba to W. F. Heine, September 24, 1973.
- 5- Rockwell International, Internal Letter, "Retirement of User Authorization No. 81," F. G. Schmidt to W. E. Nagel, June 9, 1986.
- 6- Rockwell International Internal Letter, "Use Authorization #101: Decontamination of Na Components," E. Hill to R. J. Tuttle, March 25, 1977.
- 7- DOE Internal Document, no document number, "Demolition Binder: 4006 Septic Tank."
- 8- Historical Site Photographs from Boeing Database.
- 9- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

Photograph 1 – Building 4006

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Photograph 2 – Building 4006

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## Site Summary – Building 4402

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**Site Identification:**

Building 4402  
MHD Experiment

**Operational Use/History:**

- Constructed prior to 1967.<sup>1</sup>
- Building 4402 was a non-radiological facility; a more detailed record of associated activities could not be located.<sup>2</sup>
- Building 4402 has been demolished.

**Site Description:**

- Building 4402 was a small structure located south of Building 4006, near 17<sup>th</sup> Street.<sup>1</sup>

**Relevant Site Information:**

- There are no Use Authorizations and no Incident Reports associated with Building 4402.<sup>2</sup>

**Radiological Surveys:**

- Radiological surveys specific to Building 4402 have not been conducted.

**Status:**

- Building 4402 has been demolished.

**References:**

- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Review of Radiation Safety Records Management System, 2003.

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## Site Summary – Site 4506

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**Site Identification:**

Site 4506  
Parking Lot

**Operational Use/History:**

- Constructed in the 1960s.
- Site 4506 serves as a parking lot used by personnel working in Building 4006, 4005, 4024, 4025 and the adjacent facilities.
- Site 4506 is still in use.

**Site Description:**

- Site 4506 is a parking lot located just south of B Street, between Building 4006 and Building 4005.<sup>1</sup>

**Relevant Site Information:**

- There are no Use Authorizations and no Incident Reports associated with Site 4506.<sup>2</sup>

**Radiological Surveys:**

- Radiological surveys specific to Site 4506 have not been conducted.

**Status:**

- Site 4506 is still in use.

**References:**

- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Review of Radiation Safety Records Management System, 2003.

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## Site Summary – Building 4606

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### Site Identification:

Building 4606  
Sodium Lab Instrument Building A  
MHD Support Building  
Hydrogen Recombiner Test  
Includes Building 4816, Hydrogen Recombiner Test Canopy

### Operational Use/History:

- Constructed in the 1960s.
- Building 4606 was used to test the capacity of the Hydrogen Recombiner, a device developed by Atomics International (AI) to mix hydrogen and regular air to create water, useful in an emergency situation if a reactor produced excess hydrogen.<sup>1</sup>
- Building 4606 has been demolished.

### Site Description:

- Building 4606 was a small, garage-sized structure located to the southeast of Building 4006.<sup>1,2</sup>
- Serviced by Building 4816, Hydrogen Recombiner Test Canopy.

### Relevant Site Information:

- There are no Use Authorizations and no Incident Reports associated with Building 4606.<sup>3</sup>

### Radiological Surveys:

- Radiological surveys specific to Building 4606 have not been conducted.

### Status:

- Building 4606 has been demolished.

### References:

- 1- Personnel Interview, Phil Horton, September 16, 2003.
- 2- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 3- Review of Radiation Safety Records Management System, 2003.

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## Site Summary – Building 4607

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### Site Identification:

Building 4607  
Sodium Lab Instrument Building B  
Storage

### Operational Use/History:

- Constructed prior to 1962.<sup>1</sup>
- Building 4607 was used for non-radiological storage.<sup>2,3</sup>
- Demolished in the early 1970s.

### Site Description:

- Building 4607 was a small structure located to the southeast of Building 4006.<sup>1</sup>

### Relevant Site Information:

- There are no Use Authorizations and no Incident Reports associated with Building 4607.<sup>4</sup>

### Radiological Surveys:

- Radiological surveys specific to Building 4607 have not been conducted.
- This area was covered as part of the 1994-1995 Area IV Radiological Characterization Survey.<sup>5</sup>
  - Background: 15.6  $\mu$ R/hr.
  - Acceptable Limit: Less than 5  $\mu$ R/hr above background.
  - Survey results were below the acceptable limits.

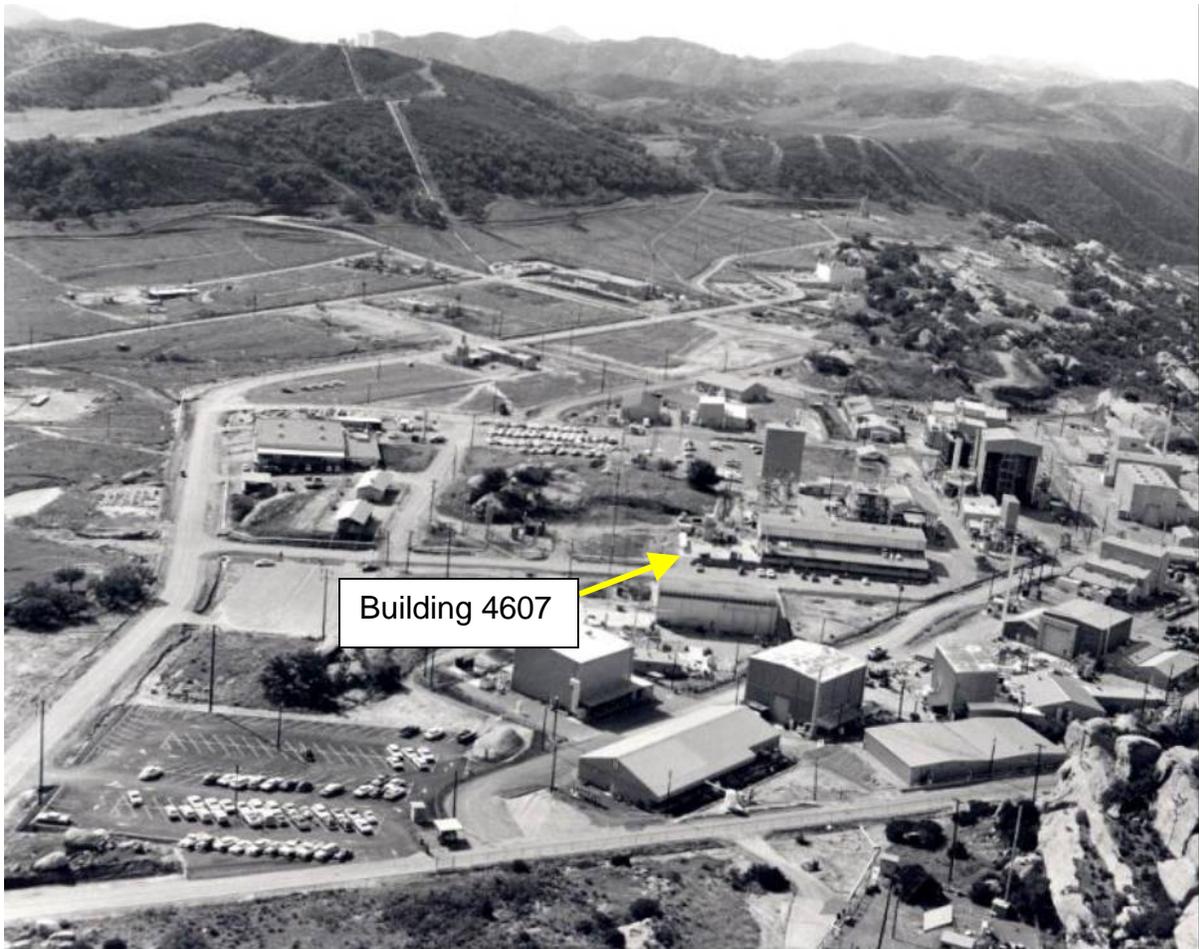
### Status:

- Building 4607 was demolished in the early 1970s.

### References:

- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Personnel Interview, Phil Horton, September 16, 2003.
- 3- Personnel Interview, Bob Tuttle, December 12, 2003.
- 4- Review of Radiation Safety Records Management System, 2003.
- 5- Rocketdyne Document, A4CM-ZR-0011, Rev. A, "Area IV Radiological Characterization Survey," August 15, 1996.
- 6- Historical Site Photographs from Boeing Database.

Photograph – Building 4607



## Site Summary – Building 4615

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**Site Identification:**

Building 4615  
Combustion Test Facility

**Operational Use/History:**

- Constructed in the early 1980s.
- Building 4615 served as a non-radiological facility. A more detailed description of associated activities could not be located.<sup>1</sup>
- Building 4615 has been demolished.

**Site Description:**

- Building 4615 was located at the northern end of Building 4006.<sup>2</sup>

**Relevant Site Information:**

- There are no Use Authorizations and no Incident Reports associated with Building 4615.<sup>1</sup>

**Radiological Surveys:**

- Radiological surveys specific to Building 4615 have not been conducted.

**References:**

- 1- Review of Radiation Safety Records Management System, 2003.
- 2- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

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## Site Summary – Building 4704

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**Site Identification:**

Building 4704  
Main Electrical

**Operational Use/History:**

- Constructed prior to 1962.
- Building 4704 is an inbound transformer adjacent to a station owned by Edison Power.<sup>1</sup>
- Scheduled for demolition in 2004.

**Site Description:**

- Building 4704 was a small structure located at the corner of 17<sup>th</sup> and F Streets.

**Relevant Site Information:**

- There are no Use Authorizations and no Incident Reports associated with Building 4704.<sup>2</sup>

**Radiological Surveys:**

- Radiological surveys specific to Building 4704 have not been conducted.

**Status:**

- Building 4704 is scheduled for demolition in 2004.<sup>1</sup>

**References:**

- 1- Personnel Interview, Del Aubuchon, September 19, 2003.
- 2- Review of Radiation Safety Records Management System, 2003.
- 3- Historical Site Photographs from Boeing Database.
- 4- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

Photograph– Building 4704

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## Group P

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Group P Map

Building 4026

*Includes Building 4726, Substation*

*Includes Building 4805, Time Clock Shack*

*Includes Building 4426, Uninterruptible Power Supply (UPS)*

Building 4226

Building 4293

Building 4310

Building 4334

Building 4335

Building 4354

Building 4355

*Includes Building 4756, Substation*

Building 4356

*Includes Building 4656, Cooling Stacks*

Building 4357

Building 4358

Building 4359

Building 4360

Building 4361

Building 4362

Building 4392

Building 4457

Building 4478

Site 4502

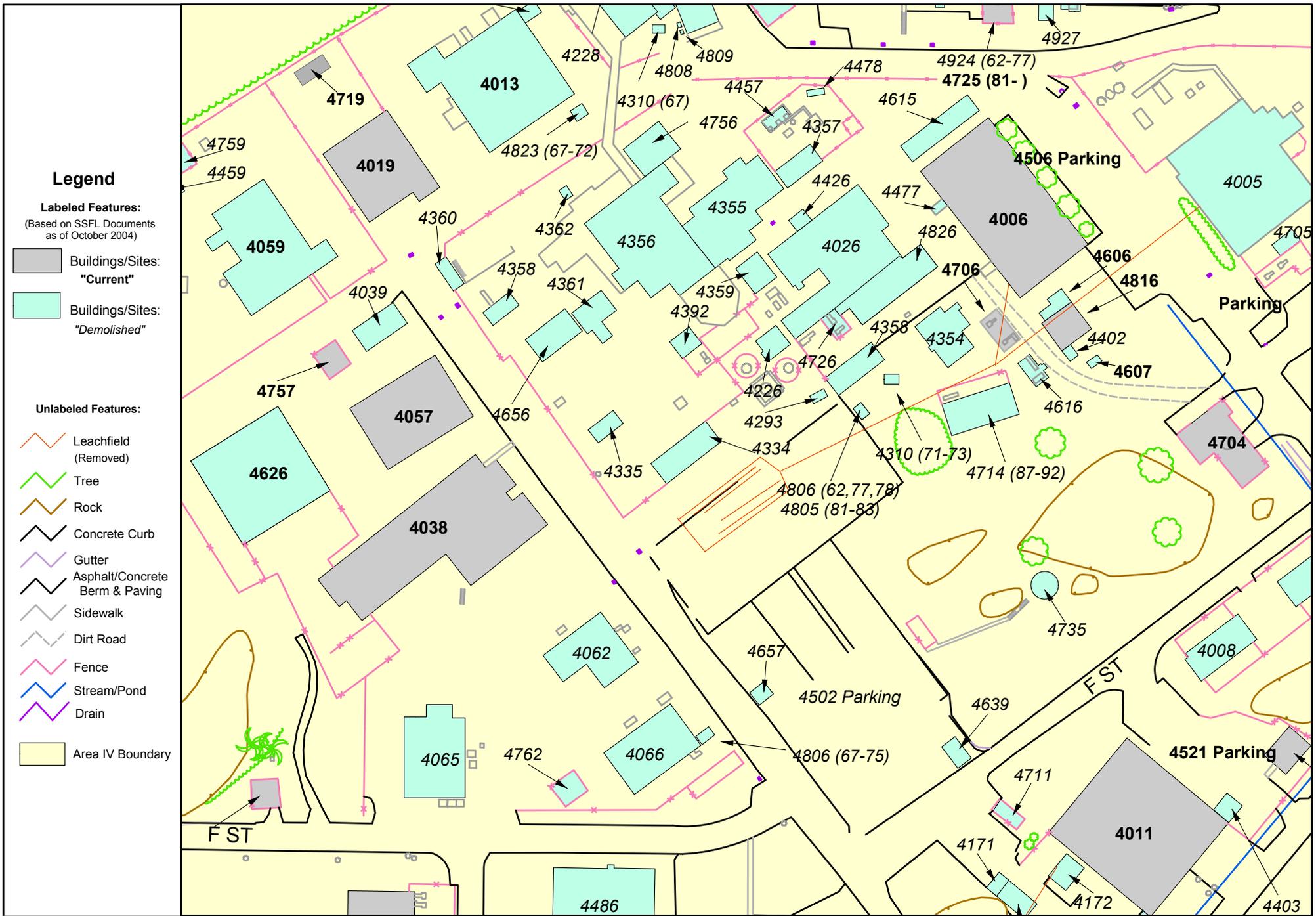
*Includes Building 4806, Time Clock*

*Includes Building 4657, Guard Shack*

Building 4826

*Includes Building 4726, Substation*

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1 inch equals 125 feet



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May 2005

Site Summary Group P  
 AREA IV  
 Santa Susana Field Laboratory, CA

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## Site Summary – Building 4026

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### Site Identification:

Building 4026  
Large Component Test Loop Control Building  
Small Component Test Loop Control Building  
Sodium Component Test Laboratory  
Includes Building 4726, Substation  
Includes Building 4805, Time Clock Shack  
Includes Building 4426, Uninterruptible Power Supply (UPS)

### Operational Use/History:

- Constructed in 1958.
- Building 4026 was used for testing components of sodium-cooled, graphite moderated reactors under simulated reactor operating conditions.<sup>1,2</sup>
- Building 4026 consisted of a component area, a test tower and control building structures. Initially, there were three sodium tanks, two above grade, and a drain tank located below grade in a concrete, steel plate lined pit.<sup>3</sup>
- Building 4026 was first described as a Large Component Test Loop (LCTL) Building. By 1972, it was referred to as a Small Component Test Loop (SCTL) Building. By 1987, Building 4026 was designated as a Sodium Component Test Laboratory.<sup>3</sup>
- Demolished in 1999.

### Site Description:

- The SCTL Facility was 10,340 square feet with a 9,659-square-foot laboratory and 681 square feet of non-laboratory space. The frame, siding and roof were constructed of steel.
- Building 4426 appears on Boeing's comprehensive list of Area IV buildings, which also gives map grid coordinates for the structure.<sup>4</sup> Building 4426 could not be located on any maps. However, grid coordinates show that Building 4426 was in the vicinity of Building 4026. According to personnel interviews and photos, an adjacent UPS Building was associated with Building 4026. Personnel interviews confirm that, under the Atomics International (AI) numbering system, a UPS building associated with Building 4026 would most likely have been labeled 4426.<sup>5</sup>
- Serviced by Substation 4726.
- Serviced by UPS Building 4426.
- Serviced by Time Clock Shack 4805.

## Group P

### Relevant Site Information:

- On October 3, 1979, following routine pipe-weld radiographic exposure, an iridium-192 source could not be retracted into the storage shield. Employees received no significant radiation exposures as a result of this problem (A0238).

### Radiological Surveys:

- No historical evidence indicates that unsealed regulated radioactive materials were handled at the facility. Prior to removal of the SCTL drain tanks, sodium in the system was tested for radiological contamination and none was detected.<sup>1</sup>

### Status:

- Building 4026 was demolished in 1999.

### References:

- 1- Boeing Internal Document, no document number, "Demolition Binder: SCTL Demolition Project," October 1998.
- 2- Boeing, Internal Letter, "SCTL Complex Demolition Project, Area IV, Energy Technology Center (ETEC)," from Boeing North American, Inc. to R. Laughlin, November, 23, 1998.
- 3- ETEC Document, 026-AN-0001, "Small Components Test Loop (SCTL) Dismantlement and B/026 Demolition Project Management Plan," December 6, 1996.
- 4- Boeing Internal Document, no document number, "Building Reconnaissance Report-Hazardous Materials," July 11, 1996.
- 5- Personnel Interview, Dennis Kneff, September 25, 2003.
- 6- Historical Site Photographs from Boeing Database.
- 7- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

Photograph – Building 4026

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## Site Summary – Building 4226

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### Site Identification:

Building 4226  
SCTL Motor Generator (MG) Building

### Operational Use/History:

- Constructed in the early 1980s.
- Building 4226 housed non-radiological hazardous materials.<sup>1</sup>
- Demolished in 1998.

### Site Description:

- Building 4226 was a small structure located at the southwestern corner of Building 4026.<sup>2</sup>

### Relevant Site Information:

- There are no Use Authorizations and no Incident Reports associated with Building 4226.<sup>3</sup>

### Radiological Surveys:

- At demolition and prior to offload, liquid sodium from the building was tested for radioactivity and found to be free of contamination.<sup>4</sup>

### Status:

- Building 4226 was demolished in 1999.

### References:

- 1- Personnel Interview, Brian Sujata, November 12, 2003.
- 2- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 3- Review of Radiation Safety Records Management System, 2003.
- 4- Personnel Interview, Del Aubuchon, September 19, 2003.

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## Site Summary – Building 4293

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### Site Identification:

Building 4293  
Construction Shack

### Operational Use/History:

- Constructed in approximately 1971.<sup>1</sup>
- Although designated as a construction facility, Building 4293 served as a time clock station.<sup>2</sup>
- Demolished in approximately 1977.<sup>1</sup>

### Site Description:

- This building was located south of the Sodium Component Test Installation (SCTI) and SCTL facilities, near the corner of C and 20<sup>th</sup> Streets.<sup>1</sup>

### Relevant Site Information:

- There are no Use Authorizations and no Incident Reports associated with Building 4293.<sup>3</sup>

### Radiological Surveys:

- Radiological surveys specific to Building 4293 have not been conducted.
- This area was covered as part of the 1994-1995 Area IV Radiological Characterization Survey.<sup>4</sup>
  - Background: 15.6  $\mu$ R/hr.
  - Acceptable Limit: Less than 5  $\mu$ R/hr above background.
  - Survey results were below the acceptable limits.

### Status:

- Demolished in approximately 1977.<sup>1</sup>

### References:

- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Personnel Interview, Del Aubuchon, September 24, 2003.
- 3- Review of Radiation Safety Records Management System, 2003.
- 4- Rocketdyne Document, A4CM-ZR-0011, Rev. A, "Area IV Radiological Characterization Survey," August 15, 1996.

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## Site Summary – Building 4310

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### Site Identification:

Building 4310  
Portable Change Room

### Operational Use/History:

- Constructed in the early 1960s.
- Building 4310 was used as a changing facility.
- Demolished in approximately 1973.<sup>1</sup>

### Site Description:

- Building 4310 was a small, portable structure. It appears adjacent to Building 4010 on the 1967 Industrial Planning Maps. It appears near the Large Component Test Loop facility on Industrial Planning Maps from 1971 through 1973.<sup>1</sup>

### Relevant Site Information:

- There are no Use Authorizations and no Incident Reports associated with Building 4310.<sup>2</sup>

### Radiological Surveys:

- Radiological surveys specific to Building 4310 have not been conducted.
- This area was covered as part of the 1994-1995 Area IV Radiological Characterization Survey.<sup>3</sup>
  - Background: 15.6  $\mu$ R/hr.
  - Acceptable Limit: Less than 5  $\mu$ R/hr above background.
  - Survey results were below the acceptable limits.

### Status:

- Demolished in approximately 1973.<sup>1</sup>

### References:

- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Review of Radiation Safety Records Management System, 2003.
- 3- Rocketdyne Document, A4CM-ZR-0011, Rev. A, "Area IV Radiological Characterization Survey," August 15, 1996.

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## Site Summary – Building 4334

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### Site Identification:

Building 4334  
Kalina Control Room

### Operational Use/History:

- Constructed in the early 1990s.
- Building 4334 served as a control room for the Kalina facility.<sup>1</sup>
- Demolished in 2003.<sup>2</sup>

### Site Description:

- Building 4334 was located west of Building 4026, near 20<sup>th</sup> Street.<sup>3</sup>

### Relevant Site Information:

- There are no Use Authorizations and no Incident Reports associated with Building 4334.<sup>4</sup>

### Radiological Surveys:

- Radiological surveys specific to Building 4334 have not been conducted.

### Status:

- Demolished in 2003.<sup>2</sup>

### References:

- 1- Personnel Interview, Ken Robinson, September 19, 2003.
- 2- Boeing Internal Document, no document number, "Demolition Binder: Kalina Demolition Package," 2003.
- 3- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 4- Review of Radiation Safety Records Management System, 2003.
- 5- Historical Site Photographs from Boeing Database.

Photograph – Building 4334

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## Site Summary – Building 4335

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### Site Identification:

Building 4335  
Kalina Turbine Generator Room

### Operational Use/History:

- Constructed in the late 1980s or early 1990s.
- Building 4335 housed the turbine for the Kalina facility.<sup>1</sup>
- Demolished in 2003.<sup>2</sup>

### Site Description:

- Building 4335 was located near 20<sup>th</sup> Street, adjacent to Building 4334.<sup>3</sup>

### Relevant Site Information:

- There are no Use Authorizations and no Incident Reports associated with Building 4335.<sup>4</sup>

### Radiological Surveys:

- Radiological surveys specific to Building 4335 have not been conducted.

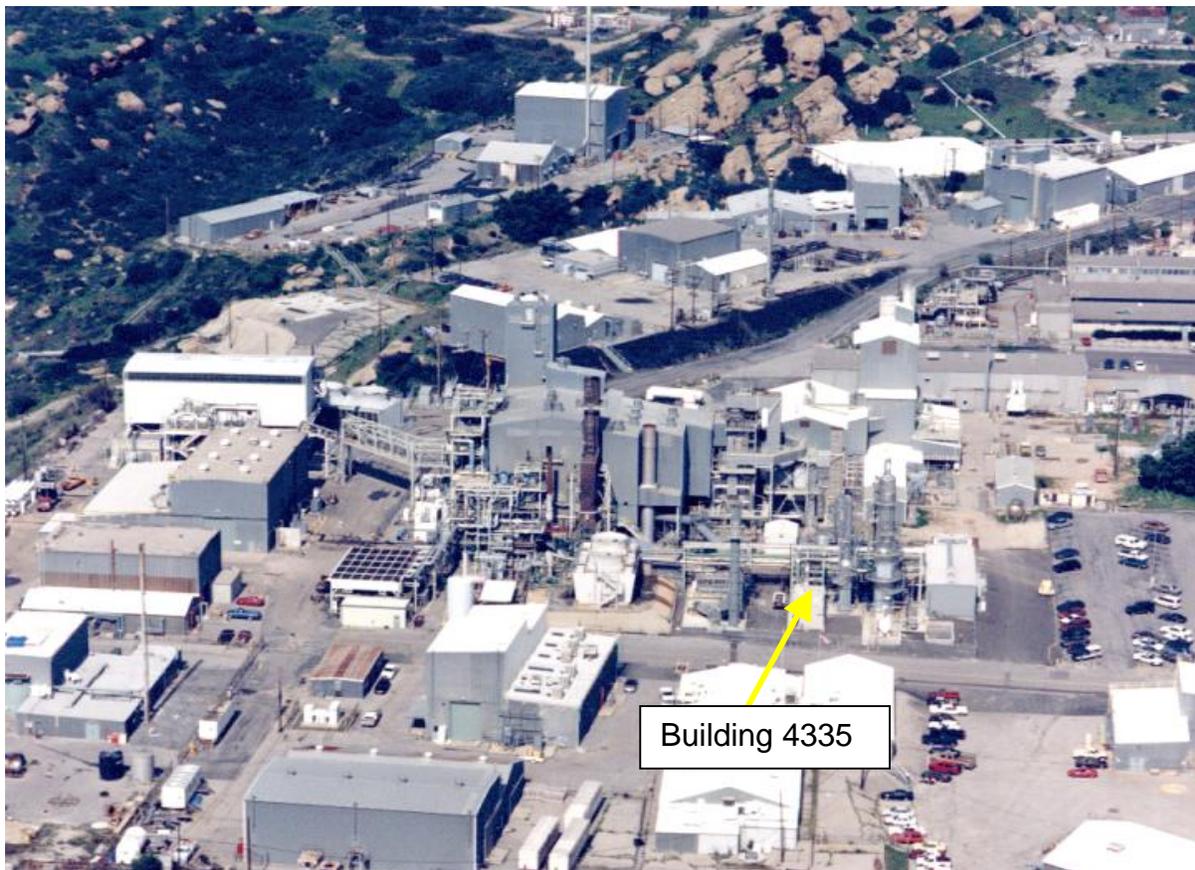
### Status:

- Demolished in 2003.<sup>2</sup>

### References:

- 1- Personnel Interview, Ken Robinson, September 19, 2003.
- 2- Boeing Internal Document, no document number, “Demolition Binder: Kalina Demolition Package,” 2003.
- 3- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 4- Review of Radiation Safety Records Management System, 2003.
- 5- Historical Site Photographs from Boeing Database.

Photograph – Building 4335



## Site Summary – Building 4354

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### Site Identification:

Building 4354  
Control Element Test Structure

### Operational Use/History:

- Constructed in 1957.<sup>1</sup>
- Building 4354 was a non-radiological facility used to test the mechanical systems by which control rods were moved in support of the Fast Breeder Reactor.<sup>2</sup>
- Demolished in the middle 1980s.<sup>3</sup>

### Site Description:

- Building 4354 was an 800-square-foot structure constructed with a steel roof, frame and siding.<sup>1</sup>

### Relevant Site Information:

- There are no Use Authorizations and no Incident Reports associated with Building 4354.<sup>4</sup>

### Radiological Surveys:

- Radiological surveys specific to Building 4354 have not been conducted.
- This area was covered as part of the 1994-1995 Area IV Radiological Characterization Survey.<sup>5</sup>
  - Background: 15.6  $\mu$ R/hr.
  - Acceptable Limit: Less than 5  $\mu$ R/hr above background.
  - Survey results were below the acceptable limits.

### Status:

- Building 4353 was demolished in the middle 1980s.<sup>3</sup>

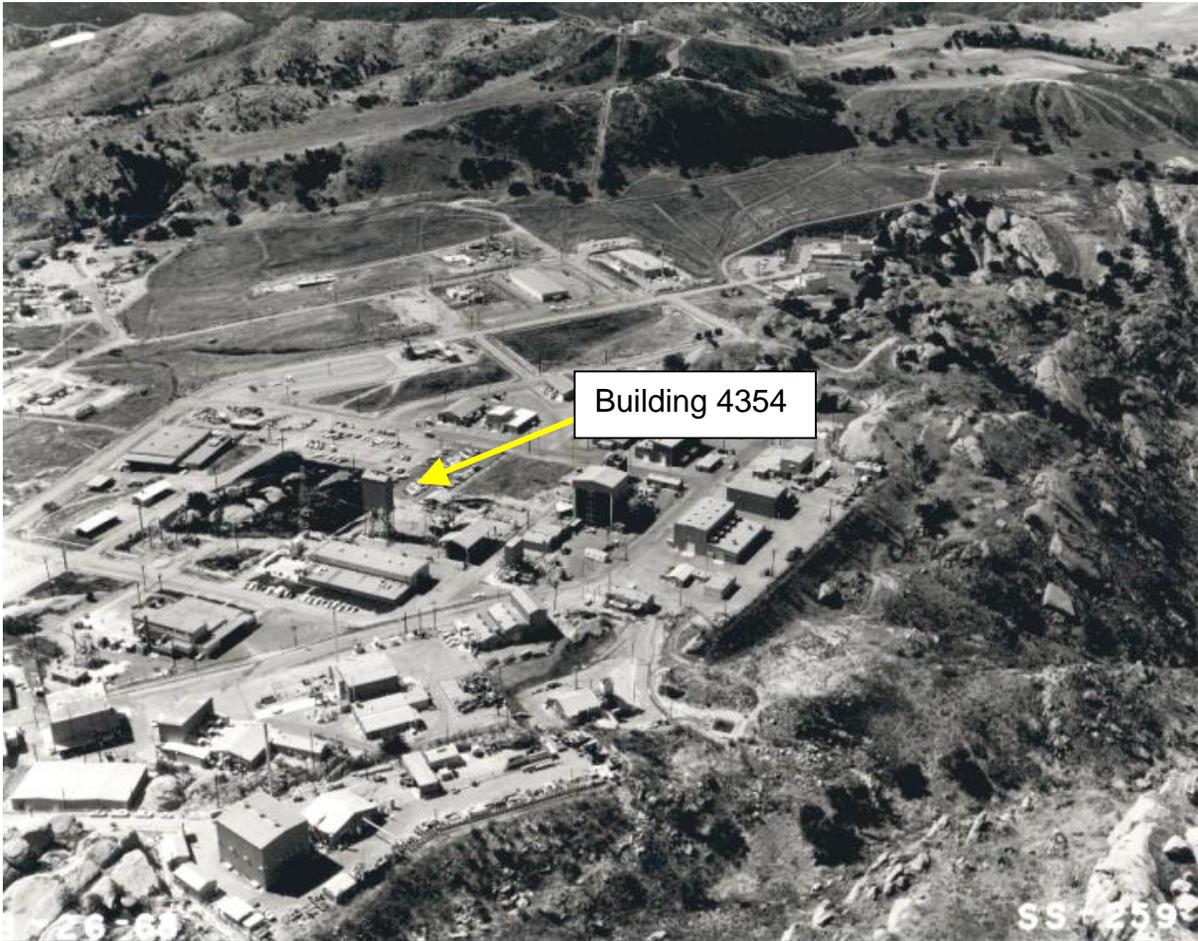
### References:

- 1- DOE Document, N-083-A02-DV001, "Site Development and Facility Utilization Planning: FY 1982-FY 1987," September 1982.
- 2- Personnel Interview, Phil Horton, September 24, 2003.
- 3- Personnel Interview, Dan Trippeda, September 29, 2003.
- 4- Review of Radiation Safety Records Management System, 2003.

## Group P

- 5- Rocketdyne Document, A4CM-ZR-0011, Rev. A, "Area IV Radiological Characterization Survey," August 15, 1996.
- 6- Historical Site Photographs from Boeing Database.
- 7- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

Photograph – Building 4354



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## Site Summary – Building 4355

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### Site Identification:

Building 4355  
Sodium Component Test Installation Control Center  
Includes Building 4756, Substation

### Operational Use/History:

- Constructed in 1958.<sup>1</sup>
- Building 4355 was used to monitor and control operations in Building 4356.<sup>1</sup>
- Demolished in 2003.

### Site Description:

- Building 4355 was a 4,369-square-foot structure with a steel roof and steel siding constructed on a concrete pad.<sup>1</sup>
- Serviced by Substation 4756.

### Relevant Site Information:

- Use Authorization 117D, dated July 1, 1984, permitted the operation of Bowed Tubes Measurement. The authorization specified the use of a 1.0  $\mu\text{Ci}$  Co-60 sealed source that was checked annually to ensure no leakage occurred.<sup>2</sup>

### Radiological Surveys:

- During demolition in 2003, Building 4355 debris was surveyed daily for total and removable contamination. No radiological contamination was ever detected.<sup>3</sup>

### Status:

- Building 4355 was demolished in 2003.

### References:

- 1- DOE Document, N-083-A02-DV001, "Site Development and Facility Utilization Planning: FY 1982-FY 1987," September 1982.
- 2- Rockwell International Document, "Use Authorization #117D: Bowed Tubes Measurement," July 1, 1984.
- 3- Personnel Interview, Phil Rutherford, April 7, 2004.
- 4- Historical Site Photographs from Boeing Database.
- 5- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

Photograph – Building 4355



## Site Summary – Building 4356

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### Site Identification:

Building 4356  
Sodium Component Test Installation (SCTI)  
Includes Building 4656, Cooling Stacks

### Operational Use/History:

- Constructed in 1958.<sup>1</sup>
- The primary purpose of Building 4356 was to generate steam from a sodium heat source.<sup>2</sup>
- Demolished in 2002.

### Site Description:

- Building 4356 was 3,860-square-foot lab, with a galvanized steel roof and walls, anchored to a concrete pad.
- Building 4656 Cooling Stacks were located southwest of Building 4356.

### Relevant Site Information:

- Use Authorization Series 72, originally dated January 8, 1974, permitted the use of two 250  $\mu\text{Ci}$  Cs-137 sealed sources and one 100  $\mu\text{Ci}$  Cs-137 sealed source that were used as sodium level gauges.<sup>3</sup> These sources were checked annually to ensure no leakage occurred.<sup>4</sup>
- There has been one incident that could have resulted in a release to the environment associated with Building 4356.
  - On October 9, 1974, during a semi-annual sealed source inspection and leak testing, a Cs-137 source was found to be missing. The source was found at an interior storage area where the source was leak tested. The source was confirmed to be intact and then stored appropriately (A0639).

### Radiological Surveys:

- During demolition, Building 4356 debris was surveyed daily for total and removable contamination. No radiological contamination was ever detected.<sup>5</sup>

### Status:

- Demolished in 2002.

## Group P

### References:

- 1- DOE Document, N-083-A02-DV001, Rev. A, "Site Development and Facility Utilization Planning: FY 1984-FY 1989," April 1984.
- 2- Rocketdyne Internal Document, no document number, "Assessment of Department of Energy Buildings within the SSFL," September 30, 1996.
- 3- Rockwell International Document, Use Authorization Series 72, "Use of Accuray Continuous Level Measuring Systems," December 11, 1973.
- 4- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 5- Personnel Interview, Phil Rutherford, April 2004.
- 6- Historical Site Photographs from Boeing Database.

Photograph – Building 4356

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## Site Summary – Building 4357

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### Site Identification:

Building 4357  
Heat Transfer Loop Control Building  
Liquid Metal Engineering Center (LMEC) Pump Bearing Test Facility Control Building  
Energy Technology Engineering Center (ETEC) Pump Bearing Test Facility Control Building  
SCTI Supply Storage

### Operational Use/History:

- Constructed in 1958.<sup>1</sup>
- Building 4357 was first used as a Heat Transfer Loop Control Building and later a Pump Bearing Test Facility Control Building for LMEC and ETEC.
- By 1987, Building 4357 was a supply storage building for SCTI. The SCTI complex was a development test facility for liquid metal system components for the Department of Energy (DOE). The facility's mission was to provide a test site for the non-nuclear developmental testing of typical Liquid Metal Reactor (LMR) components, primarily steam generators.<sup>2</sup>
- Demolished in 2002.

### Site Description:

- Building 4357 was an 840-square-foot laboratory. The frame, siding and roof were constructed of steel.<sup>1</sup>

### Relevant Site Information:

- There are no Use Authorizations and no Incident Reports associated with Building 4357.<sup>3</sup>

### Radiological Surveys:

- During demolition, Building 4357 debris was surveyed daily for total and removable contamination. No radiological contamination was ever detected.<sup>4</sup>
- At demolition and prior to disposition, liquid sodium from the SCTI complex was tested for radioactivity and found to be free of contamination.<sup>5</sup>

### Status:

- Building 4357 was demolished in 2002.

## Group P

### References:

- 1- United States Energy Research and Development Administration Liquid Metal Engineering Center, LR-03026, Part 1, "Site Development Plan: 1977-1981," June 1975.
- 2- Boeing Document, EID-04716, "SCTI Demolition Work for Buildings 4355, 4356, 4357, 4358, 4457, & Associated," November 12, 2001.
- 3- Review of Radiation Safety Records Management System, 2003.
- 4- Personnel Interview, Phil Rutherford, April 2004.
- 5- Personnel Interview, Del Aubuchon, September 22, 2003.
- 6- Historical Site Photographs from Boeing Database.
- 7- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

Photograph – Building 4357

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## Site Summary – Building 4358

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### Site Identification:

Building 4358  
Organics Reactor Development Building  
Chemical Storage Building (SCTL, SCTI)  
Kalina Storage Building/Time Shack

### Operational Use/History:

- Constructed in 1966.
- Building 4358 was initially used as a Chemical Storage Building and part of the SCTL support area. The function of the SCTL was to test components and instruments in a sodium environment.<sup>1</sup>
- When SCTL was eliminated, Building 4358 became a storage building for SCTI and Kalina.<sup>2</sup> The primary purpose of the SCTI was to test sodium-heated steam generators and sodium-to-sodium intermediate heat exchangers (IHX) under simulated sodium-cooled nuclear power plant operating conditions.<sup>1</sup>
- Building 4358 was moved from its original location directly northwest of Building 4656 to a new location directly south of Building 4026 in approximately 1978.<sup>2</sup>
- Demolished in 2003.

### Site Description:

- Building 4358 was a 1,120-square-foot structure with the frame, siding and roof constructed of steel.

### Relevant Site Information:

- There are no Use Authorizations or Incident Reports associated with Building 4358.<sup>3</sup>

### Radiological Surveys:

- During demolition, Building 4358 debris was surveyed daily for total and removable contamination. No radiological contamination was ever detected.<sup>4</sup>
- At demolition and prior to disposition, liquid sodium from the SCTI complex was tested for radioactivity and found to be free of contamination.<sup>4</sup>

### Status:

- Building 4358 was demolished in 2003.

## Group P

### References:

- 1- Liquid Metal Engineering Center Document, no document number, "LMEC Facility Descriptions," March 1973.
- 2- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 3- Review of Radiation Safety Records Management System, 2003.
- 4- Personnel Interview, Phil Rutherford, April 7, 2004.
- 5- Historical Site Photographs from Boeing Database.

Photograph – Building 4358

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## Site Summary – Building 4359

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### Site Identification:

Building 4359  
Compressor Building  
SCTI Compressor Building

### Operational Use/History:

- Constructed in the 1970s.<sup>1</sup>
- Building 4359 housed an air compressor for the SCTI facility. The SCTI complex was a development test facility for liquid metal system components for the DOE. The facility's mission was to provide a test site for the non-nuclear developmental testing of typical LMR components, primarily steam generators.<sup>2</sup>
- Demolished in 2002.<sup>2</sup>

### Site Description:

- Building 4359 was an 860-square-foot structure that housed an air compressor.<sup>2</sup> It was located west of Building 4026.<sup>1</sup>

### Relevant Site Information:

- There are no Use Authorizations and no Incident Reports associated with Building 4359.<sup>3</sup>

### Radiological Surveys:

- During demolition, Building 4359 debris was surveyed daily for total and removable contamination. No radiological contamination was ever detected.<sup>4</sup>
- At demolition and prior to offload, liquid sodium from the SCTI complex was tested for radioactivity and found to be free of contamination.<sup>5,6</sup>

### Status:

- Building 4359 was demolished in 2002.<sup>2</sup>

### References:

- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Personnel Interview, Roger Marshall, January 8, 2004.
- 3- Review of Radiation Safety Records Management System, 2003.
- 4- Personnel Interview, Phil Rutherford, May 11, 2004.
- 5- Boeing Document, EID-04716, "SCTI Demolition Work for Buildings 4355, 4356, 4357, 4358, 4457, & Associated," November 12, 2001.
- 6- Personnel Interview, Del Aubuchon, September 22, 2003.

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## Site Summary – Building 4360

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### Site Identification:

Building 4360  
Chemical Storage Building

### Operational Use/History:

- Constructed in approximately 1987.
- Building 4360 was a chemical storage building part for SCTI, a development test facility for liquid metal system components for DOE designed to serve as a test site for the non-nuclear developmental testing of typical LMR components, primarily steam generators.
- Demolished in 1999.

### Site Description:

- This small storage building was located adjacent to the SCTI water treatment facility, north of C Street.<sup>1</sup>

### Relevant Site Information:

- There are no Use Authorizations and no Incident Reports associated with Building 4360.<sup>2</sup>

### Radiological Surveys:

- Radiological surveys specific to Building 4360 have not been conducted.
- At demolition and prior to offload, liquid sodium from the SCTI complex was tested for radioactivity and found to be free of contamination.<sup>3,4</sup>

### Status:

- Building 4360 was demolished in 1999.

### References:

- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Review of Radiation Safety Records Management System, 2003.
- 3- Boeing Document, EID-04716, "SCTI Demolition Work for Buildings 4355, 4356, 4357, 4358, 4457, & Associated," November 12, 2001.
- 4- Personnel Interview, Del Aubuchon, September 22, 2003.
- 5- Historical Site Photographs from Boeing Database.

Photograph – Building 4360

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## Site Summary – Building 4361

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### Site Identification:

Building 4361  
SCTI Hazardous Material Storage

### Operational Use/History:

- Constructed in approximately 1992.<sup>1</sup>
- Building 4361 first appears on Industrial Planning Maps in 1992, listed as the SCTI Hazardous Material Storage Building.<sup>2</sup>
- Demolished in 2003.

### Site Description:

- Building 4361 was located adjacent to Building 4356, and was part of the SCTI complex, a development test facility for liquid metal system components for the DOE designed to provide a test site for the non-nuclear developmental testing of typical LMR components.<sup>3</sup>

### Relevant Site Information:

- There are no Use Authorizations and no Incident Reports associated with Building 4361.<sup>4</sup>

### Radiological Surveys:

- During demolition, Building 4361 debris was surveyed daily for total and removable contamination. No radiological contamination was ever detected.<sup>5</sup>
- At demolition and prior to offload, liquid sodium from the SCTI complex was tested for radioactivity and found to be free of contamination.<sup>2,3</sup>

### Status:

- This building was demolished 2003.

### References:

- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Personnel Interview, Del Aubuchon, September 22, 2003.
- 3- Boeing Document, EID-04716, "SCTI Demolition Work for Buildings 4355, 4356, 4357, 4358, 4457, & Associated," November 12, 2001.
- 4- Review of Radiation Safety Records Management System, 2003.
- 5- Personnel Interview, Phil Rutherford, May 11, 2004.

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## Site Summary – Building 4362

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### Site Identification:

Building 4362  
Water Sampling Enclosure

### Operational Use/History:

- Building 4362 was used to test the water that was used in the SCTI facility for purity.<sup>1</sup> The SCTI complex was a development test facility for liquid metal system components for the DOE. The facility's mission was to provide a test site for the non-nuclear developmental testing of typical LMR components, primarily steam generators.<sup>2</sup>
- Building 4362 was demolished in 2003.

### Site Description:

- Building 4362 was a small (approximately 200 square feet) structure located northwest of Building 4356.<sup>3</sup>

### Relevant Site Information:

- There are no Use Authorizations and no Incident Reports associated with Building 4362.<sup>4</sup>

### Radiological Surveys:

- During demolition, Building 4362 debris was surveyed daily for total and removable contamination. No radiological contamination was ever detected.<sup>5</sup>
- At demolition and prior to offload, liquid sodium from the SCTI complex was tested for radioactivity and found to be free of contamination.<sup>2,6</sup>

### Status:

- Building 4362 was demolished in 2003.<sup>1</sup>

### References:

- 1- Personnel Interview, Roger Marshall, January 8, 2004.
- 2- Boeing Document, EID-04716, "SCTI Demolition Work for Buildings 4355, 4356, 4357, 4358, 4457, & Associated," November 12, 2001.
- 3- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 4- Review of Radiation Safety Records Management System, 2003.
- 5- Personnel Interview, Phil Rutherford, May 11, 2004.
- 6- Personnel Interview, Del Aubuchon, September 22, 2003.

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## Site Summary – Building 4392

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### Site Identification:

Building 4392  
SCTI Electrical Equipment

### Operational Use/History:

- Constructed in approximately 1992.<sup>1</sup>
- Building 4392 was an electrical equipment building for SCTI and Kalina.<sup>2</sup>
- Building 4392 has been demolished.<sup>1</sup>

### Site Description:

- This small building was located adjacent to Building 4356.<sup>1</sup>

### Relevant Site Information:

- There are no Use Authorizations and no Incident Reports associated with Building 4392.<sup>3</sup>

### Radiological Surveys:

- Radiological surveys specific to Building 4392 have not been conducted.

### Status:

- Building 4392 has been demolished.<sup>1</sup>

### References:

- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Personnel Interview, Del Aubuchon, September 22, 2003.
- 3- Review of Radiation Safety Records Management System, 2003.

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## Site Summary – Building 4457

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### Site Identification:

Building 4457  
Pump Bearing Test Structure  
Foundation Only

### Operational Use/History:

- Constructed in approximately 1972.
- Building 4457 was used for proof and performance testing of sodium lubricated bearings used in large sodium pumps.<sup>1</sup>
- In July of 1972, a shaft seal failed, causing oil to contaminate the sodium system.<sup>2,3</sup> Attempts to clean and repair the system failed. Building 4457 was subsequently gutted and used for storage of waste oils from non-radiological facilities.<sup>3</sup>
- By 1996, Building 4457 was listed as “foundation only.”
- The foundation was removed in 1999.<sup>4</sup>

### Site Description:

- Building 4457 was a two-story building with an adjacent pit that contained a sodium tank.<sup>3</sup>

### Relevant Site Information:

- Regulated radiological materials were not handled in Building 4457.
- No Use Authorizations or Incident Reports involving radiation were associated with this building.<sup>5</sup>

### Radiological Surveys:

- Radiological surveys specific to Building 4457 have not been conducted.

### Status:

- Building 4457 was demolished in the early 1990s.<sup>4</sup>

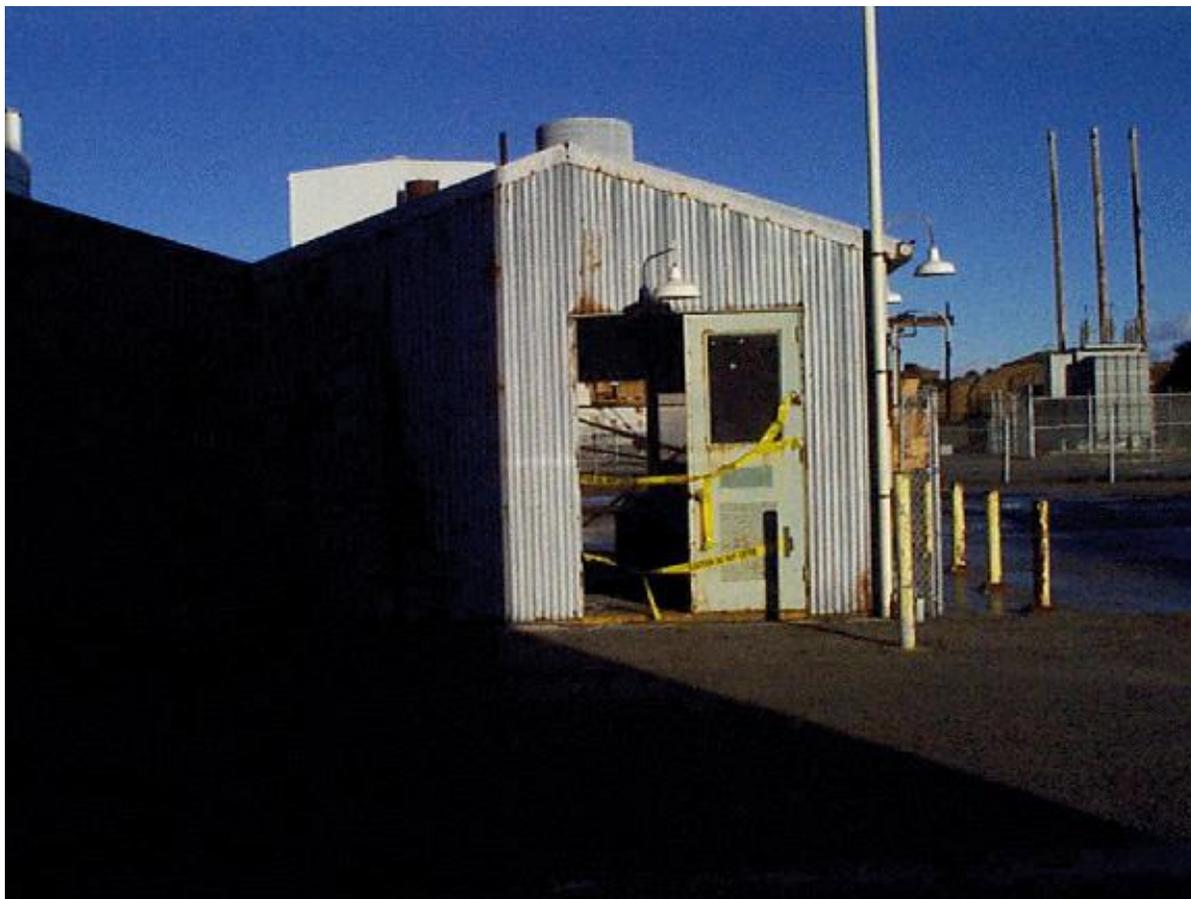
## Group P

### References:

- 1- Internal Document, LMEC-Memo-69-34, LM-90633, "Pump Bearing Test Facility (PBTF) Conceptual System Design Description," issued December 1, 1969.
- 2- Internal Report, LMEC-TDR-73-3, "Report of PBTF P-1 Pump Shaft Seal Oil Leakage Problem," February 20, 1973.
- 3- Personnel Interview, Randy Ingersoll, October 2, 2003.
- 4- Personnel Interview, Dan Trippeda, October 2, 2003.
- 5- Review of Radiation Safety Records Management System, 2003.
- 6- Historical Site Photographs from Boeing Database.
- 7- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

Photograph – Building 4457

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## Site Summary – Building 4478

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### Site Identification:

Building 4478  
CDHC Office Support Trailer  
SCTI Control Building Support Trailer  
Support Trailer (LMEC)

### Operational Use/History:

- Initially, Building 4478 was used as a support trailer. It contained offices and was located directly east of Building 4020.
- According to Industrial Planning Maps, between 1967 and 1971, the structure was moved from its original location to a position northwest of Building 4656.<sup>1</sup>
- By 1971, the building was used to service SCTI. The SCTI complex was a development test facility for liquid metal system components for the DOE and its predecessors. The facility's mission was to provide a test site for the non-nuclear developmental testing of typical LMR components, primarily steam generators. Sodium was the liquid metal used at the facility.<sup>2,3</sup>
  - Construction of the SCTI was started in 1959. The facility began operating in 1964 and operated through 1996 by ETEC and its predecessors.<sup>2</sup>
- By 1981 Building 4478 was used for radioactive count analysis.<sup>3</sup>
- Building 4478 has been demolished.

### Site Description:

- Building 4478 was a dual axis 8 foot x 30 foot office trailer.<sup>3</sup>

### Relevant Site Information:

- There are no Use Authorizations and no Incident Reports associated with Building 4478.<sup>4</sup>

### Radiological Surveys:

- At demolition and prior to offload, liquid sodium from the SCTI complex was tested for radioactivity and found to be free of contamination.<sup>2,5</sup>
- Since radiological materials were not handled in Building 4478 and no contamination occurred, no further tests were conducted.

### Status:

- Building 4478 was demolished.

## Group P

### References:

- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Boeing Document, EID-04716, "SCTI Demolition Work for Buildings 4355, 4356, 4357, 4358, 4457, & Associated," November 12, 2001.
- 3- Personnel Interview, Randy Ingersoll, September 17, 2003.
- 4- Review of Radiation Safety Records Management System, 2003.
- 5- Personnel Interview, Del Aubuchon, September 22, 2003.

## Site Summary – Site 4502

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### Site Identification:

Site 4502  
Parking Lot  
Includes Building 4806, Time Clock  
Includes Building 4657, Guard Shack

### Operational Use/History:

- Constructed prior to 1962.
- Site 4502 served as a parking lot for personnel working in Building 4006 and the surrounding areas.<sup>1</sup>
- Site 4502 was demolished.

### Site Description:

- Site 4502 sits at the corner of F and 20<sup>th</sup> Streets.<sup>1</sup>
- Serviced by Time Clock 4806.
- Includes Guard Shack 4657.

### Relevant Site Information:

- There are no Use Authorizations and no Incident Reports associated with Building 4502.<sup>2</sup>

### Radiological Surveys:

- Radiological surveys specific to Site 4502 have not been conducted.

### Status:

- Site 4502 was demolished and is now a field.

### References:

- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Review of Radiation Safety Records Management System, 2003.

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## Site Summary – Building 4826

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### Site Identification:

Building 4826  
SCTL Test Facility  
Includes Building 4726, Substation

### Operational Use/History:

- Constructed in 1958.
- Building 4826 was constructed to expand the testing capacities of Building 4026. Construction of the building consisted of adding a drain tank and enclosure to Building 4026.<sup>1</sup>
- Building 4826 was designed to test components and instruments in a sodium environment.
- Demolished in 1998.<sup>2,3</sup>

### Site Description:

- Building 4826 was an enclosed drain tank connected to Building 4026.<sup>1</sup>
- Serviced by Substation 4726.

### Relevant Site Information:

- There are no Use Authorizations and no Incident Reports associated with Building 4826.<sup>4</sup>

### Radiological Surveys:

- Results of a Building Reconnaissance Report conducted on July 1, 1996, found the building to be free of radiological contamination.<sup>5</sup>
- At demolition and prior to offload, liquid sodium from the building was tested for radioactivity and found to be free of contamination.<sup>6</sup>

### Status:

- Building 4826 was demolished in 1998.

### References:

- 1- Rocketdyne Internal Document, no document number, “Assessment of Department of Energy Buildings within the SSFL,” September 30, 1996.
- 2- Boeing, Internal letter, “SCTL Complex Demolition Project, Area IV, Energy Technology Center (ETEC),” from Boeing North American, Inc. to Robert Laughlin, November, 23, 1998.

## Group P

- 3- Boeing Document, EID-06148, "SCTL Demolition Report," September 25, 2000.
- 4- Review of Radiation Safety Records Management System, 2003.
- 5- Boeing Internal Document, no document number, "Building Reconnaissance Report-Hazardous Materials," July 11, 1996.
- 6- Personnel Interview, Del Aubuchon, September 19, 2003.
- 7- Historical Site Photographs from Boeing Database.
- 8- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

Photograph – Building 4826

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## Group Q

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Group Q Map

Building 4007

Building 4008

Site 4501

*Includes Building 4823, Time Clock*

17<sup>th</sup> Street Drainage

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**Legend**

**Labeled Features:**  
 (Based on SSFL Documents  
 as of October 2004)

- Buildings/Sites:  
"Current"
- Buildings/Sites:  
"Demolished"

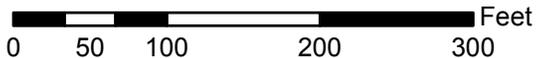
**Unlabeled Features:**

- Leachfield  
(Removed)
- Tree
- Rock
- Concrete Curb
- Gutter
- Asphalt/Concrete  
Berm & Paving
- Sidewalk
- Dirt Road
- Fence
- Stream/Pond
- Drain
- Area IV Boundary

DRAWN BY:



1 inch equals 125 feet



DATE:

May 2005

Site Summary Group Q  
 AREA IV  
 Santa Susana Field Laboratory, CA

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## Site Summary – Building 4007

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### Site Identification:

Building 4007  
Sodium Storage Building

### Operational Use/History:

- Constructed in 1958.<sup>1</sup>
- Building 4007 was used for non-radiological hazardous materials storage.<sup>2</sup>
- Demolished in 1996.<sup>3</sup>

### Site Description:

- Building 4007 was a 1,500-square-foot concrete structure with a steel roof.<sup>1</sup>

### Relevant Site Information:

- There are no Use Authorizations and no Incident Reports associated with Building 4007.<sup>4</sup>

### Radiological Surveys:

- Radiological surveys specific to Building 4007 have not been conducted.

### Status:

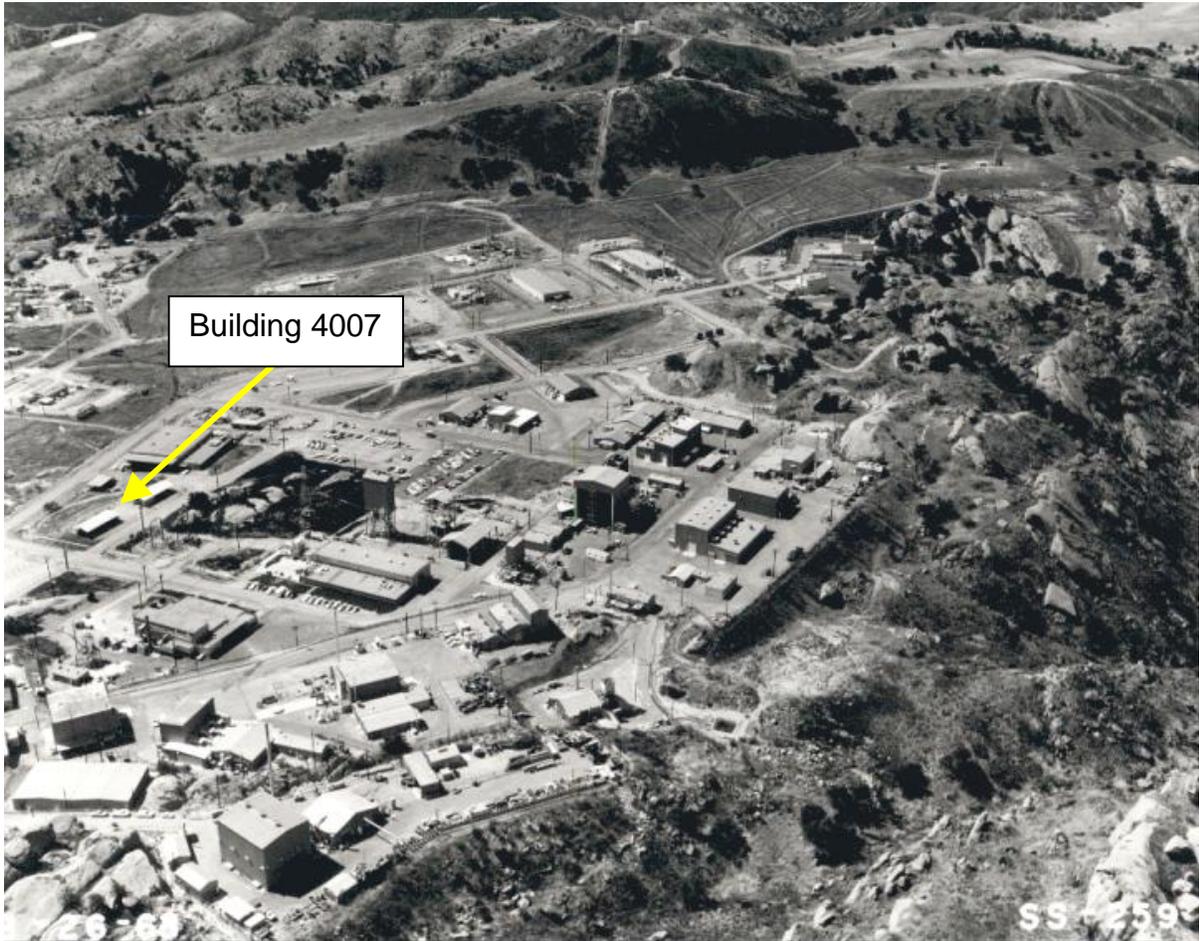
- Building 4007 was demolished in 1996.<sup>3</sup>

### References:

- 1- DOE Document, N-083E-A02-DV001, Rev. A, "Site Development and Facility Utilization Planning: FY 1984-FY 1989" April 1984.
- 2- Personnel Interview, Brian Sujata, November 12, 2003.
- 3- Personnel Interview, Mike Daley, September 22, 2003.
- 4- Review of Radiation Safety Records Management System, 2003.
- 5- Historical Site Photographs from Boeing Database.
- 6- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

Photograph – Building 4007

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## Site Summary – Building 4008

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### Site Identification:

Building 4008  
Flammable Material Storage Building

### Operational Use/History:

- Constructed in 1958.<sup>1</sup>
- Building 4008 was used for storage of non-radiological flammable materials.<sup>2</sup>
- Demolished in 1996.<sup>3</sup>

### Site Description:

- Building 4008 was a 1,500-square-foot concrete structure with a steel roof.<sup>1</sup>

### Relevant Site Information:

- There are no Use Authorizations and no Incident Reports associated with Building 4008.<sup>4</sup>

### Radiological Surveys:

- Radiological surveys specific to Building 4008 have not been conducted.

### Status:

- Building 4008 was demolished in 1996.

### References:

- 1- DOE Document, N-083E-A02-DV001, Rev. A, "Site Development and Facility Utilization Planning: FY 1984-FY 1989" April 1984.
- 2- Personnel Interview, Brian Sujata, November 12, 2003.
- 3- Personnel Interview, Mike Daley, September 22, 2003.
- 4- Review of Radiation Safety Records Management System, 2003.
- 5- Historical Site Photographs from Boeing Database.
- 6- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

Photograph – Building 4008

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## Site Summary – Site 4501

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**Site Identification:**

Site 4501  
Parking Lot  
Includes Building 4823, Time Clock

**Operational Use/History:**

- Constructed prior to 1962.<sup>1</sup>
- Site 4501 was a parking lot at the corner of G Street and 17<sup>th</sup> Street.
- On the 1987 Industrial Planning Map the site is referred to as “Coil Storage.”
- Site 4501 is now used as a storage yard.

**Site Description:**

- Site 4501 sits on the north corner of 17<sup>th</sup> Street and G Street.<sup>1</sup>
- Serviced by Time Clock 4823.

**Relevant Site Information:**

- There are no Use Authorizations and no Incident Reports associated with Building 4501.<sup>2</sup>

**Radiological Surveys:**

- Radiological surveys specific to Site 4501 have not been conducted.

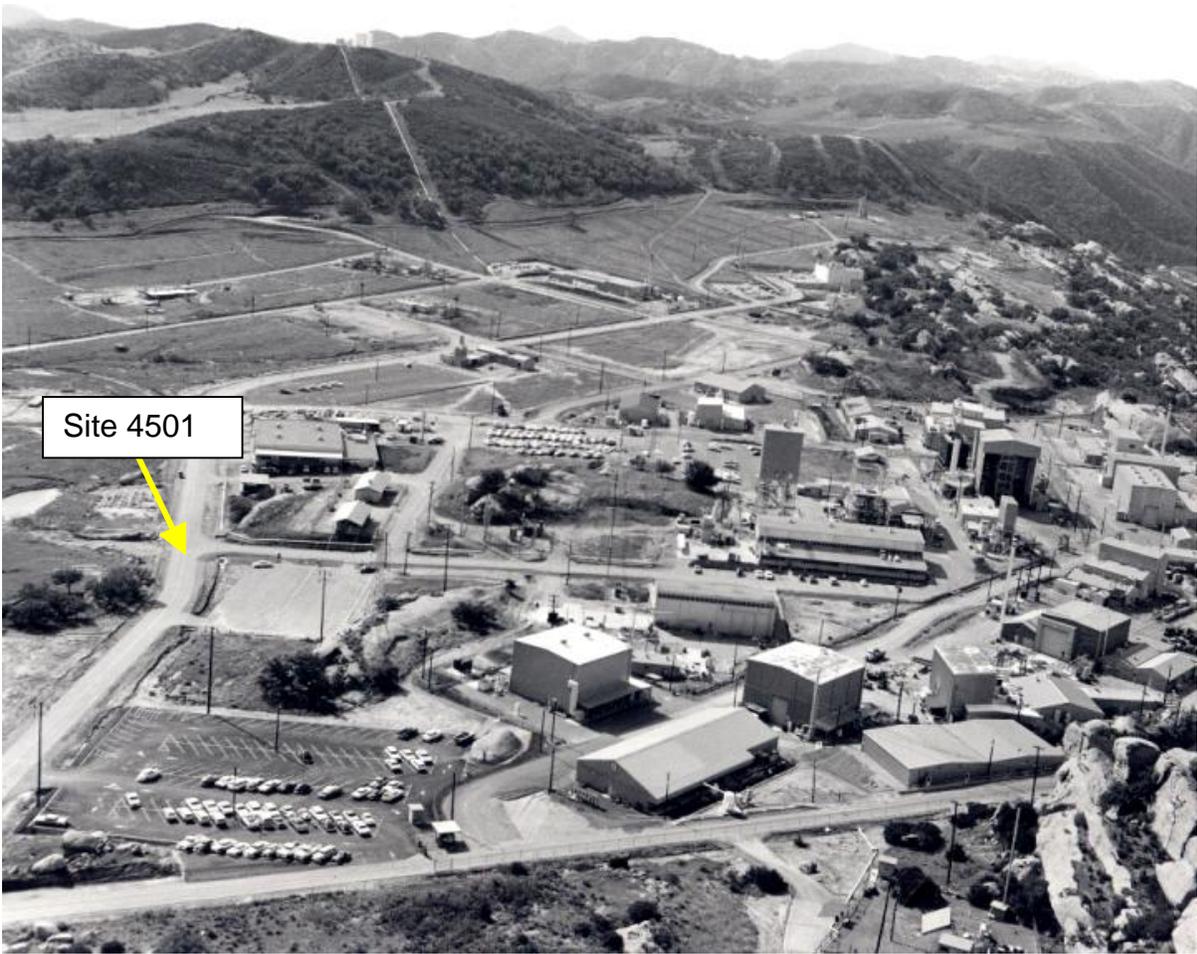
**Status:**

- Site 4501 is now used as a storage yard.

**References:**

- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Review of Radiation Safety Records Management System, 2003.
- 3- Historical Site Photographs from Boeing Database.

