TECHNICAL MEMORANDUM
SUBAREA HSA-5C
MASTER BIBLIOGRAPHY

BUILDING 4015

BUILDING 4015

Historical Site Assessment of Area IV
Santa Susana Field Laboratory
Ventura County, California

Volume 2 – Area IV Site Summaries

Prepared by Sapere Consulting, Inc. and
The Boeing Company for the Department of Energy
Under Contract DE-AC03-99SF21530

May 2005

United States Environmental Protection Agency

Environmental Sciences Division
P.O. Box 93478
Las Vegas, NV 89193-3478

TS-PIC-20909963S/21009965S
March 2010

Research and Development

EPA

AERIAL PHOTOGRAPHIC ANALYSIS OF SANTA SUSANA FIELD LABORATORY - AREA IV

Ventura County, California

Volume 1 & 2

EPA Region 9

BUILDING 4015

Energy Technology Engineering Center

Operated for the U.S. Department of Energy
Rocketdyne Division, Rockwell International

No. GEN-ZR-0012 Rev. ___
Page 1 of 123
Orig. Date 8/26/88
Rev. Date ___

DRR 23183 RC

TITLE: "Radiological Survey of Buildings T373 and T375."

-APPROVALS-

Written by: Jeffrey A. Chapman

Approved by: Robert J. Tuttle

Kenneth T. Stafford

REV. LTR.	REVISION	APPROVAL/DATE

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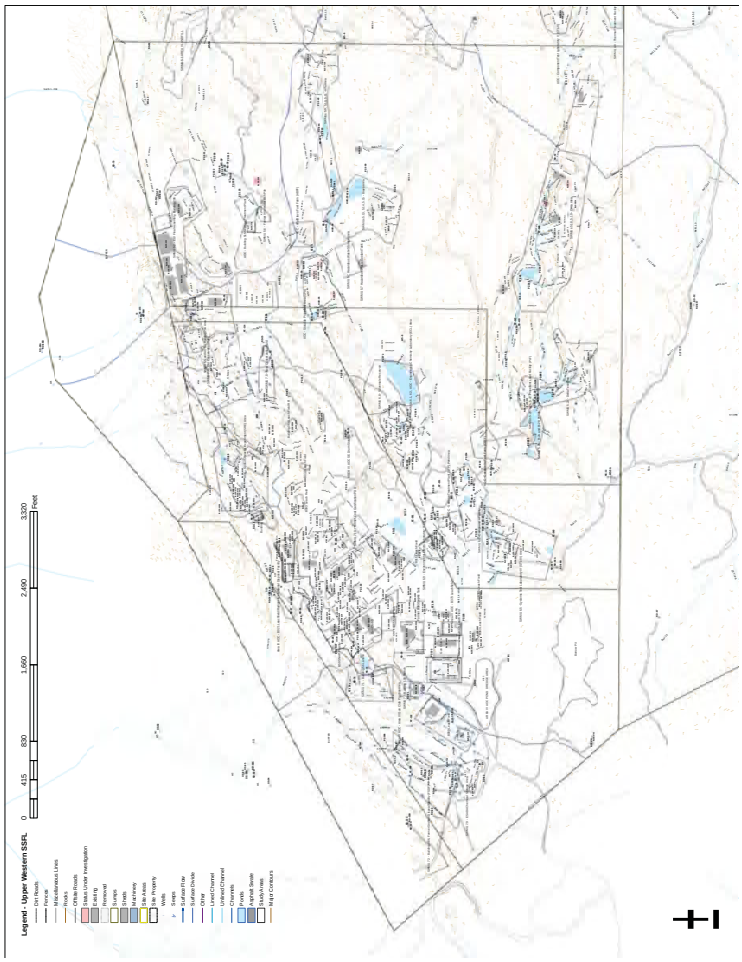
SEP 28 1988
NOTICE: THIS COPY SUPERSEDES ALL PRIOR COPIES ISSUED.