Photograph – Site 4501



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## Site Summary – 17<sup>th</sup> Street Drainage

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### Site Identification:

17<sup>th</sup> Street Drainage

### Operational Use/History:

- The 17<sup>th</sup> Street Drainage is a natural rainwater channel located south of the intersection of “G” Street and 17<sup>th</sup> Street. In 1962, a berm was constructed around the channel to provide a 30-foot by 30-foot hold-up pond. The pond cycled through periods of evaporative drying in summer and refilled during the rainy season; this caused the low-lying area to be marshy. Over time, the area became overgrown with shrubs and trees and filled with silt.<sup>1</sup>
- In 1998, the entire drainage channel area was cleared of shrubs and trees.<sup>1</sup>

### Site Description:

- The 17<sup>th</sup> Street Drainage Area is the site of a natural rainwater channel where a berm was constructed in 1962 to permit the area to serve as a hold-up pond. Over time, the area became overgrown with shrubs and trees and filled with silt.<sup>2,3</sup>
- The 17<sup>th</sup> Street Drainage Area is located south of the intersection of G and 17<sup>th</sup> Streets in the central portion of Area IV. The former hold-up pond area measures approximately 85 square meters. The entire impacted area measures 2,230 meters.<sup>1</sup>

### Relevant Site Information:

- Characterization surveys performed in 1997 and 1998 identified elevated levels of Cs-137. As a result, remediation began during 1998, and a final status survey was performed.<sup>2,3</sup>
- The principle contaminant of concern at the 17<sup>th</sup> Street Drainage Channel area was Cs-137. No other significant isotopes were found in the environment or soil without the adjoining presence of Cs-137.<sup>2,3</sup>

### Radiological Surveys:

- During the 1995 Area IV Radiological Survey, the pond area was inaccessible, so no samples were taken. Soil from the drainage channels to the north and south of the pond area was sampled and no contamination was found.<sup>4</sup>
- In 1997, the pond area was accessible and several soil samples were taken. Two of the samples indicated Cs-137 at levels of 13.5 and 14.5 pCi/g. A radiation survey was then conducted in the areas to identify any locations above limits.<sup>2,3</sup>

## Group Q

- In 1998, the original bermed pond area and all intakes and outlets were mapped and surveyed. Although exposure measurements did not exceed 3.4  $\mu\text{R/hr}$  above the background level of 15  $\mu\text{R/hr}$  at 1 meter, some elevated radiation measurements in localized areas at ground level were observed at a maximum of twice the background levels.<sup>3</sup>
  - All locations exceeding 5  $\mu\text{R/hr}$  above background were identified. Soil samples in areas immediately north and immediately south of the berm indicated elevated levels of radionuclides. Cs-137 was found at 2 pCi/g, which was less than the cleanup standard of 9.2 pCi/g. Th-228 was found at 6 pCi/g, which was close to the cleanup standard limit. Uranium isotopes were found at 4 pCi/g, which was less than the cleanup standard of 30 pCi/g. All uranium samples resulted in ratios of uranium isotopes consistent with naturally occurring uranium.
  - No processed or enriched uranium isotopes from fuel typically used at the Santa Susana Field Laboratory (SSFL) were found in this location. Although Th-228 was discovered at 6 pCi/g, its parent isotope Th-232 was found at background levels of 1 pCi/g. Since this specific thorium isotope was not processed or used at SSFL, the origin of elevated Th-228 is unknown.
  - The majority of the soil samples did not exceed cleanup standards and did not pose a health risk; however, portions of the 17<sup>th</sup> Street Drainage area were excavated to attain levels as low as reasonably achievable (ALARA).
- On October 27, 1999, the Oak Ridge Institute of Science and Education (ORISE) Environmental Survey and Site Assessment Program (ESSAP) performed a verification survey of the 17<sup>th</sup> Street Drainage Area. Verification activities included document reviews, surface scans, exposure rate measurements and soil sampling.<sup>5</sup>
  - Cesium-137 ranged from non-detect to 1.6 pCi/g and exposure rate ranged from 15 to 19  $\mu\text{R/hr}$ .
- DHS performed verification sampling in 1999.

### Status:

- The 17<sup>th</sup> Street Drainage is now dry and overgrown with grass and shrubs.
- DHS released the 17<sup>th</sup> Street Drainage for unrestricted use in 2004.<sup>6</sup>

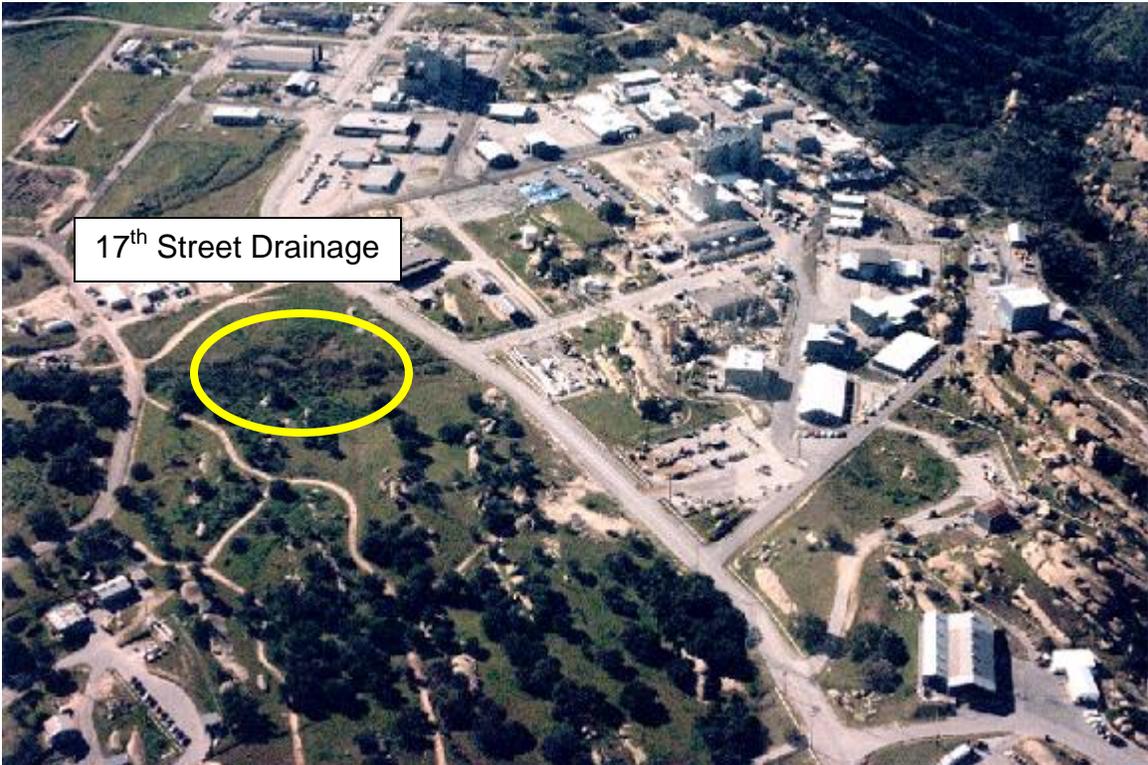
On February 1, 2005 DOE provided a letter to Boeing declaring that Boeing and ORISE surveys had confirmed that DOE and DHS approved soil cleanup limits had been met, and that the 17<sup>th</sup> Street drainage area was suitable for release for unrestricted use.<sup>7</sup>

### References:

- 1- ETEC Document, RS-00005, "17<sup>th</sup> Street Drainage Area, Final Status Survey Procedure," April 20, 1999.
- 2- DOE Document, RD00-198, "Draft Docket for the Release of the 17<sup>th</sup> Street Drainage Area as Part of the ETEC Closure," August 2000.

- 3- ETEC Document, RS-00009, "17<sup>th</sup> Street Drainage Area, Final Status Survey," March 16, 2000.
- 4- Rocketdyne Document, A4CM-ZR-0011, Rev. A, "Area IV Radiological Characterization Survey," August 15, 1996.
- 5- ORISE Report, Document Number 00-0576, "Verification Survey of the 17<sup>th</sup> Street Drainage Area, Santa Susana Field Laboratory, The Boeing Company. Ventura County, California," April 2000.
- 6- DHS/RHB Letter, "In reply to letter 2000RC-2627, Request for release of the 17<sup>th</sup> Street Drainage Area for unrestricted use," from Edgar D. Bailey (DHS/RHB) to Phil Rutherford, August 16<sup>th</sup>, 2004.
- 7- DOE Letter, "Release of the 17<sup>th</sup> Street Drainage Area," from M. Lopez (DOE) to M. Lee (Boeing), February 1, 2005.
- 8- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 9- Historical Site Photographs from Boeing Database.

Photograph – 17<sup>th</sup> Street Drainage



## Group R

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Group R Map

Building 4011

*Includes Building 4403, Traffic Dispatch*

*Includes Building 4711, Substation*

Building 4171

Building 4172

Building 4500

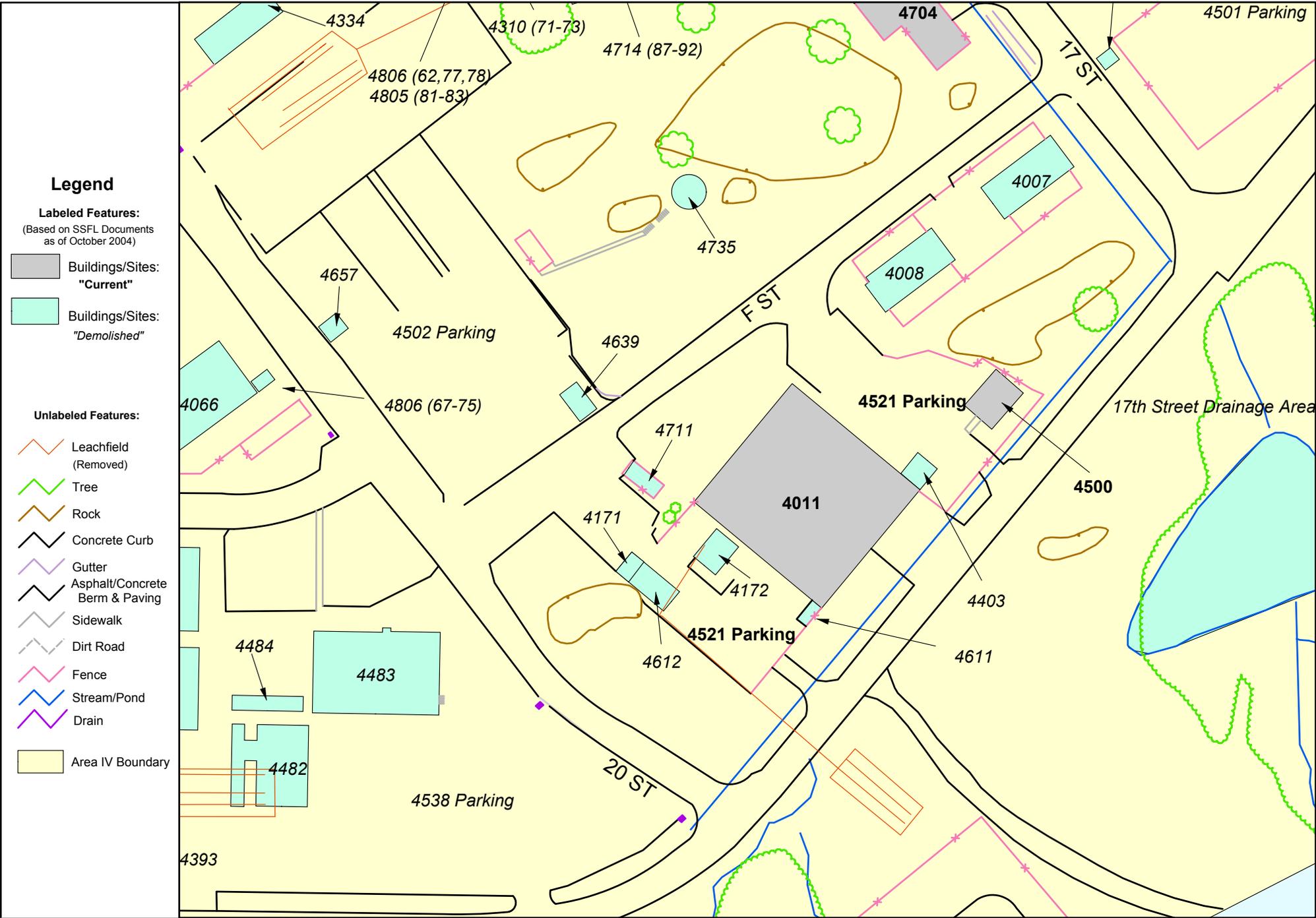
Site 4521

Building 4611

Building 4612

Fuel Tank 4735

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**Legend**

**Labeled Features:**  
 (Based on SSFL Documents as of October 2004)

- Buildings/Sites: "Current"
- Buildings/Sites: "Demolished"

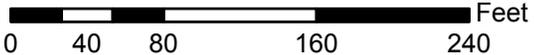
**Unlabeled Features:**

- Leachfield (Removed)
- Tree
- Rock
- Concrete Curb
- Gutter
- Asphalt/Concrete Berm & Paving
- Sidewalk
- Dirt Road
- Fence
- Stream/Pond
- Drain
- Area IV Boundary

DRAWN BY:



1 inch equals 100 feet



DATE:

May 2005

Site Summary Group R  
 AREA IV  
 Santa Susana Field Laboratory, CA

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## Site Summary – Building 4011

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### Site Identification:

Building 4011  
Warehouse Support  
Administration and Services Building  
Development Support Shop  
Manufacturing Support Shop  
Machine Shop/QA.  
Radiation Instrument Calibration Laboratory  
Includes Building 4403, Traffic Dispatch  
Includes Building 4711, Substation

### Operational Use/History:

- Constructed in 1958.
- Building 4011 was used to support various non-nuclear programs until 1984.
- From 1984 to 1996 the north section of the building was used for calibration and repair of radiation instrumentation.
- The Property Inventory and Control Department used the south section of the building.
- Building 4011 is currently used to house communications equipment.

### Site Description:

- Building 4011 is a 15,120-square-foot building that was constructed out of steel.<sup>1</sup>
- Building 4011 had an associated leachfield. The leachfield was removed in 2000.<sup>2</sup>
- Serviced by Substation 4711.
- Serviced by Traffic Dispatch Building 4403.

### Relevant Site Information:

- Radioactive sources for calibration were handled at the facility but most were sealed and checked annually to ensure no leakage occurred. The potential contaminants of concern are Cs-137, Co-60, Sr-90, Eu-152, Eu-154, thorium and uranium.<sup>1</sup>
- There were three Radiological Incidents associated with Building 4011 that could have resulted in a release to the environment:
  - On April 28, 1960, to the west of the building, an Organic Moderated Reactor Experiment (OMRE) shipping cask leaked during a leak test and spilled radioactive liquid on the ground (mixed fission products) (A0531).
  - On April 13, 1985, a calibration source came loose from an actuator rod resulting in an exposure of Cs-137. A radiation survey indicated no contamination on any part of the rod (A0318).

## Group R

- On December 6, 1994, the 28 Ci Cs-137 calibration source dislocated from the release pull rod. A radiation survey indicated normal background levels in the source containment box and on the release pull rod (A0658).
- Following removal of the septic tank, field line, tank, tank sludge, and the soils surrounding the tank, samples for gamma emitting radionuclides were collected and the remaining soil was found to be clean.<sup>2</sup>

### Radiological Surveys:

- In 1988, the lot across the street from the building was surveyed because it was often used as a dumpsite for dirt and had the potential for contamination. The field was surveyed for mixed fission products by measuring ambient gamma exposure rates.<sup>3</sup>
  - Ambient gamma limit: < 5  $\mu\text{R/hr}$  above background (background was 15.3  $\mu\text{R/hr}$ ).
  - Maximum ambient gamma exposure rate: 13  $\mu\text{R/hr}$ .
  - Survey results were below the acceptable limits.
- A soil sample collected at the northwest corner of the building during the 1996 Area IV Radiological Characterization Survey found elevated Cs-137. The level was 0.53 pCi/g.<sup>4</sup>
- In 1998, Rocketdyne performed a final comprehensive radiological survey to measure total or removable surface activity on the walls, floors, ceilings, structural surfaces, concrete pads, sink traps and the roof.<sup>1,5</sup>
  - The walls, floors and ceilings were surveyed for total and removable alpha and beta activity and maximum alpha and beta activity. Floors were surveyed for ambient gamma readings in  $\mu\text{R/hr}$  at one meter.
    - The limit criteria for surface contamination of alpha and beta-gamma emitters was (in dpm/100cm<sup>2</sup>):
      - Sr-90, Th-natural, Th-232: <1,000 total and <200 removable
      - U-natural, U-235, U-238, and associated decay products: <5,000 total and <1,000 removable.
      - Beta-gamma emitters: <5,000 total and <1,000 removable.
    - Samples were collected from sludge in the sink traps for gamma spectroscopy analyses. The sludge was contaminated with low levels of uranium and the sink and trap were removed and disposed. An additional sludge sample was taken from a location several feet into the line and the sample met release criteria.
    - Ambient gamma limit: <5.0  $\mu\text{R/hr}$  at one meter from the surface.
  - Survey results were below the acceptable limits.
- The California Department of Health Services (DHS) performed verification surveys in 1998 and concurred that the facility met release criteria.<sup>6,7</sup>
- The Environmental Protection Agency (EPA) conducted an oversight verification survey in 2001 for alpha, beta, beta-gamma radiation (total and removable) and gamma radiation. Surveys were performed to a quality level equal to a final status survey as defined by the Multi-Agency Radiation Survey and Site Investigation

Manual (MARSSIM). The contaminants of concern (COCs) for Building 4011 were mixed fission products, uranium, transuranic compounds, and activation and corrosion products. EPA also collected concrete core samples which were analyzed for photon-emitting isotopes.<sup>8</sup>

- Acceptable limits for the survey were consistent with Nuclear Regulatory Commission (NRC) Regulatory Guide 1.86 and the proposed sitewide release criteria.
- Survey results were below the acceptable limits.
- EPA field measurements confirmed the conclusions reached by Rocketdyne.

**Status:**

- DHS released the facility for unrestricted use December 16, 1998.<sup>6</sup>
- Building 4011 is currently used to house communications equipment for Area IV.

**References:**

- 1- Rocketdyne Report, N001SRR140128, "Building T011 Final Survey Procedure," April 19, 1994.
- 2- Boeing Data Package, no document number, "Septic and Leachfield Survey Data 011, 353, and 373."
- 3- ETEC Document, GEN-ZR-0011, "Radiological Survey of the T056 Landfill; Area from 23<sup>rd</sup> Street to Building T100; and an Area Across from Building T011," August 26, 1988.
- 4- Rocketdyne Document, A4CM-ZR-0011, Rev. A, "Area IV Radiological Characterization Survey," August 15, 1996.
- 5- Boeing Internal Document, no document number, "Final Radiological Survey Data Package for Building 011, SSFL," by James Barnes, July 28, 1998.
- 6- DHS/RHB, Untitled letter, from D. Wesley (DHS/RHB) to J. Barnes, December 16, 1998.
- 7- Untitled letter, from Gerard Wong to James Barnes, September 17, 1998.
- 8- U.S. EPA Report, no document number, "Final Oversight Verification and Confirmation Radiological Survey Report for Buildings T-011, T-019, T-055, and T-100," December 20, 2002.
- 9- Historical Site Photographs from Boeing Database.
- 10- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

Photograph – Building 4011

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## Site Summary – Building 4171

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**Site Identification:**

Building 4171  
X-Ray Building

**Operational Use/History:**

- Constructed in the middle 1960s.
- Building 4171 was used for storage of miscellaneous electronic equipment.<sup>2</sup>
- Demolished in 2000.<sup>3</sup>

**Site Description:**

- Building 4171 was located south of F Street, adjacent to 19<sup>th</sup> Street.<sup>3</sup>

**Relevant Site Information:**

- There are no Use Authorizations and no Incident Reports associated with Building 4171.<sup>4</sup>

**Radiological Surveys:**

- Radiological surveys specific to Building 4171 have not been conducted.

**Status:**

- Building 4171 was demolished in 2000.<sup>2</sup>

**References:**

- 1- Personnel Interview, Phil Rutherford, November 13, 2003.
- 2- Personnel Interview, Dan Trippeda, September 15, 2003.
- 3- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 4- Review of Radiation Safety Records Management System, 2003.

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## Site Summary – Building 4172

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### Site Identification:

Building 4172  
X-Ray Building

### Operational Use/History:

- Constructed in the early 1970s.<sup>1</sup>
- Building 4172 was used as an X-ray room and for storage of sealed sources that were checked every six months to ensure no leakage occurred.<sup>2</sup>
- Demolished in 2000.<sup>3</sup>

### Site Description:

- Building 4172 was located adjacent to Building 4011, between 18<sup>th</sup> and 19<sup>th</sup> Streets and F Street.

### Relevant Site Information:

- Use Authorization Series 68, originally dated January 30, 1975, first permitted X-Radiography in this building.<sup>4</sup> Operations were subsequently permitted under Use Authorization Series 93, edition C, June 30, 1978.<sup>2</sup> Both of these authorizations permitted the use of sealed sources for radiography.<sup>4</sup>
- On April 13, 1977, a radiographer was exposed to radiation from a non-shielded source inside the X-ray room. It is unlikely any environmental contamination resulted from this incident (A0057).
- Building 4172 was mistakenly listed on an NRC license. The building was deleted from that license in December of 1982.

### Radiological Surveys:

- No leaking sealed sources were ever detected during the biannual leak check program.<sup>2</sup> It is likely that a routine survey was performed in Building 4172 prior to demolition; however, record of such survey could not be located in the Radiation Safety Records Management System.<sup>5</sup>

### Status:

- Building 4172 was demolished in 2000.<sup>1</sup>

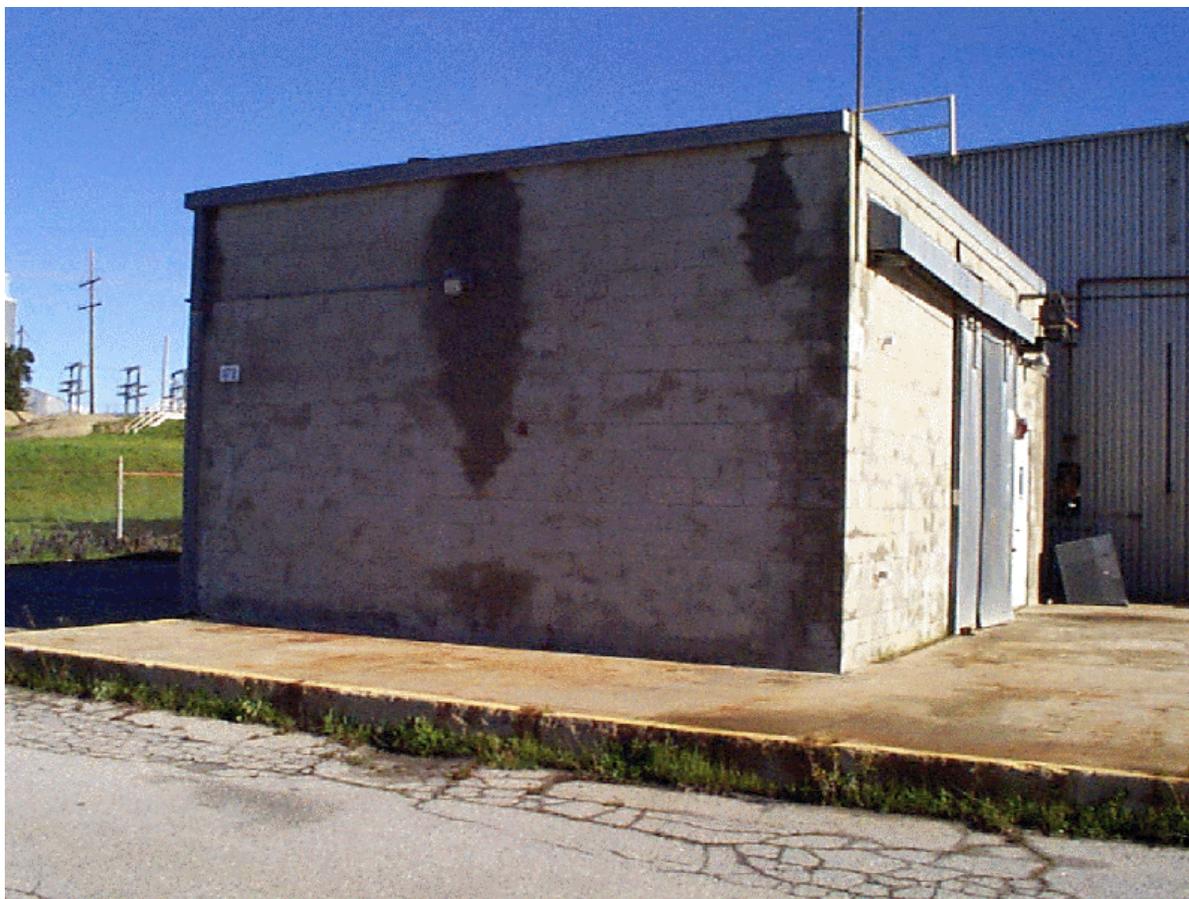
## Group R

### References:

- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Personnel Interview, Phil Rutherford, November 13, 2003.
- 3- Personnel Interview, Dan Trippeda, September 15, 2003.
- 4- Rockwell International Internal Letter, 754-WTG-082-084, "Use Authorization Series 93," J. E. Harris to J. D. Moore, June 21, 1982.
- 5- Review of Radiation Safety Records Management System, 2003.
- 6- Historical Site Photographs from Boeing Database.

Photograph – Building 4172

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## Site Summary – Building 4500

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### Site Identification:

Building 4500  
Gas Bottle Dock (Near Building 4011)  
Compressed Gas Bottle Storage Dock

### Operational Use/History:

- Constructed in the middle 1960s.
- Building 4500 was used as a storage area for portable gas containers, including argon, nitrogen, helium and various calibration gasses.<sup>1</sup>
- By 1998, it was listed as “foundation only,” and left unused.<sup>2,3</sup>
- The walls and foundation of Building 4500 are still in place.

### Site Description:

- Building 4500 was a small shed built on a concrete pad.<sup>2</sup>

### Relevant Site Information:

- Building 4500 was used as a drop-off and pick-up point for suppliers. The high-pressure gas cylinders that were stored in Building 4500 were used through Area IV.
- There are no Use Authorizations and no Incident Reports associated with Building 4500.<sup>4</sup>

### Radiological Surveys:

- Radiological surveys specific to Building 4500 have not been conducted.

### Status:

- The walls and foundation of Building 4500 are still in place.

### References:

- 1- Personnel Interview, John Boggio, September 29, 2003.
- 2- Personnel Interview, Dan Trippeda, September 29, 2003.
- 3- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 4- Review of Radiation Safety Records Management System, 2003.
- 5- Historical Site Photographs from Boeing Database.

Photograph – Building 4500

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## Site Summary – Site 4521

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**Site Identification:**

Site 4521  
Parking Lot

**Operational Use/History:**

- Constructed prior to 1962.<sup>1</sup>
- Site 4521 served as a parking lot for personnel working in Building 4011 and the surrounding areas.
- Demolished in the middle 1960s.<sup>1</sup>

**Site Description:**

- Site 4521 was located near Building 4011.

**Relevant Site Information:**

- There are no Use Authorizations and no Incident Reports associated with Site 4521.<sup>2</sup>

**Radiological Surveys:**

- Radiological surveys specific to Site 4521 have not been conducted.

**Status:**

- Site 4521 was demolished in the middle 1960s.<sup>1</sup>

**References:**

- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Review of Radiation Safety Records Management System, 2003.

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## Site Summary – Building 4611

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### Site Identification:

Building 4611  
Paint Spray Canopy

### Operational Use/History:

- Constructed prior to 1962.
- Building 4611 was a non-radiological facility. It is assumed that this building was an open structure used for spray painting. A more detailed history could not be located.<sup>1</sup>
- On the 1962 Industrial Planning Map, Building 4611 is near 4011. Building 4611 is last labeled on the 1981 map, although it continues to be drawn on subsequent Industrial Planning Maps.<sup>1</sup>
- Building 4611 has been demolished.

### Site Description:

- Building 4611 was located just west of Building 4011 and north of G Street.<sup>1</sup>

### Relevant Site Information:

- There are no Use Authorizations and no Incident Reports associated with Building 4611.<sup>2</sup>

### Radiological Surveys:

- Radiological surveys specific to Building 4611 have not been conducted.

### Status:

- Building 4611 has been demolished.

### References:

- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Review of Radiation Safety Records Management System, 2003.

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## Site Summary – Building 4612

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### Site Identification:

Building 4612  
Maintenance  
Storage

### Operational Use/History:

- Constructed prior to 1962.
- Building 4612 appears on the 1962 Industrial Planning Map. On the 1964 Industrial Planning Map, a new structure, Building 4171, is shown directly adjacent to Building 4612. Building 4612 is last labeled on the 1982 map, although it continues to be drawn on subsequent Industrial Planning Maps.<sup>1</sup>
- Building 4612 has been demolished, most likely in 2000, at the same time as Building 4171.

### Site Description:

- Building 4612 was located west of Building 4011, just west of 19<sup>th</sup> Street.

### Relevant Site Information:

- There are no Use Authorizations and no Incident Reports associated with Building 4612.<sup>2</sup>

### Radiological Surveys:

- Radiological surveys specific to Building 4612 have not been conducted.

### Status:

- Building 4612 was demolished, most likely in 2000, when Building 4171 was demolished.

### References:

- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Review of Radiation Safety Records Management System, 2003.

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## Site Summary – Fuel Tank 4735

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### Site Identification:

4735 Fuel Tank  
86,000-Gallon Fuel Oil Storage Day Tank

### Operational Use/History:

- Constructed in 1977.<sup>1</sup>
- Fuel Tank 4735 stored fuel that was pumped by the pump station to the Sodium Component Test Installation (SCTI) facility. Building 4320, the Fuel Oil Pump Building, filled the tank from the Fuel Tank Farm. Carbon steel piping connected the facilities.<sup>1</sup>
- Bulk oil was removed in 1990 and Fuel Tank 4735 was cleaned in 1991.<sup>1</sup>
- Demolished with the Fuel Tank Farm in 1999.<sup>1</sup>

### Site Description:

- Fuel Tank 4735 had a capacity of 86,000 gallons, was 26 feet in diameter and 24 feet tall. It was an above-ground vented structure constructed of carbon steel. A pump station was adjacent to the tank, and it contained a concrete pad with two pumps. The area was fenced.<sup>1</sup>

### Relevant Site Information:

- There are no Use Authorizations and no Incident Reports associated with Fuel Tank 4735.<sup>2</sup>

### Radiological Surveys:

- Radiological surveys specific to Fuel Tank 4735 have not been conducted.
- Portions of this area was covered as part of the 1994-1995 Area IV Radiological Characterization Survey.<sup>3</sup>
  - Background: 15.6  $\mu$ R/hr.
  - Acceptable Limit: Less than 5  $\mu$ R/hr above background.
  - Survey results were below the acceptable limits.

### Status:

- The Fuel Tank Farm and associated piping was demolished in 1999.

## Group R

### References:

- 1- Rocketdyne Document, GEN-SP-00051, "Removal of Fuel Oil Storage and Distribution System," November 2, 1998.
- 2- Review of Radiation Safety Records Management System, 2003.
- 3- Rocketdyne Document, A4CM-ZR-0011, Rev. A, "Area IV Radiological Characterization Survey," August 15, 1996.
- 4- Historical Site Photographs from Boeing Database.
- 5- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

Photograph – Fuel Tank 4735

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## Group S

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Group S Map

Building 4383

*Includes Building 4393, Tower at 4383*

*Includes Building 4883, Substation*

Building 4482

Building 4483

Building 4484

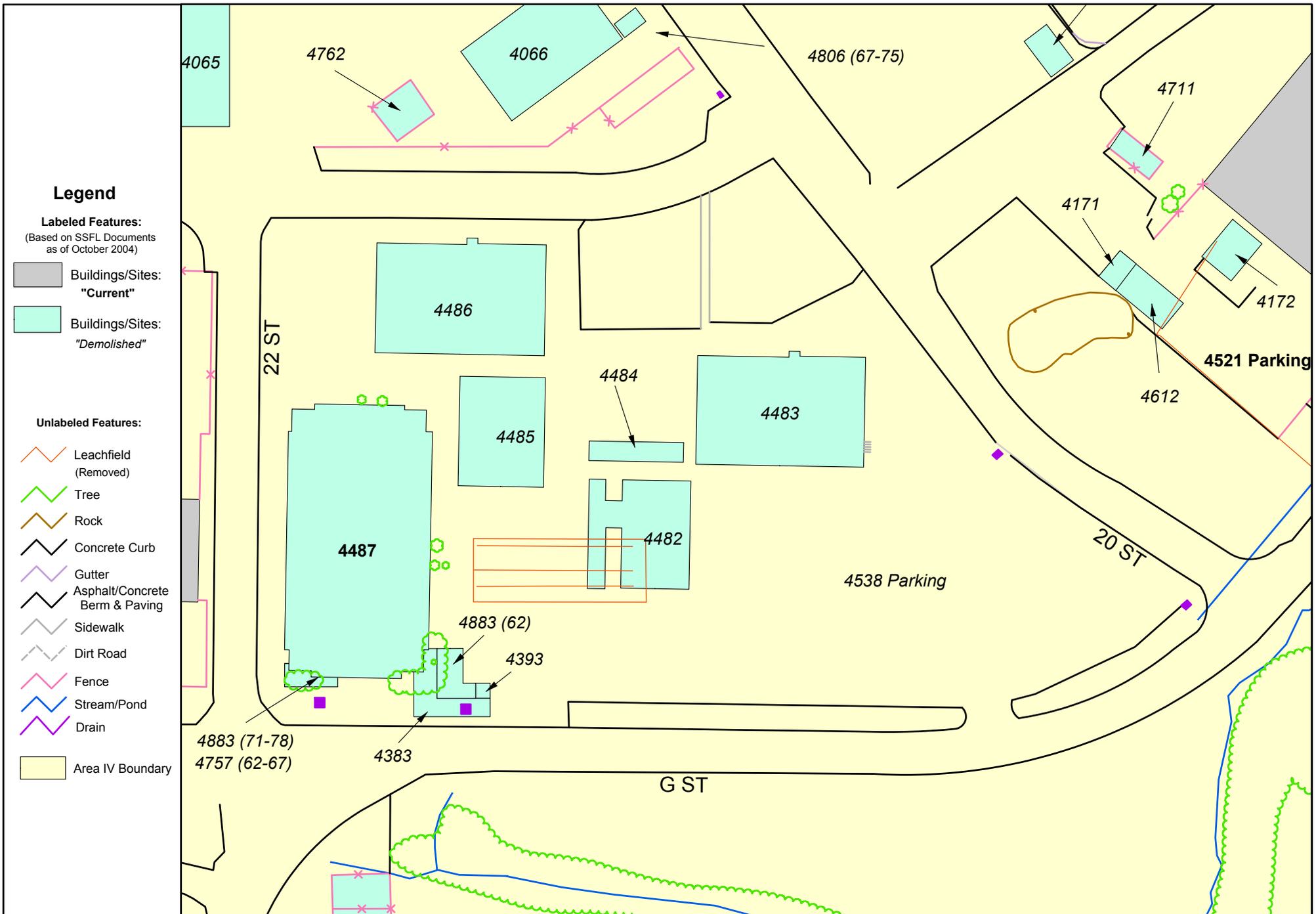
Building 4485

Building 4486

Building 4487

Site 4538

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**Legend**

**Labeled Features:**  
 (Based on SSFL Documents  
 as of October 2004)

-  Buildings/Sites:  
"Current"
-  Buildings/Sites:  
"Demolished"

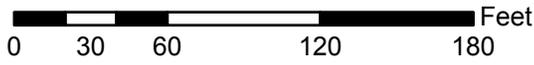
**Unlabeled Features:**

-  Leachfield  
(Removed)
-  Tree
-  Rock
-  Concrete Curb
-  Gutter
-  Asphalt/Concrete  
Berm & Paving
-  Sidewalk
-  Dirt Road
-  Fence
-  Stream/Pond
-  Drain
-  Area IV Boundary

DRAWN BY:



1 inch equals 75 feet



DATE:

Map 2005

Site Summary Group S  
 AREA IV  
 Santa Susana Field Laboratory, CA

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## Site Summary – Building 4383

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### Site Identification:

Building 4383  
Instrumentation Building  
Liquid Metal Engineering Center (LMEC) Assembly and Test Building  
LMEC Construction Staging  
Includes Building 4393, Tower at 4383  
Includes Building 4883, Substation

### Operational Use/History:

- Building 4383 first appears as the Instrumentation Building on the 1962 map. On the following map, in 1967, it is listed as the LMEC Assembly and Test Building. On the following 1971 map it is listed as the LMEC Construction Building and remains such until its final appearance on the 1975 map.
- Demolished in the early 1980s.<sup>1,2</sup>

### Site Description:

- Building 4383 is a ten-foot tall structure measuring 3,691 square feet with a steel roof, frame and siding anchored to a concrete pad.<sup>1</sup>
- Serviced by Building 4393.
- Serviced by Substation 4883.

### Relevant Site Information:

- There are no Use Authorizations and no Incident Reports associated with Building 4383.<sup>3</sup>

### Radiological Surveys:

- Radiological surveys specific to Building 4383 have not been conducted.
- This area was covered as part of the 1994-1995 Area IV Radiological Characterization Survey.<sup>4</sup>
  - Background: 15.6  $\mu$ R/hr.
  - Acceptable Limit: Less than 5  $\mu$ R/hr above background.
  - Survey results were below the acceptable limits.

### Status:

- Demolished in the early 1980s.

## Group S

### References:

- 1- DOE Document, N-083E-A02-DV001, Rev. A, "Site Development and Facility Utilization Planning: FY 1984-FY 1989," April 1984.
- 2- ERDA Document, LR-03026, Part 1, "Site Development Plan: 1977-1981," June 1975.
- 3- Review of Radiation Safety Records Management System, 2003.
- 4- Rocketdyne Document, A4CM-ZR-0011, Rev. A, "Area IV Radiological Characterization Survey," August 15, 1996.
- 5- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

## Site Summary – Building 4482

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### Site Identification:

Building 4482  
Government Project Office

### Operational Use/History:

- Constructed in 1968.<sup>1</sup>
- Building 4482 served as an office building.
- Transferred off-site in 2000.
- Building 4482 was donated to the Wildlife Way Station, and later reclaimed. The trailer was then surveyed by both Boeing and the Los Angeles County Health Department and recommended for release for unrestricted use.<sup>2</sup>

### Site Description:

- Building 4482 was a 3,130-square-foot prefabricated trailer with a steel frame and wood siding. It was anchored to a concrete slab.<sup>1</sup>

### Relevant Site Information:

- There are no Use Authorizations and no Incident Reports associated with Building 4482.<sup>3</sup>

### Radiological Surveys:

- Boeing and the Los Angeles County Health Department conducted radiation surveys. Both surveys determined that the trailer was free of radiological contamination.<sup>2,4</sup>

### Status:

- Building 4482 was released by DHS in 2000.

### References:

- 1- ERDA Document, LR-03026, Part 1, "Site Development Plan: 1977-1981," June 1975.
- 2- DHS/RHB, Letter, "Reference: Complaint Concerning Rocketdyne Trailers," D. Bunn (RHB) to D. Sutherland (DOE), February 14, 2000.
- 3- Review of Radiation Safety Records Management System, 2003.
- 4- Boeing Document, no document number, "Radiological Survey of Donated Trailer Sections at the Wildlife Way Station," February 16, 2000.
- 5- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

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## Site Summary – Building 4483

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### Site Identification:

Building 4483  
LMEC Office Trailers

### Operational Use/History:

- Building 4483 was constructed in 1968.<sup>1</sup>
- Building 4483 was used for office space.
- Transferred off-site in 2000.
- Building 4483 was donated to the Wildlife Way Station and later reclaimed. The trailer was then surveyed by both Boeing and the Los Angeles County Health Department and recommended for release for unrestricted use.<sup>2</sup>

### Site Description:

- Building 4483 was a 6,000-square-foot prefabricated trailer constructed with a steel frame and wood siding. It was anchored to a concrete slab.<sup>1</sup>

### Relevant Site Information:

- There are no Use Authorizations and no Incident Reports associated with Building 4483.<sup>3</sup>

### Radiological Surveys:

- Boeing and the Los Angeles County Health Department conducted radiation surveys. Both surveys determined that the trailer was free of radiological contamination.<sup>2,4</sup>

### Status:

- Building 4483 was released by DHS in 2000.

### References:

- 1- ERDA Document, LR-03026, Part 1, "Site Development Plan: 1977-1981," June 1975.
- 2- DHS/RHB, Letter, "Reference: Complaint Concerning Rocketdyne Trailers," D. Bunn (RHB) to D. Sutherland (DOE), February 14, 2000.
- 3- Review of Radiation Safety Records Management System, 2003.
- 4- Boeing Document, no document number, "Radiological Survey of Donated Trailer Sections at the Wildlife Way Station," February 16, 2000.

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## Site Summary – Building 4484

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### Site Identification:

Building 4484  
Rest Room Trailer

### Operational Use/History:

- Building 4484 was constructed in 1969.<sup>1</sup>
- Building 4484 was used as office space.
- Transferred off-site in 2000.
- Building 4484 was donated to the Wildlife Way Station and later reclaimed. The trailer was then surveyed by both Boeing and the Los Angeles County Health Department and recommended for release for unrestricted use.<sup>2</sup>

### Site Description:

- Building 4484 was a prefabricated trailer with a steel frame and wood siding. It was anchored to a concrete slab.<sup>1</sup>
- Building 4484 measured 520 square feet.<sup>1</sup>

### Relevant Site Information:

- There are no Use Authorizations and no Incident Reports associated with Building 4484.<sup>3</sup>

### Radiological Surveys:

- Boeing and the Los Angeles County Health Department conducted radiation surveys. Both surveys determined that the trailer was free of radiological contamination.<sup>2,4</sup>

### Status:

- Building 4484 was released by DHS in 2000.

### References:

- 1- ERDA Document, LR-03026, Part 1, "Site Development Plan: 1977-1981," June 1975.
- 2- DHS/RHB, Letter, "Reference: Complaint Concerning Rocketdyne Trailers," D. Bunn (RHB) to D. Sutherland (DOE), February 14, 2000.
- 3- Review of Radiation Safety Records Management System, 2003.

## Group S

- 4- Boeing Document, no document number, "Radiological Survey of Donated Trailer Sections at the Wildlife Way Station," February 16, 2000.
- 5- Historical Site Photographs from Boeing Database.
- 6- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

Photograph – Building 4484

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## Site Summary – Building 4485

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### Site Identification:

Building 4485  
LMEC Office Trailer

### Operational Use/History:

- Constructed in 1968.<sup>1</sup>
- Building 4485 was used as office space.
- Transferred off-site in 2000.
- Building 4485 was donated to the Wildlife Way Station and later reclaimed the trailer. The trailer was then surveyed by both Boeing and the Los Angeles County Health Department and recommended for release for unrestricted use.<sup>2</sup>

### Site Description:

- Building 4485 was a 3,000-square-foot prefabricated trailer with a steel frame and wood siding. It was anchored to a concrete slab. Building 4485 had a ceiling height of 8 feet.<sup>1</sup>

### Relevant Site Information:

- There are no Use Authorizations and no Incident Reports associated with Building 4485.<sup>3</sup>

### Radiological Surveys:

- Boeing and the Los Angeles County Health Department conducted radiation surveys. Both surveys determined that the trailer was free of radiological contamination.<sup>2,4</sup>

### Status:

- Building 4485 was released by DHS in 2000.

### References:

- 1- ERDA Document, LR-03026, Part 1, "Site Development Plan: 1977-1981," June 1975.
- 2- DHS/RHB, Letter, "Reference: Complaint Concerning Rocketdyne Trailers," D. Bunn (RHB) to D. Sutherland (DOE), February 14, 2000.
- 3- Review of Radiation Safety Records Management System, 2003.
- 4- Boeing Document, no document number, "Radiological Survey of Donated Trailer Sections at the Wildlife Way Station," February 16, 2000.
- 5- Historical Site Photographs from Boeing Database.

Photograph – Building 4485

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## Site Summary – Building 4486

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### Site Identification:

Building 4486  
LMEC Office Trailer

### Operational Use/History:

- Building 4486 was constructed in 1968.<sup>1</sup>
- Building 4486 was used as office space.
- Transferred off-site in 2000.
- Building 4486 was donated to Shandon High School and later reclaimed. The trailer was then surveyed by both Boeing and the Los Angeles County Health Department and recommended for release for unrestricted use.<sup>2</sup>

### Site Description:

- Building 4486 was a 6,000-square-foot prefabricated trailer constructed with a steel frame and wood siding. It was anchored to a concrete slab.<sup>1</sup>

### Relevant Site Information:

- There are no Use Authorizations and no Incident Reports associated with Building 4486.<sup>3</sup>

### Radiological Surveys:

- Boeing and the Los Angeles County Health Department conducted radiation surveys. Both surveys determined that the trailer was free of radiological contamination.<sup>2,4</sup>

### Status:

- Building 4486 was released by DHS in 2000.

### References:

- 1- ERDA Document, LR-03026, Part 1, "Site Development Plan: 1977-1981," June 1975.
- 2- DHS/RHB, Letter, "Reference: Complaint Concerning Rocketdyne Trailers," D. Bunn (RHB) to D. Sutherland (DOE), February 14, 2000.
- 3- Review of Radiation Safety Records Management System, 2003.
- 4- Boeing Document, no document number, "Radiological Survey of Donated Trailer at Shandon High School," February 9, 2000.
- 5- Historical Site Photographs from Boeing Database.
- 6- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

Photograph – Building 4486

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## Site Summary – Building 4487

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### Site Identification:

Building 4487  
Energy Technology Engineering Center (ETEC) Engineering Building  
Safety Health and Environmental Affairs (SHEA) Office

### Operational Use/History:

- Constructed in 1981.<sup>1</sup>
- Building 4487 was used for office space.<sup>2</sup>
- Building 4487 was demolished in 2004.

### Site Description:

- Building 4487 was a prefabricated building with stucco siding and a wood frame.<sup>1,2</sup>

### Relevant Site Information:

- There are no Use Authorizations and no Incident Reports associated with Building 4487.<sup>5</sup>

### Radiological Surveys:

- Periodic surveys were conducted from December 2002 until Building 4487 was demolished. Entrance/exit surveys did not detect any radiological contamination.<sup>4</sup>
- Radiological surveys and samples taken during excavation of the Building 4487 septic tank did not detect any radiological contamination.<sup>4</sup>

### Status:

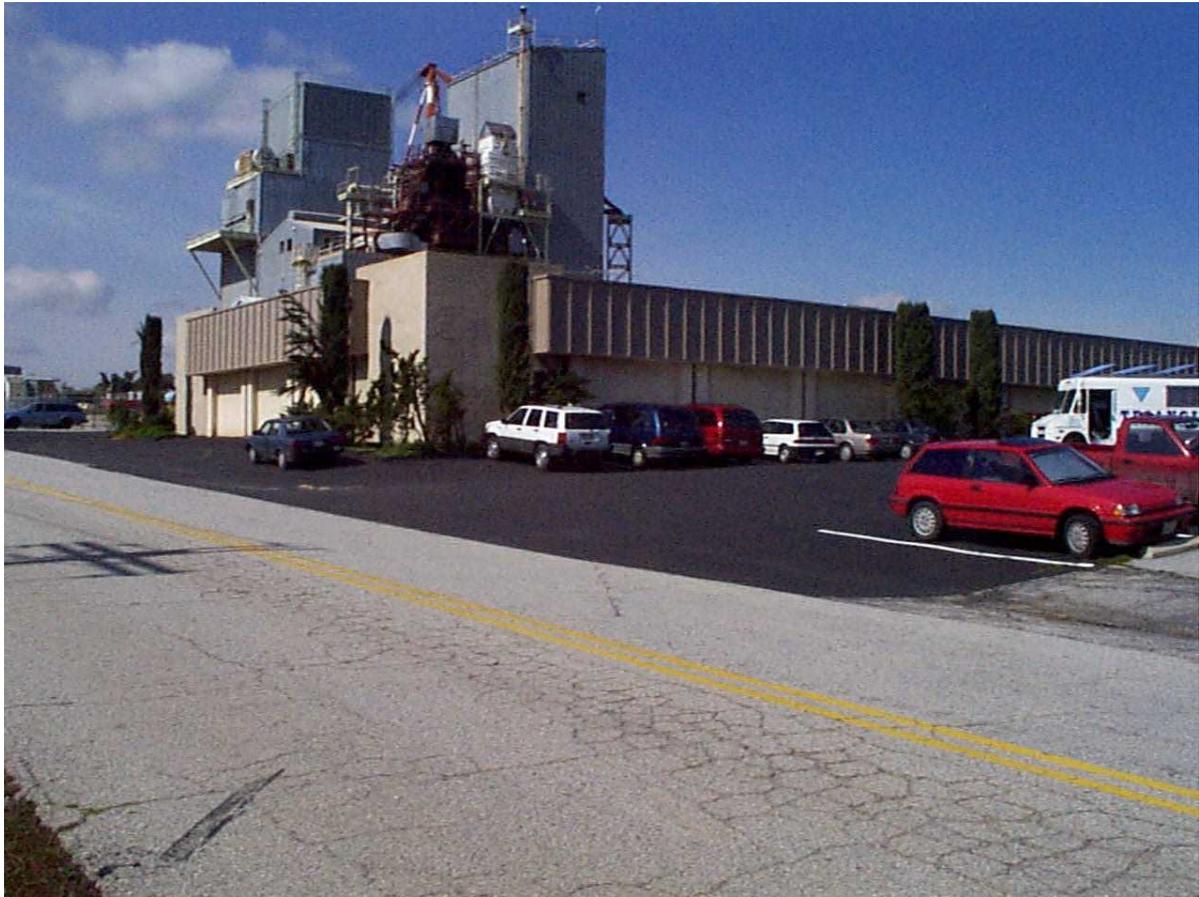
- Building 4487 was demolished in 2004.

### References:

- 1- ERDA Document, LR-03026, Part 1, "Site Development Plan: 1977-1981," June 1975.
- 2- Rocketdyne Internal Document, no document number, "Assessment of Department of Energy Buildings within the SSFL," September 30, 1996.
- 3- Review of Radiation Safety Records Management System, 2003.
- 4- Personnel Interview, Phil Rutherford, June 16, 2004.
- 5- Historical Site Photographs from Boeing Database.
- 6- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

Photograph – Building 4487

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## Site Summary – Site 4538

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### Site Identification:

Site 4538  
Parking lot for Buildings 4482-4486

### Operational Use/History:

- Site 4538 was a parking lot used by personnel working in Buildings 4482-4486, all of which were office buildings.
- Demolished in 2000.<sup>1</sup>

### Site Description:

- Site 4538 was a parking lot located on the northwest corner at the intersection of 20<sup>th</sup> and G Streets.<sup>2</sup>

### Relevant Site Information:

- There are no Use Authorizations and no Incident Reports associated with Site 4538.<sup>3</sup>

### Radiological Surveys:

- Radiological surveys specific to Site 4538 have not been conducted.

### Status:

- In 2000, Site 4538 was removed and the site was graded and seeded.

### References:

- 1- Boeing Document, no document number, “ETEC Closure, Landscaping of Old Trailer Parking Lot,” no date given.
- 2- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 3- Review of Radiation Safety Records Management System, 2003.

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## Group T

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Group T Map

Building 4461

Building 4462

*Includes Building 4760, Substation*

Building 4463

*Includes 4780, Substation*

Site 4662

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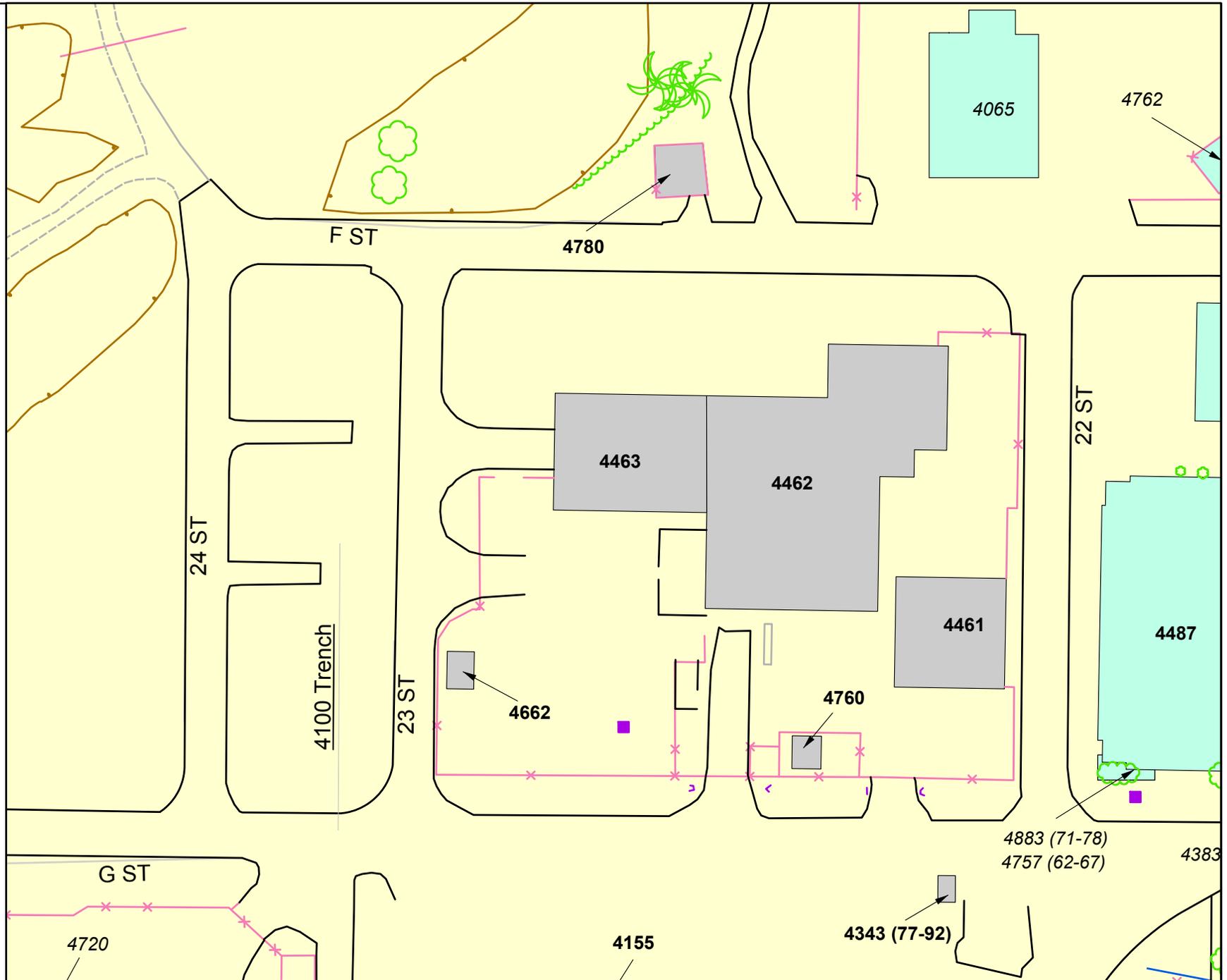
**Legend**

**Labeled Features:**  
(Based on SSFL Documents as of October 2004)

- Buildings/Sites: "Current"
- Buildings/Sites: "Demolished"

**Unlabeled Features:**

- Leachfield (Removed)
- Tree
- Rock
- Concrete Curb
- Gutter
- Asphalt/Concrete Berm & Paving
- Sidewalk
- Dirt Road
- Fence
- Stream/Pond
- Drain
- Area IV Boundary



DRAWN BY:



1 inch equals 75 feet



DATE:

May 2005

Site Summary Group T  
AREA IV  
Santa Susana Field Laboratory, CA

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## Site Summary – Building 4461

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### Site Identification:

Building 4461  
Sodium Pump Test Facility (SPTF) Motor Generator Building

### Operational Use/History:

- Constructed in 1977.<sup>1</sup>
- Building 4461 housed the electrical equipment that powered the motors in SPTF.
- Building 4461 is still standing.

### Site Description:

- Building 4461 was 3,600 square feet with steel siding, frame and roof located northwest of 22<sup>nd</sup> and G Streets.<sup>1</sup>

### Relevant Site Information:

- There are no Use Authorizations and no Incident Reports associated with Building 4461.<sup>2</sup>

### Radiological Surveys:

- Radiological surveys specific to Building 4461 have not been conducted.

### Status:

- Building 4461 is still standing.

### References:

- 1- ERDA Document, LR-03026, Part 1, "Site Development Plan: 1977-1981," June 1975.
- 2- Review of Radiation Safety Records Management System, 2003.
- 3- Historical Site Photographs from Boeing Database.
- 4- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

Photograph – Building 4461

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## Site Summary – Building 4462

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### Site Identification:

Building 4462  
SPTF Building  
Includes Building 4760, Substation

### Operational Use/History:

- Constructed in 1974.
- Building 4462 was used to test sodium pumps.
- Scheduled for demolition in 2005-2006.

### Site Description:

- Building 4462 measured 6,530 square feet, including 4,920 square feet of laboratory space. The frame, siding and roof were constructed of steel.
- Serviced by Substation 4760.

### Relevant Site Information:

- There are no Use Authorizations associated with Building 4462.<sup>1</sup>
- No incidents occurred in Building 4462 that might have resulted in a release to the environment.<sup>1</sup>

### Radiological Surveys:

- Radiological surveys specific to Building 4462 have not been conducted.

### Status:

- Building 4462 is scheduled for demolition in 2005-2006.

### References:

- 1- Review of Radiation Safety Records Management System, 2003.
- 2- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 3- Historical Site Photographs from Boeing Database.

Photograph – Building 4462

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## Site Summary – Building 4463

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### Site Identification:

Building 4463  
Sodium Cleaning and Handling Facility  
Includes 4780, Substation

### Operational Use/History:

- Constructed in 1974.
- Building 4463 was used to assemble, disassemble and clean pumps and other parts of the SPTF.<sup>1</sup>
- Building 4463 is still standing.

### Site Description:

- Building 4463 is 6,635 square feet and constructed of steel siding, frame and roof. The building stands 70 feet tall and has cranes with 15, 60, and 100 ton capacities.<sup>1</sup>
- Serviced by Substation 4780.

### Relevant Site Information:

- There are no Use Authorizations and no Incident Reports associated with Building 4463.<sup>2</sup>

### Radiological Surveys:

- Radiological surveys specific to Building 4463 have not been conducted.

### Status:

- Building 4463 is still standing.

### References:

- 1- ERDA Document, LR-03026, Part 1, "Site Development Plan: 1977-1981," June 1975.
- 2- Review of Radiation Safety Records Management System, 2003.
- 3- Historical Site Photographs from Boeing Database.
- 4- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

Photograph – Building 4463

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## Site Summary – Site 4662

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### Site Identification:

Site 4662  
Small Parts Cleaning Pad

### Operational Use/History:

- Constructed in approximately 1981.
- Used for cleaning sodium off of parts in support of SPTF.
- Site 4662 is still in use.

### Site Description:

- Site 4662 is a concrete pad west of Building 4462, south of 4463, and north of G Street.<sup>1</sup>

### Relevant Site Information:

- There are no Use Authorizations and no Incident Reports associated with Site 4662.<sup>2</sup>

### Radiological Surveys:

- Radiological surveys specific to Site 4662 have not been conducted.

### Status:

- Site 4662 is still used.

### References:

- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Review of Radiation Safety Records Management System, 2003

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## Group U

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Group U Map

Building 4062

*Includes Building 4762, Substation*

Building 4065

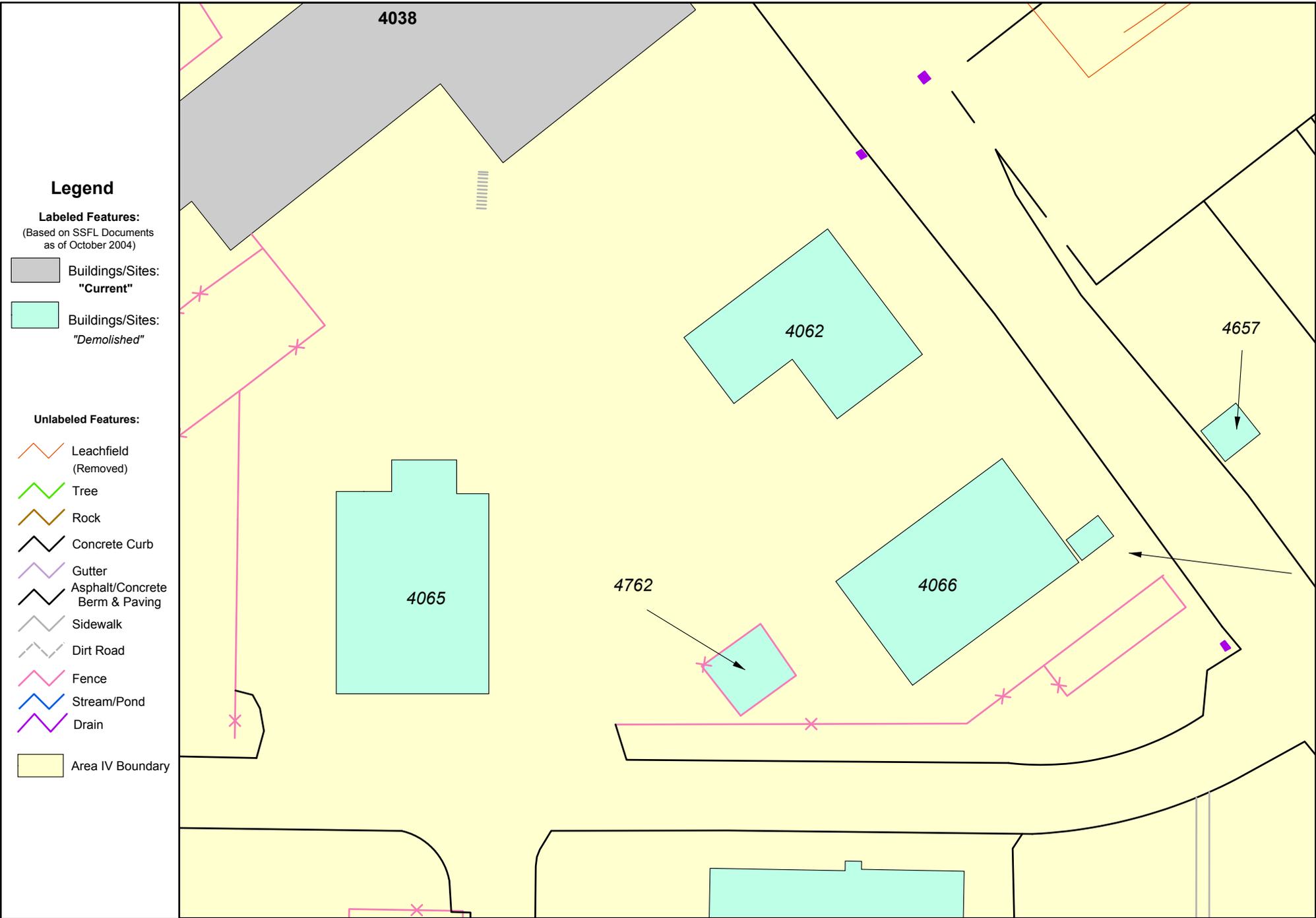
*Includes Building 4762, Substation*

Building 4066

*Includes Building 4762, Substation*

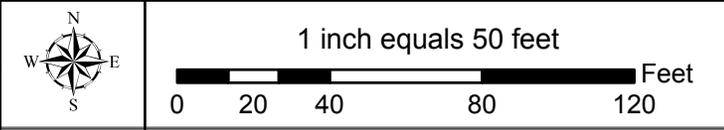
*Includes Building 4806, Time Clock*

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DRAWN BY: **Sapere**  
 CONSULTING INC

DATE: May 2005



Site Summary Group U  
 AREA IV  
 Santa Susana Field Laboratory, CA

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## Site Summary – Building 4062

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### Site Identification:

Building 4062  
Energy Technology Engineering Center (ETEC) Instrumentation Operations  
Includes Building 4762, Substation

### Operational Use/History:

- Constructed in 1963.
- Building 4062 operated as a non-nuclear support building for the ETEC program, serving as a storage facility for instrument calibration.
- Demolished in 1999.

### Site Description:

- Building 4062 was a metal building consisting of a low bay and a high bay.
  - The support structure for the low bay was steel beams with corrugated steel siding and roof with concrete slab floor and concrete foundation.
  - The high bay was located over a concrete basement with a steel beam and plate floor at ground level. The support structure was steel beams with corrugated steel siding and roof. The building contained several internal partition walls with wood framing and drywall surfaces.<sup>1</sup>
- Serviced by Substation 4762.

### Relevant Site Information:

- There are no Use Authorizations and no Incident Reports associated with Building 4062.<sup>2</sup>

### Radiological Surveys:

- Radiological surveys specific to Building 4062 have not been conducted.

### Status:

- Building 4062 was demolished in 1999.

### References:

- 1- Boeing Document, EID-04366, "Removal of DOE Buildings, Demo Pak A," May 18, 1999.
- 2- Review of Radiation Safety Records Management System, 2003.
- 3- Historical Site Photographs from Boeing Database.
- 4- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

Photograph – Building 4062

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## Site Summary – Building 4065

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### Site Identification:

Building 4065  
Systems for Nuclear Auxiliary Power (SNAP) Thermoelectric Converter Test  
Building  
Liquid Metal Engineering Center (LMEC) Chemical Laboratory  
Chemistry & Metallurgical Laboratory  
Includes Building 4762, Substation

### Operational Use/History:

- Constructed in 1963.
- Building 4065 initially operated as a vacuum test facility. After 1973, it served as a non-nuclear chemical laboratory that performed sodium research and was equipped with a scanning electron microscope.
- Demolished in 1999.<sup>1</sup>

### Site Description:

- Building 4065 was a 6,300-square-foot single-story building with galvanized steel walls and roof anchored to a concrete slab floor. This building had various types of internal walls and partitions.<sup>2</sup>

### Relevant Site Information:

- Use Authorization Series 39, original issue date May 14, 1971, permitted the examination of irradiated SNAP 8 Development Reactor (S8DR) cladding and irradiated or unirradiated S8DR fuel and use of an Electron Microprobe for one and two years respectively. The tests performed were related to the SNAP program. It is not likely that there was release to the environment.<sup>3</sup>
- Use Authorization 61, issue date December 12, 1972, permitted 50 gm of uranium,  $U_{ZrH_{1.67}}$ , in sealed containers for use in fuel friction tests for one year. There is no evidence of the authorization being renewed. It is likely that the fuel friction test was related to the SNAP program. It is not likely that there was release to the environment.<sup>4</sup>
- Use Authorization Series 74, original issue date March 20, 1974, permitted the use of the Norelco XRG-5000 analytical x-ray generator. This piece of equipment emits radiation at negligible levels.<sup>5</sup>
- Use Authorization Series 75, original issue date March 20, 1975, permitted the possession and use of tritiated titanium foils as gas chromatography detectors. The quantity ranged from 77.2  $\mu\text{Ci}$  to 180.0  $\mu\text{Ci}$ . This Use Authorization was renewed until 1996.<sup>6</sup>

## Group U

- Use Authorization 164A, original issue date January 3, 1995, permitted the possession and use of a Gas Chromatograph probe containing Ni-63 source. It is not likely that there was release to the environment.<sup>7</sup>
- An Authorization 75v, original issue date August 29, 1996, permitted possession only of the Norelco XRG 5000 to W.S. DeBear.<sup>8</sup>
- On June 26, 1974, two outside contractors were exposed to radiation from an X-ray machine during routine maintenance. No environmental impact was expected from this incident (A0311).<sup>9</sup>
- Building 4065 did not require radiological controls during demolition.<sup>1</sup>

### Radiological Surveys:

- Radiological surveys specific to Building 4065 have not been conducted.

### Status:

- Building 4065 was demolished in 1999.

### References:

- 1- Boeing Document, EID-04366, "Removal of DOE Buildings, Demo Pak A," May 18, 1999.
- 2- DOE Document, NEPA Document Number ET-EM-99-03, "Categorical Exclusion under DOE NEPA Regulations for Dismantling, Removal, and Site Restoration of Demo Package A," May 18, 1999.
- 3- NA Rockwell Document, Use Authorization 39, "Operation of Electron Microprobe," L. Cooper, May 14, 1971.
- 4- NA Rockwell Document, Use Authorization 61, "Use of Normal U<sub>2</sub>zrH<sub>1.67</sub> Fuel," P.H. Horton, December 14, 1972.
- 5- Rockwell International Document, Use Authorization 74, "Use of X-ray Generator," D.E. Goggin, March 20, 1974.
- 6- Rockwell International Document, Use Authorization Series 75, 33-105-Auth 75, "Use of Tritiated Titanium Foils as Gas Chromatography Detectors," March 20, 1975.
- 7- Rockwell International Document, Use Authorization 164A, "Possession and use of Gas Chromatograph Probe Containing Ni-63 source," January 3, 1995.
- 8- Boeing Document, Use Authorization 75V, "Possession Only of X-ray Diffraction Equipment," W.S. DeBear, August 29, 1996.
- 9- Rockwell International, Internal Letter, "Exposure Measurements with Analytical X-Ray Machine," R.J. Tuttle to Isotopes Committee, November 10, 1980.
- 10- Historical Site Photographs from Boeing Database.
- 11- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

Photograph – Building 4065

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## Site Summary – Building 4066

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### Site Identification:

Building 4066  
Instrumentation Repair and Calibration Building  
Instrument Lab  
Includes Building 4762, Substation  
Includes Building 4806, Time Clock

### Operational Use/History:

- Constructed in 1963.
- Building 4066 was used for calibrating and testing non-radiological equipment.<sup>1</sup>
- Demolished in 1999.

### Site Description:

- The LMEC Chemistry Lab was 4,800 square feet in total, including 3,524 square feet of laboratory space.<sup>2</sup>
- The frame, siding and roof were made of steel, and the floors and foundation were made of concrete. The building contained numerous internal partition walls with wood framing and drywall surfaces.<sup>3</sup>
- Serviced by Substation 4762.
- Serviced by Time Clock 4806.

### Relevant Site Information:

- An incident occurred in October 1966, during which an in-line vacuum switch was removed from the tiltpour pumping system and hand carried by Atomic International (AI) personnel to the building. When the instrumentation technician opened the switch to calibrate it, a fine black powder (presumably  $U_3O_8$ ) sifted out and onto his clothing and workbench. The area surrounding the workbench was subsequently decontaminated (A0599).

### Radiological Surveys:

- Radiological surveys specific to Building 4066 have not been conducted.

### Status:

- Building 4066 was demolished in 1999.

## Group U

### References:

- 1- Personnel Interview, Randy Ingersoll, September 15, 2003.
- 2- ERDA Document, LR-03026, Part 1, "Site Development Plan: 1977-1981," June 1975.
- 3- Boeing Document, EID-04366, "Removal of DOE Buildings, Demo Pak A," May 18, 1999.
- 4- Historical Site Photographs from Boeing Database.
- 5- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 6- Review of Radiation Safety Records Management System, 2003.

Photograph – Site 4066

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## Group V

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Group V Map

Building 4038

*Includes 4757, Substation*

Building 4039

4056 Landfill

Building 4057

*Includes 4757, Substation*

Building 4626

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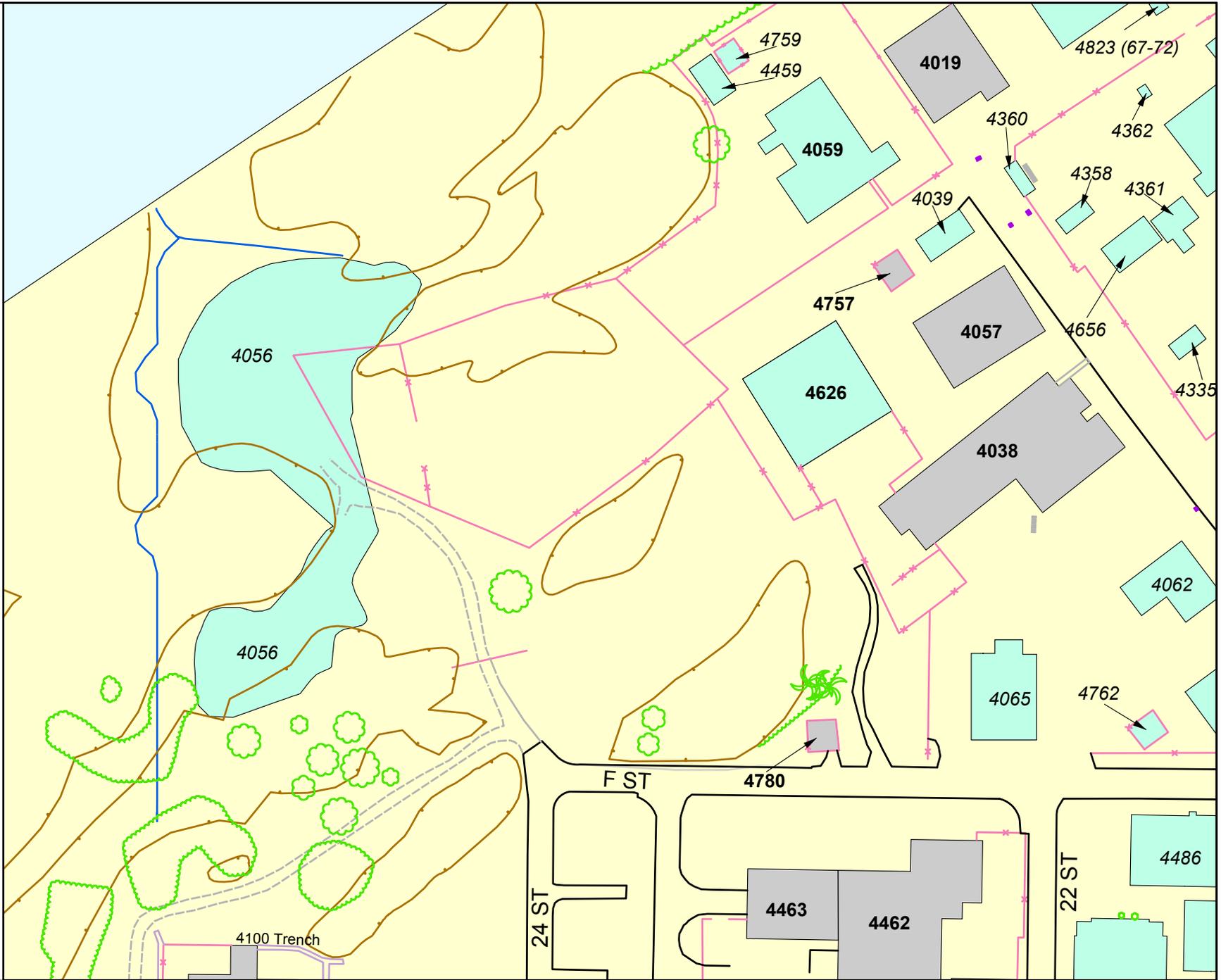
**Legend**

**Labeled Features:**  
(Based on SSFL Documents as of October 2004)

-  Buildings/Sites: "Current"
-  Buildings/Sites: "Demolished"

**Unlabeled Features:**

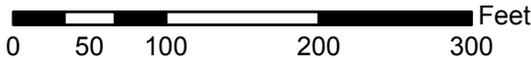
-  Leachfield (Removed)
-  Tree
-  Rock
-  Concrete Curb
-  Gutter
-  Asphalt/Concrete Berm & Paving
-  Sidewalk
-  Dirt Road
-  Fence
-  Stream/Pond
-  Drain
-  Area IV Boundary



DRAWN BY:



1 inch equals 125 feet



DATE:

May 2005

Site Summary Group V

AREA IV

Santa Susana Field Laboratory, CA

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## Site Summary – Building 4038

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### Site Identification:

Building 4038  
Systems for Nuclear Auxiliary Power (SNAP) Office Building No. 2  
Liquid Metal Engineering Center (LMEC) Administration and Information  
Energy Technology Engineering Center (ETEC) Administration  
ETEC Headquarters/ DOE Site Office  
Includes 4757, Substation

### Operational Use/History:

- Constructed in 1962.
- Building 4038 serves as an office building.
- Currently in use.

### Site Description:

- Building 4038 is 15,297 square feet and is constructed of a steel frame, roof and siding, anchored to a concrete floor.<sup>1</sup>
- Serviced by Substation 4757.

### Relevant Site Information:

- There are no Use Authorizations and no Incident Reports associated with Building 4038.<sup>2</sup>

### Radiological Surveys:

- Occasional radiation surveys have been conducted in Building 4038 to establish a building interior background dataset. No elevated radiation levels have been detected. Beginning in December 2002 and continuing to the present, weekly entrance/exit radiation surveys are performed.<sup>3</sup>

### Status:

- Building 4038 is currently in use.

### References:

- 1- ERDA Document, LR-03026, Part 1, "Site Development Plan: 1977-1981," June 1975.
- 2- Review of Radiation Safety Records Management System, 2003.
- 3- Personnel Interview, Phil Rutherford, June 16, 2004.
- 4- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

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## Site Summary – Building 4039

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### Site Identification:

Building 4039  
SNAP Administration Building  
SNAP Office Building Number 4  
Office Building-LMEC

### Operational Use/History:

- Building 4039 was constructed in 1964.
- Building 4039 was an office building.<sup>1</sup>
- In 2000, Building 4039 became a health physics counting laboratory, using sealed check sources and a laboratory low-background alpha/beta counting system to analyze air and wipe samples.<sup>2</sup>
- Demolished July 2003.<sup>3</sup>

### Site Description:

- Building 4039 was a single-story structure constructed of galvanized steel walls and roof that were anchored to a concrete slab floor. Various types of internal walls and partitions were used.<sup>1</sup>

### Relevant Site Information:

- Sealed radioactive sources, which were checked annually to ensure no leakage occurred, were stored at this location.<sup>4</sup>
- While used as a health physics counting laboratory, the operations were conducted under Use Authorization 160.<sup>5</sup>
- There are no Incident Reports associated with Building 4039.<sup>5</sup>

### Radiological Surveys:

- After Building 4039 became a counting laboratory, radiological surveys were performed weekly from April 14, 2000 through April 11, 2001. All wipe measurements were less than the minimum detectable activity (MDA). Alpha MDA ranged from 8-12 dpm/100cm<sup>2</sup>, beta MDA ranged from 15-20 dpm/100cm<sup>2</sup>.
- Prior to demolition in April 2003, the building was again surveyed using wipe samples, beta detectors and gamma exposure instruments. All wipe samples were less than the MDA, and all instrument readings were non-detect.<sup>6</sup>

### Status:

- Building 4039 was demolished in 2003.

## Group V

### References:

- 1- Rocketdyne Internal Document, no document number, "Assessment of Department of Energy Buildings within the SSFL," September 30, 1996.
- 2- Personnel Interview, Phil Rutherford, September 4, 2003.
- 3- Boeing Internal Document, "Demolition Binder: Building 4039," 2003.
- 4- Personnel Interview, Brian Sujata, September 3, 2003.
- 5- Review of Radiation Safety Records Management System, 2003.
- 6- Boeing Internal Document, no document number, "Radiation Survey Report, Building T039," April 15, 2003.
- 7- Historical Site Photographs from Boeing Database.
- 8- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

Photograph – Building 4039

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## Site Summary – Building 4057

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### Site Identification:

Building 4057  
Launch Handling & Mobile Equipment Development  
LMEC Laboratory  
Static Sodium Test Facility  
ETEC General Test  
Includes 4757, Substation

### Operational Use/History:

- Constructed in 1961.<sup>1</sup>
- Building 4057 housed two sodium test rigs. Each rig achieved a maximum temperature of 1,300 degrees F with a capacity of 42 gallons.<sup>2</sup>
- Building 4057 was decommissioned for laboratory use in 1998 at which point it became a records room.<sup>3</sup>
- Currently in use.

### Site Description:

- Building 4057 was constructed of a steel frame, siding and roof anchored to a concrete slab. The building had both 5-ton and 20-ton cranes. The ceiling height is 23 feet and 20 feet 6 inches at the two respective levels.<sup>1</sup>
- Serviced by Substation 4757.

### Relevant Site Information:

- There are no Use Authorizations associated with Building 4057.<sup>4</sup>
- In 2003, air sample media (filter papers) was discovered in a folder of records. Some of these filters had low levels of residual contamination; however, surveys of the drawer contents provided that none of the contamination had escaped from the envelope containing the filters (see survey information below).<sup>5</sup>

### Radiological Surveys:

- In response to the incident in Building 4057 described above, all remaining Radiation Safety file cabinets were searched.<sup>3</sup>
  - Cabinet drawers searched: 608
  - Number of folders containing air/wipe samples: 16
  - Number of sets of clean samples: 10
  - Number of sets of contaminated samples: 6

## Group V

- All contaminated samples were inside protective envelopes. Each envelope exterior and each folder contents were surveyed clean, demonstrating no spread of contamination. The majority of contaminated samples measured less than the Nuclear Regulatory Commission (NRC) Regulatory Guide 1.86 release limit of 1,000 dpm/100 cm<sup>2</sup> for removable contamination. Based on survey results, the incident was deemed to be an insignificant hazard.

### Status:

- Building 4057 currently serves as a records room.

### References:

- 1- ERDA Document, LR-03026, Part 1, "Site Development Plan: 1977-1981," June 1975.
- 2- US Energy Research and Development Administration Document, ERDA-68, "Liquid Metal Fast Breeder Reactor Program, Facility Profile."
- 3- Personnel Interview, Dan Trippeda, September 22, 2003.
- 4- Review of Radiation Safety Records Management System, 2003.
- 5- Rocketdyne Online Incident Reporting System (internal), "Incident Report 01684," February 26, 2003.
- 6- Historical Site Photographs from Boeing Database.
- 7- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

Photograph – Building 4057

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## Site Summary – Building 4626

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### Site Identification:

Building 4626  
Equipment Storage Building  
LMEC Inventory Storage  
ETEC Inventory Storage  
SNAP Storage Building

### Operational Use/History:

- Constructed in 1963.
- Building 4626 was used for equipment storage.
- Demolition is scheduled for 2003-2004.

### Site Description:

- Building 4626 has a roof height ranging from 15 to 25 feet with a steel frame, siding and roof anchored to a concrete slab. It was equipped with a 2-ton bridge.<sup>1</sup>

### Relevant Site Information:

- There are no Use Authorizations and no Incident Reports associated with Building 4626.<sup>6</sup>
- Building 4626 was not used to store nuclear fuel or radioactive materials. A storage yard west of Building 4626 has been used to store barrels of activated sand from Building 4059 containing Eu and Co-60.<sup>3</sup>

### Radiological Surveys:

- A radiological survey of the storage yard west of Building 4626 was conducted because it had been used for storage of radioactive materials.<sup>4,3</sup>
  - Mean Gamma: 11.2  $\mu$ R/hr.
  - The accepted limit for the survey was 5  $\mu$ R/hr above background.
  - Survey results were below the acceptable limits.

### Status:

- Building 4626 is scheduled for demolition in 2003-2004.

## Group V

### References:

- 1- ERDA Document, LR-03026, Part 1, "Site Development Plan: 1977-1981," June 1975.
- 2- Review of Radiation Safety Records Management System, 2003.
- 3- ETEC Document, GEN-ZR-0010, "Radiological Survey of Buildings T019 and T013; and Area Northwest of T059, T019, T013 and T012; and a Storage Yard West of Buildings T626 and T038," 1988.
- 4- Rockwell Document, N001ER000017, "Nuclear Operations at Rockwell's Santa Susana Field Laboratory- A Factual Perspective," September 6, 1991.
- 5- Historical Site Photographs from Boeing Database.
- 6- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

## Site Summary – 4056 Landfill

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### Site Identification:

4056 Landfill

### Operational Use/History:

- The 4056 Landfill was constructed prior to 1962 to serve as a landfill for construction and excavation materials from Building 4056; however, Building 4056 was never constructed.<sup>1,2</sup>
- Soil that was removed from the proposed site of Building 4056 was placed in the 4056 Landfill.<sup>3</sup>
- The 4056 Landfill was later used as a disposal area for non-radiological facilities.<sup>3</sup>

### Site Description:

- The 4056 Landfill is a 160,000-square-foot fenced area directly north of Building 4100.<sup>2</sup>

### Relevant Site Information:

- There are no Use Authorizations and no Incident Reports associated with the 4056 Landfill.<sup>4</sup>

### Radiological Surveys:

- In 1988, Rockwell International conducted a survey of the 4056 Landfill.<sup>5</sup>
  - Mean ambient gamma: 14.9  $\mu$ R/hr.
  - Background: 14 – 16.2  $\mu$ R/hr.
  - Acceptable limit: 5  $\mu$ R/hr above background.
  - Survey results were below the acceptable limits.
- During the 1996 Area IV Radiological Characterization Survey, soil samples were taken at two different locations in the vicinity of Building 4056. None of the measurements were distinguishable from background and all the measurements were below the acceptable concentration levels established by Boeing and presented in document N001SRR140131.<sup>6</sup>
- In conjunction with the Resource Conservation and Recovery Act (RCRA) investigation of Landfill 4056 in 2003, a Global Positioning System (GPS) radiation scanning cart was used to map radiation levels at the site. No elevated radiation was observed. Soil samples were taken in several areas with the highest radiation levels. Only naturally occurring radioisotopes were detected. During the subsequent RCRA trenching, all excavated debris was monitored with radiation instruments and wipe tests. No contamination was detected.<sup>7</sup>

## Group V

### Status:

- Landfill 4056 is no longer in use.<sup>3</sup>

### References:

- 1- Personnel Interview, Bob Bass, September 19, 2003.
- 2- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 3- Personnel Interview, Phil Rutherford, January 8, 2004.
- 4- Review of Radiation Safety Records Management System, 2003.
- 5- ETEC Document, GEN-ZR-0011, "Radiological Survey of the T56 Landfill; Area from 23<sup>rd</sup> Street to Building T100; And Area Across From Building T011," August 26, 1988.
- 6- Rocketdyne Report, A4CM-ZR-0011, "Area IV Radiological Characterization Survey Final Report," August 15, 1996.
- 7- Personnel Interview, Phil Rutherford, October 4, 2004.

## Group W

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Group W Map

Building 4015

*Includes Building 4707, Substation*

Building 4373

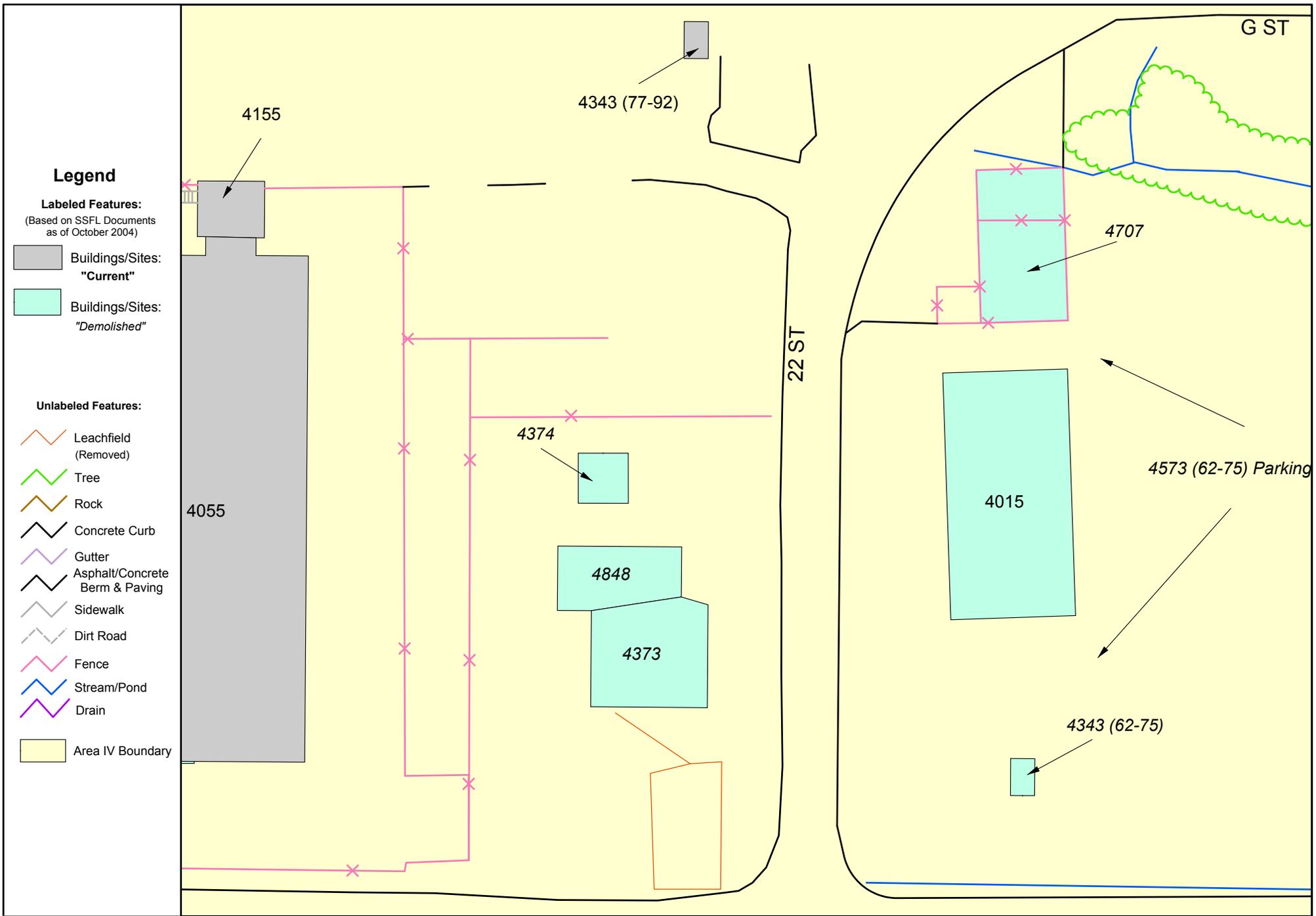
*Includes Site 4848, Pad at Building 4373*

Building 4374

Site 4573

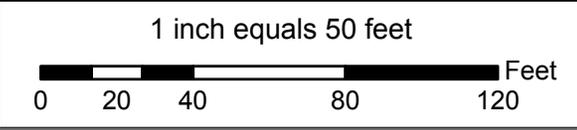
*Includes Building 4343, Time Clock*

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DRAWN BY: **Sapere** CONSULTING INC

DATE: May 2005



Site Summary Group W  
AREA IV  
Santa Susana Field Laboratory, CA

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## Site Summary – Building 4015

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### Site Identification:

Building 4015  
Construction Staging Storage  
Includes Building 4707, Substation

### Operational Use/History:

- Constructed in 1974.
- Building 4015, which was constructed in the same place as Parking Lot 4573, was used to store construction materials.
- Building 4015 was demolished in 2004.

### Site Description:

- Building 4015 is a warehouse with 13-foot ceilings, a steel frame, and sheet metal siding and roof. It is located east of Building 4373.<sup>1</sup>
- Serviced by Substation 4707, which was demolished in August 2003.<sup>2</sup>

### Relevant Site Information:

- There are no Use Authorizations and no Incident Reports associated with Building 4015.<sup>3</sup>

### Radiological Surveys:

- Radiological surveys specific to Building 4015 have not been conducted.

### Status:

- Building 4015 was demolished in 2004.

### References:

- 1- DOE Document, N-083E-A02-DV001, Rev. A, "Site Development and Facility Utilization Planning: FY 1984-FY 1989," April 1984.
- 2- Personnel Interview, Dan Trippeda, September 12, 2003.
- 3- Review of Radiation Safety Records Management System, 2003.
- 4- Historical Site Photographs from Boeing Database.
- 5- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

Photograph – Building 4015



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## Site Summary – Building 4373

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### Site Identification:

Building 4373

Systems for Nuclear Auxiliary Power (SNAP) Critical Facility

Includes Site 4848, Pad at Building 4373

### Operational Use/History:

- Constructed in 1956.<sup>1</sup>
- Building 4373 was designed as a solid propellant mixing and casting facility; however, there is no evidence that it was ever used for this purpose.<sup>1</sup>
- Ownership transferred from Rocketdyne to Atomics International Division in 1957.<sup>1</sup>
- One test cell was modified for critical assembly research supporting the SNAP program by adding two feet of additional concrete shielding to two walls and installing a high-efficiency particulate air (HEPA) filter bank.<sup>1</sup>
- In 1962 the SNAP critical tests concluded, and the facility was modified again to include a NaK test loop to support the SNAP Experimental Reactor. The other test loop programs carried out here were RuK test loops, boiling mercury test loops and boiling potassium loops.<sup>1</sup>
- The facility has since been used intermittently for storage of non-radiological materials.<sup>1</sup>
- Demolished in 1999.

### Site Description:

- Building 4373 contained five test bays (three concrete and two steel framed) enclosing 3,030 square feet. The concrete test bays had 12-inch thick walls and the two steel-framed bays have transite, plywood and sheet metal siding and roofing.<sup>1</sup> The building was initially connected to a leach field system until it was closed and abandoned once the site-wide sewage treatment system was installed and operational in the early 1960s.<sup>2</sup>
- Serviced by 4848, Pad at Building 4373.

### Relevant Site Information:

- Most nuclear or radioactive materials handled at Building 4373 were fully encapsulated. Only fissile material and activation foils produced low levels of radioactivity.<sup>1</sup>
- One incident was reported that may have resulted in a release to the environment:

## Group W

- On August 22, 1995, a Health Physicist (HP) found three radioactive pre-filters in the ventilation system on the roof of Building 4373. These were thought to have been in continuous use from 1957 to 1962 when airborne Cs-137 levels were elevated due to weapons testing. The filters were removed and the ventilation system was surveyed and released (A0664).

### Radiological Surveys:

- Rocketdyne performed a radiological survey in 1988 to determine if any radiological materials had been left behind to such an extent that decontamination or further survey was required. The survey covered Buildings 4373, 4374 and 4375, and included ambient gamma exposure rate measurements, surface smears and soil samples.<sup>1</sup>
  - Average ambient gamma exposure rates (not adjusted for background): 10.3  $\mu\text{R/hr}$  for the Building 4373 interior, 9.3  $\mu\text{R/hr}$  for the Building 4374 interior, and 12.6  $\mu\text{R/hr}$  for the surrounding area compared to background measurements between 14.0 and 16.2  $\mu\text{R/hr}$  (Nuclear Regulatory Commission (NRC) limit is 5.0  $\mu\text{R/hr}$  above background).
  - Removable alpha measurements: -0.063 dpm/100cm<sup>2</sup> average and 2.8 dpm/100cm<sup>2</sup> maximum (limit is 1000 dpm/100cm<sup>2</sup>).
  - The removable beta measurements were: -0.47 dpm/100cm<sup>2</sup> average and 10.1 dpm/100cm<sup>2</sup> maximum (limit is 1000 dpm/100cm<sup>2</sup>).
  - The total beta activity measurements found no detectable activity.
  - Survey results found that the areas were acceptably clean by the Department of Energy (DOE) and NRC guidelines and that no further inspection was required.
- During the 1996 Area IV Radiological Characterization Survey, soil samples were taken at three different locations in the vicinity of Building 4373. None of the measurements were distinguishable from background and all the measurements were below the acceptable concentration levels established by Boeing and presented in document N001SRR140131.<sup>3</sup>
- Boeing performed a radiological survey of the soil surrounding the septic system in 2000.<sup>3</sup> All removable and total contamination measurements of the septic tank were non-detect. All soil sampled showed no contamination levels above background. All measurements met limits for unrestricted use.<sup>4</sup>
  - Removable alpha: <20 dpm/100 cm<sup>2</sup>.
  - Removable beta: <100 dpm/100 cm<sup>2</sup>.
  - Total alpha: no detectable activity.
  - Total beta: no detectable activity.
  - Ambient gamma: 8 – 10  $\mu\text{R/hr}$ .

### Status:

- The California Department of Health Services (DHS) released Building 4373 for unrestricted use in May 1995.<sup>4</sup>

- The facility was demolished in 1999. The septic tank was removed in 2000.

**References:**

- 1- ETEC Document, GEN-ZR-0012, "Radiological Survey of Buildings T373 and T375," August 8, 1988.
- 2- Boeing Internal Document, no document number, "Radiation Survey Report, Building B373-Septic Tank," December 7, 2000.
- 3- Rocketdyne Report, A4CM-ZR-0011, "Area IV Radiological Characterization Survey Final Report," August 15, 1996.
- 4- DHS/RHB, Letter, "Untitled" from G. Wong (DHS/RHB) to P. Rutherford, May 9, 1995.
- 5- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 6- Review of Radiation Safety Records Management System, 2003.

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## Site Summary – Building 4374

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### Site Identification:

Building 4374  
Test Loop Enclosure

### Operational Use/History:

- Constructed in 1956.
- Building 4374 was built to test non-nuclear liquid metal heat transfer loops and was used as a support facility for Building 4373. It was located within the Building 4373 boundary fence line.<sup>1</sup>
- Building 4374 was abandoned with an old mercury test loop in place.
- Demolished in 1996.

### Site Description:

- Building 4374 is a steel frame and sheet metal covered Butler-type building measuring 600 square feet located north of Building 4373.<sup>1</sup>

### Relevant Site Information:

- Building 4374 was designated as non-nuclear.<sup>1</sup>
- There are no Use Authorizations and no Incident Reports associated with Building 4374.<sup>2</sup>

### Radiological Surveys:

- Rocketdyne performed a radiological survey in 1988 to determine if any radiological materials had been left behind to such an extent that decontamination or further survey was required. The survey covered Buildings 4373, 4374 and 4375 and included ambient gamma exposure rate measurements, surface smears and soil samples.<sup>1</sup>
  - Average ambient gamma exposure rates (not adjusted for background): 10.3  $\mu\text{R/hr}$  for the Building 4373 interior, 9.3  $\mu\text{R/hr}$  for the Building 4374 interior, and 12.6  $\mu\text{R/hr}$  for the surrounding area compared to background measurements between 14.0 and 16.2  $\mu\text{R/hr}$  (NRC limit is 5.0  $\mu\text{R/hr}$  above background).
  - Removable alpha: -0.063 dpm/100cm<sup>2</sup> average and 2.8 dpm/100cm<sup>2</sup> maximum (limit is 1000 dpm/100cm<sup>2</sup>).
  - Removable beta measurements: -0.47 dpm/100cm<sup>2</sup> average and 10.1 dpm/100cm<sup>2</sup> maximum (limit is 1000 dpm/100cm<sup>2</sup>).
  - Detectable beta: no detectable activity.

## Group W

- The survey concluded that the areas were acceptably clean by DOE and NRC guidelines and that no further inspection was required.

### Status:

- The building was abandoned and housed a mercury test loop prior to demolition.<sup>1</sup>
- Demolished in 1996.

### References:

- 1- ETEC Document, GEN-ZR-0012, "Radiological Survey of Buildings T373 and T375," August 8, 1988.
- 2- Review of Radiation Safety Records Management System, 2003.
- 3- Historical Site Photographs from Boeing Database.
- 4- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

Photograph – Building 4374



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## Site Summary – Site 4573

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**Site Identification:**

Site 4573  
Parking Lot  
Includes Building 4343, Time Clock

**Operational Use/History:**

- Constructed in 1956.
- Site 4573 served as a parking lot for personnel working in Buildings 4373 and 4055.
- Removed in 1974. Building 4015 was constructed on the former location of Site 4573.

**Site Description:**

- Site 4573 was located at the corner of J and G Streets.<sup>1</sup>
- Serviced by Time Clock 4343.

**Relevant Site Information:**

- There are no Use Authorizations and no Incident Reports associated with Site 4573.<sup>2</sup>

**Radiological Surveys:**

- Radiological surveys specific to Site 4573 have not been conducted.

**Status:**

- The parking lot was removed in 1974 and Building 4015 was constructed on the former location of Site 4573.

**References:**

- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Review of Radiation Safety Records Management System, 2003.
- 3- Historical Site Photographs from Boeing Database.

Photograph – Site 4573



## Group X

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Group X Map

Building 4055

*Includes Building 4755, Substation*

*Includes Building 4155, Control Center, Guard Shack*

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4343 (77-92)

4155

24 ST

4055

4374

4848

4373

4468

4478 (67,82 & 83)

4755

4323

**Legend**

**Labeled Features:**  
(Based on SSFL Documents  
as of October 2004)

-  Buildings/Sites:  
"Current"
-  Buildings/Sites:  
"Demolished"

**Unlabeled Features:**

-  Leachfield  
(Removed)
-  Tree
-  Rock
-  Concrete Curb
-  Gutter
-  Asphalt/Concrete  
Berm & Paving
-  Sidewalk
-  Dirt Road
-  Fence
-  Stream/Pond
-  Drain
-  Area IV Boundary

DRAWN BY: 

DATE: May 2005

1 inch equals 50 feet




Site Summary Group X  
AREA IV  
Santa Susana Field Laboratory, CA

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## Site Summary – Building 4055

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### Site Identification:

Building 4055  
Nuclear Materials Development Facility (NMDF)  
Includes Building 4755, Substation  
Includes Building 4155, Control Center, Guard Shack

### Operational Use/History:

- Constructed in 1967.<sup>1</sup>
- From 1968-69, NMDF was used to support the Fast Flux Test Facility through analytical chemistry and research for uranium-plutonium scrap pellet recycling programs. Fission research on microscopic dispersion of tungsten in uranium plutonium fuel was also conducted at that time.<sup>1</sup>
- For seven months in 1970, the NMDF fabricated mixed uranium-plutonium oxide pellets for irradiation tests.
- The NMDF was in standby from September 1970 until March 1974. NMDF was activated to participate in the Advanced Fuel Systems Program for liquid metal fast breeder reactors and to demonstrate reduced transuranic (TRU) solid waste with the use of a molten salt combustor.<sup>1</sup>
- In 1975, the facility was upgraded to address new environmental, safeguard, licensing and radioactive materials facility operating standards.<sup>1</sup>
- D&D efforts began in late 1979 beginning with the decontamination of equipment and treatment of the remaining uranium carbide on site.<sup>1</sup>
- The entire building was stripped to the walls and decontaminated, equipment was disposed of as low-level waste, and the liquid waste and exhaust systems were removed.<sup>1</sup>
- Currently used for non-radiological research.

### Site Description:

- Building 4055 is a tilt up concrete structure 200 feet long (north to south), 60 feet wide and 16 feet high. The walls are 6-inch thick concrete and the ceiling is thin concrete covered with tarred felt and gravel, supported on steel deck panels and girders. The building is divided into an administrative area, change rooms, chemistry and other service laboratories, a glove box room, a vault and facility equipment rooms.<sup>2</sup>
- Building 4055 was equipped with high-efficiency filters located in the radioactive exhaust filter room. Air was also discharged through a stack. All floor drains, service sinks and lab sinks that were capable of handling radioactive materials were connected to the radioactive liquid waste system by underground piping to two 1000-gallon holdup tanks.<sup>1</sup>

## Group X

- Serviced by Substation 4755, which is housed internally in the Southwest corner of Building 4055.<sup>3</sup>
- Serviced by Guard Shack 4155.

### Relevant Site Information:

- The primary special nuclear materials handled in the NMDF were plutonium and uranium. Accordingly the contaminants of concern are U, Pu, and their decay and daughter products, primarily Am-241.<sup>1</sup>
- A number of incidents may have resulted in releases to the environment:
  - On June 26, 1973, there was a glove box controller failure of the pressurized box, releasing contamination to the area (A0222).
  - On December 21, 1977, a contaminated roll of green tape was discovered in the glove box room. A low level of alpha activity was discovered on the bench underneath the tape and was contained. No other contamination was found (A0224).
  - On May 10, 1978, a lost seal during the replacement of a rubber glove with a plastic bag caused loss of vacuum in a glove box. Contamination was subsequently discovered on the outside window area (A0335).
  - On June 15, 1978, an employee compacted radioactive waste in a compactor reserved for non-radioactive “suspect” waste. Although compacting radioactive waste may have generated high airborne activity, the compactor had a filter that minimized the release of such contamination to the building (A0071).
  - On June 30, 1978, it was discovered that a stack monitor vacuum line had not been monitored for 23 days. Air samples indicated that activity levels were twice the normal level (A0225).
  - On July 21, 1978, it was discovered that a stack monitor in the plutonium facility was out of service for 84 hours due to an electrical failure. Airflow through a filter was maintained and no uncontrolled release of material occurred (A0226).
  - On July 24, 1978, floor contamination was found in the waste handling area. This contamination was assumed to have been caused by leakage from a stored waste container although none of the containers had external contamination (A0073).
  - On June 26, 1979, airborne activity was released during maintenance of glove box. After decontamination, no detectable contamination remained (A0582).
  - On May 10, 1980, the air sample vacuum pump stopped working. There was no indication of a release of contaminants (A0081).
  - May 31, 1981, the air sample vacuum pump failed, resulting in the failure of the facility air monitoring system. Samples indicated no release of contamination (A0085).
- Removed from the Nuclear Regulatory Commission (NRC) Special Nuclear Material (SNM) 21 License and released for unrestricted use October 1987.<sup>4</sup>

**Radiological Surveys:**

- Rockwell International performed a survey of the NMDF drain lines to determine if any plutonium was left in the soil after removal.<sup>5</sup>
  - The survey concluded that soil from the drain line excavation was below the acceptable levels.
  - Some soil samples showed detectable contamination, maximum measurements were: 0.613 pCi/g of Pu-239 and Pu-240 and 0.0421 pCi/g of Pu-238 (acceptance limit is 25 pCi/g).
  - NRC took confirmatory soil samples supporting the Rockwell samples.
- Rockwell International performed a final radiation survey to determine the effectiveness of the decontamination effort and to demonstrate that the facility met release criteria for unrestricted use. The survey covered Building 4055 and the surrounding area through surface samples.<sup>2</sup>
  - The survey concluded that no residual contamination remains and that the facility meets the release criteria for unrestricted use.
- Oak Ridge Associated Universities (ORAU) performed a radiological survey in 1987 to confirm the Rocketdyne final radiological survey. The survey covered Building 4055 and the surrounding area through a document review and measurements of direct radiation levels, contamination levels and soil contamination.<sup>6</sup>
  - The survey concluded that the facility satisfies the NRC requirements for release for unrestricted use.
  - The document review found that the final survey was consistent with industry-accepted practices and that the data supported the conclusions.
  - Surface scans revealed no areas of elevated beta-gamma or gamma contamination and one small area of elevated alpha contamination inside the building.
  - Surface contamination measurements for alpha contamination were between the minimum detectable activity (3 dpm/100cm<sup>2</sup>) and 120 dpm/100cm<sup>2</sup> (NRC limit is 300 dpm/100cm<sup>2</sup>). All smears for removable alpha contamination taken after cleanup were below the limit for unrestricted use (NRC limit is 20 dpm/100cm<sup>2</sup>). Beta contamination measurements were between the MDA (480 dpm/100cm<sup>2</sup>) and 3,900 dpm/100cm<sup>2</sup> (NRC limit is 5,000 dpm/100cm<sup>2</sup>). Removable beta contamination smears taken after cleanup was between the MDA (6 dpm/100cm<sup>2</sup>) and 23 dpm/100cm<sup>2</sup> (NRC limit is 1,000 dpm/100cm<sup>2</sup>).
  - Exposure rates ranged from 12 to 14 μR/hr compared to background levels of 10 to 13 μR/hr (Site criteria is 10 μR/hr above background).
  - Soil samples showed contaminant concentrations of: U-235, <0.36 to <0.41 pCi/g (limit is 35 pCi/g); U-238, 1.7 to 5.1 pCi/g (limit is 35 pCi/g); Am-241, <0.11 to <0.13 pCi/g; Pu-238, <0.01 to 0.01 pCi/g (limit is 25pCi/g); Pu-239/240, <0.01 to 0.06 pCi/g (limit is 25 pCi/g).

## Group X

- EPA conducted an oversight verification survey in 2001 for alpha, beta, beta-gamma radiation (total and removable) and gamma radiation.<sup>7</sup> Surveys were performed to a quality level equal to a final status survey as defined by the Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM). The contaminants of concern (COCs) for 4055 were transuranic compounds on the floors, walls, and ceilings. EPA also collected concrete core samples, which were analyzed for photon-emitting isotopes.
  - Acceptable limits for the survey were consistent with NRC Regulatory Guide 1.86 and the proposed site-wide release criteria in the 1996 Area IV survey.<sup>8</sup>
  - None of the field measurements indicated the presence of radionuclides above acceptable limits.
  - EPA field measurements confirmed the conclusions reached by both Rocketdyne and ORAU.

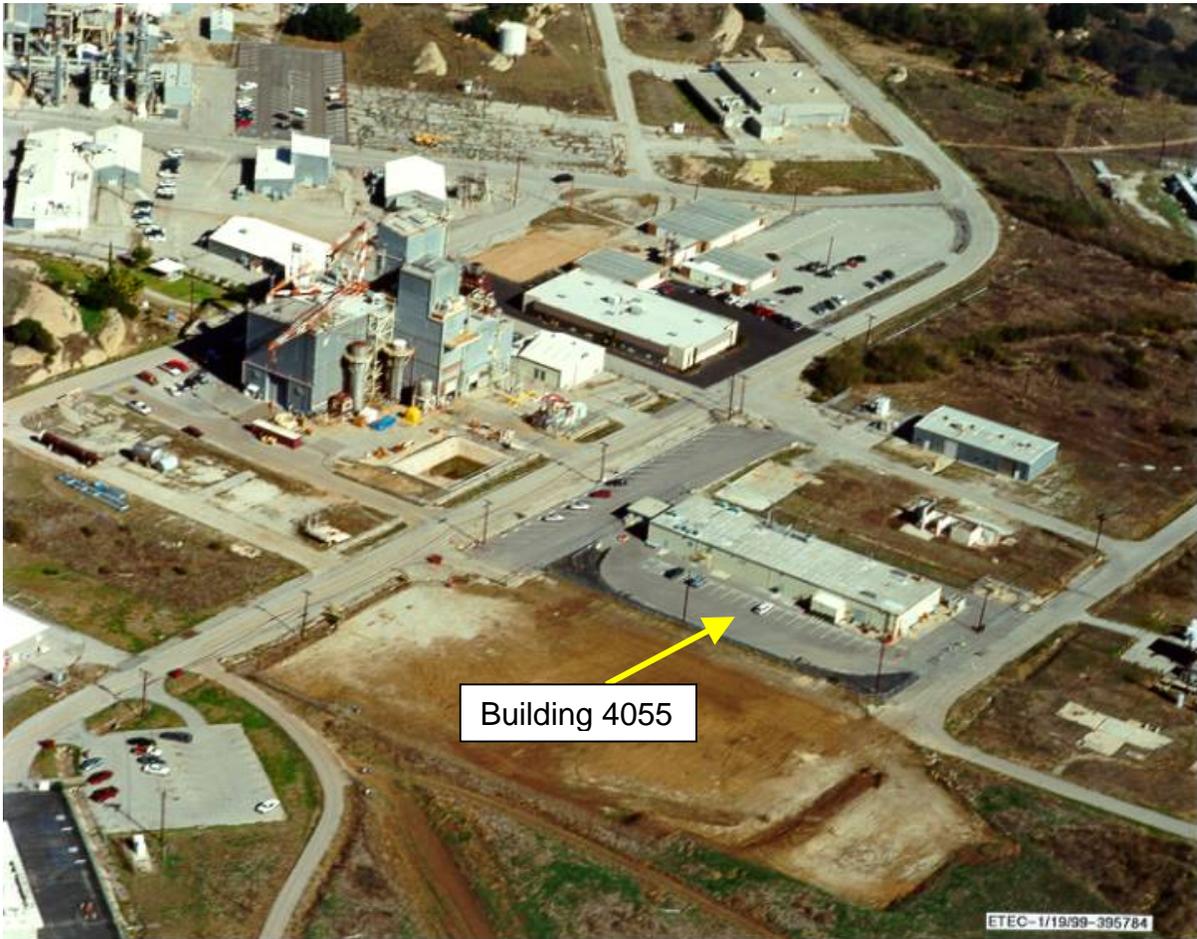
### Status:

- NRC released Building 4055 for unrestricted use in March 1987.<sup>4</sup>
- Building 4055 is now used for non-radiological research.

### References:

- 1- Rockwell International Report, AI-DOE-13559, "Nuclear Materials Development Facility Decommissioning Final Report," March 31, 1987.
- 2- Rockwell International Report, N704SRR990027, "Final Radiation Survey of the NMDF," December 19, 1986.
- 3- Personnel Interview, Dan Trippeda, September 12, 2003.
- 4- NRC, Letter, "SNM-21, Amendment No. 1," from Leland Rouse (NRC) to M.E. Remley, October 76, 1987.
- 5- Rockwell International Report, N704SRR990024, "Plutonium Concentrations in Soil Around Drain Lines at NMDF," April 3, 1986.
- 6- Oak Ridge Associated Universities Report, no document number, "Confirmatory Radiological Survey Nuclear Materials Development Facility (Building T-055), Rockwell International, Santa Susana, California," July 1987.
- 7- U.S. EPA Report, no document number, "Final Oversight Verification and Confirmation Radiological Survey Report for Buildings T-011, T-019, T-055, and T-100," December 20, 2002.
- 8- Rocketdyne Document, A4CM-ZR-0011, Rev. A, "Area IV Radiological Characterization Survey," August 15, 1996.
- 9- Historical Site Photographs from Boeing Database.
- 10- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

Photograph – Building 4055



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## Group Y

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Group Y Map

Building 4173, formerly 4865

Building 4363

Building 4375

Building 4473

Site 4575

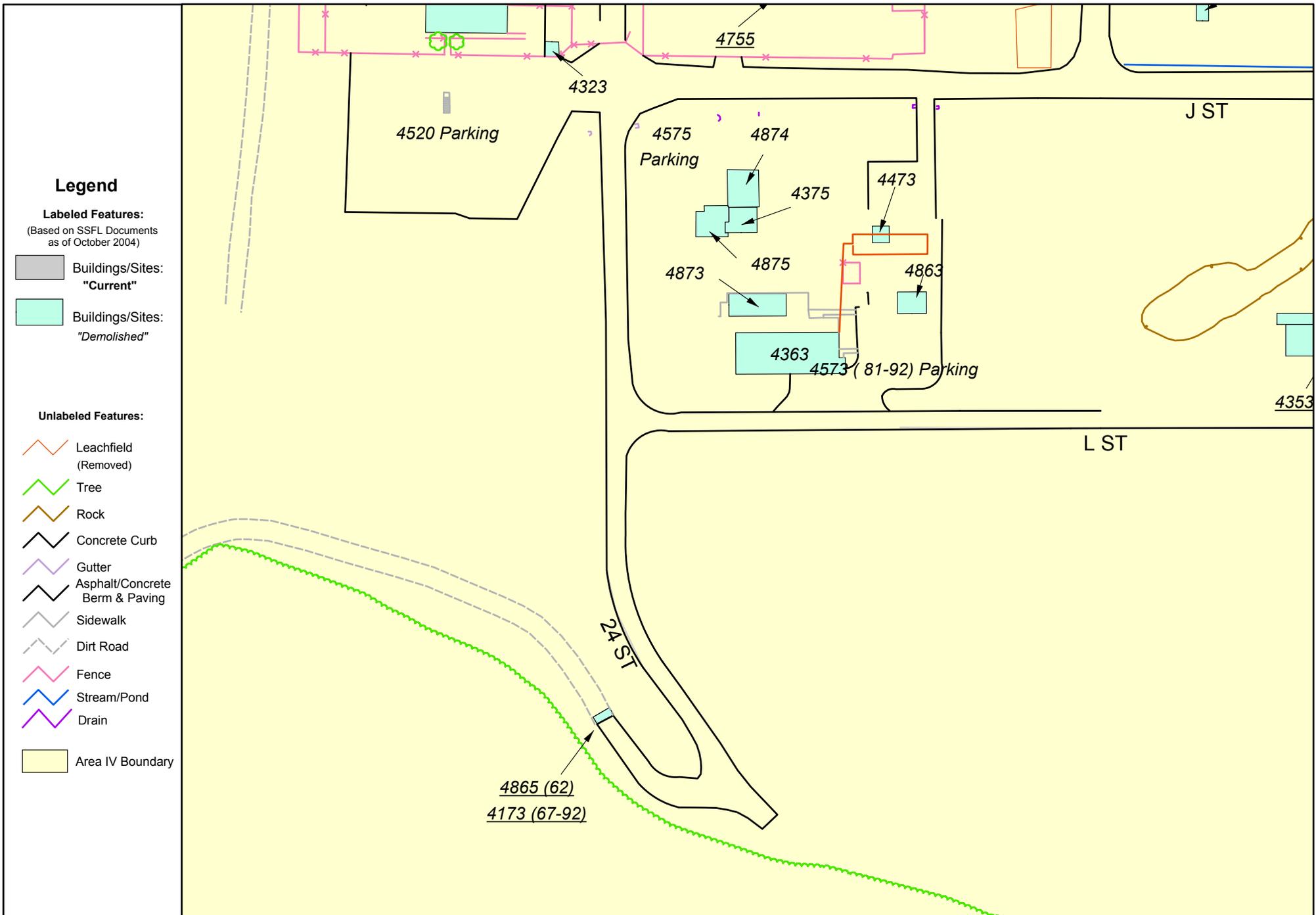
Building 4863

Building 4873

Site 4874

Site 4875

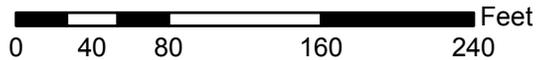
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1 inch equals 100 feet



DATE:

May 2005

Site Summary Group Y  
 AREA IV  
 Santa Susana Field Laboratory, CA

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## Site Summary – Building 4173, formerly 4865

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### Site Identification:

Building 4173  
Gammagraph Building, Formerly 4865 Sodium Storage Pad

### Operational Use/History:

- This area was a sodium storage pad in 1962. By 1967, it was being used as Gammagraph X-ray site.<sup>1</sup>
- This pad housed a sealed gamma-emitting source used for X-ray purposes.
- Building 4173 has been demolished.

### Site Description:

- The gamma-emitting source (which was checked annually to ensure no leakage occurred) was used and stored on a concrete pad.
- There is no evidence that a permanent building ever existed in this location.<sup>2</sup>

### Relevant Site Information:

- On April 25, 1978, the stand supporting the uranium collimator was accidentally pushed over on its side, causing damage to the source guide tube. The source guide tube was replaced and two employees received two mrem of exposure in the process (A0066).

### Radiological Surveys:

- Radiological surveys specific to Building 4173 have not been conducted.
- This area was covered as part of the 1994-1995 Area IV Radiological Characterization Survey.<sup>1</sup>
  - Background: 15.6  $\mu$ R/hr.
  - Acceptable Limit: Less than 5  $\mu$ R/hr above background.
  - Survey results were below the acceptable limits.

### Status:

- The sodium pad is empty, and the Gammagraph is no longer used.

### References:

- 1- Rocketdyne Document A4CM-ZR-0011, Rev. A, Area IV Radiological Characterization Survey, August 15, 1996.
- 2- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

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## Site Summary – Building 4363

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### Site Identification:

Building 4363

Mechanical Component Development and Counting Building

Research and Development Laboratory Building

### Operational Use/History:

- Transferred from the Rocketdyne Division to the Atomics International (AI) Division in 1956-1957 to support expansion of the AI activities at Santa Susana Field Laboratory (SSFL).<sup>1</sup>
- The Mechanical Component Development and Counting Building and was used for sodium systems in support of the Sodium Reactor Experiment (SRE) from before 1959 until 1963.<sup>1</sup>
- Building 4363 likely had a radioactivity counting room which may have been moved from the Engineering Test Building Annex in 1957.<sup>1</sup>
- Building 4363 has been used primarily for storage since 1963.<sup>1</sup>
- A decontamination effort was conducted in 1995.<sup>2</sup>
- Building 4363 was demolished in 2001; the sanitary leachfield system was removed in 2002.

### Site Description:

- Building 4363 was a 1,400-square-foot structure with four work bays (240 square feet each) placed side by side, a rest room and several small utility rooms. Concrete walls separated the bays. The north and south walls were sheet metal with partial wall panels on the inside wall surfaces. The roof was constructed from composition panels with asphalt base topping. The building sits on a concrete foundation, which extends around the building to form a perimeter walkway and loading dock.
- Building 4363 had an associated leachfield measuring 100 x 4 x 3 feet with a septic tank capacity of 1,500 gallons.<sup>2</sup>

### Relevant Site Information:

- Building 4363 was used to support the SRE. Contamination of Building 4363 resulted from work on a component containing contaminated sodium from the SRE Core I accident, which occurred in Building 4143 in 1959. The SRE accident dispersed low enriched uranium and mixed fission products in the sodium, which was the same type of contamination found at 4363.<sup>1</sup>
- Records indicate that in 1962 work was done on a valve or pump that contained a small amount of the directly contaminated sodium coolant. Dosimetry readings of two people assigned to the building support this assertion.<sup>1</sup>

## Group Y

- The primary contaminants of concern for this site are uranium, mixed fission and activation products.<sup>3</sup>

### Radiological Surveys:

- In 1992, stored equipment was removed from Bay 4 and fixed beta contamination was detected on the floor. A more comprehensive survey conducted in 1993 detected additional radioactive contamination on the west wall and overhead horizontal surfaces in Bay 4 (i.e., ducting, piping and light fixtures).<sup>4</sup>
  - Gamma spectrometry results of wall scraping indicated the presence of Cs-137 and low enrichment uranium (2.75%), and presumed Sr-90 activity. These results indicated that the activity resulted from work being performed on components containing contaminated sodium from SRE.
  - Detectable activity on the floor area ranged from 25,000 to 142,000 dpm/100 cm<sup>2</sup> beta and hot spots on the west wall ranged from 25,000 to 730,000 dpm/100 cm<sup>2</sup> beta.
  - Contamination on overhead horizontal surfaces (i.e., piping, ducts light fixtures etc.) ranged from 7,300 to 33,000 dpm/100 cm<sup>2</sup> beta.
  - The remaining part of the building was not surveyed.
- Following a decontamination effort, Rocketdyne performed a final status survey for all of Building 4363 and the surrounding area in 1995.<sup>4</sup>
  - The entire area was surveyed for total and removable alpha and beta contamination, and ambient gamma.
    - Total and removable alpha and beta limit: 5,000 and 1,000 dpm/100 cm<sup>2</sup>, respectively.
    - Ambient gamma limit: < 5 µR/hr (background was 13.1).
    - Maximum total alpha: 23.9 dpm/100 cm<sup>2</sup>.
    - Maximum removable alpha: 6.88 dpm/100 cm<sup>2</sup>.
    - Maximum total beta: 805 dpm/100 cm<sup>2</sup>.
    - Maximum removable beta: 29.9 dpm/100 cm<sup>2</sup>.
    - Maximum ambient gamma: 1.31 µR/hr above background.
- During the 1996 Area IV Radiological Characterization Survey, soil samples were taken at one location in the vicinity of Building 4363.<sup>5</sup> None of the measurements were distinguishable from background and all the measurements were below the acceptable concentration levels established by Boeing and presented in document N001SRR140131.<sup>5</sup>
- ORISE performed an independent verification survey in October 1996.<sup>3</sup>
  - Surface scans for alpha, beta and gamma activity and direct measurements for total alpha and total beta activity were performed on floors, walls, loading dock and concrete slab surrounding the building. These levels were compared to the guidelines specified in DOE 5400.1:
    - Surface scans identified one area of total maximum direct beta radiation on the north door of Bay 4, but all other areas were within the range of ambient site background.

- Total 1 m<sup>2</sup> average alpha: 79 dpm/100 cm<sup>2</sup>.
- Total 1 m<sup>2</sup> average beta: 1300 dpm/100 cm<sup>2</sup>.

Total maximum surface activity levels ranged from less than 34 to 110 dpm/100 cm<sup>2</sup> and less than 230 to 6,200 dpm/100 cm<sup>2</sup> for alpha and beta respectively. This was below the allowable maximum limits of 3,000 and 15,000 dpm/100 cm<sup>2</sup> respectively.

Removable gross alpha: < 9 dpm/100 cm<sup>2</sup>.

Removable gross beta: < 15 dpm/100 cm<sup>2</sup>.

- Exposure rate measurements ranged from 10 to 13 μR/hr.  
Average background: 13 μR/hr.
- DHS also performed a verification survey in 1996.
- EPA conducted an oversight verification survey in 2001 for alpha and beta.<sup>6</sup> The surveys included scans and fixed point measurements for alpha and beta. In addition, the survey included swipe samples for removable contamination and concrete samples for isotopic analysis. The COCs for 4363 were mixed fission products and uranium on the floors and walls.<sup>7</sup>
  - Acceptable limits for the survey were consistent with NRC regulatory guide 1.86 and the proposed site-wide release criteria.<sup>4</sup>
  - Fixed point measurements of the building identified one point of elevated alpha and beta-gamma readings (alpha was 49.8 +/- 38 dpm/100 cm<sup>2</sup> and beta gamma was 4753 +/- 565).
  - All other results were below the acceptable limits.
  - EPA field measurements confirmed the conclusions reached by both Rocketdyne and ORISE.

#### Status:

- The California Department of Health Service (DHS) released the facility for unrestricted use July 9, 1998.<sup>6</sup>
- The building was demolished in 2001 and the sanitary leach field was removed in 2002.<sup>8</sup>

#### References:

- 1- Rockwell International, Internal Letter, "Study of Possible Source of Radioactive Contamination in T363," from R. J. Tuttle to P. D. Rutherford, September 9, 1994.
- 2- Rocketdyne Report, 363-AR-0001, "Decontamination and Decommissioning of Building T363," September 25, 1997.
- 3- ORISE Document, no document number, "Verification Survey of Building T363, SSFL, Rockwell International, Ventura County, California," Vitkus, T. J., and J. R. Morton, October 1996.
- 4- Rocketdyne Report, SSWA-ZR-0002, "Final Radiological Survey Report for Building T363," June 21, 1996.

## Group Y

- 5- Rocketdyne Report, A4CM-ZR-0011, "Area IV Radiological Characterization Survey Final Report," August 15, 1996.
- 6- DHS/RHB, Untitled Letter, from David Wesley (DHS/RHB) to James Barnes. July 9, 1998.
- 7- U.S. EPA Report, no document number, "Final Oversight Verification and Confirmation Radiological Survey Report for Buildings T-012, T-029, and T-363," December 20, 2002.
- 8- Personnel Interview, Dan Trippeda, August 12, 2003.
- 9- Historical Site Photographs from Boeing Database.
- 10- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

Photograph – Building 4363

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## Site Summary – Building 4375

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### Site Identification:

Building 4375  
Control Shelter Building

### Operational Use/History:

- Constructed in 1959.
- The building was constructed as a test shelter for outside control-rod test towers (Sites 4874 and 4875).
- Building 4375 was used as a non-nuclear control center for testing Systems for Nuclear Auxiliary Power (SNAP) control rod assemblies.<sup>1</sup>
- After the building was abandoned, barrels were stored in the surrounding areas.<sup>1</sup>
- Demolished in 1999.

### Site Description:

- Building 4375 was a 400-square-foot steel-framed building with a steel roof and siding.

### Relevant Site Information:

- This building was used to support the SNAP program, but was not involved in nuclear work.
- After the building was abandoned, barrels that may have contained radioactive material were stored in the surrounding area.<sup>1</sup>
- There are no Incident Reports associated with Building 4375.<sup>2</sup>

### Radiological Surveys:

- In 1988, Rocketdyne performed a radiological survey in nuclear-related support facilities to determine if radioactive material was unintentionally left behind. The interior and area surrounding Building 4375 was surveyed for mixed fission products by measuring ambient gamma exposure rates.<sup>1</sup>
  - Ambient gamma limit: < 5  $\mu$ R/hr above background (background was 12-16  $\mu$ R/hr).
  - Maximum ambient gamma: 9.3  $\mu$ R/hr in the interior of the building and 13.7  $\mu$ R/hr for the surrounding area.
  - Survey results were below the acceptable limits.

### Status:

- DHS released the facility for unrestricted use May 9, 1995.<sup>3</sup>

## Group Y

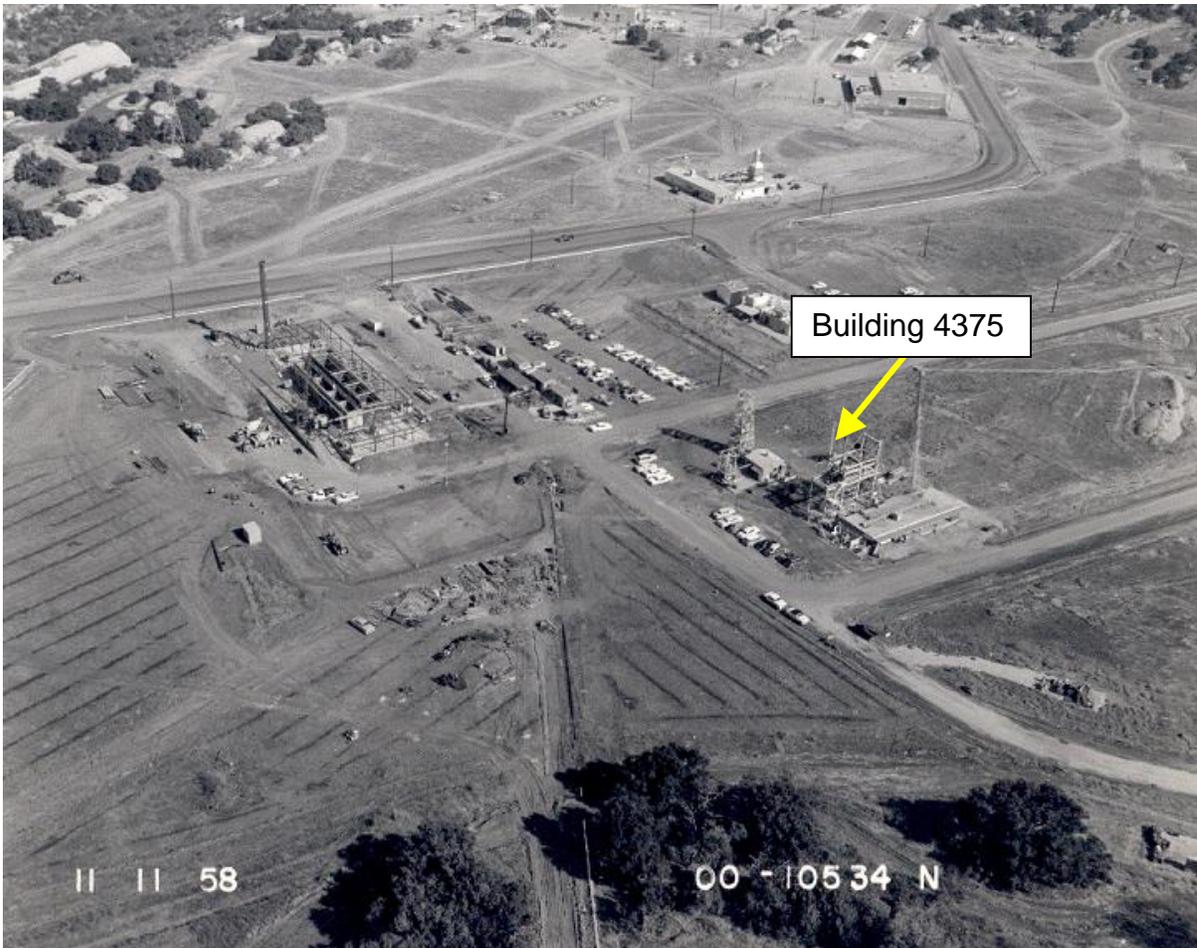
- Building 4375 was demolished in 1999.

### References:

- 1- ETEC Document, GEN-ZR-0012, "Radiological Survey of Buildings T373 and T375," August 26, 1988.
- 2- Review of Radiation Safety Records Management System, 2003.
- 3- DHS/RHB, Untitled Letter, from G. Wong (DHS/RHB) to P. Rutherford. May 9, 1995.
- 4- Historical Site Photographs from Boeing Database.

Photograph – Building 4375

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## Site Summary – Building 4473

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### Site Identification:

Building 4473  
Hydraulic Test Instrumentation Building  
Part of Hydraulic Test Facility

### Operational Use/History:

- The Hydraulic Test Facility was used to conduct preliminary tests on piping, pumps and other loop components. Water was used, because it has a similar flow rate to liquid sodium. The tests were designed so the researchers could examine descriptors such as fatigue rates and results such as fracturing of components.<sup>1</sup>
- The Hydraulic Test Instrumentation Building was the control center for the Hydraulic Test Loop (Building 4863).
- The building was demolished in 2003.<sup>1</sup>

### Site Description:

- Building 4473 was a small structure located near the corner of K and L Streets, adjacent to Building 4863.<sup>2</sup>

### Relevant Site Information:

- There are no Use Authorizations and no Incident Reports associated with Building 4473.<sup>3</sup>

### Radiological Surveys:

- Radiological surveys specific to Building 4473 have not been conducted.

### Status:

- Building 4473 was demolished in 2003.<sup>1</sup>

### References:

- 1- Personnel Interview, Dan Trippeda, September 18, 2003.
- 2- Review of Radiation Safety Records Management System, 2003.
- 3- Historical Site Photographs from Boeing Database.
- 4- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

Photograph – Building 4473

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## Site Summary – Site 4575

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### Site Identification:

Site 4575  
Parking Lot Near Building 4375

### Operational Use/History:

- Site 4575 was a parking lot located west of Building 4375.<sup>1</sup> Building 4375 was used as a non-nuclear control center for testing SNAP control rod assemblies.<sup>2</sup>
- Site 4575 has been removed.

### Site Description:

- Site 4575 was a parking lot located west of Building 4375.

### Relevant Site Information:

- Building 4375 was used to support the SNAP program, but was not involved in nuclear work. After the building was abandoned, barrels that may have contained radioactive material were stored in the surrounding area, which may have included Parking Lot 4575.<sup>2</sup>
- There are no Use Authorizations and no Incident Reports associated with Site 4575.<sup>3</sup>

### Radiological Surveys:

- In 1988, Rocketdyne performed a radiological survey in nuclear-related support facilities to determine if radioactive material was unintentionally left behind. The area surrounding Building 4375, including the former location of Site 4575, was surveyed for mixed fission products by measuring ambient gamma exposure rates.<sup>2</sup>
  - Ambient gamma limit: < 5  $\mu\text{R/hr}$  above background (ambient background was 12-16  $\mu\text{R/hr}$ ).
  - Maximum ambient gamma exposure rate: 13.7  $\mu\text{R/hr}$  for the surrounding area.
  - Survey results were below the acceptable limits.

### Status:

- Site 4575 has been removed.

## Group Y

### References:

- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- ETEC Document, GEN-ZR-0012, "Radiological Survey of Buildings T373 and T375," August 26, 1988.
- 3- Review of Radiation Safety Records Management System, 2003.
- 4- Historical Site Photographs from Boeing Database.

Photograph – Site 4575



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## Site Summary – Building 4863

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### Site Identification:

Building 4863  
Hydraulic Test Loop  
Part of Hydraulic Test Facility

### Operational Use/History:

- Constructed in approximately 1961.
- The Hydraulic Test Facility was used as a preliminary test for piping, pumps and other loop components. This facility combined pressure, temperature and different water in its testing. Water was used because it has a similar flow rate to liquid sodium. The tests were designed such that the researchers could examine descriptors such as fatigue rates and results such as fracturing.<sup>1</sup>
- The Hydraulic Test Loop was the experimental loop portion of the facility.
- The building was demolished in 2003.<sup>1</sup>

### Site Description:

- Building 4863 was a 400-square-foot facility. The frame, siding and roof are all steel and anchored to a concrete pad.<sup>2</sup>

### Relevant Site Information:

- There are no Use Authorizations and no Incident Reports associated with Building 4863.<sup>3</sup>

### Radiological Surveys:

- Radiological surveys specific to Building 4863 have not been conducted.

### Status:

- Building 4863 was demolished in 2003.<sup>1</sup>

### References:

- 1- Personnel Interview, Dan Trippeda, September 18, 2003.
- 2- ERDA Document, LR-03026, Part 1, "Site Development Plan: 1977-1981," June 1975.
- 3- Review of Radiation Safety Records Management System, 2003.
- 4- Historical Site Photographs from Boeing Database.

Photograph – Building 4863

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## Site Summary – Building 4873

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### Site Identification:

Building 4873  
Hydraulic Test Laboratory  
Fuel Rod Test Tower and Pad  
Part of Hydraulic Test Facility

### Operational Use/History:

- Building 4873 first appears and is labeled the Fuel Rod Test Tower and Pad on the 1967 map.<sup>1</sup> There is no record of any activity with fuel rods at this location. Building 4873 is most likely a pad located directly north of Building 4363 and is addressed in that building remediation and release.<sup>2</sup>
- The Hydraulic Test Facility was used as a preliminary test for piping, pumps and other loop components. This facility combined pressure, temperature and different types of water in its testing. Water was used because it has a similar flow rate to liquid sodium. The tests were designed so that researchers could examine descriptors such as fatigue rates and results such as fracturing.<sup>2</sup> The Hydraulic Test Laboratory was where the engineers established the parameters of the experiment.<sup>3</sup>
- Building 4873 was demolished in 2003.<sup>4</sup>

### Site Description:

- Building 4873 was located near the corner of K and L Streets, just north of Building 4363.<sup>1</sup>

### Relevant Site Information:

- There are no Use Authorizations and no Incident Reports associated with Building 4873.<sup>5</sup>

### Radiological Surveys:

- During the 1996 Area IV Radiological Characterization Survey, soil samples were taken at one location in the vicinity of Building 4873. None of the measurements were distinguishable from background and all the measurements were below the acceptable concentration levels established by Boeing and presented in document N001SRR140131.<sup>6</sup>
- Radiological surveys specific to Building 4873 have not been conducted.