Form 735-A-6 Rev 6-88



P.S. OLSON
Copy #37

N-083E-A02-DV001, REV. A

SITE DEVELOPMENT AND FACILITY UTILIZATION PLANNING

FY 1984 - FY 1989

Santa Susana Field Laboratory
Ventura County, California

April 1984

OFFICIAL
APPROVED BY CUSTOMER
RELEASE DATE
APR 27 1984
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Prepared for the U.S. Department of Energy
under Contract Number DE-AM03-76-SF00700

Energy Technology Engineering Center

Operated for the U.S. Department of Energy
by Energy Systems Group, Rockwell International
P.O. Box 1449, Canoga Park, California 91304

DRR 19581 RC

DRR 19727 RC

LEVEL 1 DOCUMENT

BUILDING 4038

BUILDING 4038

DOE AREA IV BUILDINGS

BUILDING NO.	NAME	MANAGER	STATUS
012E	ETEC X-RAY FACILITY	GAYLORD	INACTIVE
013E	THERMAL TRANSIENT FACILITY	GERRITSEN	ACTIVE
014E	SODIUM STORAGE	GERRITSEN	INACTIVE STANDBY
019E	ETEC COMPUTER CENTER/CONSTRUCTION STAGING	JETTER/ZWENG	ACTIVE
021	R/A WASTE DECONTAMINATION	HORTON	INACTIVE STANDBY
022	R/A VAULT STORAGE	HORTON	INACTIVE STANDBY
023	LIQUID METALS CHEMISTRY	GAY	ACTIVE
024	DEVELOPMENT TEST BLDG.	GERRITSEN	INACTIVE STANDBY
025E	SCTI MAIN. SHOP & STORAGE	MOORE	ACTIVE
026E	SCTL CONTROL CENTER	DEBEAR	INACTIVE STANDBY
027E	LEASED TO RKD FOR WELD SHOP	GAYLORD	ACTIVE
029E	HAZARDOUS WASTE STORAGE	GERRITSEN	ACTIVE
030E	TRAFFIC & WAREHOUSING-LEASED TO ROCKETDYNE	GAYLORD	ACTIVE
032E	LMDL-1	DEBEAR	INACTIVE STANDBY
034	RMDF ENGINEERING OFFICE	HORTON	ACTIVE
036E	OFFICE BLDG. LEASED TO RKD	GAYLORD	ACTIVE
038E	ETEC HEADQUARTERS/DOE SITE OFFICE	GAYLORD	ACTIVE
039E	OFFICE BLDG.	GAYLORD	INACTIVE
041	EQUIPMENT STORAGE	GERRITSEN	ACTIVE
042	LMFBR DEV. TESTING	GAY	INACTIVE STANDBY
044	RMDF AP OFFICE	HORTON	ACTIVE
049E	POU CONTROL CENTER	GAY	INACTIVE
057E	ETEC GENERAL TEST	GERRITSEN	INACTIVE
059E	LARGE LEAK TEST RIG	GERRITSEN	ACTIVE
062E	INSTRUMENTATION LAB.	WARGO	ACTIVE
064	NUCLEAR MATERIAL STORAGE	HORTON	INACTIVE STANDBY
065E	ETEC CHEMISTRY LAB.	JETTER	ACTIVE
066E	INSTRUMENTATION LAB.	WARGO	ACTIVE
075	CONTAMINATED EQUIPMENT STORAGE	HORTON	ACTIVE
133E	SODIUM BURN FACILITY	GERRITSEN	ACTIVE
228E	POWER PAK	MOORE	ACTIVE STANDBY
226E	SCTL MG BLDG.	DEBEAR	INACTIVE STANDBY
320E	FUEL OIL PUMP BLDG.	MOORE	INACTIVE
355E	SCTI CONTROL CENTER	MOORE	ACTIVE
356E	SODIUM COMPONENT TEST INSTALLATION	MOORE	ACTIVE STANDBY
357E	SCTI SUPPLY STORAGE	MOORE	INACTIVE STANDBY
358E	SCTL SUPPORT BLDG.	DEBEAR	INACTIVE
360E	CHEMICAL STORAGE BLDG.	MOORE	ACTIVE
361E	HAS MAT'L STORAGE	MOORE	ACTIVE STANDBY
392E	SCTI ELECTRICAL EQUIPMENT	MOORE	INACTIVE
459E	UNINTERRUPTIBLE POWER SUPPLY	GERRITSEN	INACTIVE
461E	MOTOR GENERATOR BLDG.	DEBEAR	INACTIVE STANDBY
462E	SODIUM PUMP TEST FACILITY	DEBEAR	INACTIVE STANDBY
463E	COMPONENTS HANDLING & CLEANING	GERRITSEN	ACTIVE STANDBY
473E	HYDRAULIC TEST INSTRUMENTATION	GERRITSEN	INACTIVE
482E	ENGINEERING OFFICE LEASED TO ROCKETDYNE	GAYLORD	PARTIAL ACTIVE
483E	ENGINEERING OFFICE	GAYLORD	INACTIVE
484E	RESTROOM FACILITY	GAYLORD	ACTIVE
485E	ENGINEERING OFFICE,	GAYLORD	INACTIVE
486E	ENGINEERING OFFICE	GAYLORD	ACTIVE
487E	ENGINEERING OFFICE	JETTER	ACTIVE