## Group Y

### Status:

- Building 4873 was demolished in 2003.<sup>4</sup>

### References:

- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Personnel Interview, Phil Rutherford, September 18, 2003.
- 3- Personnel Interview, Del Aubuchon, September 18, 2003.
- 4- Personnel Interview, Dan Trippeda, September 18, 2003.
- 5- Review of Radiation Safety Records Management System, 2003.
- 6- Rocketdyne Document, A4CM-ZR-0011, Rev. A, "Area IV Radiological Characterization Survey," August 15, 1996.

## Site Summary – Site 4874

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### Site Identification:

Site 4874  
Control Rod Test Tower and Pad

### Operational Use/History:

- Constructed in the late 1950s.
- Site 4874 was used as a non-nuclear facility for testing SNAP control rod assemblies for the Piqua Organic Moderated Reactor (OMR) through 1968.<sup>1</sup>
- The tower was dismantled and equipment including tanks, piping valves, instrumentation, controls, etc. were removed following completion of testing.
- After the testing was completed, the area was used for barrel storage.

### Site Description:

- Building 4874 was a test tower north of 4375.<sup>2,3</sup>

### Relevant Site Information:

- Building 4874 was used to support the SNAP program, but was not involved in nuclear work. After the building was demolished, barrels that may have contained radioactive material were stored in the surrounding area.<sup>1</sup>
- There are no Use Authorizations and no Incident Reports associated with Building 4874.<sup>4</sup>

### Radiological Surveys:

- In 1988, Rocketdyne performed a radiological survey in nuclear-related support facilities to determine if radioactive material was unintentionally left behind. The area surrounding Building 4375, including the former location of Site 4874, was surveyed for mixed fission products by measuring ambient gamma exposure rates.<sup>1</sup>
  - Ambient Gamma limit: < 5  $\mu\text{R/hr}$  above background (ambient background was 12-16  $\mu\text{R/hr}$ ).
  - Maximum ambient gamma: 13.7  $\mu\text{R/hr}$  for the surrounding area.
  - Survey results were below the acceptable limits.
- During the 1996 Area IV Radiological Characterization Survey, soil samples were taken at one location in the vicinity of Building 4874. None of the measurements were distinguishable from background and all the measurements were below the acceptable concentration levels established by Boeing and presented in document N001SRR140131.<sup>5</sup>

## Group Y

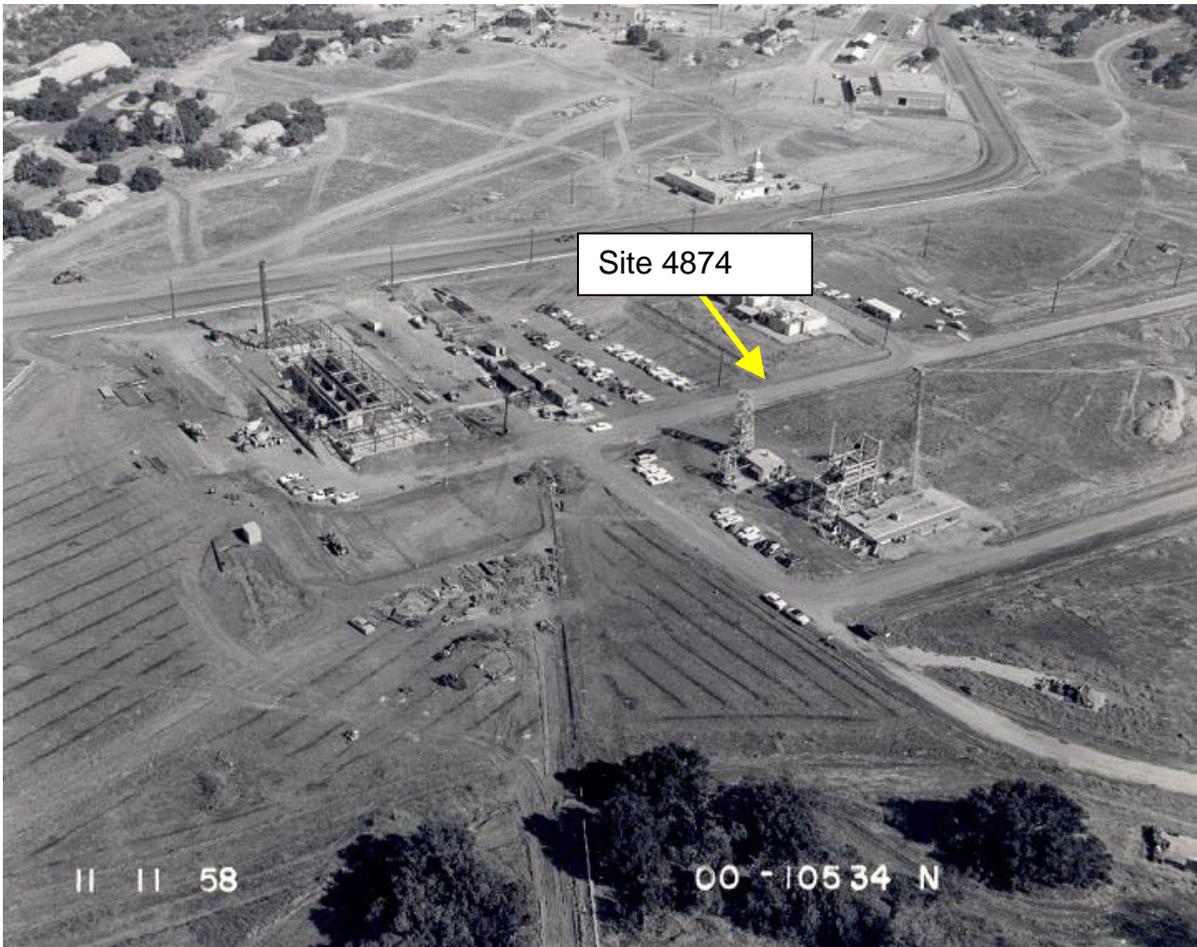
### Status:

- Building 4874 was demolished in the early 1970s.

### References:

- 1- ETEC Document, GEN-ZR-0012, "Radiological Survey of Buildings T373 and T375," August 26, 1988.
- 2- Historical Site Photographs from Boeing Database.
- 3- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 4- Review of Radiation Safety Records Management System, 2003.
- 5- Rocketdyne Report, A4CM-ZR-0011, "Area IV Radiological Characterization Survey Final Report," August 15, 1996.

Photograph –Site 4874



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## Site Summary – Site 4875

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### Site Identification:

Site 4875  
Pad and Creep Loop Tower

### Operational Use/History:

- Constructed in the late 1950s.
- Site 4875 was a non-nuclear facility used to test SNAP control rod assemblies for the Piqua OMR through 1968.<sup>1</sup>
- Demolished in the middle 1970s.

### Site Description:

- Site 4875 was a control test tower located west of Building 4375.<sup>2,3</sup>

### Relevant Site Information:

- Site 4875 was used to support the SNAP program, but was not involved in nuclear work. However, due to the proximity of Building 4374 (a nuclear facility), radioactive and/or nuclear materials may have been handled there. In addition, after the building was abandoned, barrels that may have contained radioactive material were stored in the surrounding area.<sup>1</sup>
- There are no Use Authorizations and no Incident Reports associated with Site 4875.<sup>4</sup>

### Radiological Surveys:

- In 1988, Rocketdyne performed a radiological survey in nuclear-related support facilities to determine if radioactive material was unintentionally left behind. The area surrounding Building 4735, including the former location of Site 4875 was surveyed for mixed fission products by measuring ambient gamma exposure rates:<sup>1</sup>
  - Ambient gamma limit: < 5  $\mu\text{R/hr}$  above background (ambient background was 12-16  $\mu\text{R/hr}$ ).
  - Maximum ambient gamma: 9.3  $\mu\text{R/hr}$  in the interior of the building and 13.7  $\mu\text{R/hr}$  for the surrounding area.
  - Survey results were below the acceptable limits.

### Status:

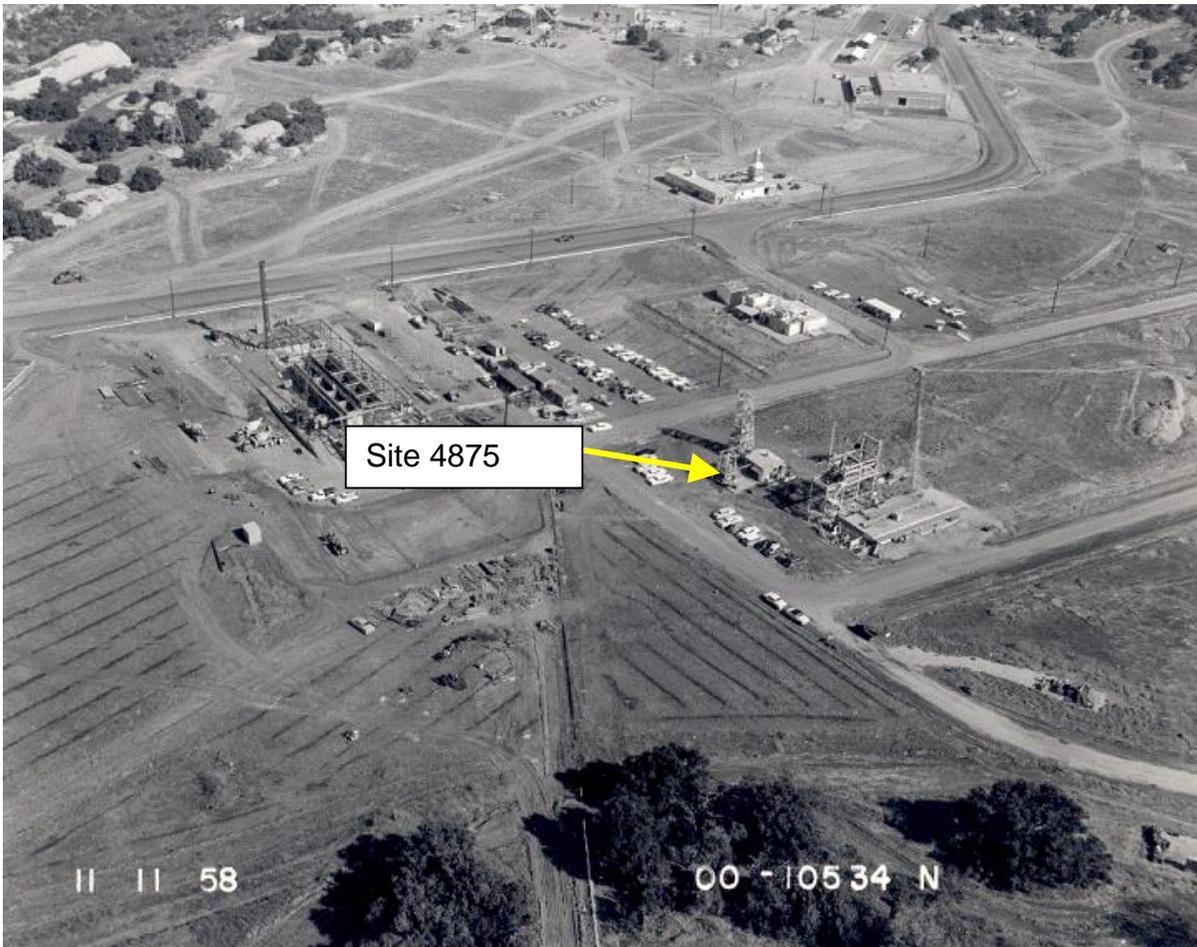
- Building 4875 was demolished in the early 1970s.

## Group Y

### References:

- 1- ETEC Document, GEN-ZR-0012, "Radiological Survey of Buildings T373 and T375," August 26, 1988.
- 2- Historical Site Photographs from Boeing Database.
- 3- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 4- Review of Radiation Safety Records Management System, 2003.

Photograph – Site 4875



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## Group Z

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Group Z Map

Building 4353

*Includes Site 4853, Concrete Pad*

Parking Lot 4553

Building 4854

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### Legend

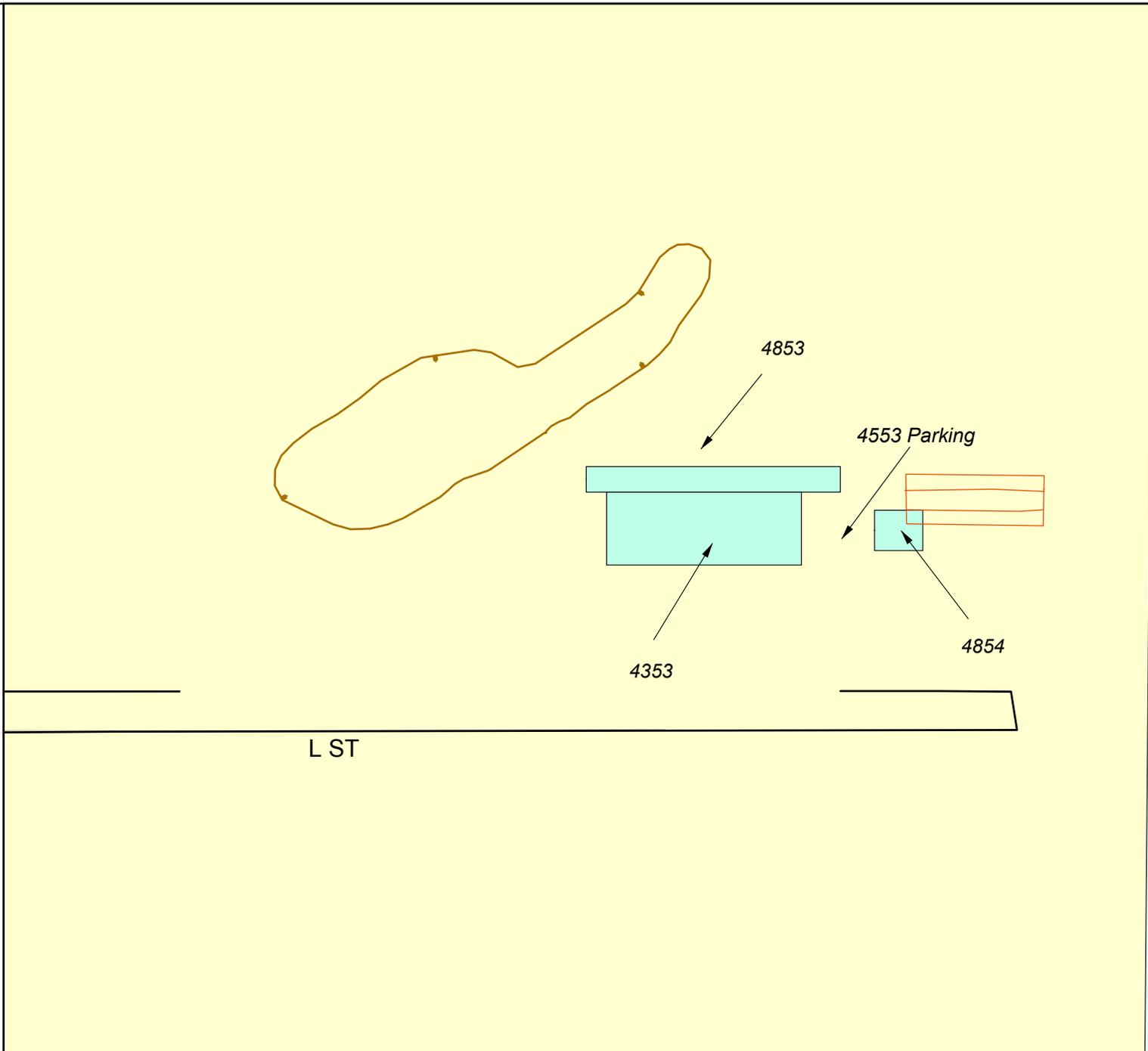
**Labeled Features:**  
(Based on SSFL Documents  
as of October 2004)

 Buildings/Sites:  
"Current"

 Buildings/Sites:  
"Demolished"

#### Unlabeled Features:

-  Leachfield  
(Removed)
-  Tree
-  Rock
-  Concrete Curb
-  Gutter
-  Asphalt/Concrete  
Berm & Paving
-  Sidewalk
-  Dirt Road
-  Fence
-  Stream/Pond
-  Drain
-  Area IV Boundary

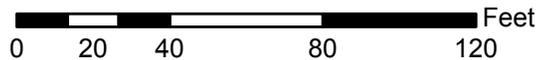


DRAWN BY:

**Sapere**  
CONSULTING INC



1 inch equals 50 feet



Site Summary Group Z

AREA IV

Santa Susana Field Laboratory, CA

DATE:

May 2005

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## Site Summary – Building 4353

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### Site Identification:

Building 4353  
Organics Reactor Development Building  
Research and Development (R&D) Laboratory Building  
General Storage  
Includes Site 4853, Concrete Pad

### Operational Use/History:

- Building 4353 was constructed in 1956 as an R&D Laboratory for the Organic Moderate Reactor Program.<sup>1</sup>
- The primary usage has been general storage.<sup>2,3</sup>
- The steel portion of the structure was removed in the late 1970s.<sup>1</sup>
- The concrete pad was removed in 2001 during septic tank removal.<sup>1</sup>

### Site Description:

- Building 4353 is 2,041 square feet and was constructed of galvanized steel walls and roof that were anchored to a concrete slab floor.<sup>2</sup>
- The building was connected to a septic tank measuring approximately 60 x 54 x 96 inches with a capacity of 1,500 gallons. There was an associated 200-foot leachfield located 50 feet directly east of the northeast corner of the building. A survey concluded these are free of radiological contaminants.<sup>3</sup>

### Relevant Site Information:

- On July 29, 1960, while inspecting a hissing noise from the Impurification Removal Loop, an employee was exposed to coolant from which over 90 percent of the radioactivity had been removed. No contamination was detected at the scene (A0375).
- There are no Use Authorizations associated with Building 4353.<sup>4</sup>

### Radiological Surveys:

- A radiological survey of the surrounding grounds was conducted in 1959. There is no evidence suggesting an incident was causal for this survey. The release levels from this survey range from 32.0 to 527.5 dpm/cm<sup>2</sup>, well below the 1,000 dpm/cm<sup>2</sup> limit.<sup>5</sup>
- During the 1996 Area IV Radiological Characterization Survey, soil samples were taken at one location in the vicinity of Building 4353. None of the measurements were distinguishable from background and all the measurements were below the acceptable concentration levels established by Boeing and presented in document N001SRR140131.<sup>6</sup>

## Group Z

- A radiological survey of the septic tank and associated pipes and leach field was conducted in 2001 during the removal process. With two exceptions, the results were below minimum detectable activity (MDA) for both removable alpha and beta (alpha range 9-11 dpm/cm<sup>2</sup>, beta 18-20 dpm/cm<sup>2</sup>). One sample on the outside of the tank registered a level of beta 20 dpm/cm<sup>2</sup>, the MDA for the sample. The second exception was the clay field pipes and distribution box. These samples also registered an MDA result of 11dpm/cm<sup>2</sup> alpha, 18dpm/cm<sup>2</sup> beta. Direct frisk tests were performed on all samples as well with a consistent no detectable activity (NDA) result.<sup>7</sup>

### Status:

- Demolished in the late 1970s.

### References:

- 1- Personnel Interview, Dan Trippeda, September 8, 2003.
- 2- ERDA Document, LR-03026, Part 1, "Site Development Plan: 1977-1981," June 1975.
- 3- Boeing Data Package, no document number, "Septic and Leachfield Survey Data 011, 353, and 373."
- 4- Review of Radiation Safety Records Management System, 2003.
- 5- Atomics International Internal Document, no document number, "Special Survey of Building 353 Area."
- 6- Rocketdyne Report, A4CM-ZR-0011, "Area IV Radiological Characterization Survey Final Report," August 15, 1996.
- 7- Boeing Internal Document, no document number, "Radiation Survey, Building 353."

## Site Summary – Parking Lot 4553

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### Site Identification:

Site 4553  
Parking Lot Near Building 4353

### Operational Use/History:

- Constructed prior to 1962.<sup>1</sup>
- Site 4553 served as a parking lot for personnel working in Building 4353 and the surrounding areas.
- No longer in use.

### Site Description:

- Site 4553 was located near Building 4353, in the southeast corner of Area IV.

### Relevant Site Information:

- There are no Use Authorizations and no Incident Reports associated with Site 4553.<sup>2</sup>

### Radiological Surveys:

- Radiological surveys specific to Site 4553 have not been conducted.
- This area was covered as part of the 1994-1995 Area IV Radiological Characterization Survey.<sup>3</sup>
  - Background: 15.6  $\mu$ /hr.
  - Acceptable Limit: Less than 5  $\mu$ /hr above background.
  - Survey results were below the acceptable limits.

### Status:

- Site 4553 is no longer in use.

### References:

- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Review of Radiation Safety Records Management System, 2003.
- 3- Rocketdyne Document, A4CM-ZR-0011, Rev. A, "Area IV Radiological Characterization Survey," August 15, 1996.

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## Site Summary – Building 4854

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### Site Identification:

Building 4854  
Radiation Fuel Gauge Test Structure

### Operational Use/History:

- Constructed sometime between 1964 and 1967.
- Building 4854 was used to test Radiation Fuel Gauges.
- Demolished in the late 1990s.<sup>1</sup>

### Site Description:

- Building 4854 was located in the southeast corner of Area IV, near Building 4354 and just north of L Street.

### Relevant Site Information:

- There are no Use Authorizations and no Incident Reports associated with Building 4854.<sup>2</sup>

### Radiological Surveys:

- Radiological surveys specific to Building 4854 have not been conducted.

### Status:

- Building 4854 was demolished in the late 1990s.<sup>1</sup>

### References:

- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Review of Radiation Safety Records Management System, 2003.

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## Group AA

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Group AA Map

Building 4020

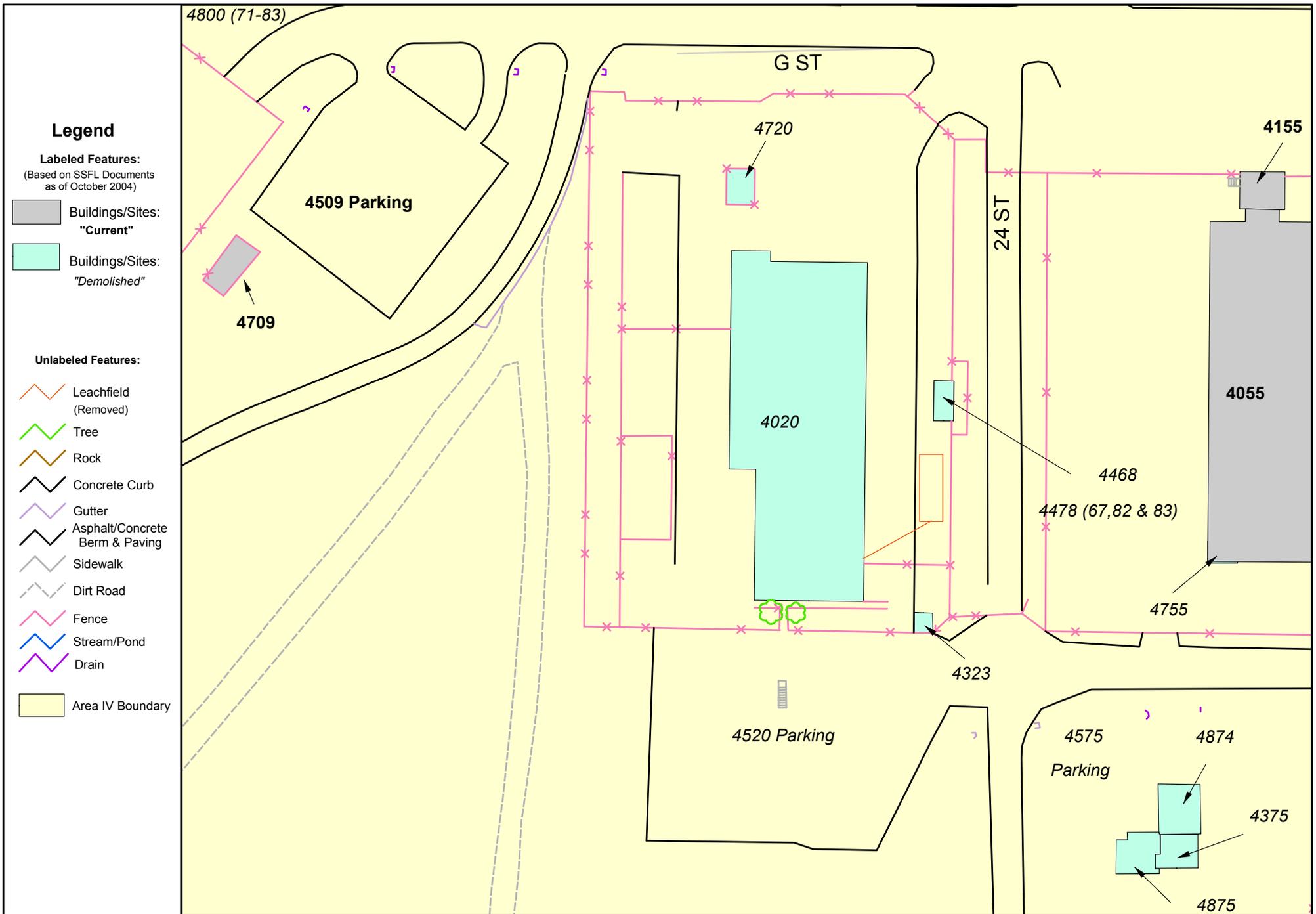
*Includes Building 4323, Guard Building*

*Includes Building 4720, Substation*

Building 4468

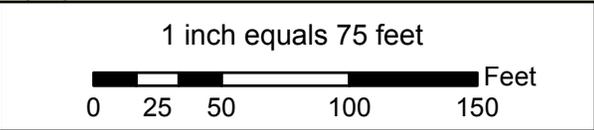
Site 4520

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DATE: May 2005



Site Summary Group AA  
AREA IV  
Santa Susana Field Laboratory, CA

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## Site Summary – Building 4020

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### Site Identification:

Building 4020  
Rockwell International Hot Laboratory  
Component Development Hot Cell (CDHC)  
Includes Building 4323, Guard Building  
Includes Building 4720, Substation

### Operational Use/History:

- Constructed in 1959.<sup>1</sup>
- Operations conducted under Nuclear Regulatory Commission (NRC) Special Nuclear Materials License No. SMN-21.<sup>1</sup>
- Constructed for the remote handling of radioactive materials. The Hot Lab was used for the disassembly and examination of irradiated nuclear fuel assemblies from various nuclear reactors (Sodium Reactor Experiment (SRE), Sodium Graphite Reactor (SGR), and Piqua Reactor), the disassembly and examination of Systems for Nuclear Auxiliary Power (SNAP) Reactor cores (SNAP Experimental Reactor (SER), SNAP 2 Demonstration Reactor (S2DR), SNAP 8 Experimental Reactor (S8ER), S8DR, SNAP 10 Flight System-3 (10SF-3)), analysis of irradiated test materials, manufacture and leak testing of sealed radioactive sources (which were checked annually to ensure no leakage occurred) and machining of radioactive Co-60.<sup>1</sup>
- After the termination of the SNAP program, Building 4020 was used for decladding of irradiated plutonium bearing fuels from off-site reactors from 1976 to 1986.<sup>1</sup>
- All equipment and materials related to the decladding project were removed and the cells decontaminated in 1986 in preparation for the next project. However, rather than continuing operations, the Department of Energy (DOE) decided to begin decommissioning and demolition (D&D) of the facility.<sup>1</sup>
- Between 1987 and 1991 all hazardous materials and equipment not related to D&D were removed and decontamination efforts focused on the removal of general contamination from support areas, decontamination rooms and hot cells.<sup>1</sup>
- In 1992, activities in Building 4020 changed from decontamination to dismantlement. Decontamination to support demolition occurred from 1992 through 1995, and the structure was completely removed in 1996.<sup>1</sup>
- Ownership was transferred from Rocketdyne to DOE in 1995 to facilitate final dismantling.<sup>1</sup>
- Demolished and backfilled in 1996.<sup>1</sup>
- DOE approved the removal of Radiological Materials Management Area (RMMA) for the Hot Lab in November 1998.<sup>2</sup>

### Site Description:

- Building 4020 is a rectangular, structural steel building covered in sheet metal with 16,000 square feet of floor space. Three subsurface fission gas tanks were located under the north end of the building but never used. Inside the building, four radioactive handling cells were constructed of reinforced concrete with adjacent concrete decontamination rooms above a concrete basement. The building contained an operating gallery, service gallery, maintenance rooms, mock up room, and administrative areas. A stack originated in the basement and extended 55 feet from the top of the building surrounding the concrete cells and decontamination rooms. All drainage systems in the building terminated in the holdup tank (Building 4468) adjacent to the Hot Lab. Two leach pits (i.e., drywells) were located adjacent to the holdup tank building but never put into service.<sup>1</sup> The septic tank and leach pits were removed in 1997.<sup>3</sup>
- Serviced by Guard Building 4323.
- Serviced by Substation 4720.

### Relevant Site Information:

- A number of incidents occurred during the normal operation of the facility which may have resulted in the release of contamination to the environment:
  - On December 5, 1959, radioactive liquid spilled during vendor pick up and contaminated the truck. The truck was wiped down and allowed to leave the area after beta-gamma measurements reached an acceptable level of less than 30 dpm/100 cm<sup>2</sup> (A0001).
  - On May 12, 1961, unsafe handling of a cask occurred, though no release of radiation was thought to have occurred (A0011).
  - On May 9, 1962, an irradiated fuel slug burned in Cell 4, releasing radioactive gas to the exhaust stack. It was determined that the release could not have resulted in significant exposure to personnel or surrounding areas (A0317).
  - On May 31, 1962, a portable radioactive liquid tank overflowed on the north pad, and the liquid then flowed to surface drainage resulting in contamination with a total activity of 420 mCi. Decontamination began immediately and continued until no detectable contamination remained (A0016).
  - On September 4, 1962, the repair of a fission gas monitor caused high airborne activity, resulting in the contamination of personnel and the lab (A0018).
  - On December 15, 1962, a worker found contamination on his shoes during a visit to Building 4020. No contamination above acceptable limits was found to have been spread by his shoes (A0020).
  - On May 8, 1963, an employee swung a waxing mop through a contaminated trough and then used the mop to wax the remainder of the floor. A hot spot was identified, although the wax appeared to have semi-fixed the contamination. Measurements taken two days later indicated that the floor was clean (A0433).

- On September 25, 1963, a fire occurred during the dissolving of NaK from fuel decladding in Cell 3. Surveys indicated no significant contamination resulted from the fire (A0027).
- On September 26, 1963, there was a NaK and alcohol fire during the cleaning of a fission gas monitor. There were no signs of elevated airborne activity (A0024).
- On September 26, 1963, an employee conducting cell cleanup received an exposure above guidelines. The contamination was thought to have been the result of contact with a drip pan in the cell (A0025).
- On October 9, 1963, an uncontrolled furnace was left on overnight, burning cell equipment. A stack monitor indicated no increase above normal activity (A0026).
- On March 19, 1964, a radioactive liquid transfer tank was overfilled and contamination spread outside the area. A maximum of 25 gallons of liquid were lost, with a total release of  $2.3 \times 10^4$   $\mu\text{Ci}$  (A0033).
- On March 20, 1964, the door of Cell 4 was opened at the same time a nitrogen purge and UC fuel cutting occurred in Cell 3, resulting in increased airborne activity (A0031).
- On June 8, 1964, an unauthorized and unprotected employee was contaminated by contaminated equipment (A0551).
- On June 16, 1964, a fuel element was repositioned in the cell, which placed the element in line with the manipulator port opening. This resulted in excessive radiation streaming (A0443).
- On August 27, 1964, high airborne activity resulted after the loss of the airborne controller (A0354).
- On November 18, 1964, an exit survey from cells revealed particulate contamination on an employee. No contamination of the area was identified (A0574).
- On December 7, 1964, radioactive material was stored in the yard, causing radiation levels to elevate above guidelines. The maximum detected gamma level was 50 mR/hr. (A0034).
- On May 27, 1965, during the decladding of NaK-bonded uranium carbide fuel, high airborne activity occurred. No personnel or equipment contamination was detected (A0035).
- On July 16, 1965, it was discovered that a fuel wafer had disintegrated on a vacuum filter and caused buildup of 2.2 Ci of mixed fission products. During recovery of the fuel, some material escaped and contaminated the area. No radioactive material was released outside the building (A0037).
- On August 12, 1965, rainwater from a one-way cask was dumped in a clean area, contaminating the ground (A0441).
- On September 21, 1965, personnel were purging a cell with nitrogen when high airborne activity was detected at 1000 cpm. No cause for the increase was discovered, and contamination was not released outside the building (A0038).

## Group AA

- On February 24, 1966, maintenance of a contaminated electronic discharge machine resulted in high airborne activity (A0040).
- On August 16, 1966, an emergency generator failure left emergency-type equipment (e.g., exhaust system) without power and the airborne activity increased in the operating gallery from 2,000 cpm to 5,000 cpm (A0042).
- On January 28, 1967, a worker's overalls and shoes were inadvertently contaminated, and the employee tracked contamination from the Slave Shop to the Service Gallery and Hot Shop. No contamination was tracked outside of a controlled area (A0607).
- On April 6, 1967, a fire occurred in Cell 3 during the cutting of a metallurgical sample. No significant release of radiological material was detected (A0613).
- On May 17, 1967, transfer of a promethium glove box caused high airborne activity. Nasal smears of two workers revealed maximum contamination levels of 1,050 dpm (A0617).
- On June 10, 1967, waste removal from the promethium glove boxes caused high airborne activity. The area was decontaminated prior to resuming work (A0619).
- On October 30, 1967, a radioactive drain system clogged, flooding controlled areas of the building. All areas were successfully decontaminated (A0627).
- On July 22, 1970, a small alcohol fire occurred during the disassembly of a NaK-bonded fuel element. The fire caused no damage and there was no evidence of airborne or surface contamination (A0050).
- On May 19, 1971, there was a fire in Decontamination Room 4 during the disposal of 100 gallons of liquid NaK, which contained 100  $\mu$ Ci of mixed fission products. A hole in a tank fill line caused the release of about 25 gallons of contaminated NaK, which then caught fire. Nearly all contamination was contained in the Hot Cell. Airborne activity and surface radiological contamination concentrations inside the building from the event ranged from 2 percent to 20 percent of permissible concentration for occupational use and the average concentration released through the stack to the outside of the facility was about 5 percent of the permitted concentration for an unrestricted area (A0052).<sup>1</sup>
- On July 29, 1975, an SRE fuel slug partially burned releasing radioactive gas and contamination (A0054).
- On September 26, 1977, in preparation for removal of liquid waste tanks, employees cut pipes and failed to cap them, causing an unexpected drop in air pressure. No increase in airborne activity was detected (A0060).
- On May 3, 1978, a five-minute alcohol fire occurred in Decontamination Room 2. No injury or contamination occurred (A0069).
- On August 21, 1981, personnel were loading bags of contaminated equipment from the Hot Storage Building into a box in the airlock. When two of the bags were damaged, personnel and the Hot Storage Room were contaminated (A0088).

- On December 18, 1981, one Rad Pac pin was thrown into a low-level waste can by mistake where it became entangled in a Kimwipe (A0094).
- On December 21, 1981, during a routine survey, a “clean” ladder was found to be contaminated. The source of the contamination was not known, but the ladder was bagged and placed in a controlled area following its discovery (A0092).
- On March 22, 1982, zirconium fuel pin fines ignited, causing high airborne activity in Cell 1 (A0101).
- On April 21, 1983, employees incorrectly identified a fuel rod and the amount of Pu it contained, resulting in levels of Pu in excess of the established criticality limit. The criticality limit at the Hot Lab was exceeded overnight, but the rods were secured in transfer casks, preventing the release of contamination (A0262).
- On August 8, 1983, a leaking transfer tube contaminated an employee and the decontamination room (A0119).
- On October 11, 1983, a “clean” pump pumped contaminated water. When the pump was disconnected, some contaminated water spilled on the floor and workbench in the shop. Personnel unknowingly spread contamination throughout the building, although no contamination was found outside the building (A0118).
- On January 30, 1984, a contaminated electrode was worked on a clean grinder. Contamination was discovered on floors and on the clothing of the grinder operator. No other personnel, tools, or locations were found to be contaminated (A0122).
- On October 15, 1984, during remote decontamination, a small puddle of alcohol ignited. There was no nuclear fuel in the cell at the time, and no increase in stack monitor activity was observed (A0127).
- On March 20, 1985, a 55-gallon drum containing contaminated rust, dirt and concrete from Cell 1 was opened and contaminated personnel and the surrounding area (A0137).
- On April 16, 1986, inventory revealed a 1.5 mCi Sr-90 check source was missing. A search failed to recover the missing source (A0156).
- On October 28, 1986, Fermi Reactor saw fines were ignited during disassembly in Cell 4. All contamination was contained in the cell (A0165).
- On October 17, 1990, employees dropped a duct section, causing elevated airborne activity (A0210).
- On September 15, 1993, a dosimeter went off scale during work in a high radiation area. Investigation of the incident revealed that worker error caused the unacceptable exposure. (A0575).
- The Hot Lab facility procedures required decontamination between projects, limiting the buildup of contamination over time.<sup>1</sup>

### Radiological Surveys:

- Boeing performed a soil sample survey in 1998 to ensure that Building 4020 site and the leach pits were free of radiological contamination.<sup>4</sup>
  - The survey found no radioactive activity above background levels.
  - Measurements of activity ranged from 1,897 to 2,194 cpm compared with an average background measurement of  $2,013 \pm 50$  cpm.
  - Most soil samples were less than the minimum detectable activity (MDA) of 0.02 pCi/g for Cs-137, with the highest measurement being 0.21 pCi/g (Cs-137 DCGL<sub>w</sub> is 9.2 pCi/g).
- Rocketdyne performed a final status survey in September 1999, consistent with Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM), of the Hot Lab Facility and the surrounding area (including Buildings 4468 and 4020). The survey included a direct qualitative scan (100%) for surface gamma exposure, ambient gamma exposure rates at 1 meter above the ground and soil sampling.<sup>5</sup>
  - The survey concluded that the site was acceptable for unrestricted use and could be released without radiological restrictions.
  - Average surface exposure rates adjusted for background were 2.3 μR/hr for Class 1, 3.2 μR/hr for Class 2, and 2.3 μR/hr for Class 3 (NRC limit is 5.0 μR/hr above background).
  - Average ambient exposure rates ranged from 0.7 to 1.4 μR/hr (NRC limit 5.0 μR/hr above background).
  - Soil samples for Cs-137 showed an average level of 0.22 pCi/g and a maximum of 4.8 pCi/g (Cs-137 DCGL<sub>w</sub> is 9.2 pCi/g above background).
- Oak Ridge Institute for Science and Education (ORISE) performed a verification survey in October 1999 and the report was released in 2000. The survey of Building 4020 and the surrounding area (including Buildings 4468 and 4720) included a direct surface scan, exposure rate measurements and soil samples.<sup>6</sup>
  - The survey concluded that the site satisfies the DOE guidelines for release without radiological restrictions.
  - The surface scan did not identify any locations of direct radiation in excess of ambient background levels.
  - The exposure rates, including background, ranged from 10 to 18 μR/hr compared to a background level of 14 μR/hr, which is below the NRC limit of 5 μR/hr above background and the DOE limit of 20 μR/hr above background.
  - Soil samples results were:
    - Am-241, Co-57, Co-58, Co-60, Cr-51, Eu-152, Fe-59, Mn-54, Sb-124, U-235, Sr-90, Pu-238, Pu-239 and Zn-65 were below MDC (minimum detectable concentrations):
    - Cs-137 ranged from < 0.1 to 0.4 pCi/g (guideline is 9.2 pCi/g).
    - Ra-226 < 0.4 to 1.2 pCi/g (guideline is 5 pCi/g for top 15 cm and 15 pCi/g for the next 15 cm).

- Th-232 < 0.9 to 1.8 pCi/g, (guideline is 5 pCi/g for top 15 cm and 15 pCi/g for the next 15 cm).
- U-238 < 2.3 pCi/g (guideline is 35 pCi/g).
- DHS performed verification sampling in October 1999.

**Status:**

- Building 4020 was completely demolished and the site was backfilled in 1996.<sup>1</sup>
- On January 31, 2005 DOE provided a letter to Boeing declaring that Boeing and ORISE surveys had confirmed that DOE and DHS approved soil cleanup limits had been met, and that the 4020 site was suitable for release for unrestricted use.<sup>7</sup>

**References:**

- 1- Boeing Report, EID-06141, "Hot Laboratory Decontamination and Dismantlement Final Report," November 27, 2001.
- 2- DOE-OAK, Letter, "Removal of RMMA Designation for B020," from M. Lopez (DOE-OAK) to M. Lee, November 13, 1998.
- 3- Personnel Interview, Dan Trippeda, September 29, 2003.
- 4- Boeing, Letter, "Soil Sampling Results for Buildings 468 & 020 at SSFL," from J. Shao and J. Barnes (Boeing) to P. Rutherford, August 3, 1998.
- 5- Boeing Report, RS-00010, "Area 4020, MARSSIM Final Status Survey Report," October 31, 2000.
- 6- ORISE Document, ORISE 2000-1524, "Verification Survey for the Land Area Formerly Supporting the Hot Laboratory (4020), Santa Susana Field Laboratory, The Boeing Company, Ventura County, California," December 2000.
- 7- DOE Letter, "Release of Building 4020," from M. Lopez (DOE) to M. Lee (Boeing), January 31, 2005.
- 8- Historical Site Photographs from Boeing Database.
- 9- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

Photograph – Building 4020



## Site Summary – Building 4468

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### Site Identification:

Building 4468  
Holdup Tank

### Operational Use/History:

- Constructed in 1959.<sup>1</sup>
- Operations conducted under NRC Special Nuclear Materials License No. SMN-21.<sup>1</sup>
- Constructed to support the operations of Building 4020 by receiving and storing radioactive effluent generated by the operation of the Hot Lab.<sup>1</sup>
- The 3,000-gallon liquid waste tank was removed in 1994 after the drainage system was removed from the Hot Lab building.<sup>1</sup>
- DOE approved the removal of RMMA for the Hot Lab facility in November of 1998, which included the holdup tank and leach pits.<sup>2</sup>
- Demolished in 1997, with the surrounding soil excavated an additional 4 feet.<sup>1</sup>

### Site Description:

- Building 4468 was a 10 x 22 feet concrete and cinderblock building with a steel roof. It was adjacent to the Hot Lab building and slightly below grade. The building housed a 3,000-gallon liquid waste holdup tank connected to the Hot Lab and a truck fill station located in-between the Hot Lab and the holdup tank building.<sup>1</sup>

### Relevant Site Information:

- There are no Incident Reports associated with Building 4468.<sup>3</sup>

### Radiological Surveys:

- During the 1996 Area IV Radiological Characterization Survey, soil samples were taken at one location in the vicinity of Building 4468. None of the measurements were distinguishable from background and all the measurements were below the acceptable concentration levels established by Boeing and presented in document N001SRR140131.<sup>4</sup>
- Boeing performed a soil sample survey in 1998 to ensure that Building 4020 and the leach pits were free of radiological contamination.<sup>5</sup>
  - The survey found no radioactive activity above background levels.
  - Measurements of activity ranged from 1,897 to 2,194 cpm compared with an average background measurement of  $2,013 \pm 50$  cpm.

## Group AA

- Most soil samples were less than the minimum detectable activity (MDA) for Cs-137, the maximum measurement was 0.21 pCi/g (Cs-137 DCGL<sub>w</sub> is 9.2 pCi/g above background).
- Rocketdyne performed a final status survey in September 1999, consistent with Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM), of the Hot Lab Facility and the surrounding area (including Buildings 4468 and 4020). The survey included a direct qualitative scan (100%) for surface gamma exposure, ambient gamma exposure rates at 1 meter above the ground and soil sampling.<sup>6</sup>
  - The survey concluded that the site was acceptable for unrestricted use and could be released without radiological restrictions.
  - Average surface exposure rates adjusted for background were 2.3 μR/hr for Class 1, 3.2 μR/hr for Class 2, and 2.3 μR/hr for Class 3 (NRC limit is 5.0 μR/hr above background).
  - Average ambient exposure rates ranged from 0.7 to 1.4 μR/hr (NRC limit 5.0 μR/hr above background).
  - Soil samples for Cs-137 showed an average level of 0.17 pCi/gm and a maximum of 0.91 pCi/gf (Cs-137 DCGL<sub>w</sub> is 9.2 pCi/g above background).
- Oak Ridge Institute for Science and Education (ORISE) performed a verification survey in October 1999 and the report was released in 2000. The survey of the Hot Lab Facility and the surrounding area (including Buildings 4468 and 4020) included a direct surface scan, exposure rate measurements and soil samples.<sup>7</sup>
  - The survey concluded that the site satisfies the DOE guidelines for release without radiological restrictions.
  - The surface scan did not identify any locations of direct radiation in excess of ambient background levels.
  - The exposure rates, including background, ranged from 10 – 18 μR/hr compared to a background level of 14 μR/hr, which is below the NRC limit of 5 μR/hr above background and the DOE limit of 20 μR/hr above background.
  - Soil samples results were:
    - Am-241, Co-57, Co-58, Co-60, Cr-51, Eu-152, Fe-59, Mn-54, Sb-124, U-235, Sr-90, Pu-238, Pu-239 and Zn-65 were below MDC (minimum detectable concentrations):
    - Cs-137 ranged from < 0.1 to 0.4 pCi/g (guideline is 9.2 pCi/g).
    - Ra-226 < 0.4 to 1.2 pCi/g (guideline is 5 pCi/g for top 15 cm and 15 pCi/g for the next 15 cm).
    - Th-232 < 0.9 to 1.8 pCi/g, (guideline is 5 pCi/g for top 15 cm and 15 pCi/g for the next 15 cm).
    - U-238 < 2.3 pCi/g (guideline is 35 pCi/g).

**Status:**

- Building 4468 was demolished in 1997. The surrounding soil was excavated an additional 4 feet.<sup>1</sup>
- On January 31, 2005 DOE provided a letter to Boeing declaring that Boeing and ORISE surveys had confirmed that DOE and DHS approved soil cleanup limits had been met, and that the 4020 site was suitable for release for unrestricted use.<sup>8</sup>

**References:**

- 1- Boeing Report, EID-06141, "Hot Laboratory Decontamination and Dismantlement Final Report," November 27, 2001.
- 2- DOE-OAK, Letter, "Removal of RMMA Designation for B020," from M. Lopez (DOE-OAK) to M. Lee, November 13, 1998.
- 3- Review of Radiation Safety Records Management System, 2003.
- 4- Rocketdyne Report, A4CM-ZR-0011, "Area IV Radiological Characterization Survey Final Report," August 15, 1996.
- 5- Boeing Document, Letter from J. Shao and J. Barnes (Boeing) to P. Rutherford, "Soil Sampling Results for Buildings 468 & 020 at SSFL," August 3, 1998.
- 6- Boeing Report, RS-00010, "Area 4020, MARSSIM Final Status Survey Report," October 31, 2000.
- 7- ORISE Document, ORISE 2000-1524, "Verification Survey for the Land Area Formerly Supporting the Hot Laboratory (4020), Santa Susana Field Laboratory, The Boeing Company, Ventura County, California," December 2000.
- 8- DOE Letter, "Release of Building 4020," from M. Lopez (DOE) to M. Lee (Boeing), January 31, 2005.
- 9- Historical Site Photographs from Boeing Database.
- 10- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

Photograph – Building 4468

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## Site Summary – Site 4520

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### Site Identification:

Site 4520  
Parking Lot

### Operational Use/History:

- Constructed 1959.<sup>1,2</sup>
- Site 4520 served as the parking lot for the Hot Lab facility.
- Demolished in 1996 as part of the Hot Lab D&D effort.

### Site Description:

- The parking lot is located directly to the south of Building 4020 outside the fence.<sup>1,2</sup>

### Relevant Site Information:

- There are no Use Authorizations and no Incident Reports associated with Site 4520.<sup>3</sup>

### Radiological Surveys:

- In September 1999, Site 4520 was included in the MARSSIM Class 2 survey as part of the Building 4020 final status survey. Refer to Building 4020 Site Summary for a discussion of this survey.<sup>4,5</sup>

### Status:

- Site 4520 was removed in 1996 as part of the Hot Lab facility D&D effort and is now a vegetated field.

### References:

- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Historical Site Photographs from Boeing Database.
- 3- Review of Radiation Safety Records Management System, 2003.
- 4- Boeing Report, RS-00010, "Area 4020, MARSSIM Final Status Survey Report," October 31, 2000.
- 5- ORISE Document, ORISE 2000-1524, "Verification Survey for the Land Area Formerly Supporting the Hot Laboratory (4020), Santa Susana Field Laboratory, The Boeing Company, Ventura County, California," December 2000.

Photograph – Site 4520



## Group BB

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Group BB Map

Building 4100

*Includes 4100, Trench*

*Includes Building 4800/4710, Substation*

Site 4510

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### Legend

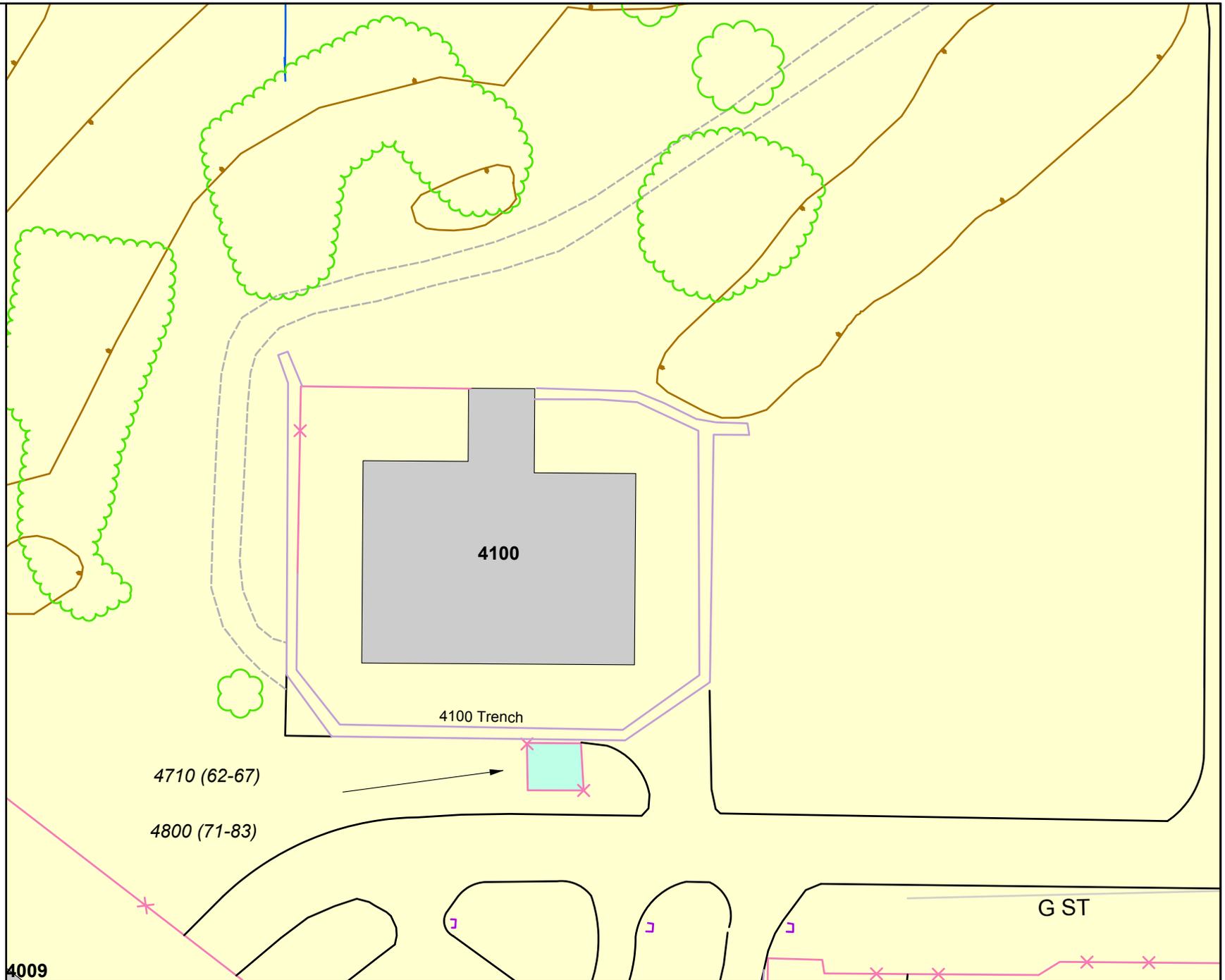
**Labeled Features:**  
(Based on SSFL Documents  
as of October 2004)

-  Buildings/Sites:  
"Current"
-  Buildings/Sites:  
"Demolished"

**Unlabeled Features:**

-  Leachfield  
(Removed)
-  Tree
-  Rock
-  Concrete Curb
-  Gutter
-  Asphalt/Concrete  
Berm & Paving
-  Sidewalk
-  Dirt Road
-  Fence
-  Stream/Pond
-  Drain

-  Area IV Boundary

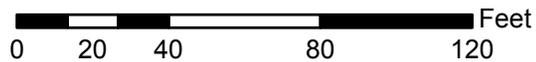


DRAWN BY:

**Sapere**  
CONSULTING INC



1 inch equals 50 feet



DATE:

May 2005

Site Summary Group BB  
AREA IV  
Santa Susana Field Laboratory, CA

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## Site Summary – Building 4100

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### Site Identification:

Building 4100  
Advanced Epithermal Thorium Reactor (AETR)  
Fast Critical Experiment Laboratory (FCEL)  
Radiation Safety and Computed Tomography  
Includes 4100, Trench  
Includes Building 4800/4710, Substation

### Operational Use/History:

- Constructed in 1960.
- Built for the Southwest Atomic Power Association (association of private utility companies).<sup>1</sup>
- Twenty different reactor core configurations were studied here. Early reactors in the AETR were thorium or uranium fueled; later tests of reactors with high-energy (fast) neutrons were conducted at the FCEL.<sup>1</sup>
- The program was terminated in 1974.<sup>1</sup>
- The Nuclear Regulatory Commission (NRC) terminated License CX-17 (for Building 4100) and released the building for unrestricted use in October 1980.<sup>2</sup>
- After decontamination and decommissioning (D&D) the high bay was used for sodium fire suppression experiments.<sup>1</sup>
- The high bay is currently used as a high energy Computer Aided Tomography (CAT) facility. The labs are used by Radiation Safety for a radioactive sample counting lab and instrument calibration facility.

### Site Description

- Building 4100 is a steel and concrete structure 98 feet long by 72 feet wide, with shielded critical assembly room in one section. The other section contains a subassembly room, fuel fabrication area, control room, offices, laboratories, fuel storage vault, equipment room and change room. The facility includes two stacks, the highest reaching 50 feet above ground level, a liquid radioactive waste holdup tank and a sanitary leachfield. A security fence surrounds the facility.

### Relevant Site Information:

- The facility included a trench next to the building which was used to burn construction debris and it is regulated under the Resource Conservation and Recovery Act (RCRA) for soil contamination, but it is unlikely that any regulated radiological materials were disposed of there.
- There has been one Incident Report associated with Building 4100 that may have resulted in a release to the environment:

## Group BB

- On December 17, 1991, a Respirator Lab washing machine was contaminated (A0217).

### Radiological Surveys:

- Rockwell International performed a final radiation survey in 1980 to support the request to terminate the facility license CX-17. The survey included residual activity measurements and smears for removable activity.<sup>3</sup>
  - The survey concluded that all measured levels were below the acceptable contamination levels and that there was no indication of the presence of activation remaining where the critical machine was located.
  - All residual activity was  $<0.1 \mu\text{R/hr}$  (limit is  $0.1 \mu\text{R/hr}$ ).
  - Surveys in the critical component laboratory, chemical laboratory, closet adjacent to the chemical laboratory, change room, control passage way, fuel vault, subassembly room, locker room, equipment storage, materials storage and other non-operating areas showed  $<0.015 \mu\text{R/hr}$  beta-gamma (limit is  $0.1 \mu\text{R/hr}$ ).
  - All smear samples showed less than the acceptable removable activity of 20 d/m/100cm<sup>2</sup> alpha and 50 d/m/100cm<sup>2</sup> beta-gamma.
- NRC performed a radiological survey in 1980 to verify the results of the Rockwell International final radiation survey. The survey covered the facility and the surrounding area through meter surveys, smear and soil/liquid samples.<sup>4</sup>
  - The survey concluded that the facility was as described in the Rockwell International Final Radiation Report and that it met the guidelines of Regulatory Guide 1.86, *Termination of Operating Licenses for Nuclear Reactors*.
  - The meter survey detected radiation levels in the range of 5 to 50  $\mu\text{R/hr}$  or 0.005 to 0.05  $\mu\text{R/hr}$  (limit is  $0.1 \mu\text{R/hr}$ ) and 10 to 30 counts per minute (cpm) compared to a background measurement of 10 to 20 cpm (limit is twice background or 40 cpm).
  - Smear samples detected no removable contamination.
  - Soil and liquid samples revealed no significant activity.
- Rocketdyne performed a survey of the 4100 Trench area in 1988 to determine if any radioactive material had been accidentally left behind to such an extent that further surveying or decontamination was required. The survey covered the 4100 Trench through ambient gamma exposure rate measurements.<sup>5</sup>
  - Mean ambient gamma exposure rates were measured at  $13.5 \mu\text{R/hr}$  and  $15.7 \mu\text{R/h}$  maximum compared to a background of 12 to 16  $\mu\text{R/hr}$  (NRC limit is  $5 \mu\text{R/hr}$  above background).
  - The survey concluded that the 4100 Trench met the unrestricted release criteria.
- EPA conducted an oversight verification survey in 2001 for alpha, beta, beta-gamma radiation (total and removable) and gamma radiation (with the exception of Rooms 112, 113 and 114).<sup>6</sup> Surveys were performed to a quality level equal to a final status survey as defined by the Multi-Agency Radiation Survey and Site

Investigation Manual (MARSSIM). The contaminants of concern (COCs) for Building 4100 were mixed fission products, uranium, thorium, transuranic compounds and activation and corrosion products on the floors, walls and ceilings. EPA also collected concrete core samples, which were analyzed for photon-emitting isotopes.

- Acceptable limits for the survey were consistent with NRC Regulatory Guide 1.86 and the proposed site-wide release criteria as defined in the Area IV survey.<sup>7</sup>
- None of the field measurements indicated the presence of radionuclides above acceptable limits.
- EPA field measurements confirmed the conclusions reached by both Rocketdyne and ORISE.
- In 1999, extensive instrument surveys and soil sampling were performed in the Building 4100 trench area. All instrument surveys and wipe tests of debris excavated from the trench were non-detect. Soil sample data ranged from non-detect to 0.44 pCi/g of Cs-137 (the DCGL for Cs-137 is 9.2 pCi/g).<sup>8</sup>
- In 2001, the Building 4100 septic tank and leachfield were removed. All instrument surveys and wipe tests of the tank and associated piping were non-detect. All soil sample data was non-detect for Cs-137.<sup>9</sup>

#### Status:

- NRC released Building 4100 for unrestricted use in October 1980.<sup>4</sup>
- The sanitary leachfield was removed in 2001.
- The building currently houses the radiation safety group's counting and instrument calibration labs, and a 2.5MeV industrial real time Computer Aided Tomography system.

#### References:

- 1- Phil Rutherford Website, <http://rdweb/shea/radiationsafety/>, accessed August 2003.
- 2- NRC, Letter, "NRC Inspection of Rockwell International's FCEL Inspection," from H. E. Brook (NRC) to M. E. Remley, July 11, 1980.
- 3- Rockwell International Report, "Report of Radiation Survey of the FCEL Reactor Facility in Support of Request to Terminate Facility License CX-17 and to Release the Facility for Unrestricted Use, Docket No. 50-147," April 30, 1980.
- 4- NRC, Letter, "Docket No. 50-147," from R. Reid (NRC) to M.E. Remley, October 1, 1980.
- 5- ETEC Document, GEN-ZR-0011, "Radiological Survey of the T056 Landfill; Area from 23<sup>rd</sup> Street to Building T100; and an Area Across from Building T011," August 26, 1988.
- 6- U.S. EPA Report, no document number, "Final Oversight Verification and Confirmation Radiological Survey Report for Buildings T-011, T-019, T-055, and T-100," December 20, 2002.
- 7- Rocketdyne Document, A4CM-ZR-0011, Rev. A, "Area IV Radiological Characterization Survey," August 15, 1996.

## Group BB

- 8- Boeing Radiation Safety Records Management System (File Drawer 156-D), “B/4100 Trench,” 1999.
- 9- Boeing Radiation Safety Records Management System (File Drawer 133-B), “B/4100 Septic Tank,” 2001.
- 10- Historical Site Photographs from Boeing Database.
- 11- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

Photograph – Building 4100

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## Site Summary – Site 4510

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### Site Identification:

Site 4510  
Parking Lot

### Operational Use/History:

- Site 4510 served as a parking lot for personnel working in Building 4100 and the surrounding areas.

### Site Description:

- Site 4510 was located directly west of Building 4100.<sup>1</sup>

### Relevant Site Information:

- There are no Use Authorizations and no Incident Reports associated with Site 4510.<sup>2</sup>

### Radiological Surveys:

- This area was covered as part of the 1994-1995 Area IV Radiological Characterization Survey.<sup>3</sup>
  - Background: 15.6  $\mu$ /hr.
  - Acceptable Limit: Less than 5  $\mu$ /hr above background.
  - Survey results were below the acceptable limits.

### Status:

- Site 4510 is now an open field.

### References:

- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Review of Radiation Safety Records Management System, 2003.
- 3- Rocketdyne Document, A4CM-ZR-0011, Rev. A, "Area IV Radiological Characterization Survey," August 15, 1996.

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## Group CC

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Group CC Map

Building 4009

*Includes Buildings 4709, Substation*

Parking Lot 4509

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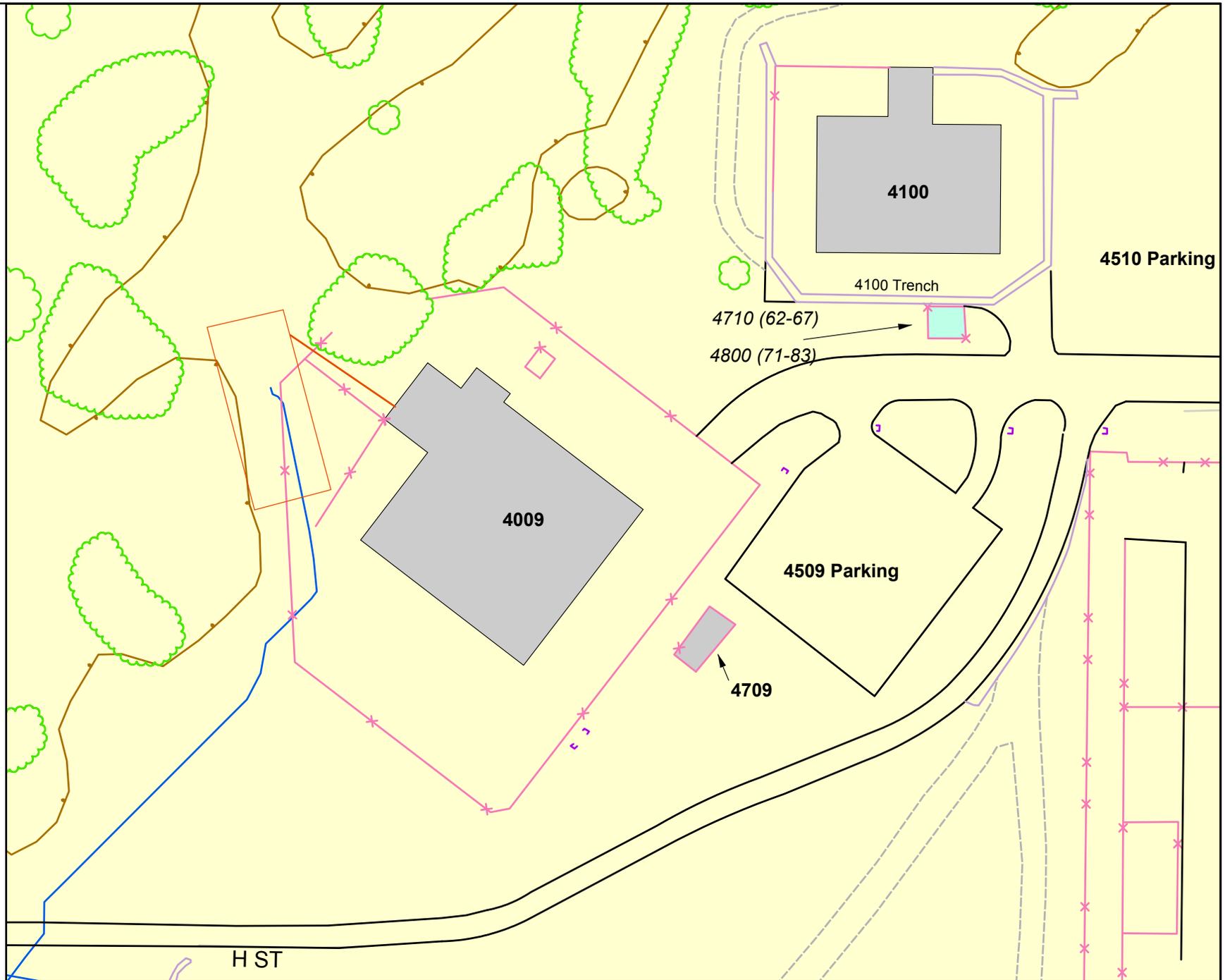
**Legend**

**Labeled Features:**  
(Based on SSFL Documents  
as of October 2004)

-  Buildings/Sites:  
"Current"
-  Buildings/Sites:  
"Demolished"

**Unlabeled Features:**

-  Leachfield  
(Removed)
-  Tree
-  Rock
-  Concrete Curb
-  Gutter
-  Asphalt/Concrete  
Berm & Paving
-  Sidewalk
-  Dirt Road
-  Fence
-  Stream/Pond
-  Drain
-  Area IV Boundary

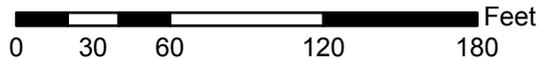


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**Sapere**  
CONSULTING INC



1 inch equals 75 feet



DATE:

May 2005

Site Summary Group CC  
AREA IV  
Santa Susana Field Laboratory, CA

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## Site Summary – Building 4009

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### Site Identification:

Building 4009  
Organic Moderated Reactor (OMR)  
Sodium Graphite Reactor (SGR)  
Includes Buildings 4709, Substation

### Operational Use/History:

- Constructed in 1958.
- Originally constructed to house the OMR Critical Facility and the SGR Critical Facility.
- The OMR was a low-power critical experiment facility for testing reactor geometries and fuel elements in a reactor moderated and cooled by organic liquids.<sup>1</sup>
- The SGR was a low-power critical experiment facility for testing fuel and sodium configurations in a reactor cooled by sodium and moderated by graphite.<sup>1</sup>
- Both OMR and SGR operated from 1958 to 1967.<sup>1</sup>
- In 1967, all equipment associated with the OMR and SGR was removed.<sup>1</sup>
- In the 1980s and early 1990s the facility was used for storage and testing of Rocketdyne's In-Service Inspection (ISI) equipment.<sup>1</sup>
- In the late 1980s, the west high bay was used for high-energy rate forging (HERF) that included handling of high-enriched uranium. Eight hundred pounds of depleted uranium was stored in the facility and shipped off site in the early 1990s.<sup>1</sup>
- The California Department of Health Services (DHS) released the facility for unrestricted use in January 1999.<sup>2</sup>

### Site Description:

- Building 4009 housed two different reactors. The SGR side consisted of a concrete high bay building 70 feet long by 40 feet wide with a 37-foot high concrete roof and housed the critical assembly cell and a fuel-and-graphite storage area. A concrete block penthouse containing the critical assembly control rod drive mechanisms sat above the critical assembly cell and was serviced by a 5-ton crane that sat above the facility. A contaminated waste holdup tank was buried to the northeast of the SGR side. The adjoining low bay area was a steel frame structure covered with insulated sheet metal and a tar/gravel roof. The low bay supported both sides of the facility housing control rooms, offices and miscellaneous supporting laboratories. The OMR side consisted of a concrete shielded high bay containing the critical assembly area and fuel storage. It was approximately 35 x 63 feet with shield thickness ranging from 1 to 4 feet (depending on height and location) with a built up roof (no shielding). A 45-foot

## Group CC

stack was used to discharge exhaust and a leach field is located to the north of the facility as a whole.<sup>3</sup>

- Serviced by Substation 4709.