ORISE

OAK RIDGE INSTITUTE FOR SCIENCE AND EDUCATION

March 13, 1996

Mr. Don Williams
U.S. Department of Energy
EM-421
Cloverleaf Building
Washington, DC 20585-0002

SUBJECT: FINAL REPORT - 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; SANTA SUSANA FIELD LABORATORY, ROCKWELL INTERNATIONAL, VENTURA COUNTY, CALIFORNIA

Dear Mr. Williams:

Enclosed are two copies of the subject report. Comments on the draft report that were provided in your December 28, 1995 memorandum have been incorporated into the final report. The report describes the procedures and results of the radiological surveys that the Environmental Survey and Site Assessment Program (ESSAP) of the Oak Ridge Institute for Science and Education (ORISE) performed during the period of September 11 through 14, 1995.

Please contact me at (423) 576-5073 or W. L. (Jack) Beck at (423) 576-5031 if we may provide you with any additional information.

Sincerely,

Timothy J. Vitkus
Project Manager
Environmental Survey and
Site Assessment Program

TJV:tsf

Enclosure

cc: M. Lopez, DOE/OAK
W. Beck, ORISE/ESSAP
T. Bright, ORISE/ESSAP
File/386

P. O. BOX 117 OAK RIDGE, TENNESSEE 37831-0117

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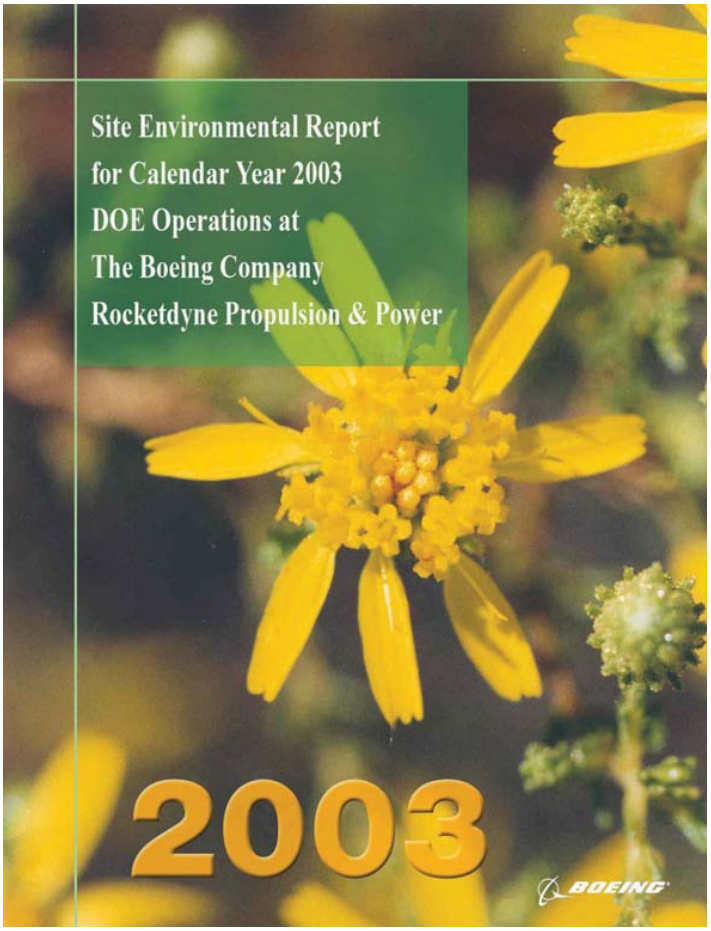

BUILDING 4038

Historical Site Assessment of Area IV
Santa Susana Field Laboratory
Ventura County, California

Volume 2 – Area IV Site Summaries

Prepared by Sapere Consulting, Inc. and
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United States Environmental Protection Agency
Environmental Sciences Division
P.O. Box 93478
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AERIAL PHOTOGRAPHIC ANALYSIS OF SANTA SUSANA FIELD LABORATORY - AREA IV

Ventura County, California

Volume 1 & 2

EPA Region 9

BUILDING 4038

Due to the large demand for lab chemical disposal

EP is coming to you!

B/038 Hazardous Waste Roundup

Bring Your Unwanted Lab Chemicals for Disposal

to

B/038, Room 1515, Col. J127

on

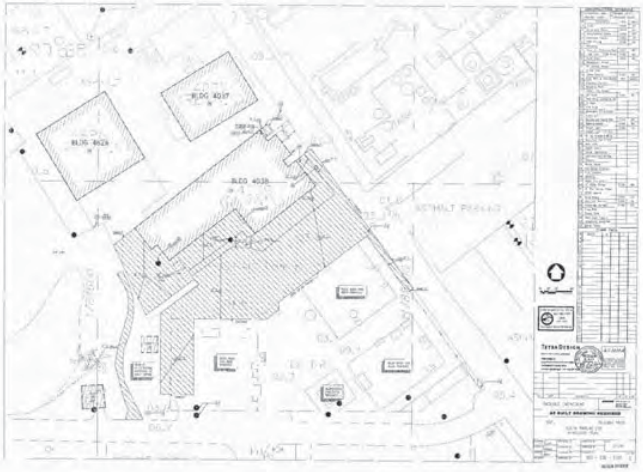
Wednesday, March 1, 1995

9:00 - 12:00AM

For more info contact EP at ext. 69178 or the HWSA at ext. 67430

BNA03366822

HDMSe00240320



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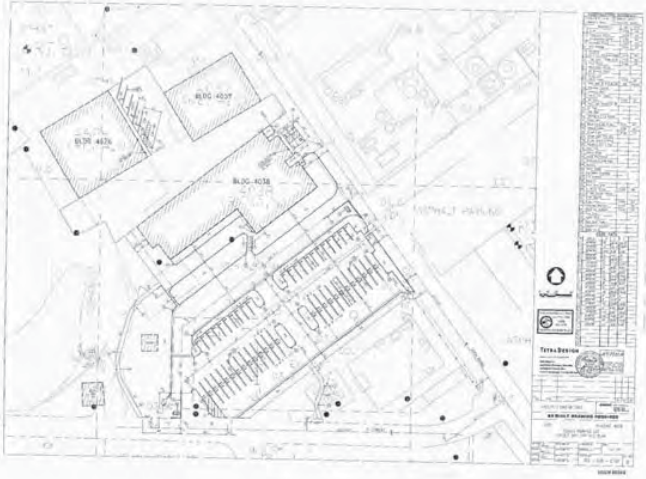

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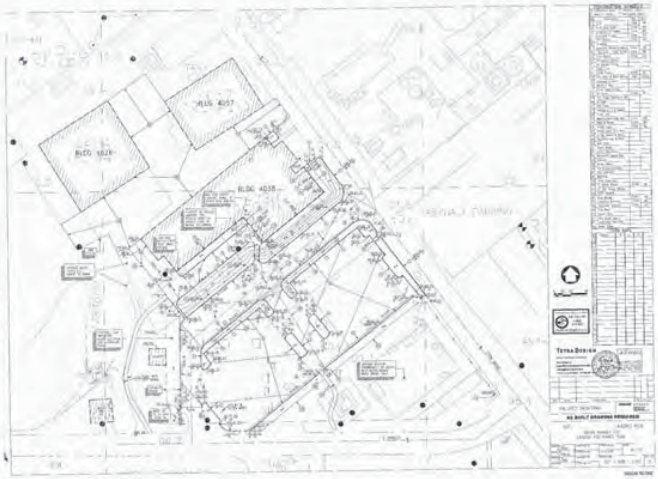

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BUILDING 4038

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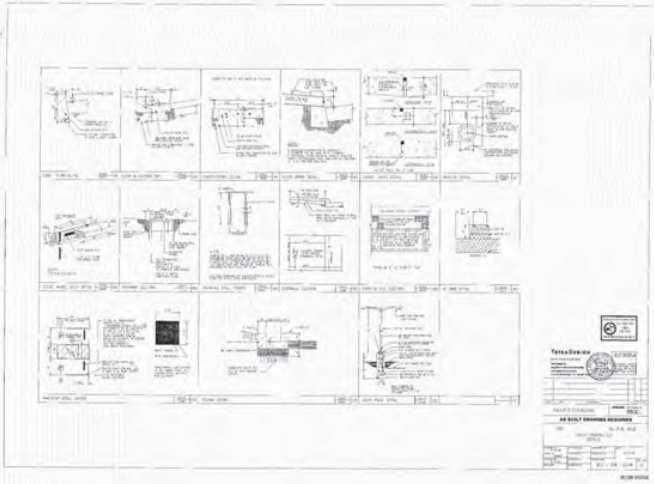