### Relevant Site Information:

- There have been two incidents associated with Building 4009 that could have resulted in a release to the environment.
  - On July 5, 1961, employees noticed two 1-gallon containers of uranium carbide fuel were bulging at the tops and bottoms. The containers were transferred to the Hot Lab hood where the first lid was pried off, causing a violent reaction due to the release of gasses. When air reached the uranium powder on the slugs, the powder ignited. The resulting fires were smothered with G-1 powder and placed in cutting oil. The opening of the second can occurred in the same way, but no explosion resulted. All contamination was contained in the Hot Lab and there was no damage to equipment or personnel (A0378).
  - On June 11, 1964, three to four Ci of tritium target material for the accelerator was changed without monitoring (A0372).

### Radiological Surveys:

- In 1985, Rockwell International performed a radiological survey to clarify and identify those areas needing further radiological inspection and/or decontamination. The report was issued in 1988. The survey covered the OMR side of the facility, the exterior of the facility to the northwest (including the leach field), and the SGR holdup tank through swipe sampling, an ambient gamma exposure survey, and gamma spectrometry of various samples.<sup>3</sup>
  - Total-average alpha:  $-3.7$  dpm/100cm<sup>2</sup> average and 92.0 dpm/100cm<sup>2</sup> maximum (limit is 5,000 dpm/100cm<sup>2</sup>).
  - Total-average beta: 300 dpm/100cm<sup>2</sup> average and 745 dpm/100cm<sup>2</sup> maximum (limit is 5,000 dpm/100cm<sup>2</sup>).
  - Removable alpha: 0.2 dpm/100cm<sup>2</sup> average and 15.4 dpm/100cm<sup>2</sup> maximum (limit is 1,000 dpm/100cm<sup>2</sup>).
  - Removable beta: 3.4 dpm/100cm<sup>2</sup> average and 12.5 dpm/100cm<sup>2</sup> maximum (limit is 1,000 dpm/100cm<sup>2</sup>).
  - Ambient gamma exposure rates adjusted for background:  $-0.03$   $\mu$ R/h average and 2.8  $\mu$ R/h maximum (limit is 5  $\mu$ R/h above background).
  - Samples of various substances were collected from the facility: grease and sludge were collected from catch pans, sink drains, holdup tank and shower drains. Only the sludge sample from the SGR holdup tank showed any gamma peaks or detectable beta activity. An analysis of the sludge from the holdup tank showed U-238, U-235, Th-232, and Cs-137 decay chains. All isotope concentrations were below hazard levels and acceptable limits for unrestricted use.

- The survey results concluded that, while there was some measurable contamination, it was all below the acceptable limits and therefore did not warrant further investigation.
- Rockwell International performed a radiological survey of the drain system excavation in 1989 to determine if any contamination had escaped the system and remained in the soil. The survey included the drain line excavation by taking soil samples.<sup>4</sup>
  - The survey concluded that no residual contamination was present in the soil surrounding the drain lines.
  - Only man-made radionuclides were found in the soil and they were all below the background levels measured during the Area IV survey from July to October 1988:
    - U-238, 0.64 pCi/g (background is 1.1 pCi/g).
    - U-235, 0.02 pCi/g (background is 0.04 pCi/g).
    - Th-232 0.97 pCi/g (background is 1.7 pCi/g).
    - K-40, 15.3 pCi/g (background is 22 pCi/g).
- Rockwell International performed a radiological survey in 1995 to ensure that there was no residual contamination that would pose any threats to the Advanced Programs personnel working in the building. The survey covered the facility through direct radiation level measurements, smear samples, ambient gamma radiation survey and concrete samples. Direct and removable contamination results are given as above or below acceptance limits.<sup>5</sup>
  - The survey concluded that the facility was not contaminated and was a safe working environment.
  - All direct radiation readings for contamination showed <500 dpm/100cm<sup>2</sup> alpha and <5,000 dpm/100cm<sup>2</sup> beta gamma.
  - All smear samples for removable contamination showed <20 dpm/100cm<sup>2</sup> alpha and <100 dpm/100cm<sup>2</sup> beta gamma.
  - Net ambient gamma exposure rates were measured at 4.0 µR/hr (limit is 5.0 µR/hr above background).
  - Concrete samples contained:
    - Co-60, 0.03 pCi/g (limit is 1.9 pCi/g).
    - Eu-152, 0.06 pCi/g (limit is 4.5 pCi/g).
    - Eu-154, 0.04 pCi/g (limit is 4.1 pCi/g).
- DHS performed a confirmatory survey in 1995 to support the 1995 Rockwell survey. The survey covered the same area as the Rockwell survey.<sup>6</sup>
  - The survey concluded that the facility was suitable for occupancy/use by Rockwell and their contractors.
  - No report was provided.
- Rockwell International performed a radiological survey of the roof in 1995 to determine if contamination was present before removal of the roof for new construction.<sup>7</sup>

## Group CC

- The survey concluded that there was no contamination and the roof could be removed.
- During the 1996 Area IV Radiological Characterization Survey, soil samples were taken at two different locations in the vicinity of Building 4009. None of the measurements were distinguishable from background and all the measurements were below the acceptable concentration levels established by Boeing and presented in document N001SRR140131.<sup>8</sup>
- DHS performed a final release survey in September 1998 for the entire facility.<sup>2</sup>
  - The survey concluded that the facility met unrestricted release criteria.
  - No report was provided.
- Boeing performed a radiological survey on the facility septic system in 2002. The survey covered the septic system components through swipe samples and a direct frisk survey.<sup>9</sup>
  - All samples showed that contamination was below the acceptable removable contamination limits of 20 dpm/100cm<sup>2</sup> alpha, 100 dpm/100cm<sup>2</sup> beta.
  - No detectable beta gamma activity was discovered in any samples.
  - No gamma exposure rates above background were detected.

### Status:

- DHS released Building 4009 for unrestricted use in January 1999.<sup>2</sup>
- Currently, the building is used for non-nuclear research and development.

### References:

- 1- Phil Rutherford Website, <http://rdweb/shearadiationsafety/>, accessed August 2003.
- 2- DHS, Untitled Letter, from D. Wesley (DHS) to J. Barnes, January 20, 1999.
- 3- ETEC Document, GEN-ZR-0014, "Radiological Survey of Building T009," August 26, 1988.
- 4- Rockwell International Report, N704SRR990032, "Final Decontamination and Radiological Survey of Portions of Building T009," December 1990.
- 5- Rockwell International, Letter, "Building 009 Use by Advanced Programs Personnel," from P. Rutherford (Rockwell International) to C. Butler, March 1, 1995.
- 6- DHS, Letter, "Radioactive Material License Number 0015-70," from P. Baldenweg (DHS) to P. Rutherford, February 24, 1995.
- 7- Rockwell International, Letter, "B/009 Roof Survey," from P. Rutherford (Rockwell International) to C. Butler, May 4, 1995.
- 8- Rocketdyne Document, A4CM-ZR-0011, Rev. A, "Area IV Radiological Characterization Survey," August 15, 1996.
- 9- Boeing Radiation Safety Records Management System (File Drawer 133-B, "Building T009 Field (Septic System)," July 10, 2002.
- 10- Historical Site Photographs from Boeing Database.
- 11- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

Photograph – Building 4009



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**Site Summary – Parking Lot 4509**

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**Site Identification:**

Site 4509  
Parking Lot

**Operational Use/History:**

- Site 4509 served as a parking lot for personnel working in Building 4009 and the surrounding area.

**Site Description:**

- Site 4509 was an asphalt parking lot located southeast of Building 4009.

**Relevant Site Information:**

- There are no Use Authorizations and no Incident Reports associated with Site 4509.<sup>1</sup>

**Radiological Surveys:**

- Radiological surveys specific to Building 4509 have not been conducted.
- The western half of the parking lot was included in and decontaminated during the final release of Building 4020.<sup>2</sup>
- This area was covered as part of the 1994-1995 Area IV Radiological Characterization Survey.<sup>3</sup>
  - Background: 15.6  $\mu$ /hr.
  - Acceptable Limit: Less than 5  $\mu$ /hr above background.
  - Survey results were below the acceptable limits.

**Status:**

- Site 4509 is still in place.

**References:**

- 1- Review of Radiation Safety Records Management System, 2003.
- 2- DOE Document, DOE/CD-EETC-4020 RD00-198R1, "Draft Docket For The Release Of The Former Building 4020 Site (Hot Laboratory) As Part Of The EETC Closure," June 2003.
- 3- Rocketdyne Document, A4CM-ZR-0011, Rev. A, "Area IV Radiological Characterization Survey," August 15, 1996.
- 4- SSFL Area IV, EETC Industrial Planning Maps, 1962-1992.

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## Group DD

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Group DD Map

Building 4317

Building 4318

Building 4425

Building 4730

Building 4814

*Includes Building 4314, LLID Test Control Building*

*Includes Building 4514, Sodium-Water Reaction Test Center*

Building 4820

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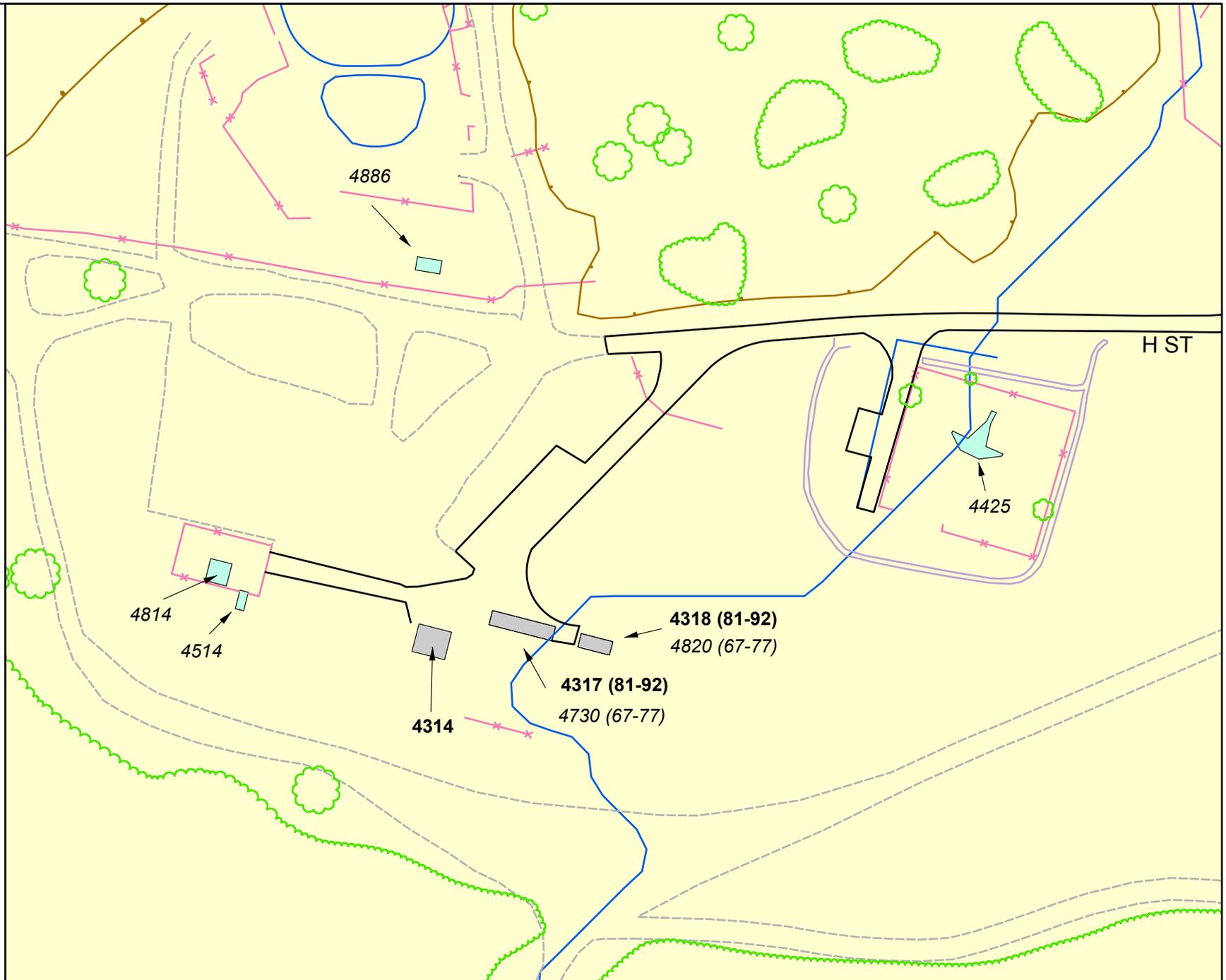
### Legend

**Labeled Features:**  
(Based on SSFL Documents as of October 2004)

-  Buildings/Sites: "Current"
-  Buildings/Sites: "Demolished"

**Unlabeled Features:**

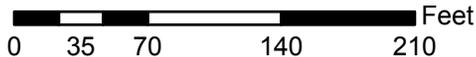
-  Leachfield (Removed)
-  Tree
-  Rock
-  Concrete Curb
-  Gutter
-  Asphalt/Concrete Berm & Paving
-  Sidewalk
-  Dirt Road
-  Fence
-  Stream/Pond
-  Drain
-  Area IV Boundary



DRAWN BY:



1 inch equals 100 feet



DATE:

May 2005

Site Summary Group DD  
AREA IV  
Santa Susana Field Laboratory, CA

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## Site Summary – Building 4317

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### Site Identification:

Building 4317  
Pistol Range

### Operational Use/History:

- Building 4317 was used for shelter while firing a sidearm.<sup>1</sup>
- Building 4317 has been demolished.

### Site Description:

- Building 4317 was a roofed area with open sides that was used to stand under while shooting firearms. There was an earthen berm down range to capture discharged bullets.<sup>1</sup>

### Relevant Site Information:

- There are no Use Authorizations and no Incident Reports associated with Building 4317.<sup>2</sup>

### Radiological Surveys:

- Radiological surveys specific to Building 4317 have not been conducted.
- This area was covered as part of the 1994-1995 Area IV Radiological Characterization Survey.<sup>3</sup>
  - Background: 15.6  $\mu$ /hr.
  - Acceptable Limit: Less than 5  $\mu$ /hr above background.
  - Survey results were below the acceptable limits.

### Status:

- Building 4317 has been demolished.

### References:

- 1- Personnel Interview, Dan Trippeda, September 12, 2003.
- 2- Review of Radiation Safety Records Management System, 2003.
- 3- Rocketdyne Document, A4CM-ZR-0011, Rev. A, "Area IV Radiological Characterization Survey," August 15, 1996.
- 4- Historical Site Photographs from Boeing Database.
- 5- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

Photograph – Building 4317

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## Site Summary – Building 4318

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### Site Identification:

Building 4318  
Pistol Range

### Operational Use/History:

- Building 4318 was used for shelter while firing a sidearm.<sup>1</sup>
- Building 4318 has been demolished.

### Site Description:

- Building 4318 was a roofed area with open sides that was used to stand under while shooting firearms. There was an earthen berm down range to capture discharged bullets.<sup>1</sup>

### Relevant Site Information:

- There are no Use Authorizations and no Incident Reports associated with Building 4318.<sup>2</sup>

### Radiological Surveys:

- Radiological surveys specific to Building 4318 have not been conducted.
- This area was covered as part of the 1994-1995 Area IV Radiological Characterization Survey.<sup>3</sup>
  - Background: 15.6  $\mu$ /hr.
  - Acceptable Limit: Less than 5  $\mu$ /hr above background.
  - Survey results were below the acceptable limits.

### Status:

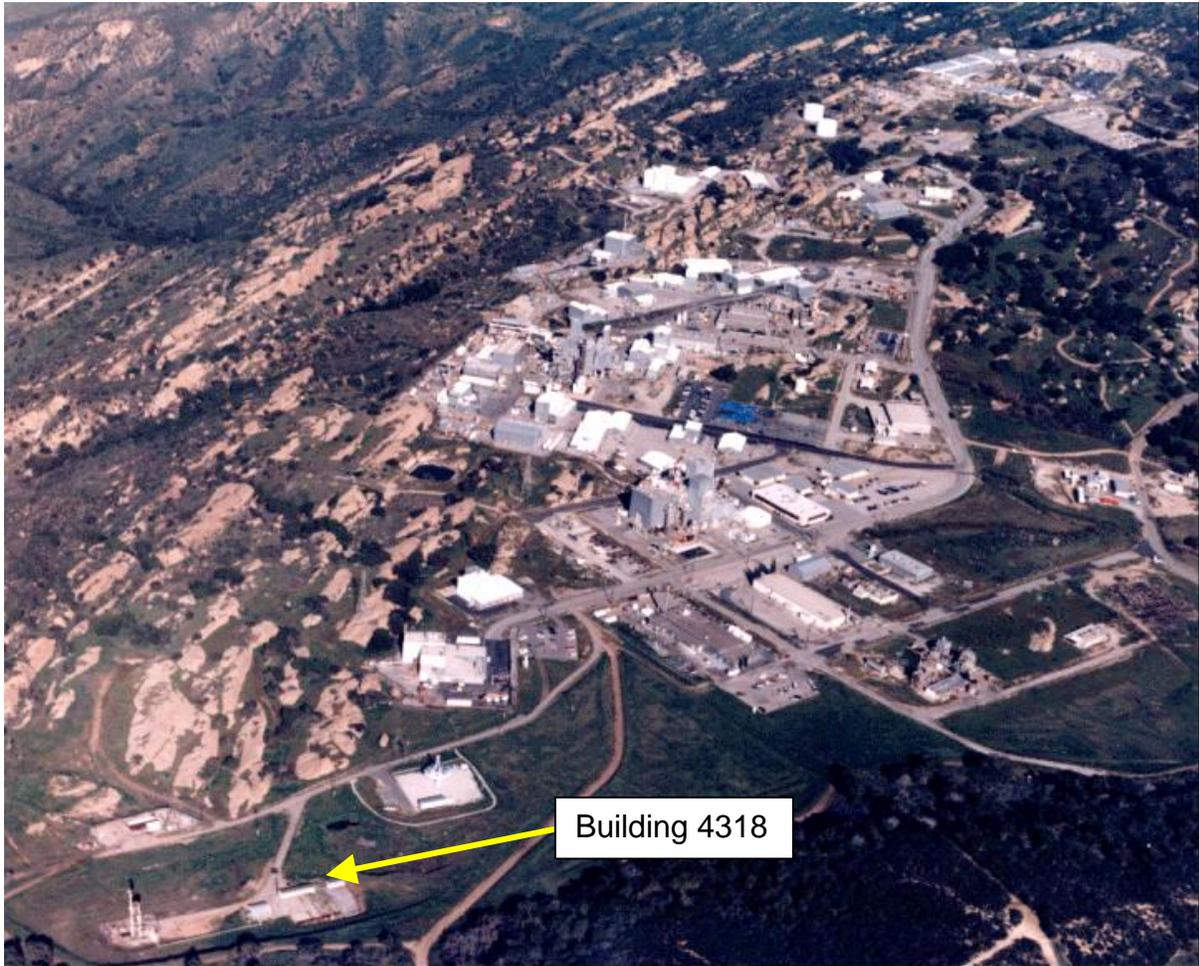
- Building 4318 has been demolished.

### References:

- 1- Personnel Interview, Dan Trippeda, September 12, 2003.
- 2- Review of Radiation Safety Records Management System, 2003.
- 3- Rocketdyne Document, A4CM-ZR-0011, Rev. A, "Area IV Radiological Characterization Survey," August 15, 1996.
- 4- Historical Site Photographs from Boeing Database.
- 5- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

Photograph – Building 4318

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## Site Summary – Building 4425

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### Site Identification:

Building 4425  
Solar Concentrator Facility

### Operational Use/History:

- Constructed in the middle 1980s.
- This building was used in experiments aimed at harnessing solar power.
- Building 4425 is still standing.

### Site Description:

- This building was a 25 kWt parabolic dish-Sterling engine generator, which consisted of a mirrored parabolic dish concentrator, 10.7 m in diameter, and a solar receiver.<sup>1</sup>

### Relevant Site Information:

- There are no Use Authorizations and no Incident Reports associated with Building 4425.<sup>2</sup>

### Radiological Surveys:

- Radiological surveys specific to Building 4425 have not been conducted.
- This area was covered as part of the 1994-1995 Area IV Radiological Characterization Survey.<sup>3</sup>
  - Background: 15.6  $\mu$ /hr.
  - Acceptable Limit: Less than 5  $\mu$ /hr above background.
  - Survey results were below the acceptable limits.

### Status:

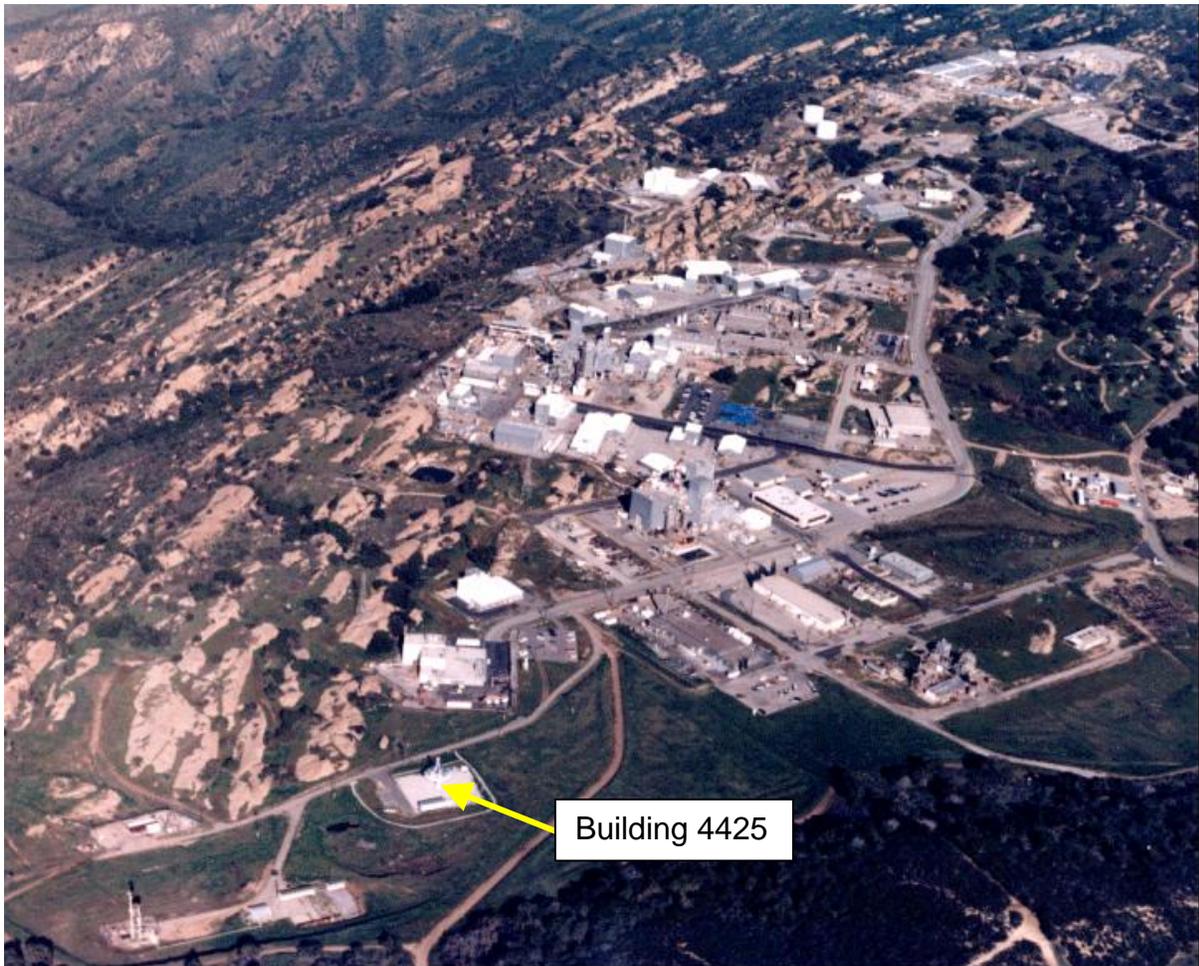
- Building 4425 is still standing.

### References:

- 1- Boeing Document, no document number, "ETEC Resources & Capabilities," no date given.
- 2- Review of Radiation Safety Records Management System, 2003.
- 3- Rocketdyne Document, A4CM-ZR-0011, Rev. A, "Area IV Radiological Characterization Survey," August 15, 1996.
- 4- Historical Site Photographs from Boeing Database.
- 5- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

Photograph – Building 4425

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## Site Summary – Building 4730

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**Site Identification:**

Building 4730  
Impact Test Control Building

**Operational Use/History:**

- Constructed in the late 1960s.
- This building appears on Industrial Planning Maps from 1967-1972.<sup>1</sup>
- This building housed the controls for the Isotope Impact System Test Device, Building 4820.
- Demolished in the middle 1970s.

**Site Description:**

- Building 4730 was located near the western corner of Area IV, south of H Street.

**Relevant Site Information:**

- There are no Use Authorizations and no Incident Reports associated with Building 4730.<sup>2</sup>

**Radiological Surveys:**

- Radiological surveys specific to Building 4730 have not been conducted.
- This area was covered as part of the 1994-1995 Area IV Radiological Characterization Survey.<sup>3</sup>
  - Background: 15.6  $\mu$ /hr.
  - Acceptable Limit: Less than 5  $\mu$ /hr above background.
  - Survey results were below the acceptable limits.

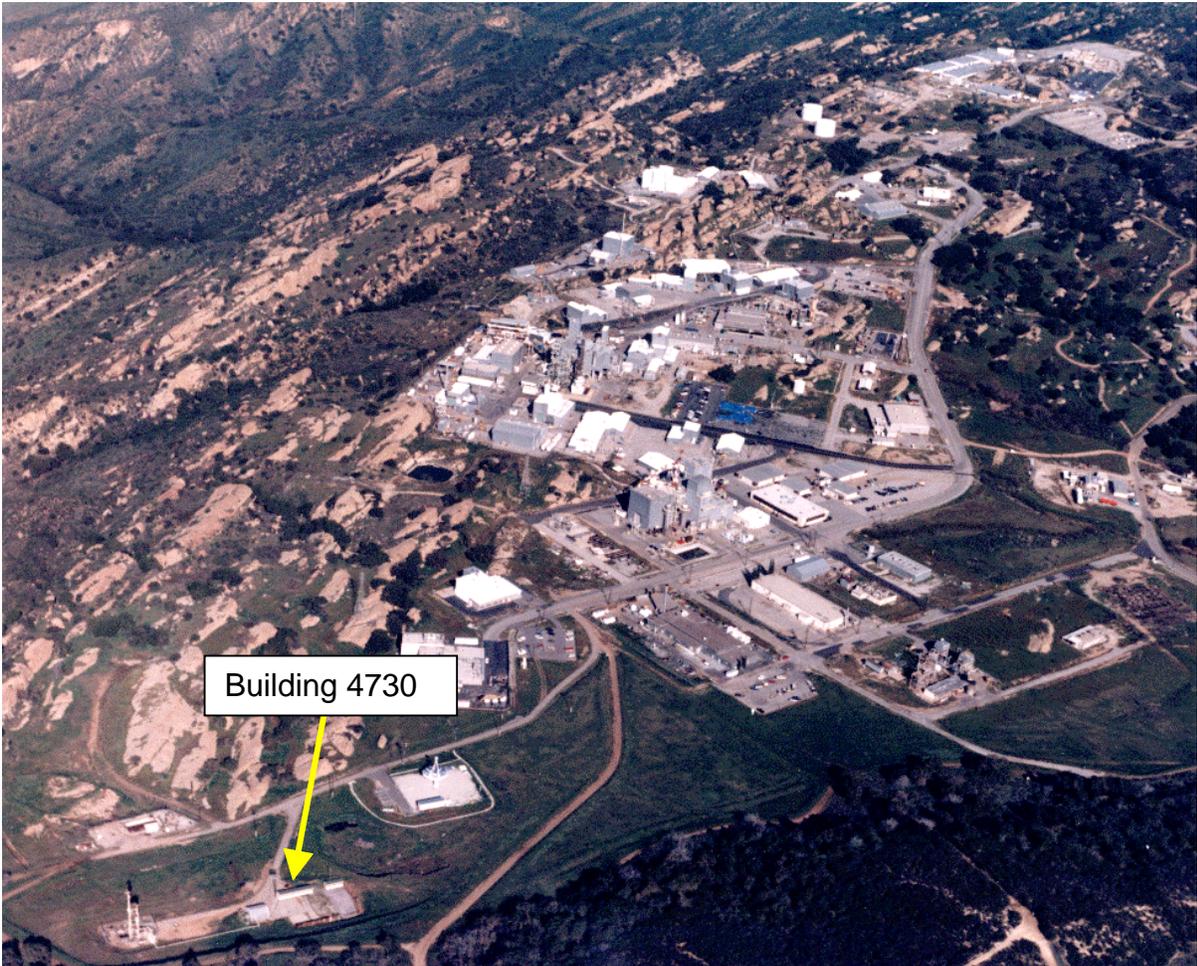
**Status:**

- Demolished in the late 1970s.

**References:**

- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Review of Radiation Safety Records Management System, 2003.
- 3- Rocketdyne Document, A4CM-ZR-0011, Rev. A, "Area IV Radiological Characterization Survey," August 15, 1996.
- 4- Historical Site Photographs from Boeing Database.

Photograph – Building 4730



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## Site Summary – Building 4814

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### Site Identification:

Building 4814  
Large Leak Injector Device (LLID)  
Sodium Water Reaction Test Structure  
Includes Building 4314, LLID Test Control Building  
Includes Building 4514, Sodium-Water Reaction Test Center

### Operational Use/History:

- Building 4814 was used in 1975 in tests that analyzed steam and water density at the point at which a pipe ruptured.<sup>1</sup>
- Building 4314 housed a control room for Building 4814 and Building 4514; the Sodium-Water Reaction Test Center was also associated with the buildings.
- Demolished in the late 1970s.

### Site Description:

- Building 4814 was a small structure that sat at the western corner of Area IV, south of H Street and directly west of Building 4514.<sup>2</sup>

### Relevant Site Information:

- Use Authorization 83, issue date November 7, 1974, permitted the use of a 25 Ci Cs-137 sealed source, which was checked annually to ensure no leakage occurred, in a DD Electronics Gamma Densitometer. This was used to measure steam density both inside pipes and during rupture.<sup>1</sup>
- Following each test using the gamma densitometer, radiological surveys were conducted to confirm that contamination had not occurred.<sup>1</sup>

### Radiological Surveys:

- Radiological surveys specific to Building 4814 have not been conducted.
- This area was covered as part of the 1994-1995 Area IV Radiological Characterization Survey.<sup>3</sup>
  - Background: 15.6  $\mu$ R/hr.
  - Acceptable Limit: Less than 5  $\mu$ R/hr above background.
  - Survey results were below the acceptable limits.

## Group DD

### Status:

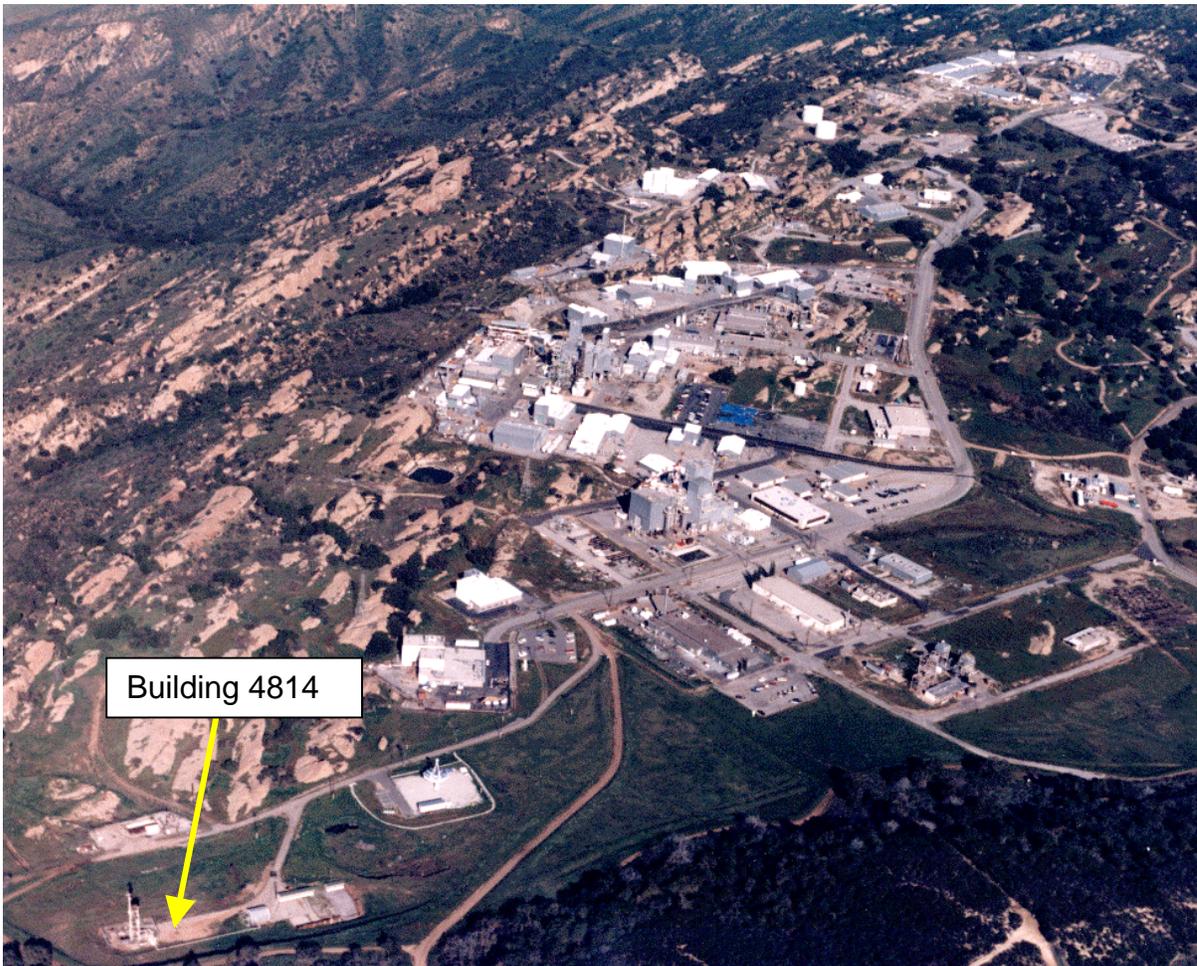
- Building 4814 and Building 4314 were demolished in the late 1970s.<sup>4</sup>

### References:

- 1- Rockwell International, Use Authorization 83, "Use of DD Electronics Gamma Densitometer," November 7, 1974.
- 2- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 3- Rocketdyne Document, A4CM-ZR-0011, Rev. A, "Area IV Radiological Characterization Survey," August 15, 1996.
- 4- Personnel Interview, Dan Trippeda, September 8, 2003.
- 5- Historical Site Photographs from Boeing Database.

Photograph – Building 4814

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## Site Summary – Building 4820

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### Site Identification:

Building 4820  
Isotope System Impact Test Device

### Operational Use/History:

- Constructed in the late 1960s.<sup>1</sup>
- This building was used for impact testing of normal ZrH Fuel.
- Demolished in the middle 1970s.<sup>1</sup>

### Site Description:

- Building 4820 was located south of H Street, adjacent to Building 4730.

### Relevant Site Information:

- Use Authorization 5, issued on February 25, 1970, permitted possession of 1 kilogram of fuel that contains 10% (by weight) of normal U for impact testing of normal ZrH Fuel. This process involved firing a small mass (58.33g) of fuel into a granite target. This was repeated 12 times at varying velocities. The experiment was conducted in an enclosed casing with three openings, two for camera lenses and one for the projectile. Upon impact, each projectile was pulverized.<sup>2</sup>

### Radiological Surveys:

- Radiological surveys specific to Building 4820 have not been conducted.
- This area was covered as part of the 1994-1995 Area IV Radiological Characterization Survey.<sup>3</sup>
  - Background: 15.6  $\mu$ R/hr.
  - Acceptable Limit: Less than 5  $\mu$ R/hr above background.
  - Survey results were below the acceptable limits.

### Status:

- Building 4820 was demolished in the middle 1970s.<sup>1</sup>

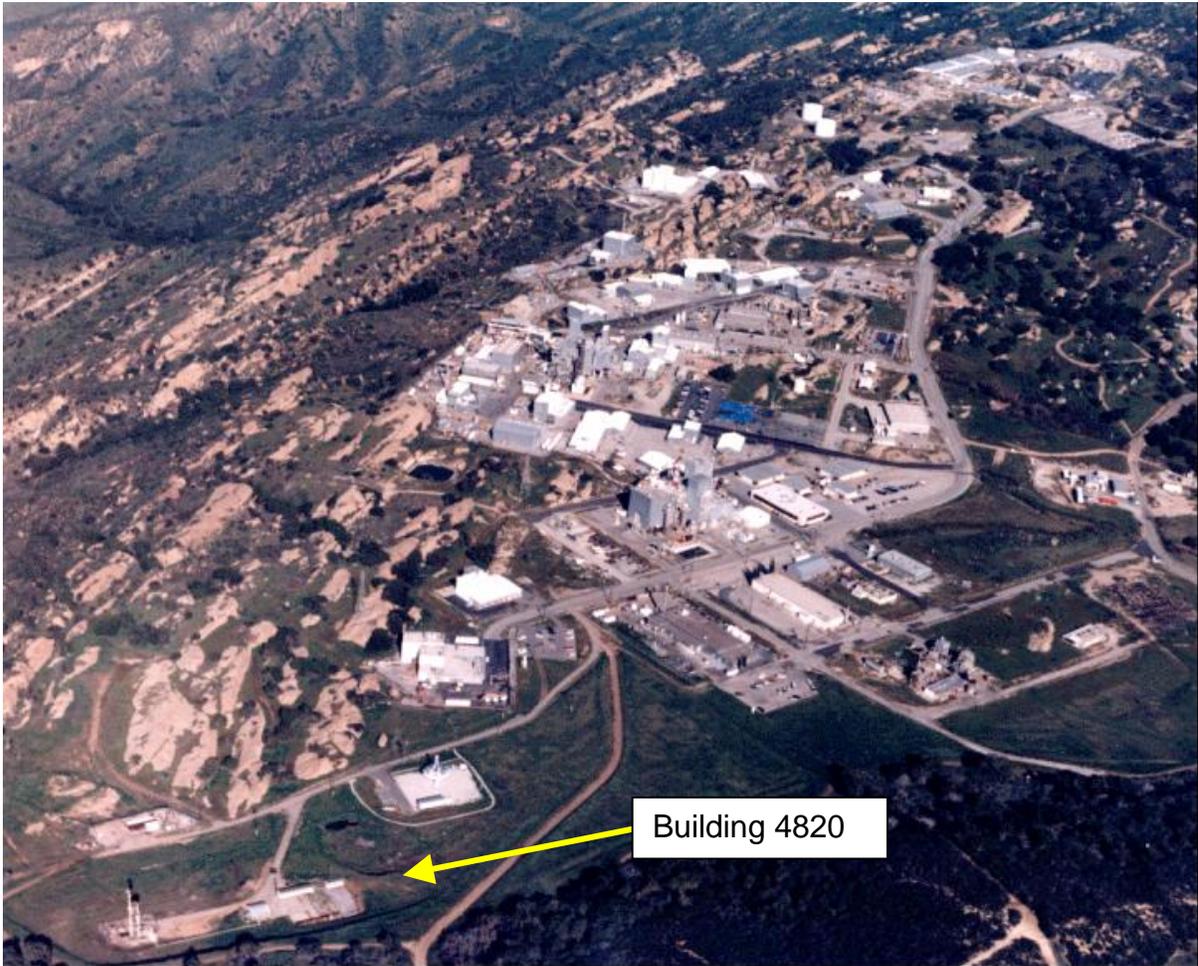
## Group DD

### References:

- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Rockwell International Document, Use Authorization 005, "Impact Tests of Normal ZrH Fuel," February 25, 1970.
- 3- Rocketdyne Document, A4CM-ZR-0011, Rev. A, "Area IV Radiological Characterization Survey," August 15, 1996.
- 4- Historical Site Photographs from Boeing Database.

Photograph – Building 4820

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## Group EE

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Group EE Map

Building 4885

Building 4886

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### Legend

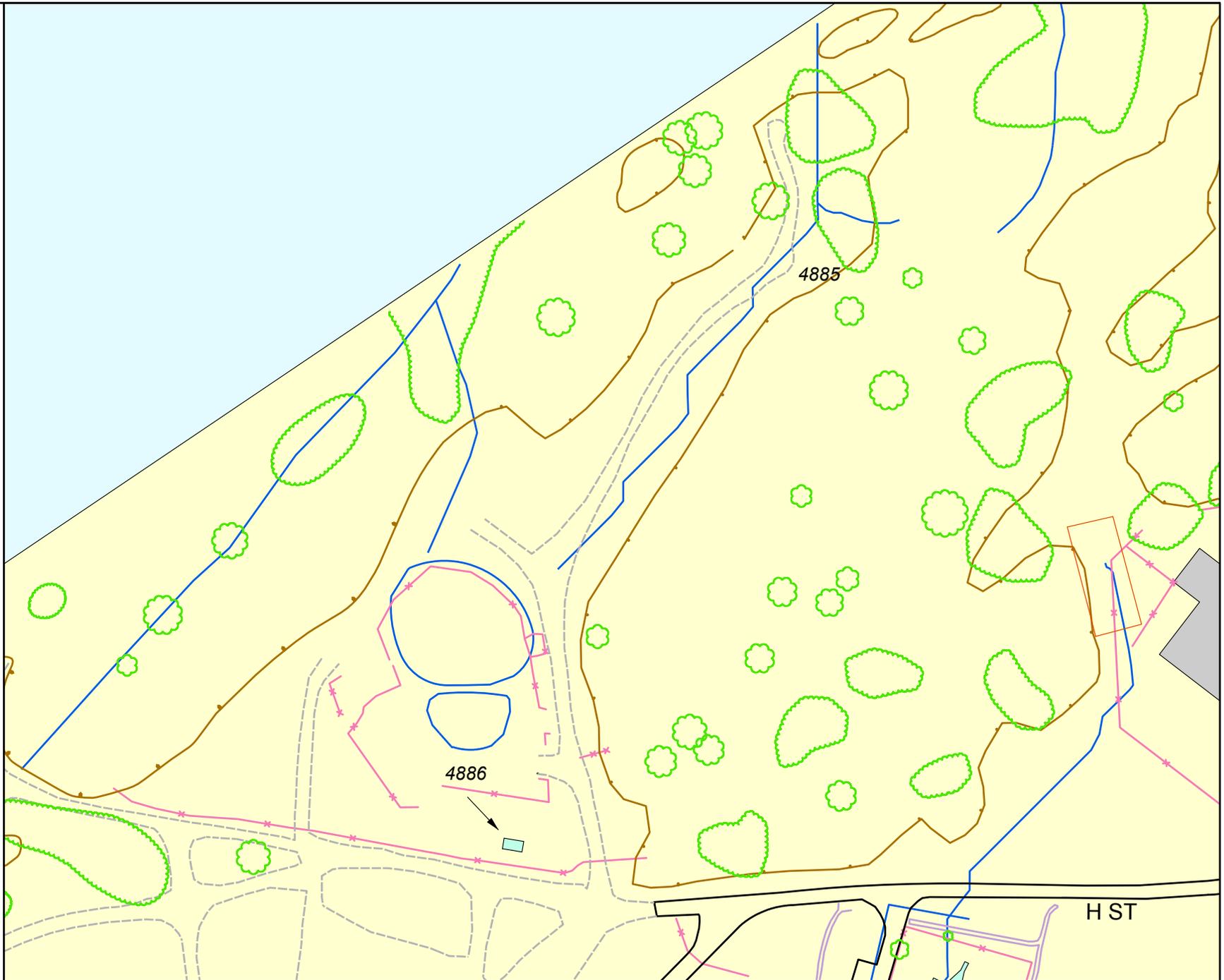
**Labeled Features:**  
(Based on SSFL Documents  
as of October 2004)

 Buildings/Sites:  
"Current"

 Buildings/Sites:  
"Demolished"

**Unlabeled Features:**

-  Leachfield  
(Removed)
-  Tree
-  Rock
-  Concrete Curb
-  Gutter
-  Asphalt/Concrete  
Berm & Paving
-  Sidewalk
-  Dirt Road
-  Fence
-  Stream/Pond
-  Drain
-  Area IV Boundary



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CONSULTING INC



1 inch equals 125 feet



Site Summary Group EE  
AREA IV  
Santa Susana Field Laboratory, CA

DATE:

May 2005

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## Site Summary – Building 4885

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### Site Identification:

Building 4885  
Pistol Range

### Operational Use/History:

- Constructed prior to 1962.<sup>1</sup>
- Building 4885 was used a pistol range.<sup>2</sup>
- Demolished in the early 1980s.<sup>1</sup>

### Site Description:

- Building 4885 consisted of four or five covered shooting stations on a concrete pad and a downfield berm.<sup>1</sup>

### Relevant Site Information:

- There are no Use Authorizations and no Incident Reports associated with Building 4885.<sup>3</sup>

### Radiological Surveys:

- The area of Building 4885 was surveyed for ambient gamma exposure as a part of the release of Building 4886.<sup>4</sup>
  - Mean ambient gamma: 16.3  $\mu$ R/hr.
  - Background 15.6  $\mu$ R/hr.
  - Survey results were below the acceptable limits.

### Status:

- Demolished in the early 1980s.

### References:

- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Personnel Interview, Dan Trippeda, September 18, 2003.
- 3- Review of Radiation Safety Records Management System, 2003.
- 4- DOE Document, RD99-179 DOE/CD-ETEC-4886, "Draft Docket For The Release Of Building 4886 As Part Of The ETEC Closure," September 1999, Revised 2000.

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## Site Summary – Building 4886

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### Site Identification:

Sodium Disposal Facility (Sodium Burn Pit)  
Building 4886

### Operational Use/History:

- Constructed in the early to middle 1950s.<sup>1</sup>
- From 1956 to 1978, the facility was used to clean non-radioactive metallic sodium and NaK from various scrap test components before they were disposed. It was also used to treat non-radioactive waste sodium and NaK and to burn non-radioactive combustible liquid waste, such as oils.
- The site has been remediated and re-vegetated.<sup>2</sup>

### Site Description:

- Building 4886 consisted of a large, rectangular pit filled with water. This pit was surrounded by a concrete slab; shallow water-filled, unlined basins; a small building; and steam lance cleaning equipment.<sup>2</sup>

### Relevant Site Information:

- The facility was not designed to use or store radioactive materials; however, during the course of normal treatment and disposal operations, radioactive materials were inadvertently introduced into the facility. This resulted in contamination of the soil.<sup>2</sup>
- In the 1960s, storage drums at the site were found contaminated with residual radioactivity. As a result, the site was sampled for radiological constituents. In 1978, contaminated scrap was removed from the facility. Following the scrap removal, soil sampling determined the pit was also radiologically contaminated.<sup>2</sup>
- On October 6, 1978, three contaminated sodium barrels were found in the sodium burn pit. The barrels had a maximum activity of 1 mrad/hr. The barrels were removed, and taken to the RMHF for disposal (A0075).

### Radiological Surveys:

- After the discovery of contaminated items at the site, periodic radiation surveys and soil samples were performed during 1978-1983.<sup>2</sup>
  - Based on process history, the contaminants of concern are Cs-137, Sr and Th.
  - Results indicated low levels (56 pCi/g maximum) of radioactive contamination (principally Cs-137), primarily in the lower pond.

## Group EE

- Contamination was not identified in areas outside the ponds.
- A comprehensive radiological survey was performed by Rocketdyne in 1987-1988 in areas surrounding the two open pits.<sup>3</sup>
  - No evidence of radiological contamination was found in surrounding areas.
  - Ambient gamma limits: 5  $\mu\text{R/hr}$  above background.
  - Soil activity limits: 46 pCi/g alpha, 100 pCi/g beta.
  - Water activity concentration limits:  $1 \times 10^{-4}$   $\mu\text{Ci/ml}$  alpha,  $1 \times 10^{-5}$   $\mu\text{Ci/ml}$  beta.
- In 1991, the California Regional Water Quality Control Board (RWQCB) issued an order under the California Toxic Pit Cleanup Act (TPCA) to remove all chemically contaminated material from the lower pond.
- A radiological survey to establish baseline levels of radioactivity at the burn pit was performed by Rocketdyne in 1992, including the upper and lower ponds, the western area, and northern drainage areas.<sup>4</sup>
  - Elevated radiation levels were found in the lower pond, with a maximum of 27.5  $\mu\text{R/hr}$  (approximately twice natural background levels).
- In 1992, all soil from the lower pond was excavated down to bedrock. Hazardous, radioactive and mixed waste soils were separated from clean soil for disposal offsite.
- On March 24, 1993, the California Regional Water Quality Control Board (RWQCB) sampled the lower pond to confirm all contamination had been removed.<sup>5</sup>
  - All analyses indicated that only background levels of radioisotopes remained.
- In 1993, Rocketdyne performed limited excavation in the upper pond and western areas based on locations of identified buried debris.
  - Although most of the soil was clean, some soil and debris was identified as contaminated and disposed of as radioactive waste. Contaminants found in the radiological waste soil included Cs-137, Sr-90, uranium isotopes, thorium isotopes, plutonium isotopes and tritium.
- On June 10, 1993, the California Department of Health Services (DHS) took confirmation soil samples from the lower pond and upper pond.<sup>6,7</sup>
  - No contamination above natural background was found.
- Rocketdyne performed a final radiation exposure survey of the facility in 1994.<sup>8</sup>
  - No contamination was detected.
- In 1995, an independent contractor (ICF Kaiser) performed soil and bedrock sampling of the upper pond, lower pond, western area and both drainage channels. The Oak Ridge Institute of Science and Education analyzed these samples.<sup>2</sup>
  - The majority was at or below background levels.
  - Three samples (out of 78) were slightly above background for the area (Maximum contamination was 0.57 pCi/g of Cs-137), but well below regulatory agency approved residential cleanup standards.

- Rocketdyne prepared and submitted a soil sample report to DHS that recommended release of the facility for unrestricted use.<sup>9</sup>
- During the 1996 Area IV Radiological Characterization Survey, soil samples were taken at six different locations in the vicinity of the Former Sodium Disposal Facility (FSDF). None of the measurements were distinguishable from background and all the measurements were below the acceptable concentration levels established by Boeing and presented in document N001SRR140131.<sup>10</sup>
- On July 26, 1996, DHS took soil samples from the lower pond and drainage channels.<sup>11</sup>
  - Results showed no radiological contamination above background.
- On September 16, 1997, DHS took soil samples (surface and sub-surface core samples) from the upper pond and western area.<sup>12,13</sup>
  - Results showed no radiological contamination above background.
- Following confirmation sampling, the area was backfilled and revegetated.

**Status:**

- The site has been remediated and revegetated.
- DHS released the facility for unrestricted use in May 1998.<sup>14,2</sup>

**References:**

- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- DOE Document, RD99-179 DOE/CD-ETEC-4886, "Draft Docket For The Release Of Building 4886 As Part Of The ETEC Closure," September 1999, Revised 2000.
- 3- ETEC Document, GEN-ZR-0004, "Radiological Survey of the Sodium Disposal Facility – Building T886," June 27, 1988.
- 4- Rocketdyne Report, N704SRR990034, "Baseline Radiological Survey of the Sodium Disposal Facility (T886)," August 31, 1992.
- 5- RWQCB, no document number, "Summary Table of CEP Results of Samples Taken by RWQCB," March 24, 1993.
- 6- California DHS/RHB, Internal memorandum, "Soil Released from Lower Pond of Sodium Burn Pit at SSFL," from S. Hsu, June 17, 1993.
- 7- DHS/RHB Laboratory Results, February 14, 1994.
- 8- Rocketdyne Report, 886-ZR-0007, "Post-Remediation Ambient Gamma Radiological Survey of the Former Sodium Disposal Facility (T886)," January 5, 1995.
- 9- Rocketdyne Report, 886-ZR-0009, "Post-Remediation Soil Sampling and Analysis for the Former Sodium Disposal Facility (T886)," Revision A, April 8, 1997.
- 10- Rocketdyne Report, A4CM-ZR-0011, "Area IV Radiological Characterization Survey Final Report," August 15, 1996.
- 11- California DHS/RHB, Internal memorandum, "Comparison of Soil Results for Sodium Burn Pit Area," from H. Kocol to F. Toyoma, December 30, 1996.
- 12- California DHS/RHB, Survey Report, "Confirmatory Survey: Soil Samples from the Former Sodium Disposal Facility," September 16, 1997.

## Group EE

- 13- California DHS/RHB, Internal memorandum, "Former Sodium Disposal Facility Located at Area IV Santa Susana Field Laboratory – ETEC," from R. Lupo to F. Toyoma, May 1, 1998.
- 14- DHS/RHB, letter, "Confirmation of the release of the Sodium Disposal Facility for unrestricted use," from G. Wong (DHS/RHB) to P. Rutherford. May 15, 1998.
- 15- Historical Site Photographs from Boeing Database.

Photograph – Building 4886 and Surroundings

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## Group FF

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Group FF Map

Building 4701

Building 4702

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### Legend

#### Labeled Features:

(Based on SSFL Documents  
as of October 2004)

 Buildings/Sites:  
"Current"

 Buildings/Sites:  
"Demolished"

#### Unlabeled Features:

 Leachfield  
(Removed)

 Tree

 Rock

 Concrete Curb

 Gutter

 Asphalt/Concrete  
Berm & Paving

 Sidewalk

 Dirt Road

 Fence

 Stream/Pond

 Drain

 Area IV Boundary

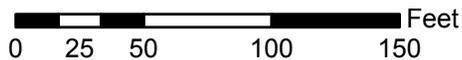


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**Sapere**  
CONSULTING INC



1 inch equals 75 feet



Site Summary Group FF  
AREA IV  
Santa Susana Field Laboratory, CA

DATE:

May 2005

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## Site Summary – Building 4701

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### Site Identification:

Building 4701  
Water Tank (Deer Flats)

### Operational Use/History:

- Constructed prior to 1967.<sup>1</sup>
- Building 4701 has been used to store water for the site.
- Water only flowed out from the tank.<sup>2</sup> It is unclear how it was refilled.
- Building 4701 is still standing.

### Site Description:

- Building 4701 sits on the ridgeline along the southern edge of Area IV.

### Relevant Site Information:

- There are no Use Authorizations and no Incident Reports associated with Building 4701.<sup>3</sup>

### Radiological Surveys:

- Radiological surveys specific to Building 4701 have not been conducted.
- This area was covered as part of the 1994-1995 Area IV Radiological Characterization Survey.<sup>4</sup>
  - Background: 15.6  $\mu$ R/hr.
  - Acceptable Limit: Less than 5  $\mu$ R/hr above background.
  - Survey results were below the acceptable limits.

### Status:

- Building 4701 is still standing.

### References:

- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Personnel Interview, Dan Trippeda, September 17, 2003.
- 3- Review of Radiation Safety Records Management System, 2003.
- 4- Rocketdyne Document, A4CM-ZR-0011, Rev. A, "Area IV Radiological Characterization Survey," August 15, 1996.
- 5- Historical Site Photographs from Boeing Database.

Photograph – Building 4701



## Site Summary – Building 4702

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### Site Identification:

Building 4702  
Water Tank (Deer Flats)

### Operational Use/History:

- Constructed prior to 1967.<sup>1</sup>
- Building 4702 has been used to store water for the site.
- Water flowed out from the tank only.<sup>2</sup> It is unclear how it was refilled.
- Building 4702 is still standing.

### Site Description:

- Building 4702 sits on the ridgeline along the southern edge of Area IV.<sup>1</sup>

### Relevant Site Information:

- There are no Use Authorizations and no Incident Reports associated with Building 4702.<sup>3</sup>

### Radiological Surveys:

- Radiological surveys specific to Building 4702 have not been conducted.
- This area was covered as part of the 1994-1995 Area IV Radiological Characterization Survey.<sup>4</sup>
  - Background: 15.6  $\mu$ R/hr.
  - Acceptable Limit: Less than 5  $\mu$ R/hr above background.
  - Survey results were below the acceptable limits.

### Status:

- Building 4702 is still standing.

### References:

- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Personnel Interview, Dan Trippeda, September 17, 2003.
- 3- Review of Radiation Safety Records Management System, 2003.
- 4- Rocketdyne Document, A4CM-ZR-0011, Rev. A, "Area IV Radiological Characterization Survey," August 15, 1996.
- 5- Historical Site Photographs from Boeing Database.

Photograph – Building 4702



## Not Built

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Building 4001

Building 4052

Building 4638

Building 4639

Building 4640

**Not Built**

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## Site Summary – Building 4001

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### Site Identification:

Building 4001  
Support Office Expansion

### Operational Use/History:

- Building 4001 appears only in the left margin of the March 15, 1962 Industrial Planning Map with the note “not completed.” It is not listed in the regular list of building numbers and descriptions, and is represented on the map with an X, rather than a building outline.<sup>1</sup> The building was not represented on any other map, or in any other records. The File Look-Up Database lists one incident associated with Building 4001; however, the incident report refers to Headquarters 001, which appears to be a DeSoto building.<sup>2</sup> As such, it appears that Building 4001 was never built.

### References:

- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Review of Radiation Safety Records Management System, 2003.

**Not Built**

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## Site Summary – Building 4052

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### Site Identification:

Building 4052

Systems for Nuclear Auxiliary Power (SNAP) Nuclear Operations Support Building

### Operational Use/History:

- Building 4052 appears only on the July 14, 1964 Industrial Planning Map. The building was not represented on any other map, or in any other records. It appears that Building 4052 was never built.<sup>1</sup>

### References:

- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

**Not Built**

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## Site Summary – Building 4638

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### Site Identification:

Building 4638  
SNAP Office Trailer Complex

### Operational Use/History:

- Buildings 4638 appears only in the left margin of the March 15, 1962 Industrial Planning Map. It is not listed in the regular list of building numbers and descriptions, and is represented on the map with an X, rather than a building outline.<sup>1</sup> The building, which would have been a trailer, was not represented on any other map, or in any other records. As such, it seems most likely that Building 4638 was planned but never constructed.

### References:

- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

**Not Built**

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## Site Summary – Building 4639

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### Site Identification:

Building 4639  
Industrial Engineering Office Trailer Complex

### Operational Use/History:

- Building 4639 appears only in the left margin of the March 15, 1962 Industrial Planning Map. It is no listed in the regular list of building numbers and descriptions, and is represented on the map with an X, rather than a building outline.<sup>1</sup> The building, which would have been a trailer, was not represented on any other map, nor in any other records. As such, it seems most likely that Building 4639 was planned but never constructed.

### References:

- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

**Not Built**

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## Site Summary – Building 4640

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### Site Identification:

Building 4640  
SNAP Office Trailer Complex

### Operational Use/History:

- Building 4640 appears only in the left margin of the March 15, 1962 Industrial Planning Map. It is not listed in the regular list of building numbers and descriptions, and is represented on the map with an X, rather than a building outline.<sup>1</sup> The building, which would have been a trailer, was not represented on any other map, or in any other records. As such, it seems most likely that Building 4640 was planned but never constructed.

### References:

- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

**Not Built**

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## REFERENCE LIST

### Group A

#### **Building 4114**

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- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Personnel Interview, Dan Trippeda, September 10, 2003.
- 3- Review of Radiation Safety Records Management System, 2003.
- 4- Personnel Interview, Bob Tuttle, December 12, 2003.
- 5- Personnel Interview, Phil Rutherford, November 12, 2003.
- 6- Rocketdyne Document, A4CM-ZR-0011, Rev. A, "Area IV Radiological Characterization Survey," August 15, 1996.
- 7- Historical Site Photographs from Boeing Database.

#### **Parking Lot 4511**

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*Includes Building 4113, Guard Shack*

*Includes Building 4623, Guard Shack*

- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Review of Radiation Safety Records Management System, 2003.
- 3- ETEC Document, GEN-ZR-008, "Radiological Survey of the ESG Salvage Yard (Old), Rocketdyne Barrel Storage Yard, and New Salvage Yard (T583)," August 22, 1988.
- 4- Historical Site Photographs from Boeing Database.

#### **Old Conservation Yard**

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*Includes Building 4313, Conservation Shack*

- 1- ETEC Document, GEN-ZR-008, "Radiological Survey of the ESG Salvage Yard (Old), Rocketdyne Barrel Storage Yard, and New Salvage Yard (T583)," August 22, 1988.
- 2- Rocketdyne Report, N704SRR990030, "Final Report, Decontamination and Radiological Survey of the Old Conservation Yard," August 16, 1990.
- 3- ORISE Document, 93/J-107, "Verification Survey of the OCY, Building T064 Side Yard and Building T028, SSFL, Rockwell International, Ventura County, California," Tim Vitkus, October 1993.
- 4- DHS/RHB Letter, "Rocketdyne's letter dated July 6, 1995 with attachments concerning the release of Buildings T029, T028, and OCY," from Gerard Wong (DHS/RHB) to Phil Rutherford, December 21, 1995.
- 5- Boeing Letter from Majelle Lee to Roger Lupo, "Old Conservation Yard Debris Field," May 12, 2000.
- 6- Personnel Interview, Phil Rutherford, January 30, 2005 (Area IV Database for Onsite and Offsite Surveys).

## Reference List

- 7- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 8- Historical Site Photographs from Boeing Database.

## Group B

### **Site 4583, New Salvage Yard**

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- 1- ETEC Document, GEN-ZR-008, "Radiological Survey of the ESG Salvage Yard (Old), Rocketdyne Barrel Storage Yard, and New Salvage Yard (T583)," August 22, 1988.
- 2- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 3- Historical Site Photographs from Boeing Database.

## Group C

### **Site 4583, Old ESG Storage Yard**

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- 1- ETEC Document, GEN-ZR-008, "Radiological Survey of the ESG Salvage Yard (Old), Rocketdyne Barrel Storage Yard, and New Salvage Yard (T583)," August 22, 1988.
- 2- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 3- Historical Site Photographs from Boeing Database.

### **Building 4320**

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- 1- ETEC Document, GEN-ZR-008, "Radiological Survey of the ESG Salvage Yard (Old), Rocketdyne Barrel Storage Yard, and New Salvage Yard (T583)," August 22, 1988.
- 2- ETEC Document, GEN-SP-00051, "Removal of Fuel Oil Storage and Distribution System," November 2, 1998.
- 3- Review of Radiation Safety Records Management System, 2003.
- 4- Rocketdyne Document, A4CM-ZR-0011, Rev. A, "Area IV Radiological Characterization Survey," August 15, 1996.
- 5- Historical Site Photographs from Boeing Database.
- 6- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

### **Building 4731**

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- 1- ETEC Document, GEN-ZR-008, "Radiological Survey of the ESG Salvage Yard (Old), Rocketdyne Barrel Storage Yard, and New Salvage Yard (T583)," August 22, 1988.
- 2- ETEC Document, GEN-SP-00051, "Removal of Fuel Oil Storage and Distribution System," November 2, 1998.
- 3- Review of Radiation Safety Records Management System, 2003.

- 4- Rocketdyne Document, A4CM-ZR-0011, Rev. A, "Area IV Radiological Characterization Survey," August 15, 1996.
- 5- Historical Site Photographs from Boeing Database.
- 6- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

### **Building 4732**

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- 1- ETEC Document, GEN-ZR-008, "Radiological Survey of the ESG Salvage Yard (Old), Rocketdyne Barrel Storage Yard, and New Salvage Yard (T583)," August 22, 1988.
- 2- ETEC Document, GEN-SP-00051, "Removal of Fuel Oil Storage and Distribution System," November 2, 1998.
- 3- Review of Radiation Safety Records Management System, 2003.
- 4- Rocketdyne Document, A4CM-ZR-0011, Rev. A, "Area IV Radiological Characterization Survey," August 15, 1996.
- 5- Historical Site Photographs from Boeing Database.
- 6- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

## **Group D**

### **Building 4040**

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*Includes Building 4624, Fire Truck Canopy*

- 1- DOE Document, N-083E-A02-DV001, Rev. A, "Site Development and Facility Utilization Planning FY 1984-FY 1989," April 1984.
- 2- Personnel Interview, Phil Rutherford, September 4, 2003.
- 3- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 4- Review of Radiation Safety Records Management System, 2003.
- 5- Rockwell International Internal Document, no document number, Radiation Survey Report, Building T040, 1996.
- 6- Rockwell International Internal Document, no document number, Radiation Survey Report, Building T040, 1997.
- 7- Historical Site Photographs from Boeing Database.

### **Parking Lot 4540**

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- 1- Personnel Interview, Phil Rutherford, September 4, 2003.
- 2- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 3- Review of Radiation Safety Records Management System, 2003.

## Group E

### **Building 4014**

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*Includes Building 4783, Substation*

- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Personnel Interview, Dan Trippeda, September 2003.
- 3- Historical Site Photographs from Boeing Database.
- 4- Review of Radiation Safety Records Management System, 2003.
- 5- Rocketdyne Document, A4CM-ZR-0011, Rev. A, "Area IV Radiological Characterization Survey," August 15, 1996.

### **Building 4029**

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- 1- ETEC Document, 029-AR-0001, "Final D&D Report for Building T029," March 28, 1996.
- 2- Rockwell Health and Safety, Letter, "Transfer of Radioactive Sources from T029," from J. D. Moore (Rockwell Health and Safety) to W. F. Heine, May 1, 1974.
- 3- ETEC Document, GEN-ZR-0006, "Radiological Survey of the Old Calibration Facility – Building T029," August 19, 1988.
- 4- ORISE, Letter, "Type A Verification of Building T029, Santa Susana Field Laboratory, Rockwell International, Canoga Park, California," from T. Vitkus (ORISE) to A. Kluk, February 5, 1993.
- 5- U.S. EPA Report, no document number, "Final Oversight Verification and Confirmation Radiological Survey Report for Buildings T-012, T-029, and T-363," December 20, 2002.
- 6- Rocketdyne Document, A4CM-ZR-0011, Rev. A, "Area IV Radiological Characterization Survey," August 15, 1996.
- 7- Historical Site Photographs from Boeing Database.
- 8- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

### **Building 4030**

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*Includes Building 4XXX, Electrical Substation for 4030 and 4641*

- 1- Rocketdyne Report, 030-AR-0002, "Decontamination and Decommissioning (D&D) of Building T030," November 13, 1997.
- 2- ETEC Document, GEN-ZR-0007, "Radiological Survey of Shipping /Receiving and Old Accelerator Area- Buildings T641 and T030," August 19, 1988.
- 3- ORISE Document 96/C-4, "Verification Survey of the Interim Storage Facility; Buildings T030, T641, and T013; an Area Northwest of Buildings T019, T013, T012, and T059; and a Storage Yard West of Buildings T626 and

- T038, SSFL, Rockwell International, Ventura County, California,” Vitkus, T. J., and T. L. Bright, February 1996.
- 4- Review of Radiation Safety Records Management System, 2003.
  - 5- Atomics International Internal, Letter, “Tritium Smear Survey, Building T030 Van de Graaf Accelerator,” A.R. Mooeres to W.F. Heine, March 29, 1966.
  - 6- Rocketdyne Report, 030-AR-0001, “Final Radiological Survey Report for Building T030,” January 22, 1997.
  - 7- DOE Document, DOE/CD-EETEC-030, “Certification of the Radiological Condition of Building T030 at ETEC near Chatsworth, California,” November 1997.
  - 8- DHS/RHB, Untitled letter, from Gerard Wong (DHS/RHB) to Phil Rutherford, January 15, 1999.
  - 9- Historical Site Photographs from Boeing Database.
  - 10- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

### **Building 4046**

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- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Review of Radiation Safety Records Management System, 2003.