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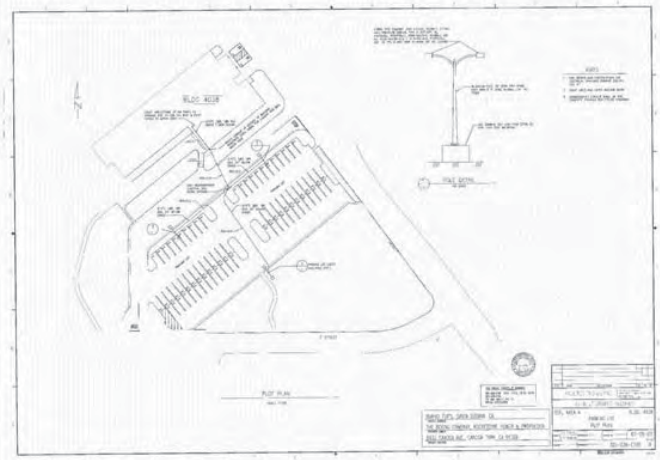


Internal Letter

Rockwell International

17 June 1993

93EP-013-CANOGA

J. Park
Rocketdyne-SSFL
S40, 055-SS14

P. Costa
Rocketdyne-Canoga
S43, 055-BA17
Ext. 69177

Environmental Impact Associated With Potential Relocation of B/038 Chemistry Laboratories

Background:

A request was made of Environmental Protection Department (D/543) to determine the environmental impact surrounding a proposed move of the Advance Programs Chemistry Laboratory and ME&T Chemistry Laboratory from their current location at the Canoga Vanowen Building(B/038), to SSFL. The investigation involved the impact upon hazardous and industrial waste management activities at these locations if this move were to take place. The following is a summary of these findings.

Industrial Waste Issues:

Currently the industrial wastestreams discharged from the B/038 laboratories include rinses from x-ray film development, and the advanced chemistry labs. Both of these wastestreams are currently regulated under an industrial waste permit issued by the city of Los Angeles. These wastestreams have been categorized as subject to federal pretreatment standards and as such are significantly limited in the concentrations of pollutants which they contain and the monitoring which they must undergo to ensure compliance. Current costs associated with this permit include:

- Significant Industrial User Fee
- Industrial Waste Disposal Fee
- Monthly monitoring costs

REDACTED

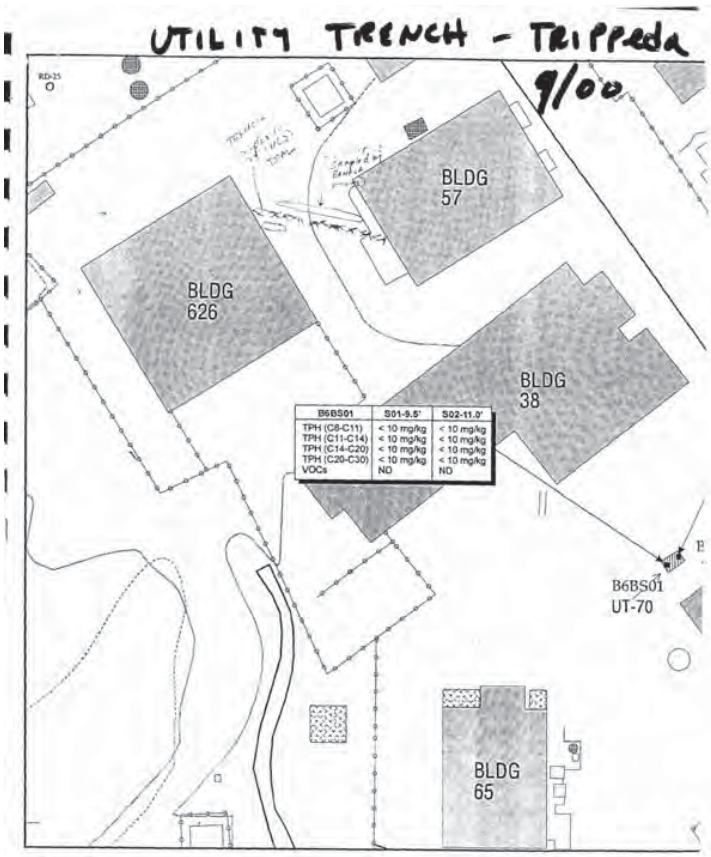
Total

Additional costs associated with inhouse personnel and outside contractors to operate and maintain the clarifier located on the west wall of B/038 have not been included.
By relocating these laboratories to SSFL, the monitoring and inspection fees could be avoided entirely since SSFL is subject to a different set of regulations and monitoring requirements.

However it should be emphasized that L.A. City appears to have mis-classified these wastestreams as subject to federal pretreatment standards. If this is the case, then there could be a substantial cost savings without impacting current laboratory operations. The city of L.A has been contacted on this issue, and a site visit is planned for in the near future.

BNA01773339

HDMSE00630698



B6BS01	S01-9.5'	S02-11.0'
TPH (C8-C11)	< 10 mg/kg	< 10 mg/kg
TPH (C11-C14)	< 10 mg/kg	< 10 mg/kg
TPH (C14-C20)	< 10 mg/kg	< 10 mg/kg
TPH (C20-C30)	< 10 mg/kg	< 10 mg/kg
VOCs	ND	ND

HDMSP00051358

BUILDING 4038

ORISE
OAK RIDGE INSTITUTE FOR SCIENCE AND EDUCATION

January 11, 1996

Mr. Don Williams
U.S. Department of Energy
EM-443
Cloverleaf Building
Washington, DC 20585-0002

SUBJECT: 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

Dear Mr. Williams:

As part of the independent verification process, the Environmental Survey and Site Assessment Program (ESSAP) of the Oak Ridge Institute for Science and Education (ORISE) reviewed the radiological survey documentation that Rockwell/Rocketdyne prepared for each of the subject facilities (Rockwell 1978, 1985, 1988a, and 1988b). It is ESSAP's opinion that the documents do not provide all the information necessary for the reviewer to independently assess the radiological status of the buildings or outdoor areas, relative to the U.S. Department of Energy (DOE) guidelines for release to unrestricted use. Comments on each of the documents are enclosed. Please contact me at (423) 576-5073 or W. L. (Jack) Beck at (423) 576-5031 should you have any questions.

Sincerely,

Timothy J. Vitkus
Environmental Project Leader
Environmental Survey and
Site Assessment Program

TJV:saj

Enclosure

cc: A. Kluk, DOE/HQ
M. Lopez, DOE/OAK
W. Beck, ORISE/ESSAP
File/386

P.O. BOX 117, OAK RIDGE, TENNESSEE 37831-0117
Managed and operated by Oak Ridge Associated Universities for the U.S. Department of Energy

HDMSP00054144

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 NW AREA
SANTA SUSANA FIELD LABORATORY
VENTURA COUNTY, CALIFORNIA

A. Rockwell International. Interim Storage Facility Decommissioning Final Report. March 15, 1985.

Comments

1. Section 2.0: The document should be revised to clearly state which radionuclides were potential contaminants. The reviewer must assume that the contaminants are mixed fission and activation products.

2. Section 4.4.1: The document states that water was found in four of the eight storage cells. Was the source of this water groundwater or rainwater? If the source was groundwater intrusion, was the potential for groundwater contamination investigated?

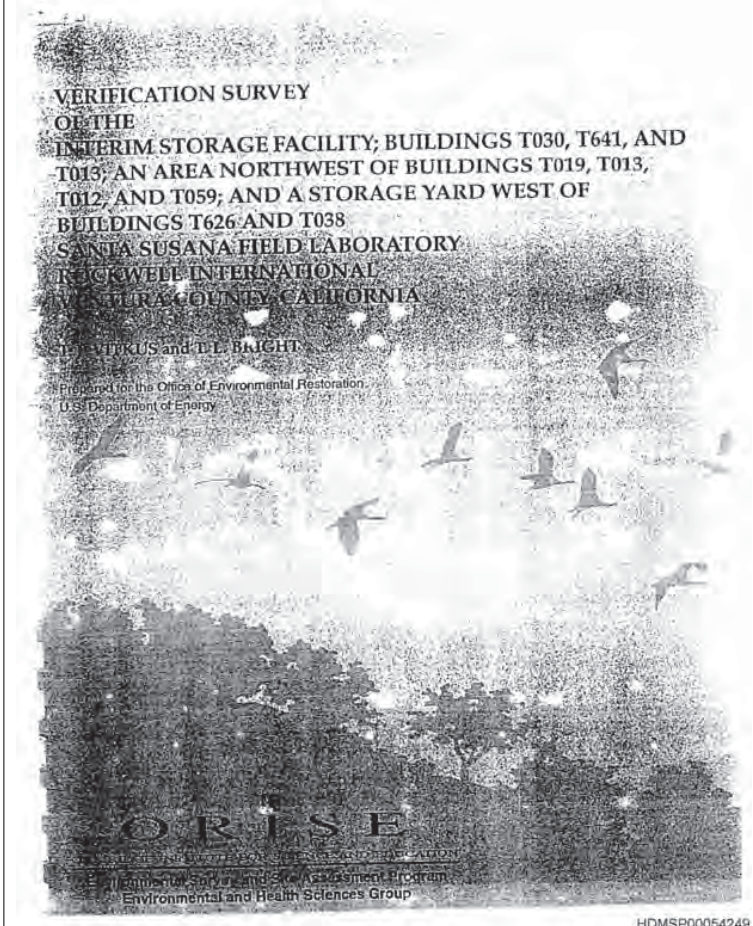
3. Section 4.4.2: The document indicates that concrete and other materials were surveyed and if found to be uncontaminated, used as backfill. The document should provide the surface activity data for this material in units of dpm/100 cm^2 and a reference for the specific DOE surface contamination guidelines used for data comparison.