### **Building 4053**

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*Includes Building 4033, Skid Shack*

*Includes Building 4043, Skid Shack*

- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Review of Radiation Safety Records Management System, 2003.

### **Building 4064 and Side Yard and Site 4864**

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*Includes Mechanical Equipment Slab (Site 4864)*

- 1- Boeing Document, EID-04600, “Final Report, Decontamination and Decommissioning (D&D) of Fuel Storage Facility 4064,” September 11, 1999.
- 2- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 3- U.S. DOE, Oakland Operations Office Document, DOE/CD-EETEC-4064, “Draft Docket for the Release of Facility 4064 at the Former Energy Technology Engineering Center,” September 1999.
- 4- Rocketdyne Report, N704SRR990031, “Final Decontamination and Radiological survey of the Building T064 Side Yard,” October 20, 1990.
- 5- ETEC Document, GEN-ZR-005, “Radiological Survey of the Source and Special Nuclear Material Storage Vault at Building T064,” August 19, 1988.
- 6- ORISE, Letter, “Second Addendum to the Verification Survey of Buildings T064 Side-Yard, SSFL, Ventura County, California (ORISE 1993 and 1994),” from T. Vitkus, (ORISE) to A. Gupta (DOE), January 25, 1999.

## Reference List

- 7- ETEC Document, RS-00003, "Area 4064 Final Status Survey Report," March 30, 1999.
- 8- DOE, Letter, "Demolition of Building 064," from M. Lopez (DOE) to M. Lee, (Rocketdyne) June 25, 1996.
- 9- DHS/RHB, Letter, "Demolition and Disposal of Structural Material from Building T064 at SSFL," from G. Wong (DHS/RHB) to P. Rutherford, August 19, 1996.
- 10- DOE Letter, "Release of Building 4064," from M. Lopez (DOE) to M. Lee (Boeing), January 31, 2005.
- 11- Historical Site Photographs from Boeing Database.

### **Parking Lot 4513**

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*Includes Building 4333, Time Clock*

- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- ETEC Document, GEN-ZR-0009, "Radiological Survey of the T513 Parking Lot; Old R/A Laundry Area; Plot 333; and Areas Between SRE to RMDF, and KEWB to RMDF," August 26, 1988.
- 3- Historical Site Photographs from Boeing Database.

### **4535 Parking Lot**

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- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- ETEC Document, GEN-ZR-0007, "Radiological Survey of Shipping/Receiving and Old Accelerator Area- Buildings T641 and T030," August 19, 1988.
- 3- Historical Site Photographs from Boeing Database.

### **Building 4641**

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*Includes Building 4XXX, Electrical Substation for 4030 and 4641*

- 1- ETEC Document, GEN-ZR-0007, "Radiological Survey of Shipping/Receiving and Old Accelerator Area- Buildings T641 and T030," August 19, 1988.
- 2- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 3- ORISE Document 96/C-4, "Verification Survey of the Interim Storage Facility; Buildings T030, T641, and T013; an Area Northwest of Buildings T019, T013, T012, and T059; and a Storage Yard West of Buildings T626 and T038, SSFL, Rockwell International, Ventura County, California," Vitkus, T. J., and T. L. Bright, November 1995.
- 4- Historical Site Photographs from Boeing Database.

## Group F

### **Building 4063**

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- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Personnel Interview, Dan Trippeda, September 18, 2003.
- 3- Personnel Interview, Randy Ingersoll, September 18, 2003.
- 4- Review of Radiation Safety Records Management System, 2003.
- 5- ETEC Document, GEN-ZR-0009, "Radiological Survey of the T513 Parking Lot; Old R/A Laundry Area; Plot 333; and Areas Between SRE to RMDF, and KEWB to RMDF," August 26, 1988.

### **Building 4273**

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*Includes Building 4316, Maintenance Skid Shack*

- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Personnel Interview, Paul Waite, September 22, 2003.
- 3- ETEC Document, GEN-ZR-0009, "Radiological Survey of the T513 Parking Lot; Old R/A Laundry Area; Plot 333; and Areas Between SRE to RMDF, and KEWB to RMDF," August 26, 1988.
- 4- Personnel Interview, Bob Tuttle, December 12, 2003.
- 5- Review of Radiation Safety Records Management System, 2003.
- 6- Historical Site Photographs from Boeing Database.

### **Building 4283**

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- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Personnel Interview, Paul Waite, September 22, 2003
- 3- Personnel Interview, Bob Tuttle, December 12, 2003.
- 4- ETEC Document, GEN-ZR-0009, "Radiological Survey of the T513 Parking Lot; Old R/A Laundry Area; Plot 333; and Areas Between SRE to RMDF, and KEWB to RMDF," August 26, 1988.
- 5- Review of Radiation Safety Records Management System, 2003.
- 6- Historical Site Photographs from Boeing Database.

## Group G

### **Building 4003**

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*Includes Building 4693, Substation*

- 1- Rocketdyne Internal Website, <http://rdweb/shearadiationsafety/4003.html>, accessed August 2003.
- 2- Rockwell International Report, AI-ERDA-13158, "Building 003 Decontamination and Disposition Final Report," March 12, 1976.

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- 3- Rockwell International Report, N704TI990063, "Radiological Survey Results – Release to Unrestricted Use, Building 003," November 9, 1982.
- 4- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 5- Personnel Interview, Dan Trippeda, September 15, 2003.
- 6- Argonne National Laboratory Document, DOE/EV-0005/44, "Post Remedial Action Survey Report for Building 003, Santa Susana Field Laboratories, Rockwell International, Ventura County, California," April 1982.
- 7- DOE/OAK, Letter, Docket #6450-01 "Certification Docket for the SRE and Building 003," from J. K. Hartman (DOE/OAK) to G.W. Meyers, September 24, 1985.
- 8- ETEC Document, GEN-ZR-0009, "Radiological Survey of the T513 Parking Lot; Old R/A Laundry Area; Plot 333; and Areas Between the SRE to RMDF, and KEWB to RMDF," August 26, 1988.
- 9- Historical Site Photographs from Boeing Database.

### **Building 4041**

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- 1- Rockwell International Report, ESG-DOE-13403, "Sodium Reactor Experiment Decommissioning Final Report," August 15, 1983.
- 2- Rockwell International Report, N704TI990037, "Radiological Survey Results – Release to Unrestricted Use, SRE, Building 041," November 9, 1982.
- 3- Argonne National Laboratory Document, no document number, "Interim Post Remedial Action Survey Report for the Sodium Reactor Experiment (SRE) Facility," May 1983.
- 4- Argonne National Laboratory Document, DOE-EV-0005-46, "Post Remedial Action Survey Report for the Sodium Reactor Experiment (SRE) Facility," February 1984.
- 5- DOE/OAK, Letter, Docket #6450-01 "Certification Docket for the SRE and Building 003," from J. K. Hartman (DOE/OAK) to G.W. Meyers, September 24, 1985.
- 6- Historical Site Photographs from Boeing Database.
- 7- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

### **Building 4133**

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- 1- Rockwell International, Internal Letter "Unrestricted Release of Building T724 for Unrestricted Use," from J.E Begley to R.J. Tuttle, January 18, 1978.
- 2- Personnel Interview, Brian Sujata, September 23, 2003.
- 3- Rocketdyne Internal Document, no document number, "Assessment of Department of Energy Buildings within the SSFL," September 30, 1996.
- 4- Review of Radiation Safety Records Management System, 2003.
- 5- Rocketdyne Document, A4CM-AN-0003, "Radiological Characterization Plan, Area IV, SSFL," March 30, 1994.
- 6- Boeing Document, RS-00015, "Building 4133 Radiation Survey Report" January 26, 2004.

- 7- ORISE Document, ORISE-00-0577, "Verification Survey of Building 4133, SSFL, The Boeing Company, Ventura County, California," J.R. Morton, April 2000.
- 8- Historical Site Photographs from Boeing Database.
- 9- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

### **Building 4143 and Sites 4413, 4894, 4895, 4896, 4897 and 4898**

#### *Includes Building 4683, Substation*

- 1- Rockwell International Report, ESG-DOE-13403, "Sodium Reactor Experiment Decommissioning Final Report," August 15, 1983.
- 2- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 3- Atomics International Report, NAA-SR-4488, "SRE Fuel Element Damage: An Interim Report," November 30, 1959.
- 4- Rockwell International Internal Letter, "Fuel Damage in the Sodium Reactor Experiment, July 1959," May 18, 1979.
- 5- Rockwell International Report, N704TI990038, "Radiological Survey Results – Release to Unrestricted Use, SRE, Building 143," May 31, 1983.
- 6- Rockwell International Report, N704TI990035, "Radiological Survey Results – Release to Unrestricted Use, SRE Region IX," May 31, 1983.
- 7- Rockwell International Report, N704TI990034, "Radiological Survey Results – Release to Unrestricted Use, SRE Region VIII," May 13, 1983.
- 8- Rockwell International Report, N704TI990029, "Radiological Survey Results – Release to Unrestricted Use, SRE Region III," May 13, 1983.
- 9- Argonne National Laboratory Document, DOE-EV-0005-46, "Post Remedial Action Survey Report for the Sodium Reactor Experiment (SRE) Facility," February 1984.
- 10- Boeing Letter, 2001 RC-03853, "Information Regarding Permit – Septic Tank and Leachfield," from P. Rutherford (Boeing) to J. Evans (Ventura County Environmental Health Division), October 23, 2001.
- 11- Boeing Letter, "Request for Approval to Ship Soil from SRE to a Landfill," from Phil Rutherford (Boeing) to Stephen Hsu (DHS-RHB), September 25, 2001.
- 12- DHS Report, "Preliminary Radiological Survey of Mercury Contaminated Soils East of the Former SRE Building – Survey date: July 26, 2001," November 19, 2002.
- 13- DOE-OAK, Letter, "Certification Docket for the SRE and Building 003," from James K. Hartman (DOE/OAK) to G.W. Meyers, September 24, 1985.
- 14- Historical Site Photographs from Boeing Database.

### **Building 4153**

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- 1- Decontamination & Disposition of Facilities Program (Rockwell International) Document, FDP-704-990-003, "Facilities Dismantling Plan for SRE," June 24, 1975.
- 2- Rockwell International Report, ESG-DOE-13403, "Sodium Reactor Experiment Decommissioning Final Report," August 15, 1983.
- 3- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 4- Rockwell International Report, N704TI990035, "Radiological Survey Results – Release to Unrestricted Use, SRE Region IX," May 31, 1983.
- 5- Argonne National Laboratory Document, DOE-EV-0005-46, "Post Remedial Action Survey Report for the Sodium Reactor Experiment (SRE) Facility," February 1984.
- 6- DOE/OAK, Letter, "Certification Docket for the SRE and Building 003," from James K. Hartman (DOE/OAK) to G.W. Meyers, September 24, 1985.
- 7- Historical Site Photographs from Boeing Database.

### **Building 4163**

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- 1- Rockwell International Report, N704TI990028, "Radiological Survey Results – Release to Unrestricted Use, SRE Region II (Building 163, Box Shop)," May 4, 1978.
- 2- DOE/OAK, Letter, "Certification Docket for the SRE and Building 003," from James K. Hartman (DOE/OAK) to G.W. Meyers, September 24, 1985.
- 3- Rockwell International Report, N704TI990039, "Radiological Survey Results – Release to Unrestricted Use, SRE, Building 163," April 8, 1982.
- 4- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 5- Rockwell International Report N704TP990008, "Radiological Survey Plan, Support of D&D Operations at T-143 (SRE)," September 15, 1981.
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- 8- Historical Site Photographs from Boeing Database.

### **Building 4183**

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- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
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- 3- Rockwell International Report, N704TI990036, "Radiological Survey Results – Release to Unrestricted Use, SRE Region X," May 31, 1983.
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- 2- Rockwell International Report, N704TI990033, "Radiological Survey Results – Release to Unrestricted Use, SRE Region VII," May 13, 1983.
- 3- Argonne National Laboratory Document, DOE-EV-0005-46, "Post Remedial Action Survey Report for the Sodium Reactor Experiment (SRE) Facility," February 1984.
- 4- DOE/OAK, Letter, "Certification Docket for the SRE and Building 003," from James K. Hartman (DOE/OAK) to G.W. Meyers, September 24, 1985.

### **Building 4185**

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- 1- DOE/OAK, Letter, "Certification Docket for the SRE and Building 003," from James K. Hartman (DOE/OAK) to G.W. Meyers, September 24, 1985.
- 2- Historical Site Photographs from Boeing Database.
- 3- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 4- Rockwell International Report, N704TI990035, "Radiological Survey Results – Release to Unrestricted Use, SRE Region IX," May 31, 1983.
- 5- Rockwell International Report, N704TI990036, "Radiological Survey Results – Release to Unrestricted Use, SRE Region X," May 31, 1983.
- 6- Argonne National Laboratory Document, DOE-EV-0005-46, "Post Remedial Action Survey Report for the Sodium Reactor Experiment (SRE) Facility," February 1984.

### **Building 4505**

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- 2- Historical Site Photographs from Boeing Database.
- 3- Rockwell International Report, N704TI990028, "Radiological Survey Results – Release to Unrestricted Use, SRE Region II (Building 163, Box Shop)," May 4, 1978.
- 4- Argonne National Laboratory Document, DOE-EV-0005-46, "Post Remedial Action Survey Report for the Sodium Reactor Experiment (SRE) Facility," February 1984.
- 5- DOE/OAK, Letter, "Certification Docket for the SRE and Building 003," from James K. Hartman (DOE/OAK) to G.W. Meyers, September 24, 1985.

### **Building 4653**

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- 1- DOE/OAK, Letter, "Certification Docket for the SRE and Building 003," from James K. Hartman (DOE/OAK) to G.W. Meyers, September 24, 1985.
- 2- Rockwell International Report, N704TI990031, "Radiological Survey Results – Release to Unrestricted Use, SRE Region V," November 2, 1978.

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- 4- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 5- Argonne National Laboratory Document, DOE-EV-0005-46, "Post Remedial Action Survey Report for the Sodium Reactor Experiment (SRE) Facility," February 1984.

### **Building 4654**

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- 1- Boeing Document, EID-04364, "Final Report Decontamination and Decommissioning of Interim Storage Facility 4654," May 27, 1999.
- 2- DOE Document, DOE/CD-ETEC-654, "Draft Docket for the Release of Building 4654 at the Energy Technology Engineering Center," May 1999.
- 3- Rocketdyne Document, A4CM-AN-0003, "Radiological Characterization Plan, Area IV, SSFL," March 30, 1994.
- 4- ORISE, Letter, "Comments on the Final Status Survey Documentation for the Interim Storage Facility; Buildings T013, T019, T024, T030, and T641; the Storage Yard West of Buildings T626 and T038; and the NW Area; Santa Susana Field Laboratory, Ventura County, California," from Timothy Vitkus (ORISE) to Don Williams, January 11, 1996.
- 5- ETEC Document, RS-00004, "Building T654 Supplemental Final Radiological Survey Report," January 30, 1999.
- 6- ORISE Document, ORISE 97-1900, "Verification Survey of the Interim Storage Facility (T654), Santa Susana Field Laboratory, Rockwell International, Ventura County, California," November 1997.
- 7- Boeing Document, RD02-148-01, "Site Environmental Report for Calendar Year 2002 DOE Operations at The Boeing Company, Rocketdyne Propulsion & Power," September 2003.
- 8- Boeing Document, RD04-170, "Site Environmental Report for Calendar Year 2003 DOE Operations at The Boeing Company, Rocketdyne Propulsion & Power," September 2004.
- 9- Boeing Internal Letter, "Grid S19/T19 Interim Soil Remediation," from E.R McGinnis to B. D. Sujata, November 19, 2003.
- 10- DOE Letter, "Release of Building 4654," from M. Lopez (DOE) to M. Lee (Boeing), February 1, 2005.
- 11- Historical Site Photographs from Boeing Database.
- 12- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

### **Building 4684**

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- 1- Argonne National Laboratory Document, DOE-EV-0005-46, "Post Remedial Action Survey Report for the Sodium Reactor Experiment (SRE) Facility," February 1984.
- 2- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 3- Historical Site Photographs from Boeing Database.
- 4- Rockwell International Report, ESG-DOE-13403, "Sodium Reactor Experiment Decommissioning Final Report," August 15, 1983.

- 5- Rockwell International Report, N704TI990028, "Radiological Survey Results – Release to Unrestricted Use, SRE Region II," May 4, 1978.
- 6- Rockwell International Report, N704TI990033, "Radiological Survey Results – Release to Unrestricted Use, SRE Region VII," May 13, 1983.
- 7- Rockwell International Report, N704TI990036, "Radiological Survey Results – Release to Unrestricted Use, SRE Region X," May 31, 1983.
- 8- DOE-OAK, Letter, "Certification Docket for the SRE and Building 003," from James K. Hartman (DOE/OAK) to G.W. Meyers, September 24, 1985.
- 9- Review of Radiation Safety Records Management System, 2003.

### **Building 4686**

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- 2- Rockwell International Report, N704TI990036, "Radiological Survey Results – Release to Unrestricted Use, SRE Region X," May 31, 1983.
- 3- Rockwell International Report, N704TI990033, "Radiological Survey Results – Release to Unrestricted Use, SRE Region VII," May 13, 1983.
- 4- Argonne National Laboratory Document, DOE-EV-0005-46, "Post Remedial Action Survey Report for the Sodium Reactor Experiment (SRE) Facility," February 1984.
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- 6- Historical Site Photographs from Boeing Database (Building 4684 - Photograph Hartman (DOE/OAK)).

### **Site 4687**

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- 1- Rockwell International Report, ESG-DOE-13403, "Sodium Reactor Experiment Decommissioning Final Report," August 15, 1983.
- 2- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
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- 4- Argonne National Laboratory Document, "Interim Post Remedial Action Survey Report for the Sodium Reactor Experiment (SRE) Facility," May 1983.
- 5- Argonne National Laboratory Document, DOE-EV-0005-46, "Post Remedial Action Survey Report for the Sodium Reactor Experiment (SRE) Facility," February 1984.

### **Building 4689**

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- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Rockwell International Report, ESG-DOE-13403, "Sodium Reactor Experiment Decommissioning Final Report," August 15, 1983.
- 3- Rockwell International Report, N704TI990031, "Radiological Survey Results – Release to Unrestricted Use, SRE Region V," November 2, 1978.

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- 5- DOE-OAK, Letter, "Certification Docket for the SRE and Building 003," from James K. Hartman (DOE/OAK) to G.W. Meyers, September 24, 1985.

### **Building 4695**

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- 1- Rockwell International Report, ESG-DOE-13403, "Sodium Reactor Experiment Decommissioning Final Report," August 15, 1983.
- 2- Personnel Interview, Brian Sujata November 13, 2003.
- 3- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 4- Rockwell International Document, Decontamination and Disposition of Facilities, N704TP990008, "Radiological Survey Plan, Support D&D Program Operations at T-143 (SRE)," Issued: November 5, 1975, Released: September 15, 1981.
- 5- Rockwell International Report, N704TI990038, "Radiological Survey Results – Release to Unrestricted Use, SRE, Building 143," May 31, 1983.
- 6- Argonne National Laboratory Document, DOE-EV-0005-46, "Post Remedial Action Survey Report for the Sodium Reactor Experiment (SRE) Facility," February 1984.
- 7- DOE-OAK, Letter, "Certification Docket for the SRE and Building 003," from James K. Hartman (DOE/OAK) to G.W. Meyers, September 24, 1985.

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- 1- Rockwell International Report, N704TI990032, "Radiological Survey Results – Release to Unrestricted Use, SRE Region VI (Water Tank Area)," November 10, 1978.
- 2- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 3- Argonne National Laboratory Document, DOE-EV-0005-46, "Post Remedial Action Survey Report for the Sodium Reactor Experiment (SRE) Facility," February 1984.
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### **Building 4714 (SRE Location)**

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- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Review of Radiation Safety Records Management System, 2003.
- 3- Rockwell International Report, N704TI990028, "Radiological Survey Results – Release for Unrestricted Use, SRE Region II (Building 163, Box Shop)," May 4, 1978.

- 4- Argonne National Laboratory Document, DOE-EV-0005-46, "Post Remedial Action Survey Report for the Sodium Reactor Experiment (SRE) Facility," February 1984.
- 5- DOE-OAK, Letter, "Certification Docket for the SRE and Building 003," from James K. Hartman (DOE/OAK) to G.W. Meyers, September 24, 1985.

### **Building 4723**

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- 1- Rockwell International Report, ESG-DOE-13403, "Sodium Reactor Experiment Decommissioning Final Report," August 15, 1983.
- 2- Rockwell International Document, Decontamination & Disposition of Facilities Program, N704ACR990021, "SRE Activities Requirement No. 25. Decontamination & Dismantling of Building 724 and Pad 723," March 28, 1977.
- 3- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 4- Rockwell International Report, N704TI990027, "Radiological Survey Results – Release to Unrestricted Use, SRE Region I (Building 724 Area)," May 4, 1978.
- 5- Argonne National Laboratory Document, DOE-EV-0005-46, "Post Remedial Action Survey Report for the Sodium Reactor Experiment (SRE) Facility," February 1984.
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- 2- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 3- Rockwell International Document, Decontamination & Disposition of Facilities Program, N704ACR990021, "SRE Activities Requirement No. 25. Decontamination & Dismantling of Building 724 and Pad 723," March 28, 1977.
- 4- Rockwell International Report, N704TI990030, "Radiological Survey Results – Release to Unrestricted Use, SRE Region IV (West Parking Lot)," May 4, 1978.
- 5- Argonne National Laboratory Document, DOE-EV-0005-46, "Post Remedial Action Survey Report for the Sodium Reactor Experiment (SRE) Facility," February 1984.
- 6- DOE-OAK, Letter, "Certification Docket for the SRE and Building 003," from James K. Hartman (DOE/OAK) to G.W. Meyers, September 24, 1985.

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- 1- Rockwell International Report, N704TI990036, "Radiological Survey Results – Release to Unrestricted Use, SRE Region IX," May 31, 1983.
- 2- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 3- Argonne National Laboratory Document, DOE-EV-0005-46, "Post Remedial Action Survey Report for the Sodium Reactor Experiment (SRE) Facility," February 1984.
- 4- DOE-OAK, Letter, "Certification Docket for the SRE and Building 003," from James K. Hartman (DOE/OAK) to G.W. Meyers, September 24, 1985.

### **Building 4743**

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- 1- Personnel Interview, Phil Rutherford, November 13, 2003.
- 2- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 3- Rockwell International Report, N704TI990036, "Radiological Survey Results – Release to Unrestricted Use, SRE Region IX," May 31, 1983.
- 4- Argonne National Laboratory Document, DOE-EV-0005-46, "Post Remedial Action Survey Report for the Sodium Reactor Experiment (SRE) Facility," February 1984.
- 5- DOE-OAK, Letter, "Certification Docket for the SRE and Building 003," from James K. Hartman (DOE/OAK) to G.W. Meyers, September 24, 1985.

### **Building 4753**

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- 1- Rockwell International Report, ESG-DOE-13403, "Sodium Reactor Experiment Decommissioning Final Report," August 15, 1983.
- 2- Rockwell International Document, Decontamination and Disposition of Facilities, N704TP990008, "Radiological Survey Plan, Support D&D Program Operations at T-143 (SRE)," Issued: November 5, 1975, Released: September 9, 1981.
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- 6- Historical Site Photographs from Boeing Database.
- 7- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

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- 2- Rockwell International Report, ESG-DOE-13403, "Sodium Reactor Experiment Decommissioning Final Report," August 15, 1983.
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- 4- Rockwell International Report, N704TI990033, "Radiological Survey Results – Release for Unrestricted Use, SRE Region VII," May 13, 1983.
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**Group H****Building 4073**

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- 2- Letter from Stanley Stamp (ERDA) to W. F. Heine, "Decontamination and Disposition of ERDA Facilities," March 3, 1976.
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- 4- Letter from R.K. Owen (Rockwell International) to R.J. Tuttle, "Radiation Survey – T073 (KEWB) Site," July 17, 1975.
- 5- Argonne National Laboratory Report, no document number, "Surplus Facilities Management Program, Interim Post Remedial Action Survey Report for Kinetic Experiment Water Boiler (KEWB) Facility, Santa Susana Field Laboratory, Rockwell International, Canoga Park, California," May 1983.
- 6- ETEC Document, GEN-ZR-0009, "Radiological Survey of the T513 Parking Lot; Old R/A Laundry Area; Plot 333; and Areas Between the SRE to RMDF, and KEWB to RMDF," August 26, 1988.
- 7- Historical Site Photographs from Boeing Database.
- 8- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

### **Building 4074**

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- 1- Rocketdyne Report N001SSR140087, "Radiation Survey for Release for Unrestricted Use – L-85 Reactor Facility," March 6, 1986.
- 2- Letter from F.J. Miraglia (NRC) to M.E. Remley, "Order Terminating Facility License R-118, for the Rockwell International L-85 Nuclear Examination Reactor," April 8, 1987.
- 3- Atomics International Document, AI-70-73, "Safety Analysis Report for L-85 Nuclear Examination Reactor," November 25, 1970.
- 4- Review of Radiation Safety Records Management System, 2003.
- 5- Letter from Frank Wenslawski (NRC Region V) to Herbert Berkow, "Closeout Inspection for Rockwell International L-85 Reactor, Docket No. 50-375," March 19, 1987.
- 6- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 7- Historical Site Photographs from Boeing Database.

### **Building 4083**

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*Includes Building 4103, Reactor Kinetics Lab and Storage*

- 1- Rocketdyne Report, N001SSR140087, "Radiation Survey for Release for Unrestricted Use – L-85 Reactor Facility," March 6, 1986.
- 2- Letter from F.J. Miraglia (NRC) to M.E. Remley, "Order Terminating Facility License R-118, for the Rockwell International L-85 Nuclear Examination Reactor," April 8, 1987.
- 3- Atomics International Document, AI-70-73, "Safety Analysis Report for L-85 Nuclear Examination Reactor," November 25, 1970.
- 4- Review of Radiation Safety Records Management System, 2003.
- 5- Letter from Frank Wenslawski (NRC Region V) to Herbert Berkow, "Closeout Inspection for Rockwell International L-85 Reactor, Docket No. 50-375," March 19, 1987.
- 6- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 7- Historical Site Photographs from Boeing Database.

### **Building 4093**

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*Includes Site 4893, Pad (AE-6)*

- 1- Rocketdyne Report, N001SSR140087, "Radiation Survey for Release for Unrestricted Use – L-85 Reactor Facility," March 6, 1986.
- 2- Letter from F.J. Miraglia (NRC) to M.E. Remley, "Order Terminating Facility License R-118, for the Rockwell International L-85 Nuclear Examination Reactor," April 8, 1987.
- 3- Atomics International Document, AI-70-73, "Safety Analysis Report for L-85 Nuclear Examination Reactor," November 25, 1970.
- 4- Oak Ridge Associated Universities, no document number, "Confirmatory Radiological Survey of the L-85 Reactor Facility, Rocketdyne Division,

- Rockwell International Corporation, Santa Susana, California,” December 1986.
- 5- Letter from Frank Wenslawski (NRC Region V) to Herbert Berkow, “Closeout Inspection for Rockwell International L-85 Reactor, Docket No. 50-375,” March 19, 1987.
  - 6- Boeing Radiation Survey Reports, L-85 Facility Septic Tank Area, July and September 1999.
  - 7- Historical Site Photographs from Boeing Database.
  - 8- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

### **Building 4123**

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- 1- Rockwell International Report, AI-ERDA-13159, “KEWB Facilities Decontamination and Disposition Final Report,” February 25, 1976.
- 2- Review of Radiation Safety Records Management System, 2003.
- 3- Letter from R.K. Owen (Rockwell International) to R.J. Tuttle, “Radiation Survey – T073 (KEWB) Site,” July 17, 1975.
- 4- Argonne National Laboratory Report, no document number, “Surplus Facilities Management Program, Interim Post Remedial Action Survey Report for Kinetic Experiment Water Boiler (KEWB) Facility, Santa Susana Field Laboratory, Rockwell International, Canoga Park, California,” May 1983.
- 5- ETEC Document, GEN-ZR-0009, “Radiological Survey of the T513 Parking Lot; Old R/A Laundry Area; Plot 333; and Areas Between the SRE to RMDF, and KEWB to RMDF,” August 26, 1988.
- 6- Letter from Stanley Stamp (ERDA) to W. F. Heine, “Decontamination and Disposition of ERDA Facilities,” March 3, 1976.
- 7- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

### **Building 4453**

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- 1- Rocketdyne Report N001SSR140087, “Radiation Survey for Release for Unrestricted Use – L-85 Reactor Facility,” March 6, 1986.
- 2- Letter from F.J. Miraglia (NRC) to M.E. Remley, “Order Terminating Facility License R-118, for the Rockwell International L-85 Nuclear Examination Reactor,” April 8, 1987.
- 3- Atomics International Document, AI-70-73, “Safety Analysis Report for L-85 Nuclear Examination Reactor,” November 25, 1970.
- 4- Review of Radiation Safety Records Management System, 2003.
- 5- Letter from Frank Wenslawski (NRC Region V) to Herbert Berkow, “Closeout Inspection for Rockwell International L-85 Reactor, Docket No. 50-375,” March 19, 1987.
- 6- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 7- Historical Site Photographs from Boeing Database.

## Reference List

### **Parking Lot 4523**

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- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Historical Site Photographs from Boeing Database.
- 3- Review of Radiation Safety Records Management System, 2003.

### **Site 4633**

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- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Review of Radiation Safety Records Management System, 2003.

### **Building 4643**

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- 1- Letter from Stanley Stamp (ERDA) to W. F. Heine, "Decontamination and Disposition of ERDA Facilities," March 3, 1976.
- 2- Review of Radiation Safety Records Management System, 2003.
- 3- Letter from R.K. Owen (Rockwell International) to R.J. Tuttle, "Radiation Survey – T073 (KEWB) Site," July 17, 1975.
- 4- Rockwell International Report, AI-ERDA-13159, "KEWB Facilities Decontamination and Disposition Final Report," February 25, 1976.
- 5- Argonne National Laboratory, no document number, "Surplus Facilities Management Program, Interim Post Remedial Action Survey Report for Kinetic Experiment Water Boiler (KEWB) Facility, Santa Susana Field Laboratory, Rockwell International, Canoga Park, California," May 1983.
- 6- ETEC Document, GEN-ZR-0009, "Radiological Survey of the T513 Parking Lot; Old R/A Laundry Area; Plot 333; and Areas Between the SRE to RMDF, and KEWB to RMDF," August 26, 1988.
- 7- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 8- Historical Site Photographs from Boeing Database.

### **Building 4793**

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- 1- Letter from Stanley Stamp (ERDA) to W. F. Heine, "Decontamination and Disposition of ERDA Facilities," March 3, 1976.
- 2- Review of Radiation Safety Records Management System, 2003.
- 3- Rockwell International Report, AI-ERDA-13159, "KEWB Facilities Decontamination and Disposition Final Report," February 25, 1976.
- 4- Letter from R.K. Owen (Rockwell International) to R.J. Tuttle, "Radiation Survey – T073 (KEWB) Site," July 17, 1975.
- 5- Argonne National Laboratory, no document number, "Surplus Facilities Management Program, Interim Post Remedial Action Survey Report for Kinetic Experiment Water Boiler (KEWB) Facility, Santa Susana Field Laboratory, Rockwell International, Canoga Park, California," May 1983.

- 6- ETEC Document, GEN-ZR-0009, "Radiological Survey of the T513 Parking Lot; Old R/A Laundry Area; Plot 333; and Areas Between the SRE to RMDF, and KEWB to RMDF," August 26, 1988.
- 7- Historical Site Photographs from Boeing Database.
- 8- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

## Group I

### Building 4021

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- 1- Rockwell International Document, RMDF-AN-0001, "ETEC RMDF Decontamination and Decommissioning (D&D) Project Management Plan," February 10, 1993.
- 2- Rockwell International Document, ESG-DOE-13385, "RMDF Leach Field Decontamination Final Report," September 15, 1982.
- 3- Rockwell International Document, N704TI990042, "Radiological Survey Results—Release to Unrestricted Use, RMDF Leach Field, SSFL," November 29, 1978.
- 4- Rockwell International Document, ESG-DOE-13365, "Radioactive Materials Disposal Facility Leach Field Environmental Evaluation Report," February 23, 1982.
- 5- Atomics International Internal Letter from J.D. Moore to R.M. Hill, "Environmental Survey Report, Building 022 Santa Susan Area," January 26, 1966.
- 6- Rockwell International Document, N704TI990059, "Relevant Information to support RMDF and Interim Storage Facility Decommissioning," November 5, 1981.
- 7- Rockwell International Internal Letter from J.A. Chapman to R.J. Tuttle, "RMDF Leach Field: Soil samples collected in the General Vicinity May 17, 1989," May 24, 1989.
- 8- Boeing Data Package, "Results of the RMHF Surrounds Radiological Survey," Phil Rutherford, 2000
- 9- Boeing Document, RD04-170, "Site Environmental Report for Calendar Year 2003 DOE Operations at The Boeing Company, Rocketdyne Propulsion & Power," September, 2004.
- 10- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 11- Historical Site Photographs from Boeing Database.

### Building 4022

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- 1- Rockwell International Document, RMDF-AN-0001, "ETEC RMDF Decontamination and Decommissioning (D&D) Project Management Plan," February 10, 1993.
- 2- Historical Site Photographs from Boeing Database.
- 3- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

## Reference List

### **Building 4034**

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- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Historical Site Photographs from Boeing Database.
- 3- Review of Radiation Safety Records Management System, 2003.
- 4- Personnel Interview, Phil Rutherford, February 2004.

### **Building 4044**

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- 1- Physical inspection, conducted September 2003.
- 2- Rockwell International Document, RMDF-AN-0001, "ETEC RMDF Decontamination and Decommissioning (D&D) Project Management Plan," February 10, 1993.
- 3- Personnel Interview, Phil Rutherford, February 2004.
- 4- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 5- Historical Site Photographs from Boeing Database.
- 6- Review of Radiation Safety Records Management System, 2003.

### **Building 4075**

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- 1- Rockwell International Document, RMDF-AN-0001, "ETEC RMDF Decontamination and Decommissioning (D&D) Project Management Plan," February 10, 1993.
- 2- Physical inspection, conducted September 2003.
- 3- Personnel Interview, Phil Rutherford, February 2004.
- 4- Historical Site Photographs from Boeing Database.
- 5- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 6- Review of Radiation Safety Records Management System, 2003.

### **Building 4563**

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- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Historical Site Photographs from Boeing Database.
- 3- Physical inspection, conducted September 2003.
- 4- Review of Radiation Safety Records Management System, 2003.
- 5- Personnel Interview, Phil Rutherford, February 2004.

### **Site 4614**

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- 1- Rockwell International Document, RMDF-AN-0001, "ETEC RMDF Decontamination and Decommissioning (D&D) Project Management Plan," February 10, 1993.
- 2- Personnel Interview, Phil Rutherford, February 2004.
- 3- Historical Site Photographs from Boeing Database.
- 4- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

**Building 4621**

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- 1- Rockwell International Document, RMDF-AN-0001, "ETEC RMDF Decontamination and Decommissioning (D&D) Project Management Plan," February 10, 1993.
- 2- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 3- Rockwell International, Internal Letter, "Application for Use of Radioactive Materials," Use Authorization Series 107, D. Stelman to R.J. Tuttle, April 15, 1977.
- 4- Review of Radiation Safety Records Management System, 2003.
- 5- Historical Site Photographs from Boeing Database.

**Building 4622**

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- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Physical inspection, conducted September 2003.
- 3- Review of Radiation Safety Records Management System, 2003.
- 4- Historical Site Photographs from Boeing Database.

**Building 4658**

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- 1- Personnel Interview, Paul Waite, August 2003.
- 2- Rockwell International Document, RMDF-AN-0001, "ETEC RMDF Decontamination and Decommissioning (D&D) Project Management Plan," February 10, 1993.
- 3- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 4- Review of Radiation Safety Records Management System, 2003.
- 5- Historical Site Photographs from Boeing Database.

**Building 4663**

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- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Historical Site Photographs from Boeing Database.
- 3- Review of Radiation Safety Records Management System, 2003.

**Building 4664**

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- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Review of Radiation Safety Records Management System, 2003.

**Building 4665**

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- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Historical Site Photographs from Boeing Database.
- 3- Review of Radiation Safety Records Management System, 2003.

## Reference List

### **Building 4688**

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- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Physical inspection, conducted September 2003.
- 3- Review of Radiation Safety Records Management System, 2003.
- 4- Historical Site Photographs from Boeing Database.

## Group J

### **Building 4023**

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*Includes Building 4742, Substation*

- 1- DOE Document, Docket No. DOE/CD-ETEC-023, "Certification Docket for the Release of Building 023 at ETEC," February 1997.
- 2- Rocketdyne Report, 023-AR-0002 Rev. A., "Building 023 D&D Operations Final Report," March 7, 1996.
- 3- ORISE Report, 94/K-14, "Verification Survey of Buildings 005, 023, and 064, Santa Susana Field Laboratory, Rockwell International, Ventura County, California," October 1994.
- 4- Rocketdyne, Internal Letter, "Assessment Plan for Building 023 D&D, from P. Waite to R. Meyer", January 12, 1993.
- 5- Rocketdyne, Internal Letter, "Potential Contaminants at T023," from R. J. Tuttle to P. Rutherford, January 20, 1993.
- 6- Rocketdyne Report, 023-ZR-0001, "Final Radiological Survey Report of Building 023," March 1, 1994.
- 7- Rocketdyne, E-mail, "State DHS/RHB Inspection of T023," from R. Tuttle to P. Rutherford, et al, August 29, 1997.
- 8- DHS/RHB, Letter, "Boeing's Request for Concurrence in Release for Use Without Radiological Restriction, Rocketdyne Santa Susana Field Laboratory Building T023," from Gerard Wong (DHS/RHB) to Phil Rutherford, February 19, 1998.
- 9- DOE/OAK, Letter, "Release of Facilities for Unrestricted Non-Radiological Use," from Roger Liddle (DOE/OAK) to Mark Gabler, April 21, 1997.
- 10- Historical Site Photographs from Boeing Database.
- 11- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

### **Building 4024**

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*Includes Building 4928, Cooling Tower*

*Includes Building 4725, Substation*

- 1- Atomics International Document, N704FDP990006 Rev. A., "Building T024 (SETF) Facilities Dismantling Plan," July 31, 1981.
- 2- ORISE Report, 96/C-5, "Verification Survey of Buildings T019 and T024, Santa Susana Field Laboratory, Rockwell International, Ventura County, California," February 1996.

- 3- Rockwell International Document, N704TI990044, "Radiological Survey Results—Release to Unrestricted Use, Building 024, SSFL," November 28, 1978.
- 4- Personnel Interview, Phil Rutherford, September 18, 2003.
- 5- Historical Site Photographs from Boeing Database.
- 6- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

### **Building 4025**

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*Includes Building 4924, Substation*

*Includes Building 4925, Mechanical Equipment Slab*

*Includes Building 4926, Sodium Reactor Experiment (SRE) Mock-up Equipment Area*

*Includes Building 4725, Substation for 4024 and 4025*

- 1- ETEC Document, GEN-ZR-0013, "Radiological Survey of Buildings T049, T042, T027, T032, and T025," August 26, 1988.
- 2- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 3- Historical Site Photographs from Boeing Database.

### **Building 4027**

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*Includes Building 4727, Substation*

- 1- ETEC Document, GEN-ZR-0013, "Radiological Survey of Buildings T049, T042, T027, T032, and T025," August 26, 1988.
- 2- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 3- Review of Radiation Safety Records Management System, 2003.

### **Building 4032**

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*Includes Building 4727, Substation*

- 1- ETEC Document, GEN-ZR-0013, "Radiological Survey of Buildings T049, T042, T027, T032, and T025," August 26, 1988.
- 2- Authorization Series 118, Shutdown Rod Measurement, J. V. Menteer, August 1978.
- 3- Historical Site Photographs from Boeing Database.
- 4- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

### **Building 4036/4037**

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*Includes Building 4727, Substation*

- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Boeing Document, EID-04366, "Removal of DOE Buildings, Demo Pak A," May 18, 1999.

## Reference List

- 3- Review of Radiation Safety Records Management System, 2003.
- 4- Historical Site Photographs from Boeing Database.

### **Building 4042**

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*Includes Building 4742, Substation*

- 1- ETEC Document, GEN-ZR-0013, "Radiological Survey of Buildings T049, T042, T027, T032, and T025," August 26, 1988.
- 2- Rockwell International Document, Use Authorization 62, February 6, 1973.
- 3- Historical Site Photographs from Boeing Database.
- 4- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

### **Site 4524**

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- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Review of Radiation Safety Records Management System, 2003.
- 3- Rocketdyne Document, A4CM-ZR-0011, Rev. A, "Area IV Radiological Characterization Survey," August 15, 1996.

### **Site 4536**

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*Includes Building 4836, Time Clock*

*Includes Building 4636, Guard Shack*

- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Review of Radiation Safety Records Management System, 2003.
- 3- Rocketdyne Document, A4CM-ZR-0011, Rev. A, Area IV Radiological Characterization Survey, August 15, 1996.
- 4- Historical Site Photographs from Boeing Database.

### **Site 4537**

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- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Review of Radiation Safety Records Management System, 2003.
- 3- Rocketdyne Document, A4CM-ZR-0011, Rev. A, Area IV Radiological Characterization Survey, August 15, 1996.

### **Building 4625**

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- 1- Drawing 303-027-A4, "Expansion of Non-Nuclear Mechanical Vibration and Shock Testing, Building 027 Expansion, Floor Plan, as built," 1964.
- 2- ETEC Document, GEN-ZR-0013, "Radiological Survey of Buildings T049, T042, T027, T032, and T025," August 26, 1988.
- 3- Personnel Interview, Dan Trippeda, September 23, 2003.
- 4- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 5- Review of Radiation Safety Records Management System, 2003.
- 6- Historical Site Photographs from Boeing Database.

## **Building 4927**

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- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Personnel Interview, Randy Ingersoll, September 23, 2003.
- 3- Drawing, 303-GEN-C254, "Santa Susana Facility Area Plan Inert Gas Master East," As Built to Date, February 22, 1991, Ref # PEWR 75184.
- 4- Review of Radiation Safety Records Management System, 2003.
- 5- Rocketdyne Document, A4CM-ZR-0011, Rev. A, Area IV Radiological Characterization Survey, August 15, 1996.

## **Group K**

### **Building 4028**

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*Includes Site 4811, Electrical and Mechanical Equipment Pad*

- 1- Rockwell International Report, N704SRR990033, "Final Decontamination and Radiological Survey of Building T028," February 27, 1991.
- 2- Personnel Interview, Rod Meyer, September 25, 2003.
- 3- Rockwell International Report, AI-ERDA-13168, "STIR Facility Decontamination and Disposition Final Report," August 26, 1976.
- 4- Rockwell International Report, N001TI000322, "Building T028 Decontamination and Demolition Final Report," June 6, 1990.
- 5- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 6- ORISE Report, 93/J-107, "Verification Survey of the Old Conservation Yard, Building T064 Side Yard, and Building T028, Santa Susana Field Laboratory, Rockwell International, Ventura County, California," October, 1993.
- 7- DHS/RHB, Letter, "Rocketdyne's letter dated July 6, 1995 with attachments concerning the release of Buildings T029, T028 and OCY," from Gerard Wong (DHS/RHB) to Phil Rutherford, December 21, 1995.
- 8- DOE-ER, Letter, "Release of Decontaminated Building 028 without Radiological Restrictions at ETEC," from Sally Robinson (DOE-ER) to Roger Liddle, April 2, 1997.
- 9- Historical Site Photographs from Boeing Database.

### **Building 4504**

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- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Rockwell International Report, AI-ERDA-13168, "STIR Facility Decontamination and Disposition Final Report," August 26, 1976.
- 3- DHS/RHB, Letter, "Rocketdyne's letter dated July 6, 1995 with attachments concerning the release of Buildings T029, T028 and OCY," from Gerard Wong (DHS/RHB) to Phil Rutherford, December 21, 1995.
- 4- DOE-ER, Letter, "Release of Decontaminated Building 028 without Radiological Restrictions at ETEC," from Sally Robinson (DOE-ER) to Roger Liddle, April 2, 1997.

## Reference List

- 5- Review of Radiation Safety Records Management System, 2003.
- 6- Historical Site Photographs from Boeing Database.

## Group L

### **Building 4010**

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*Includes Site 4807, Electrical Equipment Pad*

*Includes Site 4808, Electrical Equipment Pad*

*Includes Site 4809, Air Blast Heat Exchanger Pad*

- 1- Rockwell International Document, N704FDP990005, "Facilities Dismantling Plan for Building 010 (S8ER)," December 10, 1976.
- 2- Rockwell International Document, ESG-DOE-13237, "S8ER Facilities Decommissioning Final Report," February 28, 1979.
- 3- Rockwell International Document, Use Authorization No. 111, "Decontamination and Disposition of Building 010," January 16, 1978.
- 4- Atomics International Document, SA-652-130-002, "Determination of Levels of Radioactivity and Significant Radionuclides Present in Neutron-Activated Structures in Building T010," June 28, 1973.
- 5- Rockwell International Document, N704TI990041, "Radiological Survey Results—Release to Unrestricted Use, Building 010 at SSFL," August 28, 1978.
- 6- Argonne National Laboratory Report, no document number, "Certification Survey of the SNAP 8 Experimental Reactor (S8ER) Facility in Building 10, Santa Susana Field Laboratories of the Energy Systems Group of Rockwell International at Santa Susana, California," September 1979.
- 7- Argonne National Laboratory Report, no document number, "Interim Post Remedial Action Survey Report for Systems for Nuclear Auxiliary Power-8 (SNAP-8) Experimental Reactor Facility (Building 010), Santa Susana Field Laboratory, Rockwell International, Canoga Park, California," May 1983.
- 8- Rockwell International, Letter #2726, "S8ER Facilities Decommissioning Final Report Number ESG-DOE-13237," from Len Lanni (DOE) to C. C. Connors (Atomics International), December 15, 1982.
- 9- Historical Site Photographs from Boeing Database.
- 10- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

### **Building 4012**

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*Includes Building 4713, Substation*

- 1- Rocketdyne Report, 012-AR-0001, "Decontamination and Decommissioning of Building T012," May 8, 1997.
- 2- Review of Radiation Safety Records Management System, 2003.
- 3- Rocketdyne Report, 355-ZR-0012, "Radiation Survey of Building T012, SCTI Cogeneration Project, Rev. A," June 26, 1985.

- 4- Rocketdyne Report, 012-AR-0002, "Final Radiological Survey Report for Building T012," June 14, 1996.
- 5- ORISE Report, 96-0869, "Verification Survey of Building T012, SSFL, Rockwell International, Ventura County, California," October 1996.
- 6- DHS/RHB, Letter, "Boeing's Request for Concurrence in Release for Use Without Radiological Restriction, Rocketdyne Santa Susana Field Laboratory Building T012," from Gerard Wong (DHS/RHB) to James Barnes, November 26, 1997.
- 7- U.S. EPA Report, Contract Number 68-W-02-021, "Final Oversight Verification and Confirmation Radiological Survey Report for Buildings T-012, T-029, and T-363," December 20, 2002.
- 8- Personnel Interview, Phil Rutherford, April 2004 (Area IV Database for Onsite and Offsite Surveys).
- 9- Boeing Document, RD04-170, "Site Environmental Report for Calendar Year 2003 DOE Operations at The Boeing Company, Rocketdyne Propulsion & Power," September 2004.
- 10- Federal Register Vol. 62 NO. 195 pg. 52528-52530, "Certification of the Radiological Condition of Building T012 at ETEC near Chatsworth, California," October 8, 1997.
- 11- DOE/CD-ETEC-012, "Certification Docket for the Release of Building T012 at ETEC," November 1997.
- 12- Historical Site Photographs from Boeing Database.
- 13- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

### **Building 4013**

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*Includes Building 4713, Substation*

*Includes Building 4823, Time Clock*

*Includes Building 4413, Uninterruptible Power Supply (UPS)*

- 1- DOE Document, Site Development and Facility Utilization Planning, SSFL.
- 2- Rocketdyne Internal Document, no document number, "Assessment of Department of Energy Buildings within the SSFL," September 30, 1996.
- 3- Review of Radiation Safety Records Management System, 2003.
- 4- Boeing Document, EID-04374, "Final Report, Decontamination and Dismantlement Operations at SSFL Building 4019 for Release Without Radiological Restrictions," September 11, 1999.
- 5- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 6- Historical Site Photographs from Boeing Database.

### **Building 4019**

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*Includes Building 4719, Substation*

- 1- Phil Rutherford Website, <http://rdweb/shearadiationsafety/>, accessed August 2003.
- 2- Boeing Document, EID-04374 “Final Report, Decontamination and Dismantlement Operations at SSFL Building 4019 for Release Without Radiological Restrictions,” September 11, 1999.
- 3- Boeing Report, RS-00009, “Building 4019, Final Status Survey Report,” June 10, 1999.
- 4- Rocketdyne Report, GEN-ZR-0010, “Radiological Survey of Buildings T019 and T013; an Area Northwest of T059, T019, T013, and T012; and a Storage Yard West of Buildings T626 and T038,” August 26, 1988.
- 5- ORISE Report, 96/C-5, “Verification Survey of Buildings T019 and T024, Santa Susana Field Laboratory, Rockwell International, Ventura County, California,” February 1996.
- 6- ORISE Letter, “Addendum to the Verification Survey Report for Buildings T019 and T024, Santa Susana Field Laboratory, Ventura County, California,” February 16, 1999.
- 7- U.S. EPA, Contract Number 68-W-02-021, “Final Oversight Verification and Confirmation Radiological Survey Report for Buildings T-011, T-019, T-055, and T-100,” December 20, 2002.
- 8- Rocketdyne Document, A4CM-ZR-0011, Rev. A, Area IV Radiological Characterization Survey, August 15, 1996.
- 9- DOE Letter, “Release of Building 4019,” from M. Lopez (DOE) to M. Lee (Boeing), February 1, 2005.
- 10- Historical Site Photographs from Boeing Database.
- 11- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

### **Building 4228**

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*Includes Building 4708, Substation for Inbound Power*

*Includes Site 4807, Electrical Equipment Pads*

*Includes Site 4808, Electrical Equipment Pads*

*Includes Site 4809, Air Blast Heat Exchanger Pad*

*Includes Building 4710, SCTI Power Pak Cooling Tower*

- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Personnel Interview, Sandy Samuels, September 16, 2003.
- 3- Review of Radiation Safety Records Management System, 2003.
- 4- Boeing Internal Document, no document number, “Demolition Binder: Power Pak Buildings 4428 & 4710.”
- 5- Historical Site Photographs from Boeing Database.

## Group M

### **Building 4059**

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*Includes Building 4759, Substation*

- 1- Boeing Internal Website, <http://rdweb/shea/radiationsafety/>, accessed August 2003.
- 2- Atomics International Internal Report, no document number, "Ground Prototype Test facility: Building 059 Facility Handbook," no date given.
- 3- Rockwell International Document, N704TI990043, "Radiological Survey Results – Interim Status, Building 059, SSFL," November 28, 1978.
- 4- ORISE Report, "Radiological Survey of the Building 059 Reactor Vault, Santa Susana Field Laboratory, Rockwell International, Ventura County, California," June 1995.
- 5- U.S. EPA Report, "Final Oversight Verification and Confirmation Radiological Survey Report for Building T-059," December 20, 2002.
- 6- United States Atomic Energy Commission, Untitled letter, from M. Klein (AEC) to J. J. Flaherty (Atomics International). October 29, 1969.
- 7- Boeing Report, RS-00008, "Building 4059, Final Status Survey Report (Phase I)," September 11, 1999.
- 8- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 9- ORISE Report, 2000-1523, "Verification Survey of Building 4059 (Phase I), Santa Susana Field Laboratory. The Boeing Company. Ventura County, California," December 2000.
- 10- Personnel Interview, Dan Trippeda, September 12, 2003.
- 11- Boeing Document, RD02-148-01, "Site Environmental Report for Calendar Year 2002 DOE Operations at The Boeing Company, Rocketdyne Propulsion & Power," September 2003.
- 12- Boeing Document, RD04-170, "Site Environmental Report for Calendar Year 2003 DOE Operations at The Boeing Company, Rocketdyne Propulsion & Power," September 2004.
- 13- Personal Interview, Phil Rutherford, January 2005.
- 14- Draft ORISE Report. "Verification Survey of the Building 4059 Excavation, Santa Susana Field Laboratory, The Boeing Company, Ventura County, California." January 2005.
- 15- Historical Site Photographs from Boeing Database.

### **Building 4459**

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- 1- U.S. Energy Research and Development Administration Liquid Metal Engineer Center Document, LR-03026, Part 1, "Site Development Plan 1977-1981, Volume 1," June 1975.
- 2- Personnel Interview, Randy Ingersoll, September 23, 2003.
- 3- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 4- Historical Site Photographs from Boeing Database.
- 5- Review of Radiation Safety Records Management System, 2003.

## Reference List

- 6- Boeing Report, RS-00008, "Building 4059, Final Status Survey Report (Phase I)," September 1999.
- 7- ORISE Report, 2000-1523, "Verification Survey of Building 4059 (Phase I), Santa Susana Field Laboratory. The Boeing Company. Ventura County, California," December 2000.

## Group N

### **Building 4048**

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- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Review of Radiation Safety Records Management System, 2003.

### **Building 4049**

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- 1- ETEC Document, GEN-ZR-0013, "Radiological Survey of Buildings T049, T042, T027, T032, and T025," August 26, 1988.
- 2- Boeing Document EID-04366, "Removal of DOE Buildings, Demo Pak A," May 18, 1999, pg. 5.
- 3- Rockwell International Report, 154SRR000001, "Radiological Survey Plan for SSFL," September 25, 1985.
- 4- Historical Site Photographs from Boeing Database.
- 5- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

## Group O

### **Building 4005**

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*Includes Building 4705, Substation*

- 1- Rockwell International Document, 005-AN-0002, "Decontamination and Decommissioning (D&D) of the Uranium Carbide Pilot Fuel Facility – Building T005," September 28, 1993.
- 2- Rocketdyne Report, 005-ZR-0001, "Final Radiological Survey of Building 005," September 21, 1993.
- 3- Rocketdyne, Internal letter, "Sanitary Leachfield at T005," from R.J. Tuttle, October 29, 1987.
- 4- ETEC Document, GEN-ZR-0003, "Radiological Survey of Building T005," November 16, 1987.
- 5- Rocketdyne Report, 005-SP-0001, "Building 005 Final Survey Procedure," December 9, 1992.
- 6- ORISE Report, 94/K-14, "Verification Survey of Buildings 005, 023, and 064, Santa Susana Field Laboratory, Rockwell International, Ventura County, California," October 1994.

- 7- DHS/RHB, Untitled letter, from Ben Kapel (DHS/RHB) to Phil Rutherford. April 5, 1995.
- 8- Historical Site Photographs from Boeing Database.
- 9- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

## **Building 4006**

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*Includes Building 4616, Cooling Tower*

*Includes Building 4706, Substation*

- 1- DOE Document, N-083E-A02-DV001, Rev. A, "Site Development and Facility Utilization Planning: FY 1984-FY 1989" April 1984.
- 2- Personnel Interview, Phil Rutherford, September 4, 2003.
- 3- Personnel Interview, Dan Trippeda, September 9, 2003.
- 4- North American Rockwell, Letter, "Adding Na to Cannisters [sic] Containing UO<sub>2</sub> in the Fabrication of Lower Axial Blanket Shielding Experiment," L. M. Haba to W. F. Heine, September 24, 1973.
- 5- Rockwell International, Internal Letter, "Retirement of User Authorization No. 81," F. G. Schmidt to W. E. Nagel, June 9, 1986.
- 6- Rockwell International Internal Letter, "Use Authorization #101: Decontamination of Na Components," E. Hill to R. J. Tuttle, March 25, 1977.
- 7- DOE Internal Document, no document number, "Demolition Binder: 4006 Septic Tank."
- 8- Historical Site Photographs from Boeing Database.
- 9- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

## **Building 4402**

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- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Review of Radiation Safety Records Management System, 2003.

## **Site 4506**

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- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Review of Radiation Safety Records Management System, 2003.

## **Building 4606**

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*Includes Building 4816, Hydrogen Recombiner Test Canopy*

- 1- Personnel Interview, Phil Horton, September 16, 2003.
- 2- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 3- Review of Radiation Safety Records Management System, 2003.

## Reference List

### **Building 4607**

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- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Personnel Interview, Phil Horton, September 16, 2003.
- 3- Personnel Interview, Bob Tuttle, December 12, 2003.
- 4- Review of Radiation Safety Records Management System, 2003.
- 5- Rocketdyne Document, A4CM-ZR-0011, Rev. A, "Area IV Radiological Characterization Survey," August 15, 1996.
- 6- Historical Site Photographs from Boeing Database.

### **Building 4615**

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- 1- Review of Radiation Safety Records Management System, 2003.
- 2- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

### **Building 4704**

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- 1- Personnel Interview, Del Aubuchon, September 19, 2003.
- 2- Review of Radiation Safety Records Management System, 2003.
- 3- Historical Site Photographs from Boeing Database.
- 4- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

## Group P

### **Building 4026**

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*Includes Building 4726, Substation*

*Includes Building 4805, Time Clock Shack*

*Includes Building 4426, Uninterruptible Power Supply (UPS)*

- 1- Boeing Internal Document, no document number, "Demolition Binder: SCTL Demolition Project," October 1998.
- 2- Boeing, Internal Letter, "SCTL Complex Demolition Project, Area IV, Energy Technology Center (ETEC)," from Boeing North American, Inc. to R. Laughlin, November, 23, 1998.
- 3- ETEC Document, 026-AN-0001, "Small Components Test Loop (SCTL) Dismantlement and B/026 Demolition Project Management Plan," December 6, 1996.
- 4- Boeing Internal Document, no document number, "Building Reconnaissance Report-Hazardous Materials," July 11, 1996.
- 5- Personnel Interview, Dennis Kneff, September 25, 2003.
- 6- Historical Site Photographs from Boeing Database.
- 7- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

**Building 4226**

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- 1- Personnel Interview, Brian Sujata, November 12, 2003.
- 2- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 3- Review of Radiation Safety Records Management System, 2003.
- 4- Personnel Interview, Del Aubuchon, September 19, 2003.

**Building 4293**

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- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Personnel Interview, Del Aubuchon, September 24, 2003.
- 3- Review of Radiation Safety Records Management System, 2003.
- 4- Rocketdyne Document, A4CM-ZR-0011, Rev. A, "Area IV Radiological Characterization Survey," August 15, 1996.

**Building 4310**

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- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Review of Radiation Safety Records Management System, 2003.
- 3- Rocketdyne Document, A4CM-ZR-0011, Rev. A, "Area IV Radiological Characterization Survey," August 15, 1996.

**Building 4334**

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- 1- Personnel Interview, Ken Robinson, September 19, 2003.
- 2- Boeing Internal Document, no document number, "Demolition Binder: Kalina Demolition Package," 2003.
- 3- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 4- Review of Radiation Safety Records Management System, 2003.
- 5- Historical Site Photographs from Boeing Database.

**Building 4335**

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- 1- Personnel Interview, Ken Robinson, September 19, 2003.
- 2- Boeing Internal Document, no document number, "Demolition Binder: Kalina Demolition Package," 2003.
- 3- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 4- Review of Radiation Safety Records Management System, 2003.
- 5- Historical Site Photographs from Boeing Database.

**Building 4354**

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- 1- DOE Document, N-083-A02-DV001, "Site Development and Facility Utilization Planning: FY 1982-FY 1987," September 1982.
- 2- Personnel Interview, Phil Horton, September 24, 2003.
- 3- Personnel Interview, Dan Trippeda, September 29, 2003.
- 4- Review of Radiation Safety Records Management System, 2003.

## Reference List

- 5- Rocketdyne Document, A4CM-ZR-0011, Rev. A, "Area IV Radiological Characterization Survey," August 15, 1996.
- 6- Historical Site Photographs from Boeing Database.
- 7- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

### **Building 4355**

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*Includes Building 4756, Substation*

- 1- DOE Document, N-083-A02-DV001, "Site Development and Facility Utilization Planning: FY 1982-FY 1987," September 1982.
- 2- Rockwell International Document, "Use Authorization #117D: Bowed Tubes Measurement," July 1, 1984.
- 3- Personnel Interview, Phil Rutherford, April 7, 2004.
- 4- Historical Site Photographs from Boeing Database.
- 5- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

### **Building 4356**

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*Includes Building 4656, Cooling Stacks*

- 1- DOE Document, N-083-A02-DV001, Rev. A, "Site Development and Facility Utilization Planning: FY 1984-FY 1989," April 1984.
- 2- Rocketdyne Internal Document, no document number, "Assessment of Department of Energy Buildings within the SSFL," September 30, 1996.
- 3- Rockwell International Document, Use Authorization Series 72, "Use of Accuray Continuous Level Measuring Systems," December 11, 1973.
- 4- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 5- Personnel Interview, Phil Rutherford, April 2004.
- 6- Historical Site Photographs from Boeing Database.

### **Building 4357**

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- 1- United States Energy Research and Development Administration Liquid Metal Engineering Center, LR-03026, Part 1, "Site Development Plan: 1977-1981," June 1975.
- 2- Boeing Document, EID-04716, "SCTI Demolition Work for Buildings 4355, 4356, 4357, 4358, 4457, & Associated," November 12, 2001.
- 3- Review of Radiation Safety Records Management System, 2003.
- 4- Personnel Interview, Phil Rutherford, April 2004.
- 5- Personnel Interview, Del Aubuchon, September 22, 2003.
- 6- Historical Site Photographs from Boeing Database.
- 7- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

**Building 4358**

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- 1- Liquid Metal Engineering Center Document, no document number, "LMEC Facility Descriptions," March 1973.
- 2- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 3- Review of Radiation Safety Records Management System, 2003.
- 4- Personnel Interview, Phil Rutherford, April 7, 2004.
- 5- Historical Site Photographs from Boeing Database.

**Building 4359**

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- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Personnel Interview, Roger Marshall, January 8, 2004.
- 3- Review of Radiation Safety Records Management System, 2003.
- 4- Personnel Interview, Phil Rutherford, May 11, 2004.
- 5- Boeing Document, EID-04716, "SCTI Demolition Work for Buildings 4355, 4356, 4357, 4358, 4457, & Associated," November 12, 2001.
- 6- Personnel Interview, Del Aubuchon, September 22, 2003.

**Building 4360**

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- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Review of Radiation Safety Records Management System, 2003.
- 3- Boeing Document, EID-04716, "SCTI Demolition Work for Buildings 4355, 4356, 4357, 4358, 4457, & Associated," November 12, 2001.
- 4- Personnel Interview, Del Aubuchon, September 22, 2003.
- 5- Historical Site Photographs from Boeing Database.

**Building 4361**

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- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Personnel Interview, Del Aubuchon, September 22, 2003.
- 3- Boeing Document, EID-04716, "SCTI Demolition Work for Buildings 4355, 4356, 4357, 4358, 4457, & Associated," November 12, 2001.
- 4- Review of Radiation Safety Records Management System, 2003.
- 5- Personnel Interview, Phil Rutherford, May 11, 2004.

**Building 4362**

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- 1- Personnel Interview, Roger Marshall, January 8, 2004.
- 2- Boeing Document, EID-04716, "SCTI Demolition Work for Buildings 4355, 4356, 4357, 4358, 4457, & Associated," November 12, 2001.
- 3- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 4- Review of Radiation Safety Records Management System, 2003.
- 5- Personnel Interview, Phil Rutherford, May 11, 2004.
- 6- Personnel Interview, Del Aubuchon, September 22, 2003.

## Reference List

### **Building 4392**

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- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Personnel Interview, Del Aubuchon, September 22, 2003.
- 3- Review of Radiation Safety Records Management System, 2003.

### **Building 4457**

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- 1- Internal Document, LMEC-Memo-69-34, LM-90633, "Pump Bearing Test Facility (PBTF) Conceptual System Design Description," issued December 1, 1969.
- 2- Internal Report, LMEC-TDR-73-3, "Report of PBTF P-1 Pump Shaft Seal Oil Leakage Problem," February 20, 1973.
- 3- Personnel Interview, Randy Ingersoll, October 2, 2003.
- 4- Personnel Interview, Dan Trippeda, October 2, 2003.
- 5- Review of Radiation Safety Records Management System, 2003.
- 6- Historical Site Photographs from Boeing Database.
- 7- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

### **Building 4478**

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- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Boeing Document, EID-04716, "SCTI Demolition Work for Buildings 4355, 4356, 4357, 4358, 4457, & Associated," November 12, 2001.
- 3- Personnel Interview, Randy Ingersoll, September 17, 2003.
- 4- Review of Radiation Safety Records Management System, 2003.
- 5- Personnel Interview, Del Aubuchon, September 22, 2003.

### **Site 4502**

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*Includes Building 4806, Time Clock*

*Includes Building 4657, Guard Shack*

- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Review of Radiation Safety Records Management System, 2003.

### **Building 4826**

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*Includes Building 4726, Substation*

- 1- Rocketdyne Internal Document, no document number, "Assessment of Department of Energy Buildings within the SSFL," September 30, 1996.
- 2- Boeing, Internal letter, "SCTL Complex Demolition Project, Area IV, Energy Technology Center (ETEC)," from Boeing North American, Inc. to Robert Laughlin, November, 23, 1998.
- 3- Boeing Document, EID-06148, "SCTL Demolition Report," September 25, 2000.
- 4- Review of Radiation Safety Records Management System, 2003.

- 5- Boeing Internal Document, no document number, "Building Reconnaissance Report-Hazardous Materials," July 11, 1996.
- 6- Personnel Interview, Del Aubuchon, September 19, 2003.
- 7- Historical Site Photographs from Boeing Database.
- 8- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

## Group Q

### Building 4007

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- 1- DOE Document, N-083E-A02-DV001, Rev. A, "Site Development and Facility Utilization Planning: FY 1984-FY 1989" April 1984.
- 2- Personnel Interview, Brian Sujata, November 12, 2003.
- 3- Personnel Interview, Mike Daley, September 22, 2003.
- 4- Review of Radiation Safety Records Management System, 2003.
- 5- Historical Site Photographs from Boeing Database.
- 6- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

### Building 4008

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- 1- DOE Document, N-083E-A02-DV001, Rev. A, "Site Development and Facility Utilization Planning: FY 1984-FY 1989" April 1984.
- 2- Personnel Interview, Brian Sujata, November 12, 2003.
- 3- Personnel Interview, Mike Daley, September 22, 2003.
- 4- Review of Radiation Safety Records Management System, 2003.
- 5- Historical Site Photographs from Boeing Database.
- 6- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

### Site 4501

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*Includes Building 4823, Time Clock*

- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Review of Radiation Safety Records Management System, 2003.
- 3- Historical Site Photographs from Boeing Database.

### 17<sup>th</sup> Street Drainage

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- 1- ETEC Document, RS-00005, "17<sup>th</sup> Street Drainage Area, Final Status Survey Procedure," April 20, 1999.
- 2- DOE Document, RD00-198, "Draft Docket for the Release of the 17<sup>th</sup> Street Drainage Area as Part of the ETEC Closure," August 2000.
- 3- ETEC Document, RS-00009, "17<sup>th</sup> Street Drainage Area, Final Status Survey," March 16, 2000.
- 4- Rocketdyne Document, A4CM-ZR-0011, Rev. A, "Area IV Radiological Characterization Survey," August 15, 1996.