4. Section 4.7, Phase B: The document should be revised to include an approved site-specific cleanup guideline, rather than the 100 pCi/g gross detectable beta activity criterion, and the available data compared directly with this guideline. Secondly, if Sr-90 is suspected as a contaminant with Cs-137, radionuclide-specific analyses should be performed to quantify the Sr-90 levels. ESSAP recommends that if the site has retained any of the samples collected during this project in an archive, a representative portion of those samples should be analyzed for Sr-90.

5. Section 4.7, Phase C: This portion of the post-decommissioning activities section describes the final status survey procedures and states that 10 percent of available grid blocks were surveyed. It is ESSAP's opinion, and common industry practice, that a final status survey include surface scans and soil sampling of 100 percent of a remediated area. In addition, the document discusses the contribution of the "skyshine" from the RMDF to the area ambient gamma activity levels. Because of the elevated background gamma activity, ESSAP questions whether the scan sensitivity of the procedure was adequate to detect residual areas of contamination

Santa Susana Comments - January 11, 1996

HDMSP00054145



HDMSP00054249

SHEA – 096255

BOEING

The Boeing Company
Rocketdyne Propulsion & Power

6633 Canoga Ave.
P.O. Box 7922
Canoga Park, CA 91309-7922

Date: October 8, 2002 No. SHEA-096255

To: Distribution From: Greta E. Hernandez
Safety, Health & Environmental Affairs

Subject: **Audit of Rapid Manufacturing in Building 0038**

This letter is to inform you that SHEA will be performing an assessment of the Rapid Manufacturing area in building 0038. The purpose of the audit is to determine the effectiveness of our processes and to identify any deficiencies. The assessment is scheduled for November 13 from 8:30 to 11:30 and is expected to take approximately three hours.

At any time during the review should any findings require immediate attention, you will be immediately notified. At the conclusion of the review the team will present an overview of the area's achievements, the findings, and share lessons learned from the previous reviews. Any findings that require follow-up will have a corrective action plan (CAP) created. The CAP will have milestones with estimated completion dates (ECDs) that will be tracked in SHEA's database. You are responsible to correct all findings by the ECDs. The process guidelines can be found at CP-SOP C-104.

Lastly, please note that any documented findings shall have limited access.

Should you have any questions regarding this transmittal or the assessment process, please contact me at 6-3821or Bill McIlvaine your SHEA Program Representative at 6-9228.

Thank You,

Greta E. Hernandez
Safety, Health & Environmental Affairs

cc:	Gary Hebdon	AD29
	Nina Mattera	PA81
	Marston Robertson	T487
	Roger Seaman	AB66
	Tracy Taylor	BA69

SAFETY, HEALTH, & ENVIRONMENTAL AFFAIRS
CONTROLLED DOCUMENT
[redacted]
SHEA-96255

ARCHIVE COPY

HDMSP00117660

BUILDING 4038

SHEA-64754

BOEING

The Boeing Company
Rocketdyne Propulsion & Power
6633 Canoga Ave.
P.O. Box 7922
Canoga Park, CA 91309-7922

Date: April 13, 1999 | No: SHEA-064754

To: SSFL B/4038 Employees | From: B. E. Bleiler, MS
Health & Safety
D/483, 055-DB52
64799

Subject: Periodic Indoor Air Quality Monitoring Results for B/4038

Survey Summary

Air monitoring results indicate that the building temperature, relative humidity, carbon dioxide and total dust levels are within both the Environmental Protection Agency (EPA) and the American Society for Heating, Refrigerating, and Air-conditioning Engineers (ASHRAE) recommended guidelines for a healthy, safe and comfortable indoor air environment.

Introduction

ARCHIVE COPY

On January 29, 1999, air monitoring was conducted inside and outside of B/4038 at the Santa Susana Facility as part of Rocketdyne's periodic indoor air quality monitoring program. Air monitoring instrumentation included the Viasala temperature and relative humidity meter, the Ram-1 particulate sampler, and MSA colorimetric detector tubes with bellows sampling pump. The California Occupational Safety and Health Administration (Cal/OSHA) has not established any standards for general indoor air quality. The EPA and ASHRAE recommended guidelines are used to determine if corrective action is needed to ensure a healthy, safe and comfortable work environment.