## Reference List

- 5- ORISE Report, Document Number 00-0576, "Verification Survey of the 17<sup>th</sup> Street Drainage Area, Santa Susana Field Laboratory, The Boeing Company. Ventura County, California," April 2000.
- 6- DHS/RHB Letter, "In reply to letter 2000RC-2627, Request for release of the 17<sup>th</sup> Street Drainage Area for unrestricted use," from Edgar D. Bailey (DHS/RHB) to Phil Rutherford, August 16<sup>th</sup>, 2004.
- 7- DOE Letter, "Release of the 17<sup>th</sup> Street Drainage Area," from M. Lopez (DOE) to M. Lee (Boeing), February 1, 2005.
- 8- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 9- Historical Site Photographs from Boeing Database.

## Group R

### **Building 4011**

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*Includes Building 4403, Traffic Dispatch*

*Includes Building 4711, Substation*

- 1- Rocketdyne Report, N001SRR140128, "Building T011 Final Survey Procedure," April 19, 1994.
- 2- Boeing Data Package, no document number, "Septic and Leachfield Survey Data 011, 353, and 373."
- 3- ETEC Document, GEN-ZR-0011, "Radiological Survey of the T056 Landfill; Area from 23<sup>rd</sup> Street to Building T100; and an Area Across from Building T011," August 26, 1988.
- 4- Rocketdyne Document, A4CM-ZR-0011, Rev. A, "Area IV Radiological Characterization Survey," August 15, 1996.
- 5- Boeing Internal Document, no document number, "Final Radiological Survey Data Package for Building 011, SSFL," by James Barnes, July 28, 1998.
- 6- DHS/RHB, Untitled letter, from D. Wesley (DHS/RHB) to J. Barnes, December 16, 1998.
- 7- Untitled letter, from Gerard Wong to James Barnes, September 17, 1998.
- 8- U.S. EPA Report, no document number, "Final Oversight Verification and Confirmation Radiological Survey Report for Buildings T-011, T-019, T-055, and T-100," December 20, 2002.
- 9- Historical Site Photographs from Boeing Database.
- 10- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

### **Building 4171**

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- 1- Personnel Interview, Phil Rutherford, November 13, 2003.
- 2- Personnel Interview, Dan Trippeda, September 15, 2003.
- 3- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 4- Review of Radiation Safety Records Management System, 2003.

**Building 4172**

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- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Personnel Interview, Phil Rutherford, November 13, 2003.
- 3- Personnel Interview, Dan Trippeda, September 15, 2003.
- 4- Rockwell International Internal Letter, 754-WTG-082-084, "Use Authorization Series 93," J. E. Harris to J. D. Moore, June 21, 1982.
- 5- Review of Radiation Safety Records Management System, 2003.
- 6- Historical Site Photographs from Boeing Database.

**Building 4500**

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- 1- Personnel Interview, John Boggio, September 29, 2003.
- 2- Personnel Interview, Dan Trippeda, September 29, 2003.
- 3- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 4- Review of Radiation Safety Records Management System, 2003.
- 5- Historical Site Photographs from Boeing Database.

**Site 4521**

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- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Review of Radiation Safety Records Management System, 2003.

**Building 4611**

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- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Review of Radiation Safety Records Management System, 2003.

**Building 4612**

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- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Review of Radiation Safety Records Management System, 2003.

**Fuel Tank 4735**

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- 1- Rocketdyne Document, GEN-SP-00051, "Removal of Fuel Oil Storage and Distribution System," November 2, 1998.
- 2- Review of Radiation Safety Records Management System, 2003.
- 3- Rocketdyne Document, A4CM-ZR-0011, Rev. A, "Area IV Radiological Characterization Survey," August 15, 1996.
- 4- Historical Site Photographs from Boeing Database.
- 5- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

## Group S

### **Building 4383**

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*Includes Building 4393, Tower at 4383*

*Includes Building 4883, Substation*

- 1- DOE Document, N-083E-A02-DV001, Rev. A, "Site Development and Facility Utilization Planning: FY 1984-FY 1989," April 1984.
- 2- ERDA Document, LR-03026, Part 1, "Site Development Plan: 1977-1981," June 1975.
- 3- Review of Radiation Safety Records Management System, 2003.
- 4- Rocketdyne Document, A4CM-ZR-0011, Rev. A, "Area IV Radiological Characterization Survey," August 15, 1996.
- 5- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

### **Building 4482**

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- 1- ERDA Document, LR-03026, Part 1, "Site Development Plan: 1977-1981," June 1975.
- 2- DHS/RHB, Letter, "Reference: Complaint Concerning Rocketdyne Trailers," D. Bunn (RHB) to D. Sutherland (DOE), February 14, 2000.
- 3- Review of Radiation Safety Records Management System, 2003.
- 4- Boeing Document, no document number, "Radiological Survey of Donated Trailer Sections at the Wildlife Way Station," February 16, 2000.
- 5- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

### **Building 4483**

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- 1- ERDA Document, LR-03026, Part 1, "Site Development Plan: 1977-1981," June 1975.
- 2- DHS/RHB, Letter, "Reference: Complaint Concerning Rocketdyne Trailers," D. Bunn (RHB) to D. Sutherland (DOE), February 14, 2000.
- 3- Review of Radiation Safety Records Management System, 2003.
- 4- Boeing Document, no document number, "Radiological Survey of Donated Trailer Sections at the Wildlife Way Station," February 16, 2000.

### **Building 4484**

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- 1- ERDA Document, LR-03026, Part 1, "Site Development Plan: 1977-1981," June 1975.
- 2- DHS/RHB, Letter, "Reference: Complaint Concerning Rocketdyne Trailers," D. Bunn (RHB) to D. Sutherland (DOE), February 14, 2000.
- 3- Review of Radiation Safety Records Management System, 2003.

- 4- Boeing Document, no document number, "Radiological Survey of Donated Trailer Sections at the Wildlife Way Station," February 16, 2000.
- 5- Historical Site Photographs from Boeing Database.
- 6- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

### **Building 4485**

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- 1- ERDA Document, LR-03026, Part 1, "Site Development Plan: 1977-1981," June 1975.
- 2- DHS/RHB, Letter, "Reference: Complaint Concerning Rocketdyne Trailers," D. Bunn (RHB) to D. Sutherland (DOE), February 14, 2000.
- 3- Review of Radiation Safety Records Management System, 2003.
- 4- Boeing Document, no document number, "Radiological Survey of Donated Trailer Sections at the Wildlife Way Station," February 16, 2000.
- 5- Historical Site Photographs from Boeing Database.

### **Building 4486**

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- 1- ERDA Document, LR-03026, Part 1, "Site Development Plan: 1977-1981," June 1975.
- 2- DHS/RHB, Letter, "Reference: Complaint Concerning Rocketdyne Trailers," D. Bunn (RHB) to D. Sutherland (DOE), February 14, 2000.
- 3- Review of Radiation Safety Records Management System, 2003.
- 4- Boeing Document, no document number, "Radiological Survey of Donated Trailer at Shandon High School," February 9, 2000.
- 5- Historical Site Photographs from Boeing Database.
- 6- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

### **Building 4487**

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- 1- ERDA Document, LR-03026, Part 1, "Site Development Plan: 1977-1981," June 1975.
- 2- Rocketdyne Internal Document, no document number, "Assessment of Department of Energy Buildings within the SSFL," September 30, 1996.
- 3- Review of Radiation Safety Records Management System, 2003.
- 4- Personnel Interview, Phil Rutherford, June 16, 2004.
- 5- Historical Site Photographs from Boeing Database.
- 6- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

### **Site 4538**

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- 1- Boeing Document, no document number, "ETEC Closure, Landscaping of Old Trailer Parking Lot," no date given.
- 2- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 3- Review of Radiation Safety Records Management System, 2003.

## Group T

### **Building 4461**

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- 1- ERDA Document, LR-03026, Part 1, "Site Development Plan: 1977-1981," June 1975.
- 2- Review of Radiation Safety Records Management System, 2003.
- 3- Historical Site Photographs from Boeing Database.
- 4- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

### **Building 4462**

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*Includes Building 4760, Substation*

- 1- Review of Radiation Safety Records Management System, 2003.
- 2- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 3- Historical Site Photographs from Boeing Database.

### **Building 4463**

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*Includes 4780, Substation*

- 1- ERDA Document, LR-03026, Part 1, "Site Development Plan: 1977-1981," June 1975.
- 2- Review of Radiation Safety Records Management System, 2003.
- 3- Historical Site Photographs from Boeing Database.
- 4- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

### **Site 4662**

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- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Review of Radiation Safety Records Management System, 2003

## Group U

### **Building 4062**

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*Includes Building 4762, Substation*

- 1- Boeing Document, EID-04366, "Removal of DOE Buildings, Demo Pak A," May 18, 1999.
- 2- Review of Radiation Safety Records Management System, 2003.
- 3- Historical Site Photographs from Boeing Database.
- 4- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

## Building 4065

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*Includes Building 4762, Substation*

- 1- Boeing Document, EID-04366, "Removal of DOE Buildings, Demo Pak A," May 18, 1999.
- 2- DOE Document, NEPA Document Number ET-EM-99-03, "Categorical Exclusion under DOE NEPA Regulations for Dismantling, Removal, and Site Restoration of Demo Package A," May 18, 1999.
- 3- NA Rockwell Document, Use Authorization 39, "Operation of Electron Microprobe," L. Cooper, May 14, 1971.
- 4- NA Rockwell Document, Use Authorization 61, "Use of Normal U<sub>235</sub> Fuel," P.H. Horton, December 14, 1972.
- 5- Rockwell International Document, Use Authorization 74, "Use of X-ray Generator," D.E. Goggin, March 20, 1974.
- 6- Rockwell International Document, Use Authorization Series 75, 33-105-Auth 75, "Use of Tritiated Titanium Foils as Gas Chromatography Detectors," March 20, 1975.
- 7- Rockwell International Document, Use Authorization 164A, "Possession and use of Gas Chromatograph Probe Containing Ni-63 source," January 3, 1995.
- 8- Boeing Document, Use Authorization 75V, "Possession Only of X-ray Diffraction Equipment," W.S. DeBear, August 29, 1996.
- 9- Rockwell International, Internal Letter, "Exposure Measurements with Analytical X-Ray Machine," R.J. Tuttle to Isotopes Committee, November 10, 1980.
- 10- Historical Site Photographs from Boeing Database.
- 11- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

## Building 4066

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*Includes Building 4762, Substation*

*Includes Building 4806, Time Clock*

- 1- Personnel Interview, Randy Ingersoll, September 15, 2003.
- 2- ERDA Document, LR-03026, Part 1, "Site Development Plan: 1977-1981," June 1975.
- 3- Boeing Document, EID-04366, "Removal of DOE Buildings, Demo Pak A," May 18, 1999.
- 4- Historical Site Photographs from Boeing Database.
- 5- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 6- Review of Radiation Safety Records Management System, 2003.

## Group V

### **Building 4038**

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*Includes 4757, Substation*

- 1- ERDA Document, LR-03026, Part 1, "Site Development Plan: 1977-1981," June 1975.
- 2- Review of Radiation Safety Records Management System, 2003.
- 3- Personnel Interview, Phil Rutherford, June 16, 2004.
- 4- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

### **Building 4039**

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- 1- Rocketdyne Internal Document, no document number, "Assessment of Department of Energy Buildings within the SSFL," September 30, 1996.
- 2- Personnel Interview, Phil Rutherford, September 4, 2003.
- 3- Boeing Internal Document, "Demolition Binder: Building 4039," 2003.
- 4- Personnel Interview, Brian Sujata, September 3, 2003.
- 5- Review of Radiation Safety Records Management System, 2003.
- 6- Boeing Internal Document, no document number, "Radiation Survey Report, Building T039," April 15, 2003.
- 7- Historical Site Photographs from Boeing Database.
- 8- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

### **Building 4057**

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*Includes 4757, Substation*

- 1- ERDA Document, LR-03026, Part 1, "Site Development Plan: 1977-1981," June 1975.
- 2- US Energy Research and Development Administration Document, ERDA-68, "Liquid Metal Fast Breeder Reactor Program, Facility Profile."
- 3- Personnel Interview, Dan Trippeda, September 22, 2003.
- 4- Review of Radiation Safety Records Management System, 2003.
- 5- Rocketdyne Online Incident Reporting System (internal), "Incident Report 01684," February 26, 2003.
- 6- Historical Site Photographs from Boeing Database.
- 7- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

### **Building 4626**

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- 1- ERDA Document, LR-03026, Part 1, "Site Development Plan: 1977-1981," June 1975.
- 2- Review of Radiation Safety Records Management System, 2003.

- 3- ETEC Document, GEN-ZR-0010, "Radiological Survey of Buildings T019 and T013; and Area Northwest of T059, T019, T013 and T012; and a Storage Yard West of Buildings T626 and T038," 1988.
- 4- Rockwell Document, N001ER000017, "Nuclear Operations at Rockwell's Santa Susana Field Laboratory- A Factual Perspective," September 6, 1991.
- 5- Historical Site Photographs from Boeing Database.
- 6- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

## 4056 Landfill

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- 1- Personnel Interview, Bob Bass, September 19, 2003.
- 2- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 3- Personnel Interview, Phil Rutherford, January 8, 2004.
- 4- Review of Radiation Safety Records Management System, 2003.
- 5- ETEC Document, GEN-ZR-0011, "Radiological Survey of the T56 Landfill; Area from 23<sup>rd</sup> Street to Building T100; And Area Across From Building T011," August 26, 1988.
- 6- Rocketdyne Report, A4CM-ZR-0011, "Area IV Radiological Characterization Survey Final Report," August 15, 1996.
- 7- Personnel Interview, Phil Rutherford, October 4, 2004.

## Group W

### Building 4015

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*Includes Building 4707, Substation*

- 1- DOE Document, N-083E-A02-DV001, Rev. A, "Site Development and Facility Utilization Planning: FY 1984-FY 1989," April 1984.
- 2- Personnel Interview, Dan Trippeda, September 12, 2003.
- 3- Review of Radiation Safety Records Management System, 2003.
- 4- Historical Site Photographs from Boeing Database.
- 5- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

### Building 4373

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*Includes Site 4848, Pad at Building 4373*

- 1- ETEC Document, GEN-ZR-0012, "Radiological Survey of Buildings T373 and T375," August 8, 1988.
- 2- Boeing Internal Document, no document number, "Radiation Survey Report, Building B373-Septic Tank," December 7, 2000.
- 3- Rocketdyne Report, A4CM-ZR-0011, "Area IV Radiological Characterization Survey Final Report," August 15, 1996.

## Reference List

- 4- DHS/RHB, Letter, "Untitled" from G. Wong (DHS/RHB) to P. Rutherford, May 9, 1995.
- 5- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 6- Review of Radiation Safety Records Management System, 2003.

### **Building 4374**

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- 1- ETEC Document, GEN-ZR-0012, "Radiological Survey of Buildings T373 and T375," August 8, 1988.
- 2- Review of Radiation Safety Records Management System, 2003.
- 3- Historical Site Photographs from Boeing Database.
- 4- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

### **Site 4573**

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*Includes Building 4343, Time Clock*

- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Review of Radiation Safety Records Management System, 2003.
- 3- Historical Site Photographs from Boeing Database.

## Group X

### **Building 4055**

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*Includes Building 4755, Substation*

*Includes Building 4155, Control Center, Guard Shack*

- 1- Rockwell International Report, AI-DOE-13559, "Nuclear Materials Development Facility Decommissioning Final Report," March 31, 1987.
- 2- Rockwell International Report, N704SRR990027, "Final Radiation Survey of the NMDF," December 19, 1986.
- 3- Personnel Interview, Dan Trippeda, September 12, 2003.
- 4- NRC, Letter, "SNM-21, Amendment No. 1," from Leland Rouse (NRC) to M.E. Remley, October 76, 1987.
- 5- Rockwell International Report, N704SRR990024, "Plutonium Concentrations in Soil Around Drain Lines at NMDF," April 3, 1986.
- 6- Oak Ridge Associated Universities Report, no document number, "Confirmatory Radiological Survey Nuclear Materials Development Facility (Building T-055), Rockwell International, Santa Susana, California," July 1987.
- 7- U.S. EPA Report, no document number, "Final Oversight Verification and Confirmation Radiological Survey Report for Buildings T-011, T-019, T-055, and T-100," December 20, 2002.

- 8- Rocketdyne Document, A4CM-ZR-0011, Rev. A, "Area IV Radiological Characterization Survey," August 15, 1996.
- 9- Historical Site Photographs from Boeing Database.
- 10- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

## Group Y

### **Building 4173, formerly 4865**

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- 1- Rocketdyne Document A4CM-ZR-0011, Rev. A, Area IV Radiological Characterization Survey, August 15, 1996.
- 2- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

### **Building 4363**

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- 1- Rockwell International, Internal Letter, "Study of Possible Source of Radioactive Contamination in T363," from R. J. Tuttle to P. D. Rutherford, September 9, 1994.
- 2- Rocketdyne Report, 363-AR-0001, "Decontamination and Decommissioning of Building T363," September 25, 1997.
- 3- ORISE Document, no document number, "Verification Survey of Building T363, SSFL, Rockwell International, Ventura County, California," Vitkus, T. J., and J. R. Morton, October 1996.
- 4- Rocketdyne Report, SSWA-ZR-0002, "Final Radiological Survey Report for Building T363," June 21, 1996.
- 5- Rocketdyne Report, A4CM-ZR-0011, "Area IV Radiological Characterization Survey Final Report," August 15, 1996.
- 6- DHS/RHB, Untitled Letter, from David Wesley (DHS/RHB) to James Barnes. July 9, 1998.
- 7- U.S. EPA Report, no document number, "Final Oversight Verification and Confirmation Radiological Survey Report for Buildings T-012, T-029, and T-363," December 20, 2002.
- 8- Personnel Interview, Dan Trippeda, August 12, 2003.
- 9- Historical Site Photographs from Boeing Database.
- 10- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

### **Building 4375**

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- 1- ETEC Document, GEN-ZR-0012, "Radiological Survey of Buildings T373 and T375," August 26, 1988.
- 2- Review of Radiation Safety Records Management System, 2003.
- 3- DHS/RHB, Untitled Letter, from G. Wong (DHS/RHB) to P. Rutherford. May 9, 1995.
- 4- Historical Site Photographs from Boeing Database.

## Reference List

### **Building 4473**

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- 1- Personnel Interview, Dan Trippeda, September 18, 2003.
- 2- Review of Radiation Safety Records Management System, 2003.
- 3- Historical Site Photographs from Boeing Database.
- 4- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

### **Site 4575**

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- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- ETEC Document, GEN-ZR-0012, "Radiological Survey of Buildings T373 and T375," August 26, 1988.
- 3- Review of Radiation Safety Records Management System, 2003.
- 4- Historical Site Photographs from Boeing Database.

### **Building 4863**

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- 1- Personnel Interview, Dan Trippeda, September 18, 2003.
- 2- ERDA Document, LR-03026, Part 1, "Site Development Plan: 1977-1981," June 1975.
- 3- Review of Radiation Safety Records Management System, 2003.
- 4- Historical Site Photographs from Boeing Database.

### **Building 4873**

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- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Personnel Interview, Phil Rutherford, September 18, 2003.
- 3- Personnel Interview, Del Aubuchon, September 18, 2003.
- 4- Personnel Interview, Dan Trippeda, September 18, 2003.
- 5- Review of Radiation Safety Records Management System, 2003.
- 6- Rocketdyne Document, A4CM-ZR-0011, Rev. A, "Area IV Radiological Characterization Survey," August 15, 1996.

### **Site 4874**

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- 1- ETEC Document, GEN-ZR-0012, "Radiological Survey of Buildings T373 and T375," August 26, 1988.
- 2- Historical Site Photographs from Boeing Database.
- 3- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 4- Review of Radiation Safety Records Management System, 2003.
- 5- Rocketdyne Report, A4CM-ZR-0011, "Area IV Radiological Characterization Survey Final Report," August 15, 1996.

**Site 4875**

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- 1- ETEC Document, GEN-ZR-0012, "Radiological Survey of Buildings T373 and T375," August 26, 1988.
- 2- Historical Site Photographs from Boeing Database.
- 3- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 4- Review of Radiation Safety Records Management System, 2003.

**Group Z****Building 4353**

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*Includes Site 4853, Concrete Pad*

- 1- Personnel Interview, Dan Trippeda, September 8, 2003.
- 2- ERDA Document, LR-03026, Part 1, "Site Development Plan: 1977-1981," June 1975.
- 3- Boeing Data Package, no document number, "Septic and Leachfield Survey Data 011, 353, and 373."
- 4- Review of Radiation Safety Records Management System, 2003.
- 5- Atomics International Internal Document, no document number, "Special Survey of Building 353 Area."
- 6- Rocketdyne Report, A4CM-ZR-0011, "Area IV Radiological Characterization Survey Final Report," August 15, 1996.
- 7- Boeing Internal Document, no document number, "Radiation Survey, Building 353."

**Parking Lot 4553**

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- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Review of Radiation Safety Records Management System, 2003.
- 3- Rocketdyne Document, A4CM-ZR-0011, Rev. A, "Area IV Radiological Characterization Survey," August 15, 1996.

**Building 4854**

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- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Review of Radiation Safety Records Management System, 2003.

## Group AA

### **Building 4020**

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*Includes Building 4323, Guard Building*

*Includes Building 4720, Substation*

- 1- Boeing Report, EID-06141, "Hot Laboratory Decontamination and Dismantlement Final Report," November 27, 2001.
- 2- DOE-OAK, Letter, "Removal of RMMA Designation for B020," from M. Lopez (DOE-OAK) to M. Lee, November 13, 1998.
- 3- Personnel Interview, Dan Trippeda, September 29, 2003.
- 4- Boeing, Letter, "Soil Sampling Results for Buildings 468 & 020 at SSFL," from J. Shao and J. Barnes (Boeing) to P. Rutherford, August 3, 1998.
- 5- Boeing Report, RS-00010, "Area 4020, MARSSIM Final Status Survey Report," October 31, 2000.
- 6- ORISE Document, ORISE 2000-1524, "Verification Survey for the Land Area Formerly Supporting the Hot Laboratory (4020), Santa Susana Field Laboratory, The Boeing Company, Ventura County, California," December 2000.
- 7- DOE Letter, "Release of Building 4020," from M. Lopez (DOE) to M. Lee (Boeing), January 31, 2005.
- 8- Historical Site Photographs from Boeing Database.
- 9- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

### **Building 4468**

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- 1- Boeing Report, EID-06141, "Hot Laboratory Decontamination and Dismantlement Final Report," November 27, 2001.
- 2- DOE-OAK, Letter, "Removal of RMMA Designation for B020," from M. Lopez (DOE-OAK) to M. Lee, November 13, 1998.
- 3- Review of Radiation Safety Records Management System, 2003.
- 4- Rocketdyne Report, A4CM-ZR-0011, "Area IV Radiological Characterization Survey Final Report," August 15, 1996.
- 5- Boeing Document, Letter from J. Shao and J. Barnes (Boeing) to P. Rutherford, "Soil Sampling Results for Buildings 468 & 020 at SSFL," August 3, 1998.
- 6- Boeing Report, RS-00010, "Area 4020, MARSSIM Final Status Survey Report," October 31, 2000.
- 7- ORISE Document, ORISE 2000-1524, "Verification Survey for the Land Area Formerly Supporting the Hot Laboratory (4020), Santa Susana Field Laboratory, The Boeing Company, Ventura County, California," December 2000.
- 8- DOE Letter, "Release of Building 4020," from M. Lopez (DOE) to M. Lee (Boeing), January 31, 2005.

- 9- Historical Site Photographs from Boeing Database.
- 10- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

## Site 4520

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- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Historical Site Photographs from Boeing Database.
- 3- Review of Radiation Safety Records Management System, 2003.
- 4- Boeing Report, RS-00010, "Area 4020, MARSSIM Final Status Survey Report," October 31, 2000.
- 5- ORISE Document, ORISE 2000-1524, "Verification Survey for the Land Area Formerly Supporting the Hot Laboratory (4020), Santa Susana Field Laboratory, The Boeing Company, Ventura County, California," December 2000.

## Group BB

### Building 4100

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*Includes 4100, Trench*

*Includes Building 4800/4710, Substation*

- 1- Phil Rutherford Website, <http://rdweb/shea/radiationsafety/>, accessed August 2003.
- 2- NRC, Letter, "NRC Inspection of Rockwell International's FCEL Inspection," from H. E. Brook (NRC) to M. E. Remley, July 11, 1980.
- 3- Rockwell International Report, "Report of Radiation Survey of the FCEL Reactor Facility in Support of Request to Terminate Facility License CX-17 and to Release the Facility for Unrestricted Use, Docket No. 50-147," April 30, 1980.
- 4- NRC, Letter, "Docket No. 50-147," from R. Reid (NRC) to M.E. Remley, October 1, 1980.
- 5- ETEC Document, GEN-ZR-0011, "Radiological Survey of the T056 Landfill; Area from 23<sup>rd</sup> Street to Building T100; and an Area Across from Building T011," August 26, 1988.
- 6- U.S. EPA Report, no document number, "Final Oversight Verification and Confirmation Radiological Survey Report for Buildings T-011, T-019, T-055, and T-100," December 20, 2002.
- 7- Rocketdyne Document, A4CM-ZR-0011, Rev. A, "Area IV Radiological Characterization Survey," August 15, 1996.
- 8- Boeing Radiation Safety Records Management System (File Drawer 156-D), "B/4100 Trench," 1999.
- 9- Boeing Radiation Safety Records Management System (File Drawer 133-B), "B/4100 Septic Tank," 2001.
- 10- Historical Site Photographs from Boeing Database.
- 11- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

### **Site 4510**

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- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Review of Radiation Safety Records Management System, 2003.
- 3- Rocketdyne Document, A4CM-ZR-0011, Rev. A, "Area IV Radiological Characterization Survey," August 15, 1996.

## **Group CC**

### **Building 4009**

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*Includes Buildings 4709, Substation*

- 1- Phil Rutherford Website, <http://rdweb/shearadiationsafety/>, accessed August 2003.
- 2- DHS, Untitled Letter, from D. Wesley (DHS) to J. Barnes, January 20, 1999.
- 3- ETEC Document, GEN-ZR-0014, "Radiological Survey of Building T009," August 26, 1988.
- 4- Rockwell International Report, N704SRR990032, "Final Decontamination and Radiological Survey of Portions of Building T009," December 1990.
- 5- Rockwell International, Letter, "Building 009 Use by Advanced Programs Personnel," from P. Rutherford (Rockwell International) to C. Butler, March 1, 1995.
- 6- DHS, Letter, "Radioactive Material License Number 0015-70," from P. Baldenweg (DHS) to P. Rutherford, February 24, 1995.
- 7- Rockwell International, Letter, "B/009 Roof Survey," from P. Rutherford (Rockwell International) to C. Butler, May 4, 1995.
- 8- Rocketdyne Document, A4CM-ZR-0011, Rev. A, "Area IV Radiological Characterization Survey," August 15, 1996.
- 9- Boeing Radiation Safety Records Management System (File Drawer 133-B, "Building T009 Field (Septic System)," July 10, 2002.
- 10- Historical Site Photographs from Boeing Database.
- 11- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

### **Site Summary - Parking Lot 4509**

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- 1- Review of Radiation Safety Records Management System, 2003.
- 2- DOE Document, DOE/CD-ETEC-4020 RD00-198R1, "Draft Docket For The Release Of The Former Building 4020 Site (Hot Laboratory) As Part Of The ETEC Closure," June 2003.
- 3- Rocketdyne Document, A4CM-ZR-0011, Rev. A, "Area IV Radiological Characterization Survey," August 15, 1996.
- 4- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

## Group DD

### Building 4317

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- 1- Personnel Interview, Dan Trippeda, September 12, 2003.
- 2- Review of Radiation Safety Records Management System, 2003.
- 3- Rocketdyne Document, A4CM-ZR-0011, Rev. A, "Area IV Radiological Characterization Survey," August 15, 1996.
- 4- Historical Site Photographs from Boeing Database.
- 5- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

### Building 4318

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- 1- Personnel Interview, Dan Trippeda, September 12, 2003.
- 2- Review of Radiation Safety Records Management System, 2003.
- 3- Rocketdyne Document, A4CM-ZR-0011, Rev. A, "Area IV Radiological Characterization Survey," August 15, 1996.
- 4- Historical Site Photographs from Boeing Database.
- 5- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

### Building 4425

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- 1- Boeing Document, no document number, "ETEC Resources & Capabilities," no date given.
- 2- Review of Radiation Safety Records Management System, 2003.
- 3- Rocketdyne Document, A4CM-ZR-0011, Rev. A, "Area IV Radiological Characterization Survey," August 15, 1996.
- 4- Historical Site Photographs from Boeing Database.
- 5- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

### Building 4730

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- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Review of Radiation Safety Records Management System, 2003.
- 3- Rocketdyne Document, A4CM-ZR-0011, Rev. A, "Area IV Radiological Characterization Survey," August 15, 1996.
- 4- Historical Site Photographs from Boeing Database.

### Building 4814

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*Includes Building 4314, LLID Test Control Building*

*Includes Building 4514, Sodium-Water Reaction Test Center*

- 1- Rockwell International, Use Authorization 83, "Use of DD Electronics Gamma Densitometer," November 7, 1974.
- 2- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

## Reference List

- 3- Rocketdyne Document, A4CM-ZR-0011, Rev. A, "Area IV Radiological Characterization Survey," August 15, 1996.
- 4- Personnel Interview, Dan Trippeda, September 8, 2003.
- 5- Historical Site Photographs from Boeing Database.

### **Building 4820**

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- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Rockwell International Document, Use Authorization 005, "Impact Tests of Normal ZrH Fuel," February 25, 1970.
- 3- Rocketdyne Document, A4CM-ZR-0011, Rev. A, "Area IV Radiological Characterization Survey," August 15, 1996.
- 4- Historical Site Photographs from Boeing Database.

## Group EE

### **Building 4885**

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- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Personnel Interview, Dan Trippeda, September 18, 2003.
- 3- Review of Radiation Safety Records Management System, 2003.
- 4- DOE Document, RD99-179 DOE/CD-ETEC-4886, "Draft Docket For The Release Of Building 4886 As Part Of The ETEC Closure," September 1999, Revised 2000.

### **Building 4886**

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- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- DOE Document, RD99-179 DOE/CD-ETEC-4886, "Draft Docket For The Release Of Building 4886 As Part Of The ETEC Closure," September 1999, Revised 2000.
- 3- ETEC Document, GEN-ZR-0004, "Radiological Survey of the Sodium Disposal Facility – Building T886," June 27, 1988.
- 4- Rocketdyne Report, N704SRR990034, "Baseline Radiological Survey of the Sodium Disposal Facility (T886)," August 31, 1992.
- 5- RWQCB, no document number, "Summary Table of CEP Results of Samples Taken by RWQCB," March 24, 1993.
- 6- California DHS/RHB, Internal memorandum, "Soil Released from Lower Pond of Sodium Burn Pit at SSFL," from S. Hsu, June 17, 1993.
- 7- DHS/RHB Laboratory Results, February 14, 1994.
- 8- Rocketdyne Report, 886-ZR-0007, "Post-Remediation Ambient Gamma Radiological Survey of the Former Sodium Disposal Facility (T886)," January 5, 1995.
- 9- Rocketdyne Report, 886-ZR-0009, "Post-Remediation Soil Sampling and Analysis for the Former Sodium Disposal Facility (T886)," Revision A, April 8, 1997.

- 10- Rocketdyne Report, A4CM-ZR-0011, "Area IV Radiological Characterization Survey Final Report," August 15, 1996.
- 11- California DHS/RHB, Internal memorandum, "Comparison of Soil Results for Sodium Burn Pit Area," from H. Kocol to F. Toyoma, December 30, 1996.
- 12- California DHS/RHB, Survey Report, "Confirmatory Survey: Soil Samples from the Former Sodium Disposal Facility," September 16, 1997.
- 13- California DHS/RHB, Internal memorandum, "Former Sodium Disposal Facility Located at Area IV Santa Susana Field Laboratory – ETEC," from R. Lupo to F. Toyoma, May 1, 1998.
- 14- DHS/RHB, letter, "Confirmation of the release of the Sodium Disposal Facility for unrestricted use," from G. Wong (DHS/RHB) to P. Rutherford. May 15, 1998.
- 15- Historical Site Photographs from Boeing Database.

## Group FF

### **Building 4701**

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- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Personnel Interview, Dan Trippeda, September 17, 2003.
- 3- Review of Radiation Safety Records Management System, 2003.
- 4- Rocketdyne Document, A4CM-ZR-0011, Rev. A, "Area IV Radiological Characterization Survey," August 15, 1996.
- 5- Historical Site Photographs from Boeing Database.

### **Building 4702**

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- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Personnel Interview, Dan Trippeda, September 17, 2003.
- 3- Review of Radiation Safety Records Management System, 2003.
- 4- Rocketdyne Document, A4CM-ZR-0011, Rev. A, "Area IV Radiological Characterization Survey," August 15, 1996.
- 5- Historical Site Photographs from Boeing Database.

## Not Built

### **Building 4001**

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- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Review of Radiation Safety Records Management System, 2003.

### **Building 4052**

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- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

## Reference List

### **Building 4638**

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- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

### **Building 4639**

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- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

### **Building 4640**

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- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

## Appendix A – Acronyms and Abbreviations

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Acronym	Meaning
ACP	Activated Corrosion Product
AEC	Atomic Energy Commission
AETR	Advanced Epithermal Thorium Reactor
AI	Atomics International
ALARA	As Low As Reasonably Achievable
ANL	Argonne National Laboratory
ANSI	American National Standards Institute
CAT	Computer Aided Tomography
CDHC	Component Development Hot Cell
CERF	Component Equipment Repair Facility
CFR	United States Code of Federal Regulations
COC	Contaminant of Concern
D&D	Decontamination and Decommissioning
DCGL	Derived Concentration Guideline Level
DHS	Department of Health Services (California)
DOE	United States Department of Energy
DTSC	California Department of Toxic Substances Control
EBR	Experimental Breeder Reactor
EPA	United States Environmental Protection Agency
ERDA	Energy Research and Development Administration
ESG	Energy Systems Group
ESSAP	Environmental Survey and Site Assessment Program
ETB	Engineering Test Building
ETEC	Energy Technology Engineering Center
FCEL	Fast Critical Experiment Laboratory
FSDF	Former Sodium Disposal Facility
FUSRAP	Formerly Utilized Sites Remedial Action Program
GPS	Global Positioning System
HBR	High Boiler Residue
HEPA	High-Efficiency Particulate Air
HERF	High Energy Rate Forging
HMRFSR	Heavy Metal Reflected Fast Spectrum Reactor
HP	Health Physicist
IHX	Intermediate Heat Exchanger
ISF	Interim Storage Facility
ISI	In-Service Inspection
IVS	Independent Verification Survey
KEWB	Kinetics Experiment Water Boiler
LCTL	Large Component Test Loop
LLID	Large Leak Injector Device
LMDL	Liquid Metal Development Laboratory

## Appendix A

<b>Acronym</b>	<b>Meaning</b>
<b>LMEC</b>	<b>Liquid Metal Engineering Center</b>
<b>LMFBR</b>	<b>Liquid Metal Fast Breeder Reactor</b>
<b>LMR</b>	<b>Liquid Metal Reactor</b>
<b>MARSSIM</b>	<b>Multi-Agency Radiation Survey and Site Investigation</b>
<b>MDA</b>	<b>Minimum Detectable Activity</b>
<b>MDC</b>	<b>Minimum Detectable Concentration</b>
<b>MG</b>	<b>Motor Generator</b>
<b>NDA</b>	<b>No Detectable Activity</b>
<b>NEPA</b>	<b>National Environmental Policy Act</b>
<b>NMDF</b>	<b>Nuclear Material Development Facility</b>
<b>NPDES</b>	<b>National Pollutant Discharge Elimination System</b>
<b>NRC</b>	<b>Nuclear Regulatory Commission</b>
<b>OCY</b>	<b>Old Conservation Yard</b>
<b>OMR</b>	<b>Organic Moderated Reactor</b>
<b>OMRE</b>	<b>Organic Moderated Reactor Experiment</b>
<b>ORAU</b>	<b>Oak Ridge Associated Universities</b>
<b>ORISE</b>	<b>Oak Ridge Institute for Science and Education</b>
<b>PBTF</b>	<b>Pump Bearing Test Facility</b>
<b>PDU</b>	<b>Plant Development Unit</b>
<b>R/A</b>	<b>Radioactive</b>
<b>R&amp;D</b>	<b>Research and Development</b>
<b>RCRA</b>	<b>Resource Conservation and Recovery Act</b>
<b>RESRAD</b>	<b>Residual Radioactivity</b>
<b>RHB</b>	<b>Radiologic Health Branch (California)</b>
<b>RMDF</b>	<b>Radioactive Materials Disposal Facility</b>
<b>RMHF</b>	<b>Radioactive Materials Handling Facility</b>
<b>RMMA</b>	<b>Radiological Materials Management Area</b>
<b>RRM</b>	<b>Regulated Radiological Materials</b>
<b>RWQCB</b>	<b>Regional Water Quality Control Board</b>
<b>S2DR</b>	<b>SNAP 2 Demonstration Reactor</b>
<b>S8DR</b>	<b>SNAP 8 Development Reactor</b>
<b>S8ER</b>	<b>SNAP 8 Experimental Reactor</b>
<b>S10FS</b>	<b>SNAP 10 Flight System</b>
<b>SASS-ACA</b>	<b>Self Actuated Shutdown System-Articulated Control</b>
<b>SCTI</b>	<b>Sodium Component Test Installation</b>
<b>SCTL</b>	<b>Small Component Test Loop</b>
<b>SEFOR</b>	<b>Southwest Experimental Fast Oxide Reactor</b>
<b>SER</b>	<b>SNAP Experimental Reactor</b>
<b>SETF</b>	<b>SNAP Environmental Test Facility</b>
<b>SGR</b>	<b>Sodium Graphite Reactor</b>
<b>SHEA</b>	<b>Safety, Health, and Environmental Affairs</b>
<b>SNAP</b>	<b>Systems for Nuclear Auxiliary Power</b>
<b>SNAPTRAN-1</b>	<b>SNAP Transient Test</b>

<b>Acronym</b>	<b>Meaning</b>
<b>SNM</b>	<b>Special Nuclear Material</b>
<b>SPTF</b>	<b>Sodium Pump Test Facility</b>
<b>SRE</b>	<b>Sodium Reactor Experiment</b>
<b>S.S.</b>	<b>Salvageable Steel</b>
<b>SSFL</b>	<b>Santa Susana Field Laboratory</b>
<b>STIR</b>	<b>Shield Test Irradiation Reactor</b>
<b>TPCA</b>	<b>Toxic Pit Cleanup Act</b>
<b>TRU</b>	<b>Transuranic</b>
<b>UC</b>	<b>Uranium Carbide</b>
<b>UPS</b>	<b>Uninterruptible Power Supply</b>
<b>WBNS</b>	<b>Water Boiler Neutron Source</b>

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## Appendix B – Units

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Unit	Meaning
cm	centimeter
cpm	counts per minute
cts/min	counts per minute
degrees F	degrees Fahrenheit
dpm	disintegrations per minute
dpm/100 cm <sup>2</sup>	disintegrations per minute per 100 square centimeters
gm	gram
mg/cm <sup>2</sup>	milligrams per square centimeter
μCi	microcurie
μCi/cm <sup>3</sup>	microcuries per cubic centimeter
μCi/ml	microcuries per milliliter
μrad/hr	microrad per hour
μR/hr	microroentgen per hour
mCi	millicuries
mrem/hr	millirem per hour
mrem/yr	millirem per year
pCi/cc	picocuries per cubic centimeter
pCi/g	picocuries per gram
pCi/L	picocuries per liter

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## Appendix C—Industrial Planning Maps

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1962

1964

1967

1971

1972

1973

1975

1977

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1987

1991

1992

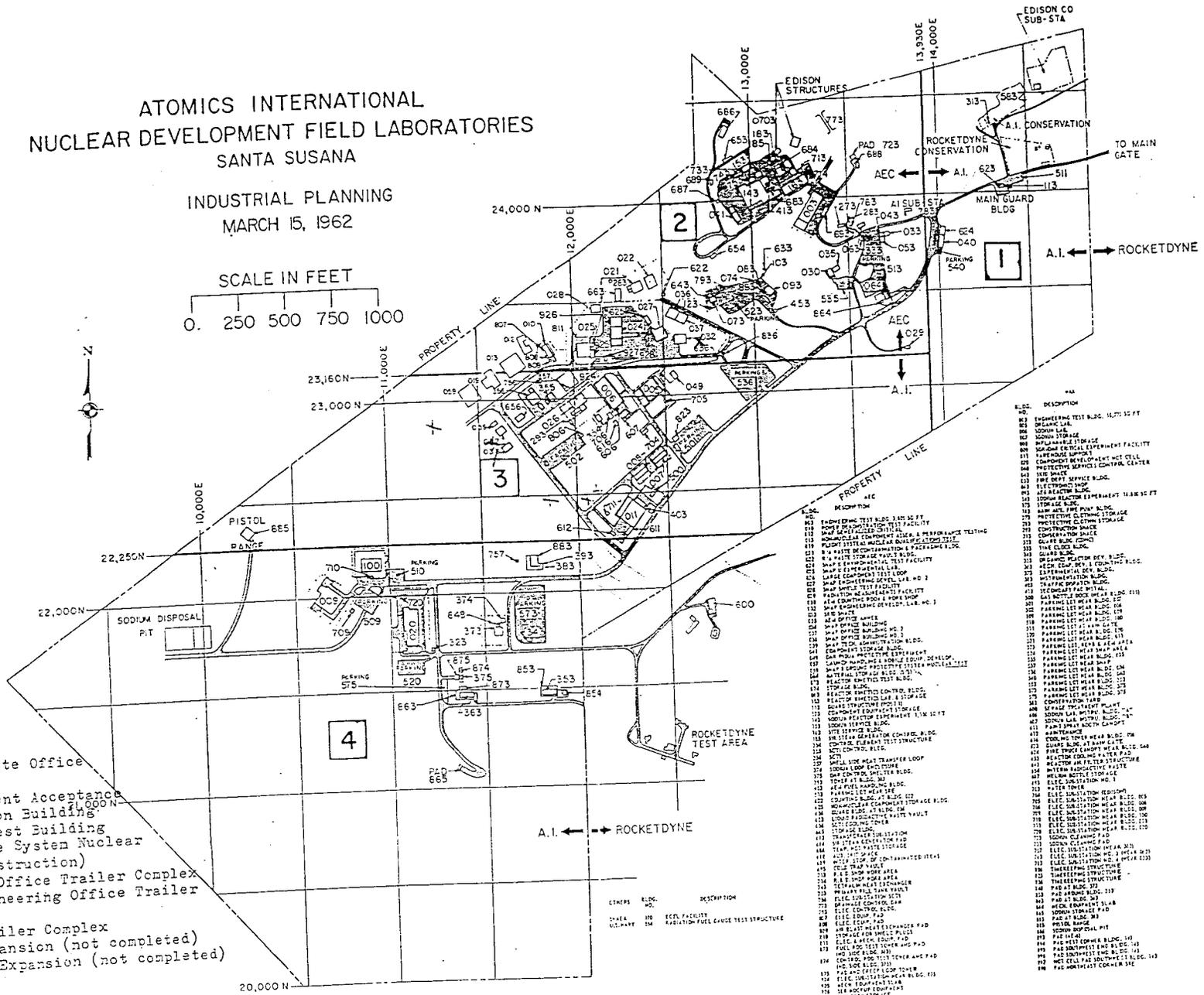
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# ATOMICS INTERNATIONAL NUCLEAR DEVELOPMENT FIELD LABORATORIES SANTA SUSANA

INDUSTRIAL PLANNING  
MARCH 15, 1962

SCALE IN FEET

0. 250 500 750 1000



All AEC Buildings Except  
638, 639, 640 which are  
leased and Oll Expansion  
which is NAA.

- 034 - Radio Active Waste Office Building
- 066 - SNAP 10A Component Acceptance and Qualification Building
- 023 - Liquid Metals Test Building
- 056 - Flight Prototype System Nuclear Test (under construction)
- 638 - SNAP Purgatory Office Trailer Complex
- 639 - Industrial Engineering Office Trailer Complex
- 640 - SNAP Office Trailer Complex
- 038 - SNAP Office Expansion (not completed)
- 1 - Support Office Expansion (not completed)

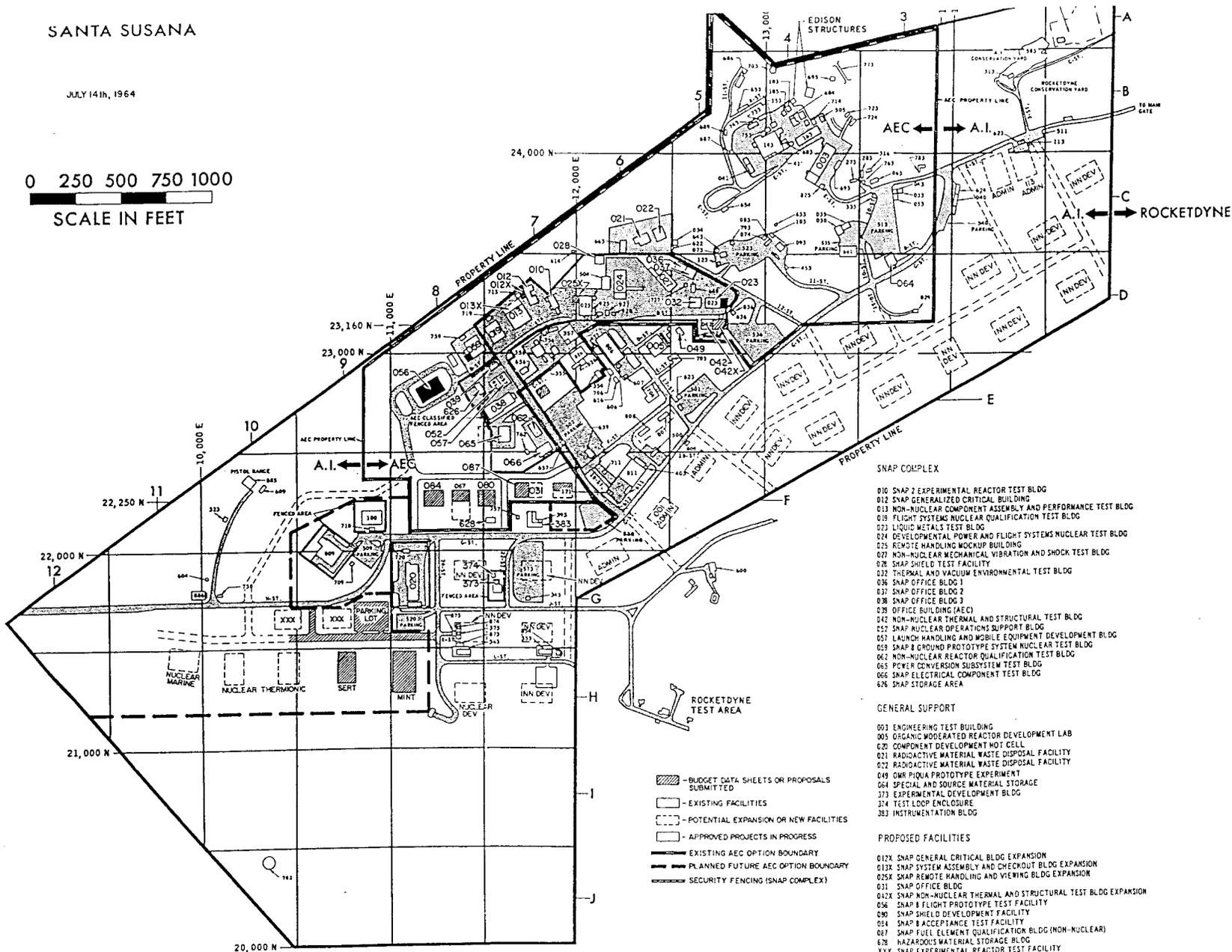
BLDG. NO.	DESCRIPTION
603	EXPANDED TEST BLDG. 14,700 SQ FT
602	WORKING LAB.
601	SOODUM STORAGE
600	EXPANDED STORAGE
599	EXPANDED STORAGE
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401	EXPANDED STORAGE
400	EXPANDED STORAGE

OTHERS	BLDG. NO.	DESCRIPTION
SHEAR	100	SEAL FACILITY
UTILITY	204	RADIATION-PAUSE CHANGE TEST STRUCTURE

# SANTA SUSANA

JULY 14th, 1964

0 250 500 750 1000  
SCALE IN FEET



- SNAP COMPLEX**
- 010 SNAP 2 EXPERIMENTAL REACTOR TEST BLDG
  - 012 SNAP GENERALIZED CRITICAL BUILDING
  - 013 NON-NUCLEAR COMPONENT ASSEMBLY AND PERFORMANCE TEST BLDG
  - 019 FLIGHT SYSTEMS NUCLEAR QUALIFICATION TEST BLDG
  - 023 LIQUID METALS TEST BLDG
  - 024 DEVELOPMENTAL POWER AND FLIGHT SYSTEMS NUCLEAR TEST BLDG
  - 025 REMOTE HANDLING MOCKUP BUILDING
  - 027 NON-NUCLEAR MECHANICAL VIBRATION AND SHOCK TEST BLDG
  - 028 SNAP SHIELD TEST FACILITY
  - 029 THERMAL AND VACUUM ENVIRONMENTAL TEST BLDG
  - 036 SNAP OFFICE BLDG 1
  - 037 SNAP OFFICE BLDG 2
  - 038 SNAP OFFICE BLDG 3
  - 039 OFFICE BUILDING (AEC)
  - 042 NON-NUCLEAR THERMAL AND STRUCTURAL TEST BLDG
  - 052 SNAP NUCLEAR OPERATIONS SUPPORT BLDG
  - 057 LAUNCH HANDLING AND MOBILE EQUIPMENT DEVELOPMENT BLDG
  - 059 SNAP 8 GROUND PROTOTYPE SYSTEM NUCLEAR TEST BLDG
  - 062 NON-NUCLEAR REACTOR QUALIFICATION TEST BLDG
  - 065 POWER CONVERSION SUBSYSTEM TEST BLDG
  - 066 SNAP ELECTRICAL COMPONENT TEST BLDG
  - 076 SNAP STORAGE AREA

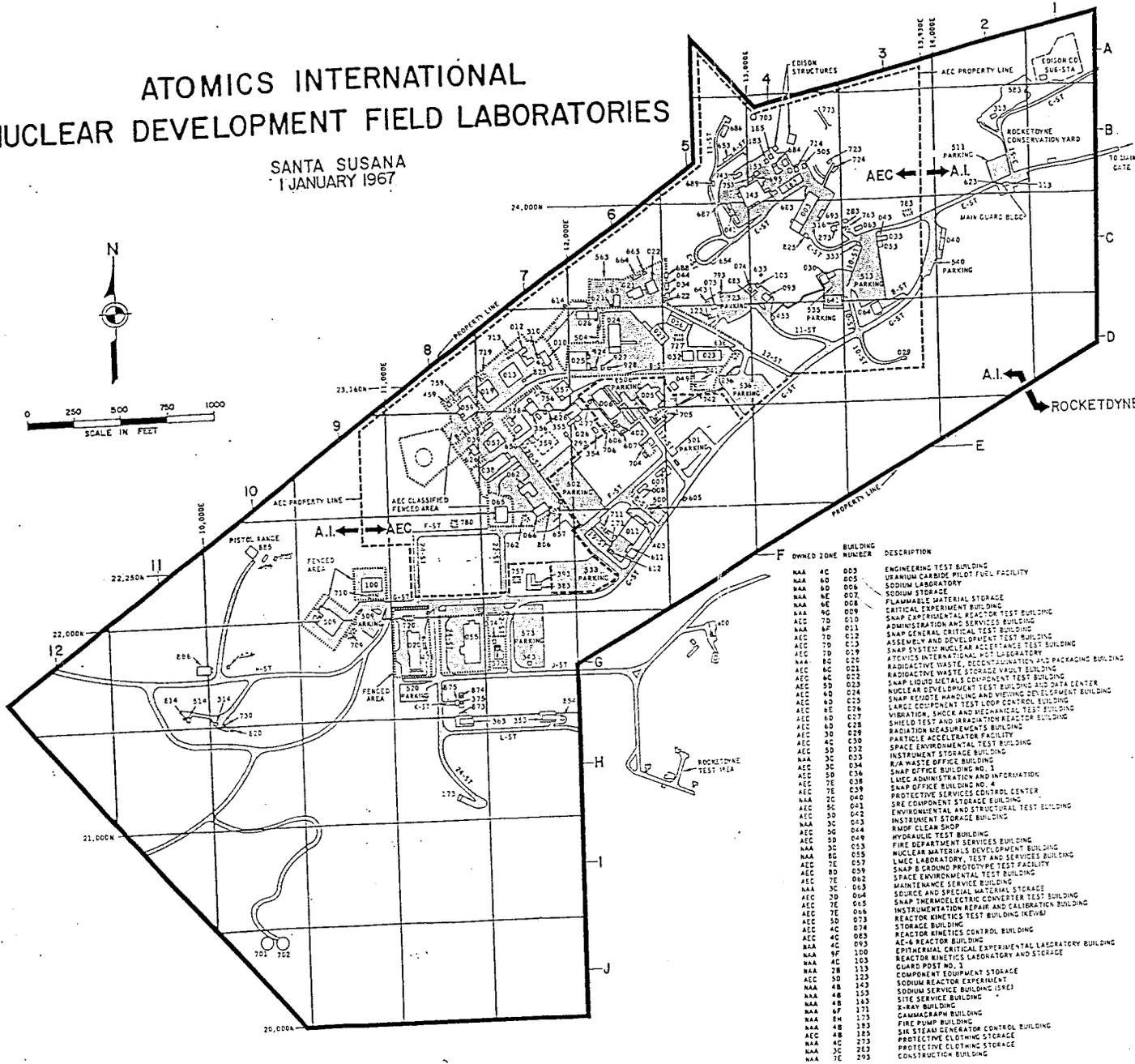
- GENERAL SUPPORT**
- 003 ENGINEERING TEST BUILDING
  - 005 ORGANIC MODERATED REACTOR DEVELOPMENT LAB
  - 020 COMPONENT DEVELOPMENT HOT CELL
  - 021 RADIOACTIVE MATERIAL WASTE DISPOSAL FACILITY
  - 022 RADIOACTIVE MATERIAL WASTE DISPOSAL FACILITY
  - 049 GWR PIQUA PROTOTYPE EXPERIMENT
  - 064 SPECIAL AND SOURCE MATERIAL STORAGE
  - 073 EXPERIMENTAL DEVELOPMENT BLDG
  - 074 TEST LOOP ENCLOSURE
  - 087 INSTRUMENTATION BLDG

- PROPOSED FACILITIES**
- 012X SNAP GENERAL CRITICAL BLDG EXPANSION
  - 013X SNAP SYSTEM ASSEMBLY AND CHECKOUT BLDG EXPANSION
  - 025X SNAP REMOTE HANDLING AND VIEWING BLDG EXPANSION
  - 031 SNAP OFFICE BLDG
  - 042X SNAP NON-NUCLEAR THERMAL AND STRUCTURAL TEST BLDG EXPANSION
  - 056 SNAP 8 FLIGHT PROTOTYPE TEST FACILITY
  - 090 SNAP SHIELD DEVELOPMENT FACILITY
  - 094 SNAP 8 ACCEPTANCE TEST FACILITY
  - 097 SNAP FUEL ELEMENT QUALIFICATION BLDG (NON-NUCLEAR)
  - 678 HAZARDOUS MATERIAL STORAGE BLDG
  - XXX SNAP EXPERIMENTAL REACTOR TEST FACILITY
  - XXX MULTIPURPOSE INTEGRATED NUCLEAR TEST FACILITY
  - XXX REMOTE HANDLING AND VIEWING DEVELOPMENT BLDG
  - XXX NON-NUCLEAR SPACE SIMULATOR

- BUDGET DATA SHEETS OR PROPOSALS SUBMITTED
- EXISTING FACILITIES
- POTENTIAL EXPANSION OR NEW FACILITIES
- APPROVED PROJECTS IN PROGRESS
- EXISTING AEC OPTION BOUNDARY
- PLANNED FUTURE AEC OPTION BOUNDARY
- SECURITY FENCING (SNAP COMPLEX)

# ATOMICS INTERNATIONAL NUCLEAR DEVELOPMENT FIELD LABORATORIES

SANTA SUSANA  
1 JANUARY 1967

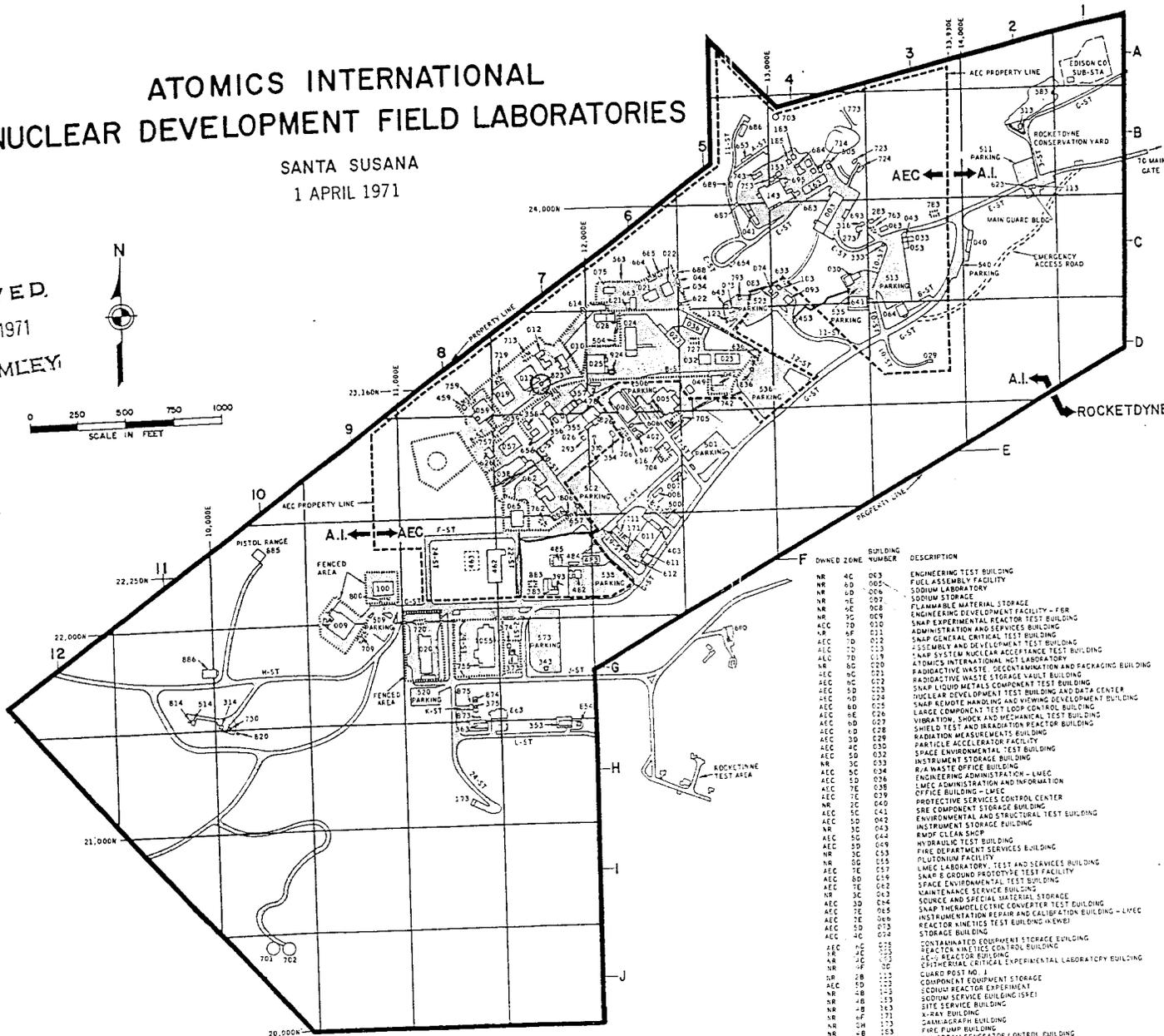
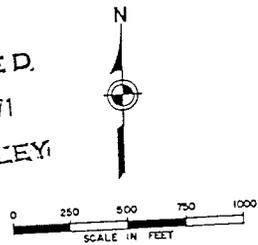


OWNED ZONE	BUILDING NUMBER	DESCRIPTION
AEC	70	310 PORTABLE CHANGE ROOM
NAA	28	313 CONSERVATION BUILDING
NAA	100	314 ESADA SODIUM-WATER REACTION TEST CONTROL BUILDING
NAA	10F	323 SODIUM MAINTENANCE STORAGE BUILDING
NAA	30	325 TIME CLOCK BUILDING
NAA	30	333 TIME CLOCK BUILDING
NAA	70	343 TIME CLOCK BUILDING
NAA	70	353 RESEARCH AND DEVELOPMENT LABORATORY BUILDING
AEC	66	354 CONTROL ELEMENT TEST STRUCTURE
AEC	70	355 CONTROL BUILDING
AEC	70	356 SODIUM COMPONENT TEST INSTALLATION (SCTD)
AEC	70	357 NEUTRON TRANSPORT LOOP CONTROL BUILDING
AEC	70	358 CHEMICAL STORAGE BUILDING (CS7)
NAA	28	359 SODIUM PUMP TEST FACILITY (FUTURE)
NAA	28	360 RESEARCH AND DEVELOPMENT LABORATORY BUILDING
NAA	66	402 CRITICAL CELL AND DEVELOPMENT TEST BUILDING
AEC	70	374 TEST LOOP ENCLOSURE
AEC	70	375 CONTROL SHELTER BUILDING
AEC	70	376 ASSEMBLY AND TEST BUILDING
AEC	70	377 TOWER ASSEMBLY BUILDING
NAA	66	403 LHD EXPERIMENT
NAA	66	403 TRAFFIC DISPATCH BUILDING
AEC	40	452 AEA FUEL HANDLING BUILDING
AEC	40	459 BUILDING 059 UNINTERRUPTIBLE POWER SUPPLY
NAA	40	478 CMC OFFICE SUPPORT TRAILER
NAA	40	500 COMPRESSED GAS BOTTLE STORAGE DOCK
NAA	40	501 PARKING LOT
NAA	40	502 CLASSIFIED SCRAP S.S. MATERIAL STORAGE AREA
AEC	40	504 STORAGE AREA
NAA	40	506 PARKING LOT
NAA	40	509 PARKING LOT
NAA	28	511 PARKING LOT
AEC	30	513 SODIUM-WATER REACTION TEST AREA
NAA	110	514 PARKING LOT
NAA	80	520 PARKING LOT
NAA	30	523 PARKING LOT
AEC	30	525 PARKING LOT
NAA	10	526 PARKING LOT
NAA	66	528 PARKING LOT
AEC	30	529 BUILDING 3 STORAGE YARD
AEC	40	543 CONSERVATION STORAGE YARD
AEC	70	573 SCRAP TREATMENT PLANT
NAA	28	583 FIRE EQUIPMENT STORAGE BUILDING
NAA	100F	600 BUS STOP SHELTER
NAA	56	601 SODIUM LABORATORY INSTRUMENT BUILDING A
NAA	66	606 SODIUM LABORATORY INSTRUMENT BUILDING B
NAA	66	607 STORAGE BUILDING-PISTOL RANGE
NAA	10F	611 PAINT SPRAY BOOTH
NAA	66	612 MAINTENANCE RECLAIMED MATERIAL STORAGE
AEC	70	614 DRAINAGE SUMP
AEC	30	616 RADIOACTIVE ACCOUNTABLE WASTE STORAGE BUILDING
AEC	30	622 RADIOACTIVE WASTE COUNTING BUILDING
AEC	28	623 GUARD POST NO. 1
AEC	28	624 EQUIPMENT STORAGE BUILDING
AEC	28	625 GUARD POST NO. 2
AEC	40	628 EQUIPMENT STORAGE BUILDING
AEC	40	643 REACTOR AIR FILTER STRUCTURE
AEC	30	643 LIQUID RADIOACTIVE WASTE VAULT
AEC	58	653 INTERIM RADIOACTIVE WASTE
AEC	52	654 SGTI COOLING TOWER
NAA	100	657 GUARD POST
AEC	60	663 STORAGE BUILDING-RM0F
AEC	60	664 LOW LEVEL RADIOACTIVE WASTE PROCESSING
AEC	66	665 RADIATION DECONTAMINATION FACILITY
AEC	40	683 TRANSFORMER SUB-STATION
AEC	48	684 STEAM GENERATOR PAD
AEC	48	684 TEMPORARY HOT WASTE STORAGE
AEC	58	687 HELIUM BOTTLE STORAGE
AEC	58	688 AUXILIARY SUMP BUILDING
AEC	58	689 INTERMEDIATE STORAGE OF CONTAMINATED ITEMS
AEC	40	693 ELECTRICAL SUB-STATION NO. 1
AEC	48	695 COLD TRAP VAULT (SR2)
NAA	100	701 WATER TANK (DEER FLATS)
NAA	100	702 WATER TANK (DEER FLATS)
NAA	48	703 WATER TANK (SR2)
AEC	40	704 ELECTRICAL SUB-STATION
NAA	66	705 ELECTRICAL SUB-STATION
NAA	66	706 ELECTRICAL SUB-STATION
NAA	66	709 ELECTRICAL SUB-STATION
NAA	66	710 ELECTRICAL SUB-STATION
NAA	66	711 ELECTRICAL SUB-STATION
AEC	70	713 ELECTRICAL SUB-STATION
AEC	48	714 ELECTRICAL SUB-STATION
NAA	66	719 ELECTRICAL SUB-STATION
NAA	66	720 ELECTRICAL SUB-STATION
AEC	48	723 SODIUM CLEANING PAD
AEC	48	724 CONTAMINATED SODIUM CLEANING BUILDING
AEC	50	727 ELECTRICAL SUB-STATION
NAA	100	730 IMPACT TEST CONTROL BUILDING
AEC	50	742 ELECTRICAL SUB-STATION
AEC	58	743 HEAT EXCHANGER
AEC	48	743 PRIMARY FILL TANK VAULT
AEC	70	746 ELECTRICAL SUB-STATION
NAA	70	757 ELECTRICAL SUB-STATION
AEC	80	759 ELECTRICAL SUB-STATION
AEC	70	762 ELECTRICAL SUB-STATION
AEC	30	763 ELECTRICAL SUB-STATION
AEC	48	763 DRAINAGE CONTROL DAM
AEC	80	767 ELECTRICAL SUB-STATION
AEC	80	767 ELECTRICAL CONTROL BUILDING
AEC	30	773 TIMECLOCK BUILDING
NAA	70	804 SODIUM-WATER REACTION TEST STRUCTURE
NAA	110	804 ISOTOPE SYSTEM IMPACT TEST DEVICE
NAA	70	823 TIMECLOCK BUILDING
AEC	66	824 LARGE COMPONENT TEST LOOP
NAA	50	826 TIME CLOCK BUILDING
NAA	7M	854 RADIATION FUEL GAUGE TEST STRUCTURE
AEC	80	873 FUEL ROD TEST TOWER AND PAD
AEC	80	874 CONTROL ROD TEST TOWER AND PAD
AEC	80	875 PAD AND CREEP LOOP TOWER
NAA	110	886 SODIUM DISPOSAL FACILITY
AEC	60	924 ELECTRICAL SUB-STATION
AEC	60	927 INTERMEDIATE STORAGE TANK
AEC	60	928 COOLING TOWER
NAA	40	003 ENGINEERING TEST BUILDING
NAA	60	005 URANIUM CARBIDE PILOT FUEL FACILITY
NAA	60	006 SODIUM LABORATORY
NAA	60	007 SODIUM STORAGE
NAA	60	008 FLAMMABLE MATERIAL STORAGE
NAA	60	009 CRITICAL EXPERIMENT BUILDING
NAA	60	010 SNAP EXPERIMENTAL REACTOR TEST BUILDING
AEC	70	012 ADMINISTRATION AND SERVICES BUILDING
AEC	70	013 ASSEMBLY AND DEVELOPMENT TEST BUILDING
AEC	70	019 SNAP SYSTEM NUCLEAR ACCEPTANCE TEST BUILDING
NAA	60	020 ATOMICS INTERNATIONAL PVT LABORATORY
AEC	60	021 RADIOACTIVE WASTE DECONTAMINATION AND PACKAGING BUILDING
AEC	60	022 RADIOACTIVE WASTE STORAGE VAULT BUILDING
AEC	60	023 SNAP LIQUID METALS COMPONENT TEST BUILDING
AEC	60	024 NUCLEAR DEVELOPMENT TEST BUILDING AND DATA CENTER
AEC	60	025 SNAP RESIDUE HANDLING AND VIEWING DEVELOPMENT BUILDING
AEC	60	026 LARGE COMPONENT TEST LOOP CONTROL BUILDING
AEC	60	027 VIBRATION, SHOCK AND MECHANICAL TEST BUILDING
AEC	60	028 SHIELD TEST AND IRRADIATION REACTOR BUILDING
AEC	30	029 RADIATION MEASUREMENTS BUILDING
AEC	30	030 PARTICLE ACCELERATOR FACILITY
AEC	40	030 SPACE ENVIRONMENTAL TEST BUILDING
AEC	50	032 INSTRUMENT STORAGE BUILDING
AEC	30	034 R/W WASTE OFFICE BUILDING
AEC	30	036 SNAP OFFICE BUILDING NO. 1
AEC	70	038 SNAP OFFICE BUILDING NO. 4
AEC	70	039 PROTECTIVE SERVICES CONTROL CENTER
AEC	50	042 ENVIRONMENTAL AND STRUCTURAL TEST BUILDING
NAA	30	040 INSTRUMENT STORAGE BUILDING
AEC	50	049 WMP CLEAN SHOP
AEC	50	049 HYDRAULIC TEST BUILDING
NAA	30	053 FIRE DEPARTMENT SERVICES BUILDING
NAA	60	055 NUCLEAR MATERIALS DEVELOPMENT BUILDING
NAA	70	057 LMCC LABORATORY TEST AND SERVICES BUILDING
AEC	80	059 SNAP B GRADING PHOTOGRAPHY TEST FACILITY
AEC	70	062 SPACE ENVIRONMENTAL TEST BUILDING
NAA	30	063 MAINTENANCE SERVICE BUILDING
AEC	20	064 SOURCE AND SPECIAL MATERIAL STORAGE
AEC	70	065 SNAP THERMOELECTRIC CONVERTER TEST BUILDING
AEC	70	066 INSTRUMENTATION REPAIR AND CALIBRATION BUILDING
AEC	50	073 REACTOR KINETICS TEST BUILDING (KEV8)
AEC	50	074 STORAGE BUILDING
AEC	40	078 REACTOR KINETICS CONTROL BUILDING
NAA	40	093 IONIC REACTOR BUILDING
NAA	40	100 EPITHEMIAL CRITICAL EXPERIMENTAL AND STORAGE
NAA	28	113 REACTOR KINETICS LABORATORY AND STORAGE
AEC	50	123 COMPONENT EQUIPMENT STORAGE
NAA	48	149 SODIUM REACTOR EXPERIMENT
NAA	48	153 SODIUM SERVICE BUILDING (SR2)
NAA	48	163 SITE SERVICE BUILDING
NAA	60	171 X-RAY BUILDING
NAA	60	173 GAMMAGRAPH BUILDING
NAA	48	183 FIRE PUMP BUILDING
AEC	48	185 STEAM GENERATOR CONTROL BUILDING
NAA	40	173 PROTECTIVE CLIMING STORAGE
NAA	30	283 PROTECTIVE CLIMING STORAGE
NAA	70	283 CONSTRUCTION BUILDING

# ATOMICS INTERNATIONAL NUCLEAR DEVELOPMENT FIELD LABORATORIES

SANTA SUSANA  
1 APRIL 1971

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M. E. REMLEY

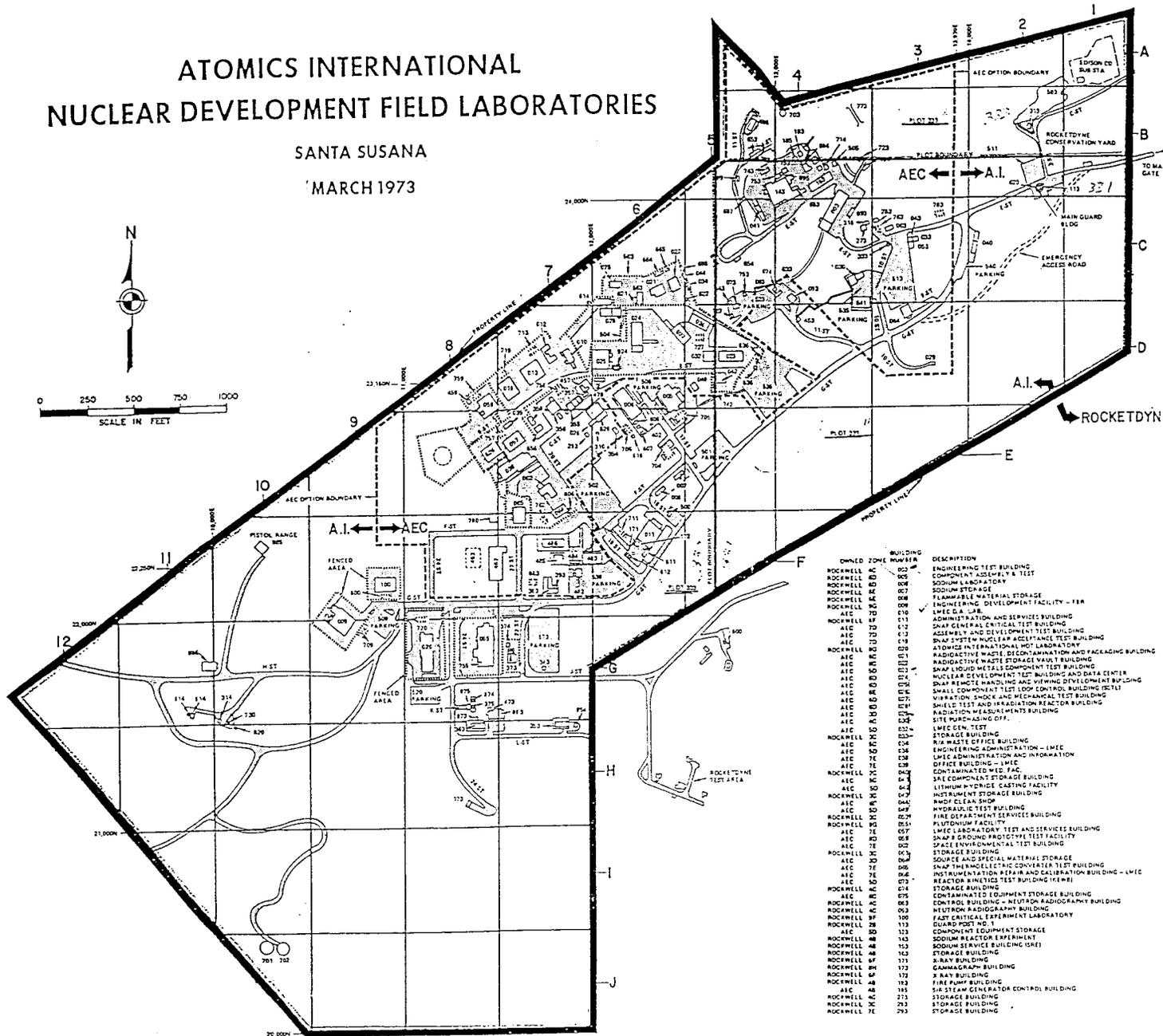
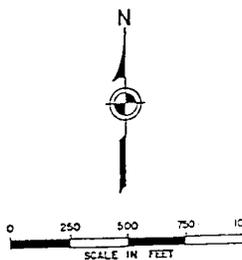


OWNED ZONE	BUILDING NUMBER	DESCRIPTION
AEC	AE 310	PORTABLE CHANGE ROOM
NR	28 313	CONSTRUCTION BUILDING
NR	10C 314	SODIUM-WATER REACTION TEST CONTROL BUILDING
AEC	3C 316	SKID SHAWMANTENANCE STORAGE BUILDING
NR	4C 333	TIME CLOCK BUILDING
NR	7G 343	TIME CLOCK BUILDING
NR	7H 353	RESEARCH AND DEVELOPMENT LABORATORY BUILDING
AEC	7D 355	CONTROL ELEMENT TEST STRUCTURE
AEC	7D 356	SOFTI CONTROL BUILDING
AEC	7E 357	SODIUM COMPONENT TEST INSTALLATION (SCTI)
AEC	7E 358	HEAT TRANSFER LOOP CONTROL BUILDING
NR	30 363	CHEMICAL STORAGE BUILDING (SCTI)
NR	7C 373	RESEARCH AND DEVELOPMENT LABORATORY BUILDING
AEC	7C 374	CRITICAL CELL AND DEVELOPMENT TEST BUILDING
NR	30 375	TEST LOOP ENCLOSURE
AEC	7F 376	CONTROL SHELTER BUILDING
AEC	7F 377	TOWER AT BUILDING 383
AEC	7F 378	ASSEMBLY AND TEST BUILDING
AEC	7F 379	ASSEMBLY AND TEST BUILDING
NR	4E 402	WHO EXPERIMENT
NR	4F 403	TRAFFIC DISPATCH BUILDING
AEC	4D 455	ACI-FUEL HANDLING BUILDING
AEC	4D 459	BUILDING 059 UNINTERRUPTABLE POWER SUPPLY
AEC	4F 462	SODIUM CLEANING AND HANDLING FACILITY (FUTURE)
AEC	4D 473	SCTI CONTROL BUILDING SUPPORT TRAILER
AEC	4F 482	SOFT AND CRAD OFFICE COMPLEX
AEC	4F 483	LMEC OFFICE COMPLEX
AEC	4F 484	WEST ROOM - TRAILER
AEC	4F 485	LMEC OFFICE COMPLEX
NR	4F 500	COMPRESSED GAS BOTTLE STORAGE DOCK
NR	5E 501	PARKING LOT
NR	7E 502	PARKING LOT
AEC	4D 504	CESSPIT SCRAP 5.5. MATERIAL STORAGE AREA
AEC	4B 505	STORAGE AREA
NR	5D 506	PARKING LOT
NR	7C 509	PARKING LOT
NR	2B 511	PARKING LOT
AEC	5C 513	PARKING LOT
NR	11G 514	SODIUM-WATER REACTION TEST AREA
NR	8C 523	PARKING LOT
NR	4E 525	PARKING LOT
AEC	4E 535	PARKING LOT
NR	5D 536	PARKING LOT
AEC	5F 538	PARKING LOT
NR	3C 540	PARKING LOT
NR	6C 563	BUILDING
NR	7C 573	PARKING LOT
NR	2B 583	CONSERVATION STORAGE YARD
NR	5F 600	SEWAGE TREATMENT PLANT
NR	5F 606	SODIUM LABORATORY INSTRUMENT BUILDING A
NR	5F 607	SODIUM LABORATORY INSTRUMENT BUILDING B
NR	5F 611	PAINT SPRAY BOOTH
NR	5F 612	MAINTENANCE RECLAIMED MATERIAL STORAGE
NR	5E 614	DRAINAGE SUMP
NR	5E 614	COOLING TOWER
AEC	6C 621	RADIOACTIVE ACCOUNTABLE WASTE STORAGE BUILDING
AEC	6C 622	RADIOACTIVE WASTE COUNTING BUILDING
NR	2B 622	GUARD POST NO. 1
AEC	6C 623	EQUIPMENT STORAGE BUILDING
AEC	6C 623	REACTOR COOLING WATER PAD
AEC	5D 636	GUARD POST
AEC	4C 641	EQUIPMENT STORAGE BUILDING
AEC	5C 643	REACTOR AIR FILTER STRUCTURE
AEC	5B 653	LIQUID RADIOACTIVE WASTE VAULT
AEC	5C 654	HEMIUM RADIOACTIVE WASTE
AEC	5E 656	SOFTI COOLING TOWER
NR	6E 657	GUARD POST
NR	6C 663	STORAGE BUILDING-MOP
AEC	6C 664	LOW LEVEL RADIOACTIVE WASTE PROCESSING
AEC	6C 665	PACKAGING OXIDATION FACILITY
AEC	6C 668	TRAXSFORMER SUB-STATION
AEC	6C 668	TRAXSFORMER SUB-STATION
AEC	6C 668	SR SYSTEM GENERATOR PAD
AEC	5B 686	TEMPORARY HOT WASTE STORAGE
AEC	5B 687	HELIUM BOTTLE BUILDING
AEC	5B 687	HELIUM BOTTLE STORAGE
AEC	5B 688	LIQUID ACID STORAGE
AEC	5B 689	INTERMEDIATE STORAGE OF CONTAMINATED ITEMS
AEC	6C 693	ELECTRICAL SUB-STATION
AEC	6C 693	COLD TRAP VAULT (FRED)
NR	5B 695	WATER TANK (OILER FLATS)
NR	10J 701	WATER TANK (OILER FLATS)
NR	5D 702	WATER TANK (OILER FLATS)
NR	4B 703	WATER TANK (OILER FLATS)
SCE	6E 704	ELECTRICAL SUB-STATION
NR	6E 705	ELECTRICAL SUB-STATION
NR	6E 706	ELECTRICAL SUB-STATION
NR	6E 709	ELECTRICAL SUB-STATION
NR	6F 111	ELECTRICAL SUB-STATION
AEL	7D 713	RESEARCH AND DEVELOPMENT SHOP (OUTDOOR WORK AREA)
AEC	4B 714	ELECTRICAL SUB-STATION
AEC	7D 719	ELECTRICAL SUB-STATION
NR	8G 720	ELECTRICAL SUB-STATION
AEC	4B 723	SODIUM CLEANING PAD
AEC	4B 726	CONTAMINATED SODIUM
AEC	5D 727	ELECTRICAL SUB-STATION
NR	10G 730	IMPACT TEST CONTROL BUILDING
AEC	5D 742	ELECTRICAL SUB-STATION
AEC	5B 743	HEMIUM HEAT EXCHANGER
AEC	4B 743	PRIMARY FILL TANK VAULT
NR	6E 757	ELECTRICAL SUB-STATION
AEC	7D 766	ELECTRICAL SUB-STATION
AEE	6E 767	ELECTRICAL SUB-STATION
AL	5D 769	ELECTRICAL SUB-STATION
AL	7F 762	ELECTRICAL SUB-STATION
AEC	3C 763	DECONTAMINATION CONTROL DAM
AEC	4B 773	DECONTAMINATION CONTROL DAM
SCE	3C 783	ELECTRICAL SUB-STATION
AEC	5C 793	ELECTRICAL SUB-STATION
NR	7F 200	ELECTRICAL SUB-STATION
NR	7E 206	TIME LOCK BUILDING
NR	11G 214	SODIUM-WATER REACTION TEST STRUCTURE
NR	10M 820	ISOPIE SYSTEM IMPACT TEST DEVICE
NR	6E 220	TIME LOCK BUILDING
AEC	6E 220	LARGE COMPONENT TEST LOOP
NR	5D 236	TIME CLOCK BUILDING
NR	7H 254	RADIATION FUEL GAUGE TEST STRUCTURE
NR	7H 263	HYDRAULIC TEST LOOP - FERR
NR	3C 273	HYDRAULIC TEST LOOP - FERR
NR	5G 274	CONTROL ROD TEST TOWER AND PAD
NR	8G 275	PAD AND CREEP LOOP TOWER
NR	7F 281	ELECTRICAL SUB-STATION
NR	10F 885	PISTOL RANGE
NR	11G 266	SODIUM SPECIAL FACILITY
AEC	4D 824	ELECTRICAL SUB-STATION



# ATOMICS INTERNATIONAL NUCLEAR DEVELOPMENT FIELD LABORATORIES

SANTA SUSANA  
MARCH 1973



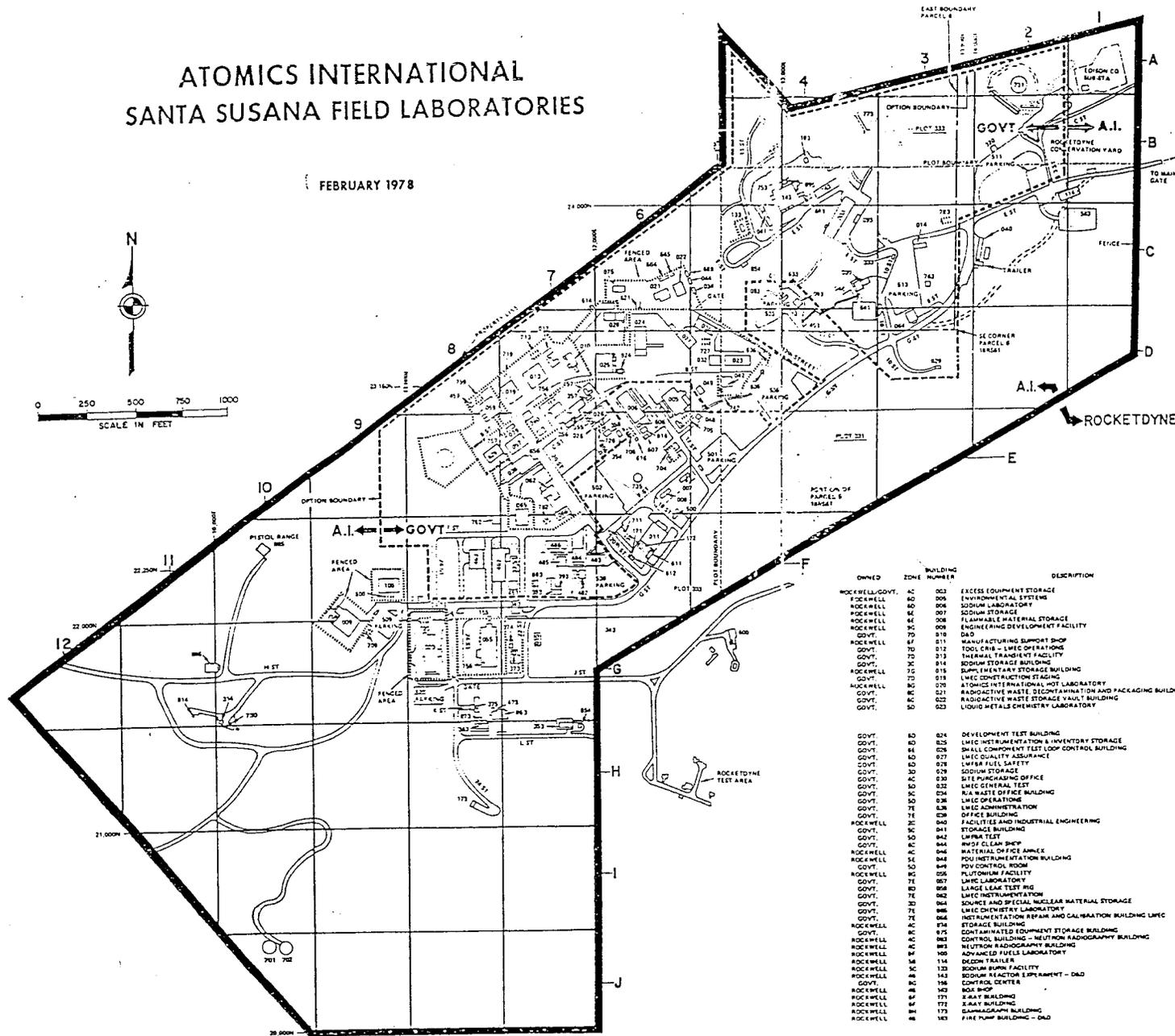
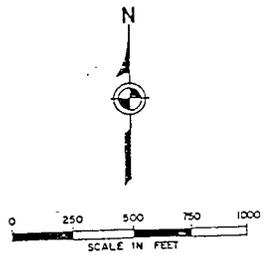
OWNED ZONE	BUILDING NUMBER	DESCRIPTION
AEC	86	310 PORTABLE CHANGE ROOM
ROCKWELL	78	313 CONSERVATION BUILDING
ROCKWELL	100	314 SODIUM WATER REACTION TEST CONTROL BUILDING
AEC	32	316 STORAGE BUILDING
ROCKWELL	32	323 TIME CLOCK BUILDING
ROCKWELL	70	343 TIME CLOCK BUILDING
ROCKWELL	74	353 RESEARCH AND DEVELOPMENT LABORATORY BUILDING
AEC	86	354 CONTROL ELEMENT TEST STRUCTURE
AEC	70	355 SC-1 CONTROL BUILDING
AEC	70	356 SODIUM COMPONENT TEST INSTALLATION (SC-1)
AEC	70	357 LWMC PUMP BEARING TEST FACILITY CONTROL BUILDING
AEC	70	358 CHEMICAL STORAGE BUILDING (SC-1)
ROCKWELL	84	363 RESEARCH AND DEVELOPMENT LABORATORY BUILDING
ROCKWELL	70	373 CRITICAL CELL AND DEVELOPMENT TEST BUILDING
AEC	70	374 TEST LOOP ENCLOSURE
ROCKWELL	80	375 CONTROL SHELTER BUILDING
AEC	77	383 ASSEMBLY AND TEST BUILDING
ROCKWELL	84	422 WIND EXPERIMENT
ROCKWELL	40	423 H-RAY STG.
AEC	70	437 PUMP BEARING TEST STRUCTURE
AEC	80	438 BUILDING FOR UNITS BRUNNABLE POWER SUPPLY
AEC	87	442 SODIUM PUMP TEST FACILITY
AEC	87	443 SODIUM CLEANING AND HANDLING FACILITY
ROCKWELL	80	443 HYDRAULIC TEST INSTRUMENTATION BUILDING
AEC	62	478 SC-1 CONTROL BUILDING SUPPORT TRAILER
AEC	77	482 ROT AND CRAD OFFICE COMPLEX
AEC	77	483 LWMC OFFICE COMPLEX
AEC	77	484 WEST ROOM - TRAILER
AEC	77	485 LWMC OFFICE COMPLEX
AEC	77	486 LWMC OFFICE COMPLEX
ROCKWELL	80	490 COMPRESSED GAS LOT TEST STORAGE DOCK
ROCKWELL	50	501 PARKING LOT
ROCKWELL	71	502 PARKING LOT
AEC	60	504 SC-RAP'S MATERIAL STORAGE AREA
AEC	48	506 STORAGE AREA
ROCKWELL	80	507 PARKING LOT
ROCKWELL	90	508 PARKING LOT
ROCKWELL	80	511 PARKING LOT
AEC	32	513 PARKING LOT
ROCKWELL	110	514 SODIUM WATER REACTION TEST AREA
ROCKWELL	80	520 PARKING LOT
ROCKWELL	50	523 PARKING LOT
AEC	80	528 PARKING LOT
ROCKWELL	50	534 PARKING LOT
AEC	40	536 PARKING LOT
ROCKWELL	30	540 PARKING LOT
AEC	40	543 BUILDING TEST STORAGE YARD
ROCKWELL	70	573 PARKING LOT
ROCKWELL	28	583 CONSERVATION STORAGE YARD
ROCKWELL	80	600 SEWAGE TREATMENT PLANT
ROCKWELL	86	626 WIND SUPPORT BLDG.
ROCKWELL	86	627 STG. BLDG.
ROCKWELL	80	631 PAINT SPRAY BOOTH
ROCKWELL	60	632 DRAINAGE SUMP
AEC	70	634 EQUIPMENT STORAGE BUILDING
AEC	80	637 RADIOACTIVE ACCOUNTABLE WASTE STORAGE BUILDING
ROCKWELL	80	638 RADIOACTIVE WASTE COUNTING BUILDING
ROCKWELL	80	639 QUAD POST NO. 1
ROCKWELL	80	640 EQUIPMENT STORAGE BUILDING
ROCKWELL	80	641 REACTOR ROOM - TRAILER
AEC	30	643 GUARD POST
AEC	40	644 EQUIPMENT STORAGE BUILDING
AEC	30	645 REACTOR AIR FILTER STRUCTURE
AEC	58	653 EQUIPMENT STORAGE BUILDING
AEC	50	654 LOW LEVEL RADIOACTIVE WASTE TREATMENT
AEC	50	655 INTERIM RADIOACTIVE WASTE
AEC	71	656 SC-1 CODING TOWER
AEC	70	657 SODIUM WATER REACTION TEST AREA
AEC	60	658 LOW LEVEL RADIOACTIVE WASTE PROCESSING
AEC	80	663 WIND PROTECTION FACILITY
AEC	40	673 ELECTRICAL SUB STATION
AEC	48	674 SIA STEAM GENERATOR PAD
AEC	58	675 TEMPORARY ACT WASTE STORAGE
AEC	58	676 HELIUM BOTTLE STORAGE
AEC	58	677 AUXILIARY BLDG. BUILDING
AEC	58	678 INTERMEDIATE STORAGE OF CONTAMINATED ITEMS
AEC	80	679 ELECTRICAL SUB STATION NO. 1
AEC	48	685 COLD TRAP VAULT (SEE)
ROCKWELL	100	713 WATER TANK (SEE PLAT 3)
ROCKWELL	100	714 WATER TANK (SEE PLAT 3)
ROCKWELL	48	715 WATER TANK (SEE)
AEC	50	716 ELECTRICAL SUB STATION
ROCKWELL	80	717 ELECTRICAL SUB STATION
ROCKWELL	80	718 ELECTRICAL SUB STATION
ROCKWELL	80	719 ELECTRICAL SUB STATION
ROCKWELL	80	720 ELECTRICAL SUB STATION
ROCKWELL	80	721 ELECTRICAL SUB STATION
ROCKWELL	80	722 CONTAMINATED SODIUM CLEANING BUILDING
ROCKWELL	80	723 ELECTRICAL SUB STATION
ROCKWELL	100	724 IMPACT TEST CONTROL BUILDING
AEC	50	742 ELECTRICAL SUB STATION
AEC	58	743 TETRALIN HEAT EXCHANGER
AEC	58	744 PRIMARY FILL TANK VAULT
ROCKWELL	80	750 ELECTRICAL SUB STATION
AEC	70	756 ELECTRICAL SUB STATION
AEC	80	757 ELECTRICAL SUB STATION
AEC	80	759 ELECTRICAL SUB STATION
AEC	70	762 ELECTRICAL SUB STATION
AEC	48	763 ELECTRICAL SUB STATION
AEC	48	764 ELECTRICAL SUB STATION
AEC	80	765 ELECTRICAL SUB STATION
AEC	80	766 ELECTRICAL SUB STATION
AEC	80	767 ELECTRICAL SUB STATION
AEC	80	768 ELECTRICAL SUB STATION
AEC	80	769 ELECTRICAL SUB STATION
AEC	80	770 ELECTRICAL SUB STATION
AEC	80	771 ELECTRICAL SUB STATION
AEC	80	772 ELECTRICAL SUB STATION
AEC	80	773 ELECTRICAL SUB STATION
AEC	80	774 ELECTRICAL SUB STATION
AEC	80	775 ELECTRICAL SUB STATION
AEC	80	776 ELECTRICAL SUB STATION
AEC	80	777 ELECTRICAL SUB STATION
AEC	80	778 ELECTRICAL SUB STATION
AEC	80	779 ELECTRICAL SUB STATION
AEC	80	780 ELECTRICAL SUB STATION
AEC	80	781 ELECTRICAL SUB STATION
AEC	80	782 ELECTRICAL SUB STATION
AEC	80	783 ELECTRICAL SUB STATION
AEC	80	784 ELECTRICAL SUB STATION
AEC	80	785 ELECTRICAL SUB STATION
AEC	80	786 ELECTRICAL SUB STATION
AEC	80	787 ELECTRICAL SUB STATION
AEC	80	788 ELECTRICAL SUB STATION
AEC	80	789 ELECTRICAL SUB STATION
AEC	80	790 ELECTRICAL SUB STATION
AEC	80	791 ELECTRICAL SUB STATION
AEC	80	792 ELECTRICAL SUB STATION
AEC	80	793 ELECTRICAL SUB STATION
AEC	80	794 ELECTRICAL SUB STATION
AEC	80	795 ELECTRICAL SUB STATION
AEC	80	796 ELECTRICAL SUB STATION
AEC	80	797 ELECTRICAL SUB STATION
AEC	80	798 ELECTRICAL SUB STATION
AEC	80	799 ELECTRICAL SUB STATION
AEC	80	800 ELECTRICAL SUB STATION





# ATOMICS INTERNATIONAL SANTA SUSANA FIELD LABORATORIES

FEBRUARY 1978

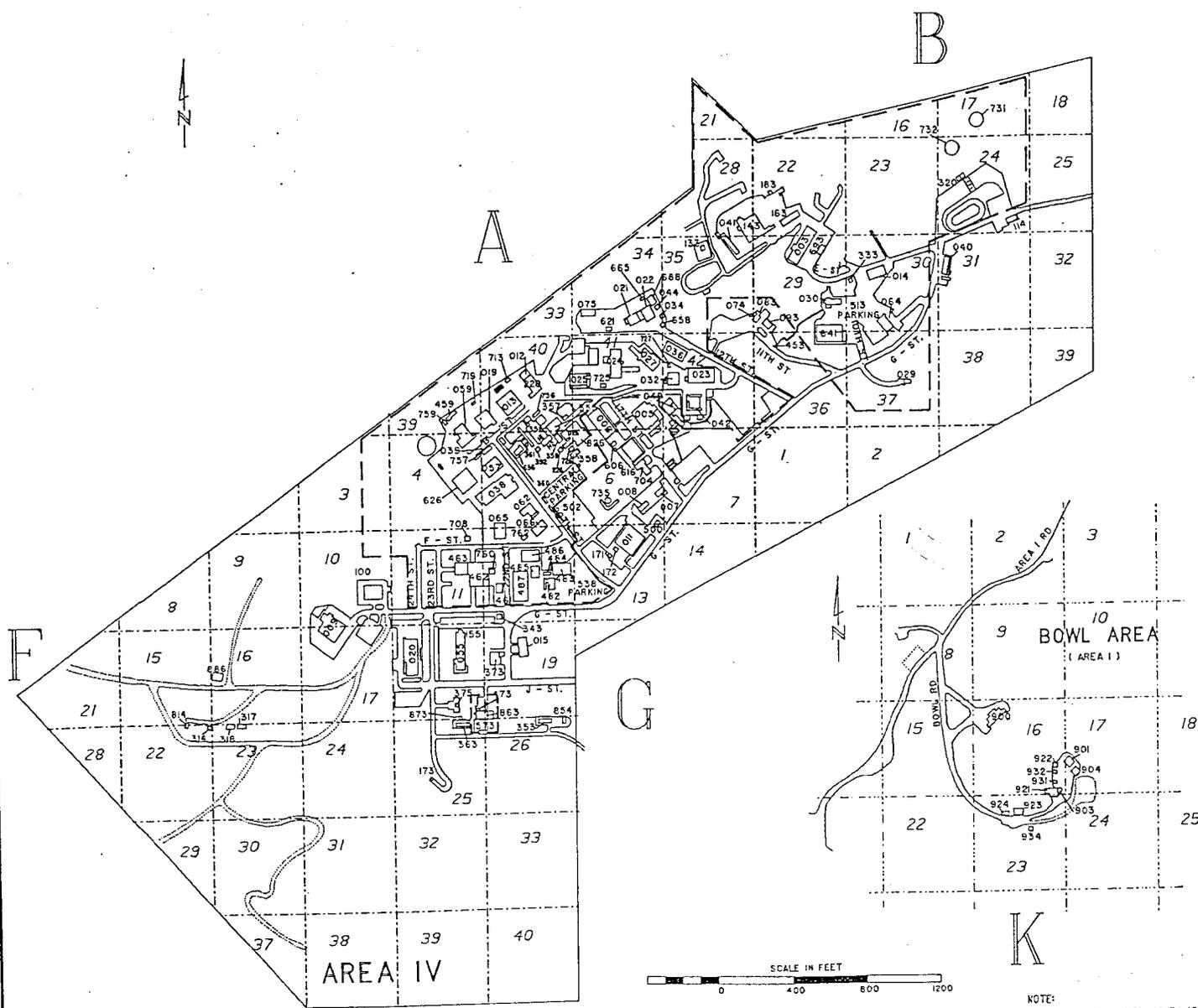


OWNED	ZONE	BUILDING NUMBER	DESCRIPTION
ROCKWELL	10G	314	LARGE LEAK INJECTOR DEVICE ILLUO TEST CONTROL BUILDING
GOV'T	28	320	FUEL OIL CONTROL BUILDING
ROCKWELL	2C	328	TIME CLOCK BUILDING
ROCKWELL	7C	343	RESEARCH AND DEVELOPMENT LABORATORY BUILDING
ROCKWELL	14	359	CONTROL ELEMENT TEST STRUCTURE
GOV'T	6E	354	SCIC CONTROL BUILDING
GOV'T	10	356	SODIUM COMPONENT TEST INSTALLATION
GOV'T	7D	357	LMIC PUMP BEARING TEST FACILITY CONTROL BUILDING
GOV'T	6E	358	SCII SUPPORT BUILDING
GOV'T	7E	358	COMPRESSOR BUILDING
GOV'T	7E	360	CHEMICAL STORAGE BUILDING
ROCKWELL	14	363	RESEARCH AND DEVELOPMENT LABORATORY BUILDING
ROCKWELL	10	373	DEVELOPMENT TEST BUILDING
GOV'T	11	374	TEST LOOP ENCLOSURE
ROCKWELL	11	375	CONTROL SHELTER BUILDING
GOV'T	11	383	LMIC CONSTRUCTION STAGING
ROCKWELL	4D	453	STC NEUTRON RADIOGRAPHY STORAGE
GOV'T	10	457	PUMP BEARING TEST STRUCTURE
GOV'T	4D	458	UNINTERRUPTIBLE POWER SUPPLY
GOV'T	11	457	WOTON GENERATOR BUILDING
GOV'T	11	462	SODIUM PUMP TEST FACILITY
GOV'T	11	463	EMF
ROCKWELL	11	473	HYDRAULIC TEST INSTRUMENTATION BUILDING
GOV'T	11	482	GOVERNMENT PROJECT OFFICES
GOV'T	11	483	LMIC OFFICE COMPLEX
GOV'T	11	484	MEET ROOM - TRAILER
GOV'T	11	485	LMIC OFFICE COMPLEX
GOV'T	11	486	LMIC OFFICE COMPLEX
GOV'T	11	487	LMIC OFFICE COMPLEX
GOV'T	11	488	MEET ROOM TRAILER
ROCKWELL	11	500	COMPRESSED GAS BOTTLE STORAGE DOCK
ROCKWELL	11	501	PARKING LOT
ROCKWELL	11	502	PARKING LOT
ROCKWELL	11	509	PARKING LOT
ROCKWELL	11	511	PARKING LOT
GOV'T	11	513	PARKING LOT
ROCKWELL	11	529	PARKING LOT
ROCKWELL	11	523	PARKING LOT
ROCKWELL	11	536	PARKING LOT
GOV'T	11	538	PARKING LOT
ROCKWELL	10	573	PARKING LOT
ROCKWELL	10	583	CONVERSION STORAGE YARD
ROCKWELL	11	600	SLUDGE TREATMENT PLANT
ROCKWELL	11	604	HYDROGEN RADIOGRAPHY TEST
ROCKWELL	11	611	PAINT SPRAY BOOTH
ROCKWELL	11	612	STORAGE BUILDING
ROCKWELL	11	614	DRAINAGE TOWER
GOV'T	11	616	COOLING TOWER
ROCKWELL	11	621	RADIOACTIVE ACCOUNTABLE WASTE STORAGE BUILDING
GOV'T	11	622	GUARD POST NO. 1
ROCKWELL	11	623	LMIC INVENTORY STORAGE
ROCKWELL	11	624	REACTOR COOLING WATER PAD
GOV'T	11	626	GUARD POST
GOV'T	11	628	RECEIVING & STORAGE BUILDING
GOV'T	11	634	INTERIOR RADIOACTIVE WASTE - D&D
GOV'T	11	646	SCII COOLING TOWER
GOV'T	11	644	LOW LEVEL RADIOACTIVE WASTE PROCESSING
GOV'T	11	645	AMFD OXIDATION FACILITY
GOV'T	11	643	ELECTRICAL SUBSTATION
GOV'T	11	688	AUXILIARY BUILDING
GOV'T	11	693	ELECTRICAL SUBSTATION NO. 1
GOV'T	11	694	CONTROL ROOM
ROCKWELL	11	701	WATER TANK (DEER FLATS)
ROCKWELL	11	702	WATER TANK (DEER FLATS)
GOV'T	11	704	ELECTRICAL SUBSTATION
ROCKWELL	11	705	ELECTRICAL SUBSTATION
ROCKWELL	11	706	ELECTRICAL SUBSTATION
ROCKWELL	11	709	ELECTRICAL SUBSTATION
ROCKWELL	11	711	ELECTRICAL SUBSTATION
GOV'T	11	714	ELECTRICAL SUBSTATION
GOV'T	11	719	ELECTRICAL SUBSTATION
ROCKWELL	11	720	ELECTRICAL SUBSTATION
ROCKWELL	11	724	ELECTRICAL SUBSTATION
GOV'T	11	725	WATER TANK (DEER FLATS)
ROCKWELL	11	730	STORAGE BLDG
GOV'T	11	731	LMIC FUEL OIL STORAGE TANK
GOV'T	11	732	LMIC FUEL OIL STORAGE TANK
GOV'T	11	733	LMIC FUEL OIL STORAGE TANK
GOV'T	11	742	ELECTRICAL SUBSTATION
GOV'T	11	743	PRIMARY FULL TIME VAULT - D&D
ROCKWELL	11	744	ELECTRICAL SUBSTATION
ROCKWELL	11	746	ELECTRICAL SUBSTATION
GOV'T	11	747	ELECTRICAL SUBSTATION
GOV'T	11	748	ELECTRICAL SUBSTATION
GOV'T	11	749	ELECTRICAL SUBSTATION
GOV'T	11	750	ELECTRICAL SUBSTATION
ROCKWELL	11	751	ELECTRICAL SUBSTATION
ROCKWELL	11	752	ELECTRICAL SUBSTATION
ROCKWELL	11	753	ELECTRICAL SUBSTATION
ROCKWELL	11	754	ELECTRICAL SUBSTATION
ROCKWELL	11	755	ELECTRICAL SUBSTATION
ROCKWELL	11	756	ELECTRICAL SUBSTATION
ROCKWELL	11	757	ELECTRICAL SUBSTATION
ROCKWELL	11	758	ELECTRICAL SUBSTATION
ROCKWELL	11	759	ELECTRICAL SUBSTATION
ROCKWELL	11	760	ELECTRICAL SUBSTATION
ROCKWELL	11	761	ELECTRICAL SUBSTATION
ROCKWELL	11	762	ELECTRICAL SUBSTATION
ROCKWELL	11	763	ELECTRICAL SUBSTATION
ROCKWELL	11	764	ELECTRICAL SUBSTATION
ROCKWELL	11	765	ELECTRICAL SUBSTATION
ROCKWELL	11	766	ELECTRICAL SUBSTATION
ROCKWELL	11	767	ELECTRICAL SUBSTATION
ROCKWELL	11	768	ELECTRICAL SUBSTATION
ROCKWELL	11	769	ELECTRICAL SUBSTATION
ROCKWELL	11	770	ELECTRICAL SUBSTATION
ROCKWELL	11	771	ELECTRICAL SUBSTATION
ROCKWELL	11	772	ELECTRICAL SUBSTATION
ROCKWELL	11	773	ELECTRICAL SUBSTATION
ROCKWELL	11	774	ELECTRICAL SUBSTATION
ROCKWELL	11	775	ELECTRICAL SUBSTATION
ROCKWELL	11	776	ELECTRICAL SUBSTATION
ROCKWELL	11	777	ELECTRICAL SUBSTATION
ROCKWELL	11	778	ELECTRICAL SUBSTATION
ROCKWELL	11	779	ELECTRICAL SUBSTATION
ROCKWELL	11	780	ELECTRICAL SUBSTATION
ROCKWELL	11	781	ELECTRICAL SUBSTATION
ROCKWELL	11	782	ELECTRICAL SUBSTATION
ROCKWELL	11	783	ELECTRICAL SUBSTATION
ROCKWELL	11	784	ELECTRICAL SUBSTATION
ROCKWELL	11	785	ELECTRICAL SUBSTATION
ROCKWELL	11	786	ELECTRICAL SUBSTATION
ROCKWELL	11	787	ELECTRICAL SUBSTATION
ROCKWELL	11	788	ELECTRICAL SUBSTATION
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ROCKWELL	11	790	ELECTRICAL SUBSTATION
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ROCKWELL	11	798	ELECTRICAL SUBSTATION
ROCKWELL	11	799	ELECTRICAL SUBSTATION
ROCKWELL	11	800	ELECTRICAL SUBSTATION
ROCKWELL	11	801	ELECTRICAL SUBSTATION
ROCKWELL	11	802	ELECTRICAL SUBSTATION
ROCKWELL	11	803	ELECTRICAL SUBSTATION
ROCKWELL	11	804	ELECTRICAL SUBSTATION
ROCKWELL	11	805	ELECTRICAL SUBSTATION
ROCKWELL	11	806	ELECTRICAL SUBSTATION
ROCKWELL	11	807	ELECTRICAL SUBSTATION
ROCKWELL	11	808	ELECTRICAL SUBSTATION
ROCKWELL	11	809	ELECTRICAL SUBSTATION
ROCKWELL	11	810	ELECTRICAL SUBSTATION
ROCKWELL	11	811	ELECTRICAL SUBSTATION
ROCKWELL	11	812	ELECTRICAL SUBSTATION
ROCKWELL	11	813	ELECTRICAL SUBSTATION
ROCKWELL	11	814	ELECTRICAL SUBSTATION
ROCKWELL	11	815	ELECTRICAL SUBSTATION
ROCKWELL	11	816	ELECTRICAL SUBSTATION
ROCKWELL	11	817	ELECTRICAL SUBSTATION
ROCKWELL	11	818	ELECTRICAL SUBSTATION
ROCKWELL	11	819	ELECTRICAL SUBSTATION
ROCKWELL	11	820	ELECTRICAL SUBSTATION
ROCKWELL	11	821	ELECTRICAL SUBSTATION
ROCKWELL	11	822	ELECTRICAL SUBSTATION
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ROCKWELL	11	825	ELECTRICAL SUBSTATION
ROCKWELL	11	826	ELECTRICAL SUBSTATION
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ROCKWELL	11	828	ELECTRICAL SUBSTATION
ROCKWELL	11	829	ELECTRICAL SUBSTATION
ROCKWELL	11	830	ELECTRICAL SUBSTATION
ROCKWELL	11	831	ELECTRICAL SUBSTATION
ROCKWELL	11	832	ELECTRICAL SUBSTATION
ROCKWELL	11	833	ELECTRICAL SUBSTATION
ROCKWELL	11	834	ELECTRICAL SUBSTATION
ROCKWELL	11	835	ELECTRICAL SUBSTATION
ROCKWELL	11	836	ELECTRICAL SUBSTATION
ROCKWELL	11	837	ELECTRICAL SUBSTATION
ROCKWELL	11	838	ELECTRICAL SUBSTATION
ROCKWELL	11	839	ELECTRICAL SUBSTATION
ROCKWELL	11	840	ELECTRICAL SUBSTATION
ROCKWELL	11	841	ELECTRICAL SUBSTATION
ROCKWELL	11	842	ELECTRICAL SUBSTATION
ROCKWELL	11	843	ELECTRICAL SUBSTATION
ROCKWELL	11	844	ELECTRICAL SUBSTATION
ROCKWELL	11	845	ELECTRICAL SUBSTATION
ROCKWELL	11	846	ELECTRICAL SUBSTATION
ROCKWELL	11	847	ELECTRICAL SUBSTATION
ROCKWELL	11	848	ELECTRICAL SUBSTATION
ROCKWELL	11	849	ELECTRICAL SUBSTATION
ROCKWELL	11	850	ELECTRICAL SUBSTATION
ROCKWELL	11	851	ELECTRICAL SUBSTATION
ROCKWELL	11	852	ELECTRICAL SUBSTATION
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ROCKWELL	11	854	ELECTRICAL SUBSTATION
ROCKWELL	11	855	ELECTRICAL SUBSTATION
ROCKWELL	11	856	ELECTRICAL SUBSTATION
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ROCKWELL	11	860	ELECTRICAL SUBSTATION
ROCKWELL	11	861	ELECTRICAL SUBSTATION
ROCKWELL	11	862	ELECTRICAL SUBSTATION
ROCKWELL	11	863	ELECTRICAL SUBSTATION
ROCKWELL	11	864	ELECTRICAL SUBSTATION
ROCKWELL	11	865	ELECTRICAL SUBSTATION
ROCKWELL	11	866	ELECTRICAL SUBSTATION
ROCKWELL	11	867	ELECTRICAL SUBSTATION
ROCKWELL	11	868	ELECTRICAL SUBSTATION
ROCKWELL	11	869	ELECTRICAL SUBSTATION
ROCKWELL	11	870	ELECTRICAL SUBSTATION
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ROCKWELL	11	875	ELECTRICAL SUBSTATION
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ROCKWELL	11	877	ELECTRICAL SUBSTATION
ROCKWELL	11	878	ELECTRICAL SUBSTATION
ROCKWELL	11	879	ELECTRICAL SUBSTATION
ROCKWELL	11	880	ELECTRICAL SUBSTATION
ROCKWELL	11	881	ELECTRICAL SUBSTATION
ROCKWELL	11	882	ELECTRICAL SUBSTATION
ROCKWELL	11	883	ELECTRICAL SUBSTATION
ROCKWELL	11	884	ELECTRICAL SUBSTATION
ROCKWELL	11	885	ELECTRICAL SUBSTATION
ROCKWELL	11	886	ELECTRICAL SUBSTATION
ROCKWELL	11	887	ELECTRICAL SUBSTATION
ROCKWELL	11	888	ELECTRICAL SUBSTATION
ROCKWELL	11	889	ELECTRICAL SUBSTATION
ROCKWELL	11	890	ELECTRICAL SUBSTATION
ROCKWELL	11	891	ELECTRICAL SUBSTATION
ROCKWELL	11	892	ELECTRICAL SUBSTATION
ROCKWELL	11	893	ELECTRICAL SUBSTATION
ROCKWELL	11	894	ELECTRICAL SUBSTATION
ROCKWELL	11	895	ELECTRICAL SUBSTATION
ROCKWELL	11	896	ELECTRICAL SUBSTATION
ROCKWELL	11	897	ELECTRICAL SUBSTATION
ROCKWELL	11	898	ELECTRICAL SUBSTATION
ROCKWELL	11	899	ELECTRICAL SUBSTATION
ROCKWELL	11	900	ELECTRICAL SUBSTATION





# SANTA SUSANA FIELD LABORATORY AREA IV



NO.	SYMBOL	DESCRIPTION
101	SCHEMATIC	1-01 SCHEMATIC
102	SCHEMATIC	1-02 SCHEMATIC
103	SCHEMATIC	1-03 SCHEMATIC
104	SCHEMATIC	1-04 SCHEMATIC
105	SCHEMATIC	1-05 SCHEMATIC
106	SCHEMATIC	1-06 SCHEMATIC
107	SCHEMATIC	1-07 SCHEMATIC
108	SCHEMATIC	1-08 SCHEMATIC
109	SCHEMATIC	1-09 SCHEMATIC
110	SCHEMATIC	1-10 SCHEMATIC
111	SCHEMATIC	1-11 SCHEMATIC
112	SCHEMATIC	1-12 SCHEMATIC
113	SCHEMATIC	1-13 SCHEMATIC
114	SCHEMATIC	1-14 SCHEMATIC
115	SCHEMATIC	1-15 SCHEMATIC
116	SCHEMATIC	1-16 SCHEMATIC
117	SCHEMATIC	1-17 SCHEMATIC
118	SCHEMATIC	1-18 SCHEMATIC
119	SCHEMATIC	1-19 SCHEMATIC
120	SCHEMATIC	1-20 SCHEMATIC
121	SCHEMATIC	1-21 SCHEMATIC
122	SCHEMATIC	1-22 SCHEMATIC
123	SCHEMATIC	1-23 SCHEMATIC
124	SCHEMATIC	1-24 SCHEMATIC
125	SCHEMATIC	1-25 SCHEMATIC
126	SCHEMATIC	1-26 SCHEMATIC
127	SCHEMATIC	1-27 SCHEMATIC
128	SCHEMATIC	1-28 SCHEMATIC
129	SCHEMATIC	1-29 SCHEMATIC
130	SCHEMATIC	1-30 SCHEMATIC
131	SCHEMATIC	1-31 SCHEMATIC
132	SCHEMATIC	1-32 SCHEMATIC
133	SCHEMATIC	1-33 SCHEMATIC
134	SCHEMATIC	1-34 SCHEMATIC
135	SCHEMATIC	1-35 SCHEMATIC
136	SCHEMATIC	1-36 SCHEMATIC
137	SCHEMATIC	1-37 SCHEMATIC
138	SCHEMATIC	1-38 SCHEMATIC
139	SCHEMATIC	1-39 SCHEMATIC
140	SCHEMATIC	1-40 SCHEMATIC
141	SCHEMATIC	1-41 SCHEMATIC
142	SCHEMATIC	1-42 SCHEMATIC
143	SCHEMATIC	1-43 SCHEMATIC
144	SCHEMATIC	1-44 SCHEMATIC
145	SCHEMATIC	1-45 SCHEMATIC
146	SCHEMATIC	1-46 SCHEMATIC
147	SCHEMATIC	1-47 SCHEMATIC
148	SCHEMATIC	1-48 SCHEMATIC
149	SCHEMATIC	1-49 SCHEMATIC
150	SCHEMATIC	1-50 SCHEMATIC
151	SCHEMATIC	1-51 SCHEMATIC
152	SCHEMATIC	1-52 SCHEMATIC
153	SCHEMATIC	1-53 SCHEMATIC
154	SCHEMATIC	1-54 SCHEMATIC
155	SCHEMATIC	1-55 SCHEMATIC
156	SCHEMATIC	1-56 SCHEMATIC
157	SCHEMATIC	1-57 SCHEMATIC
158	SCHEMATIC	1-58 SCHEMATIC
159	SCHEMATIC	1-59 SCHEMATIC
160	SCHEMATIC	1-60 SCHEMATIC
161	SCHEMATIC	1-61 SCHEMATIC
162	SCHEMATIC	1-62 SCHEMATIC
163	SCHEMATIC	1-63 SCHEMATIC
164	SCHEMATIC	1-64 SCHEMATIC
165	SCHEMATIC	1-65 SCHEMATIC
166	SCHEMATIC	1-66 SCHEMATIC
167	SCHEMATIC	1-67 SCHEMATIC
168	SCHEMATIC	1-68 SCHEMATIC
169	SCHEMATIC	1-69 SCHEMATIC
170	SCHEMATIC	1-70 SCHEMATIC
171	SCHEMATIC	1-71 SCHEMATIC
172	SCHEMATIC	1-72 SCHEMATIC
173	SCHEMATIC	1-73 SCHEMATIC
174	SCHEMATIC	1-74 SCHEMATIC
175	SCHEMATIC	1-75 SCHEMATIC
176	SCHEMATIC	1-76 SCHEMATIC
177	SCHEMATIC	1-77 SCHEMATIC
178	SCHEMATIC	1-78 SCHEMATIC
179	SCHEMATIC	1-79 SCHEMATIC
180	SCHEMATIC	1-80 SCHEMATIC
181	SCHEMATIC	1-81 SCHEMATIC
182	SCHEMATIC	1-82 SCHEMATIC
183	SCHEMATIC	1-83 SCHEMATIC
184	SCHEMATIC	1-84 SCHEMATIC
185	SCHEMATIC	1-85 SCHEMATIC
186	SCHEMATIC	1-86 SCHEMATIC
187	SCHEMATIC	1-87 SCHEMATIC
188	SCHEMATIC	1-88 SCHEMATIC
189	SCHEMATIC	1-89 SCHEMATIC
190	SCHEMATIC	1-90 SCHEMATIC
191	SCHEMATIC	1-91 SCHEMATIC
192	SCHEMATIC	1-92 SCHEMATIC
193	SCHEMATIC	1-93 SCHEMATIC
194	SCHEMATIC	1-94 SCHEMATIC
195	SCHEMATIC	1-95 SCHEMATIC
196	SCHEMATIC	1-96 SCHEMATIC
197	SCHEMATIC	1-97 SCHEMATIC
198	SCHEMATIC	1-98 SCHEMATIC
199	SCHEMATIC	1-99 SCHEMATIC
200	SCHEMATIC	1-100 SCHEMATIC

REV.	DATE	DESCRIPTION	BY	CHKD.

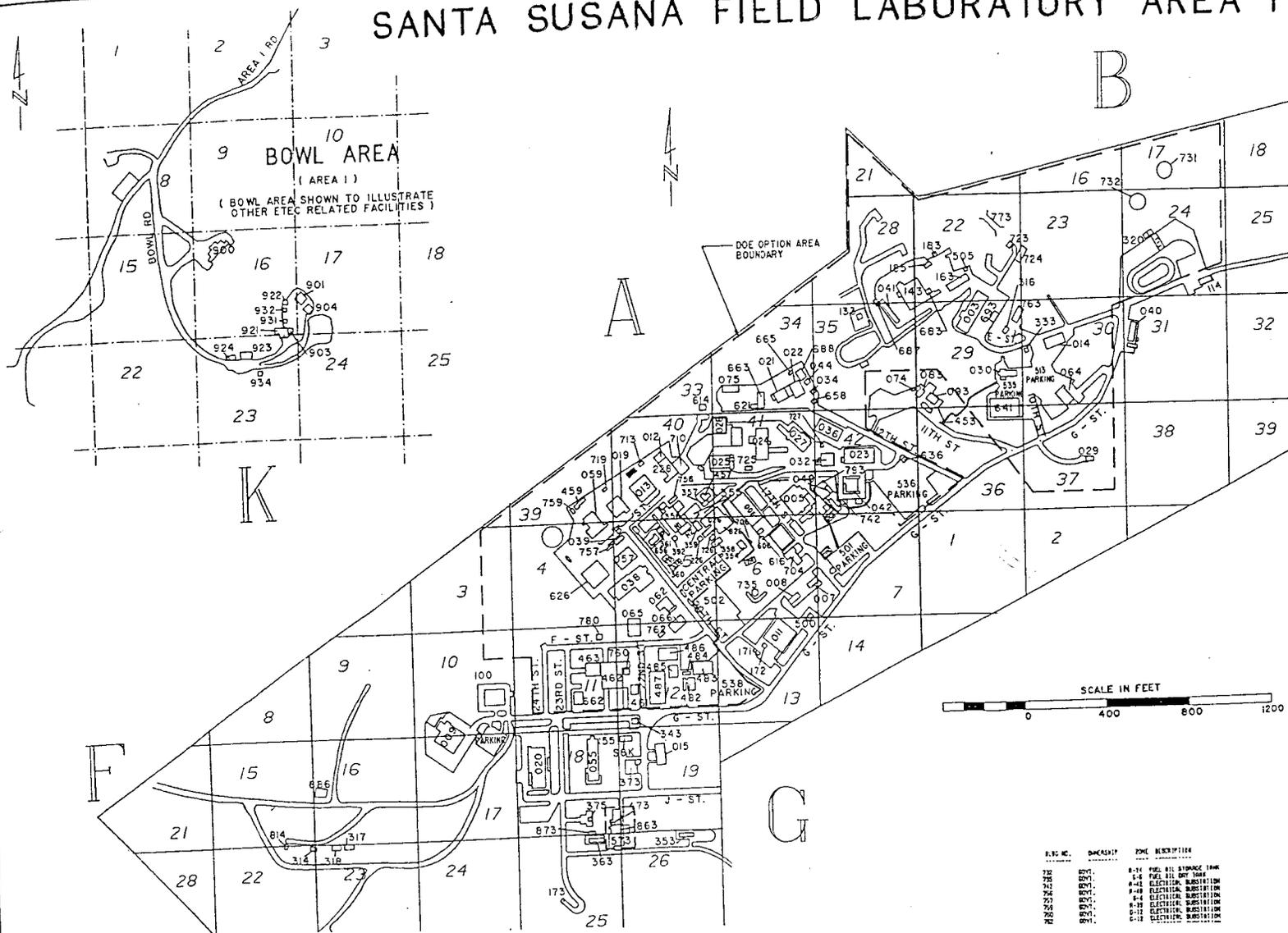
  

SSFL AREA IV	ETEC SITE MAP	SSFL
DATE: 2-9-91 DRAWN BY: GEN-CA-0001 CHECKED BY: 0		

NOTE:  
FACILITIES DESIGNATED 'GOVT.' ARE DOE.

PL01 1010 SCALE 1:10000 WITH 3 LAYER 403

# SANTA SUSANA FIELD LABORATORY AREA IV



B.C. NO.	DRAWING	ZONE	DESCRIPTION
732	DOYI	A-14	FUEL OIL STORAGE TANK
735	DOYI	A-14	FUEL OIL BMT TANK
747	DOYI	A-14	ELECTRICAL SUBSTATION
756	DOYI	A-14	ELECTRICAL SUBSTATION
757	DOYI	A-14	ELECTRICAL SUBSTATION
758	DOYI	A-14	ELECTRICAL SUBSTATION
760	DOYI	D-12	ELECTRICAL SUBSTATION
762	DOYI	D-12	ELECTRICAL SUBSTATION

B.C. NO.	DRAWING	ZONE	DESCRIPTION
800	DOYI	A-14	ADDITIONAL STORAGE
801	DOYI	A-14	ADDITIONAL STORAGE
802	DOYI	A-14	ADDITIONAL STORAGE
803	DOYI	A-14	ADDITIONAL STORAGE
804	DOYI	A-14	ADDITIONAL STORAGE
805	DOYI	A-14	ADDITIONAL STORAGE
806	DOYI	A-14	ADDITIONAL STORAGE
807	DOYI	A-14	ADDITIONAL STORAGE
808	DOYI	A-14	ADDITIONAL STORAGE
809	DOYI	A-14	ADDITIONAL STORAGE
810	DOYI	A-14	ADDITIONAL STORAGE
811	DOYI	A-14	ADDITIONAL STORAGE
812	DOYI	A-14	ADDITIONAL STORAGE
813	DOYI	A-14	ADDITIONAL STORAGE
814	DOYI	A-14	ADDITIONAL STORAGE
815	DOYI	A-14	ADDITIONAL STORAGE
816	DOYI	A-14	ADDITIONAL STORAGE
817	DOYI	A-14	ADDITIONAL STORAGE
818	DOYI	A-14	ADDITIONAL STORAGE
819	DOYI	A-14	ADDITIONAL STORAGE
820	DOYI	A-14	ADDITIONAL STORAGE
821	DOYI	A-14	ADDITIONAL STORAGE
822	DOYI	A-14	ADDITIONAL STORAGE
823	DOYI	A-14	ADDITIONAL STORAGE
824	DOYI	A-14	ADDITIONAL STORAGE
825	DOYI	A-14	ADDITIONAL STORAGE
826	DOYI	A-14	ADDITIONAL STORAGE
827	DOYI	A-14	ADDITIONAL STORAGE
828	DOYI	A-14	ADDITIONAL STORAGE
829	DOYI	A-14	ADDITIONAL STORAGE
830	DOYI	A-14	ADDITIONAL STORAGE
831	DOYI	A-14	ADDITIONAL STORAGE
832	DOYI	A-14	ADDITIONAL STORAGE
833	DOYI	A-14	ADDITIONAL STORAGE
834	DOYI	A-14	ADDITIONAL STORAGE
835	DOYI	A-14	ADDITIONAL STORAGE
836	DOYI	A-14	ADDITIONAL STORAGE
837	DOYI	A-14	ADDITIONAL STORAGE
838	DOYI	A-14	ADDITIONAL STORAGE
839	DOYI	A-14	ADDITIONAL STORAGE
840	DOYI	A-14	ADDITIONAL STORAGE
841	DOYI	A-14	ADDITIONAL STORAGE
842	DOYI	A-14	ADDITIONAL STORAGE
843	DOYI	A-14	ADDITIONAL STORAGE
844	DOYI	A-14	ADDITIONAL STORAGE
845	DOYI	A-14	ADDITIONAL STORAGE
846	DOYI	A-14	ADDITIONAL STORAGE
847	DOYI	A-14	ADDITIONAL STORAGE
848	DOYI	A-14	ADDITIONAL STORAGE
849	DOYI	A-14	ADDITIONAL STORAGE
850	DOYI	A-14	ADDITIONAL STORAGE
851	DOYI	A-14	ADDITIONAL STORAGE
852	DOYI	A-14	ADDITIONAL STORAGE
853	DOYI	A-14	ADDITIONAL STORAGE
854	DOYI	A-14	ADDITIONAL STORAGE
855	DOYI	A-14	ADDITIONAL STORAGE
856	DOYI	A-14	ADDITIONAL STORAGE
857	DOYI	A-14	ADDITIONAL STORAGE
858	DOYI	A-14	ADDITIONAL STORAGE
859	DOYI	A-14	ADDITIONAL STORAGE
860	DOYI	A-14	ADDITIONAL STORAGE
861	DOYI	A-14	ADDITIONAL STORAGE
862	DOYI	A-14	ADDITIONAL STORAGE
863	DOYI	A-14	ADDITIONAL STORAGE
864	DOYI	A-14	ADDITIONAL STORAGE
865	DOYI	A-14	ADDITIONAL STORAGE
866	DOYI	A-14	ADDITIONAL STORAGE
867	DOYI	A-14	ADDITIONAL STORAGE
868	DOYI	A-14	ADDITIONAL STORAGE
869	DOYI	A-14	ADDITIONAL STORAGE
870	DOYI	A-14	ADDITIONAL STORAGE
871	DOYI	A-14	ADDITIONAL STORAGE
872	DOYI	A-14	ADDITIONAL STORAGE
873	DOYI	A-14	ADDITIONAL STORAGE
874	DOYI	A-14	ADDITIONAL STORAGE
875	DOYI	A-14	ADDITIONAL STORAGE
876	DOYI	A-14	ADDITIONAL STORAGE
877	DOYI	A-14	ADDITIONAL STORAGE
878	DOYI	A-14	ADDITIONAL STORAGE
879	DOYI	A-14	ADDITIONAL STORAGE
880	DOYI	A-14	ADDITIONAL STORAGE
881	DOYI	A-14	ADDITIONAL STORAGE
882	DOYI	A-14	ADDITIONAL STORAGE
883	DOYI	A-14	ADDITIONAL STORAGE
884	DOYI	A-14	ADDITIONAL STORAGE
885	DOYI	A-14	ADDITIONAL STORAGE
886	DOYI	A-14	ADDITIONAL STORAGE
887	DOYI	A-14	ADDITIONAL STORAGE
888	DOYI	A-14	ADDITIONAL STORAGE
889	DOYI	A-14	ADDITIONAL STORAGE
890	DOYI	A-14	ADDITIONAL STORAGE
891	DOYI	A-14	ADDITIONAL STORAGE
892	DOYI	A-14	ADDITIONAL STORAGE
893	DOYI	A-14	ADDITIONAL STORAGE
894	DOYI	A-14	ADDITIONAL STORAGE
895	DOYI	A-14	ADDITIONAL STORAGE
896	DOYI	A-14	ADDITIONAL STORAGE
897	DOYI	A-14	ADDITIONAL STORAGE
898	DOYI	A-14	ADDITIONAL STORAGE
899	DOYI	A-14	ADDITIONAL STORAGE
900	DOYI	A-14	ADDITIONAL STORAGE

REV.	DATE	DESCRIPTION	BY	CHK

FACILITIES ENGINEERING

SSFL AREA IV SITE MAP

II-8-92

GEN-CA-0001 0

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# Legend

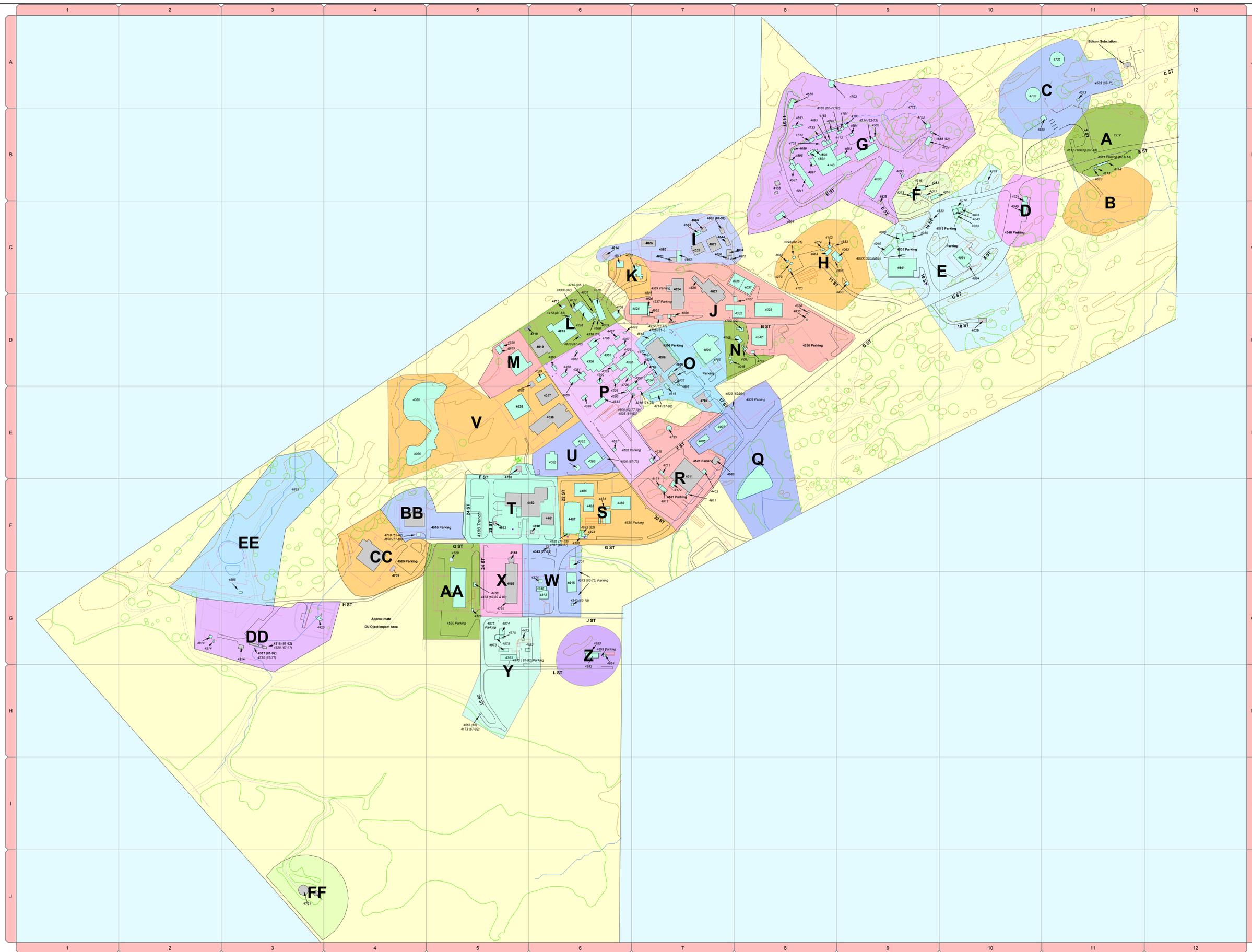
## Labeled Features:

(Based On SSFL Documents as of October 2004)

- Buildings/Sites:  
"Current"
- Buildings/Sites:  
"Demolished"

## Unlabeled Features:

- Leachfield (Removed)
- Tree
- Rock
- Concrete Curb
- Gutter
- Asphalt/Concrete Berm & Paving
- Sidewalk
- Dirt Road
- Fence
- Stream/Pond
- Drain
- Area IV Boundary



DRAWN BY:



DATE:

May 2005



1 inch equals 200 feet

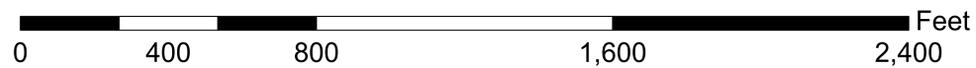


Figure 2:  
Site Summary Geographic Groupings  
AREA IV