Results

SITE	BLDG	LOCATION	CO2 (PPM)	TEMP (°F)	RH (%)	TOTAL DUST (mg/m³)	DATE	EPA & ASHRAE MET
SSFL	4038	OUTSIDE	N/R	65.5	10.8	0.006	1/29/99	N/A
SSFL	4038	RUFFINO-FOSTER OFFICE	475	75.1	19.4	0.002	1/29/99	Y
SSFL	4038	INGERSOLL OFFICE	750	75	18.4	0.004	1/29/99	Y
SSFL	4038	HESLIN OFFICE	475	75	14.9	0.004	1/29/99	Y
AVE.	BLDG	LEVELS	567	75.0	17.6	0.003	1/29/99	N/A

N/R Data were not recorded
N/A Standards are not applicable

Conclusions/Recommendations

Air monitoring results indicate that the building temperature, relative humidity, carbon dioxide and total dust levels are within both the EPA and the ASHRAE recommended guidelines. No corrective action is needed at this time.

SAFETY, HEALTH, & ENVIRONMENTAL AFFAIRS CONTROLLED DOCUMENT
SHEA-064754

HDMSP00130412

TETRA DESIGN

July 13, 2000

Mr. Alan D. Nelson
Engineer/Scientist
Laser & Electro-Optical Design
Rocketdyne Propulsion & Power

The Boeing Company
6633 Canoga Avenue
Canoga Park, CA 91309-7922

Re: Boeing/Rocketdyne SSFL Area IV
Building 4038 South Parking Lot

Dear Mr. Nelson:

Tetra Design, Inc. is very pleased to submit the following proposal for A & E Services to prepare documents for parking lot improvements proposed adjacent to Building 4038 in Area IV of the Santa Susana Field Laboratory located in Ventura County, California.

Scope of Work

The scope consists of Site Improvements of grading, paving and drainage for a new (approximately 75 stall) parking lot south of Building 4038 and HC parking directly adjacent to the northeast portion of Building 4038. Landscaping will be installed around the parking lot and adjacent to the south portions of Building 4038. The site area to be improved is outlined in the concept drawings C101, C102 & C103 prepared by Boeing and dated 7/6/00.

Scope of Services

Based on the above Scope of Work, Tetra Design will provide the following civil engineering and landscape design services:

1. Perform a design review of the proposed paving and drainage plan and meet with Boeing to review the final approved layout. Prepare final grading, paving and drainage drawings for submittal to Boeing for final review and issuance to a selected General Contractor for bidding and construction. The horizontal and vertical control information will be based on the information provided on the Boeing drawings C102 and C103.
2. Prepare a preliminary landscape-planting plan for review and sign-off by Boeing. Based on the approved planting plan prepare final landscape planting and irrigation drawings for submittal to Boeing for final review and issuance to a selected General Contractor for bidding and construction. Landscaping will be within the areas designated on Boeing drawing C101.
3. Services will include the preparation of an order of magnitude cost estimate, and response to questions during the bid period.
4. Plan check submittals and permitting will be the responsibility of the general contractor. Boeing will be responsible for all construction phase coordination, reviews and approvals.
5. The parking lot lighting design and installation will be performed by the general contractor. Lighting fixtures will be shown on the civil plans as proposed by Boeing.

Tetra Design Inc.
[illegible]

[illegible]

HDMSP00135788

The Boeing Company
Rocketdyne Propulsion & Power
6633 Canoga Avenue
P.O. Box 7922
Canoga Park, CA 91309-7922

CERTIFIED MAIL

September 19, 2000
In reply refer to 2000RC3919

BOEING

Mr. Andrew Brown
Ventura County Air Pollution Control District
669 County Square Drive
Ventura, CA 93003

Subject: Santa Susana Field Laboratory (SSFL), Installation of Erosion Control and Parking Lot, B/4038 in Area IV

Dear Mr. Brown:

The Boeing Company, Rocketdyne, is hereby submitting a completed Ventura County Air Pollution Control District (VCAPCD) AB3205 form for the installation of the erosion control and parking lot of B/4038.

The erosion control will consist of the removal of deteriorating asphalt-concrete covered slopes around Building 4038 while planting the area with plants and ground cover with irrigation.

The new parking lot and associated asphalt-concrete repair will consist of filling in the cracks and the application of an overlay to the North of the building. The new parking lot will support approximately 77 parking stalls South of Building 4038 and along the side of Building 4626.

No asbestos-containing material (ACM) was identified to be disturbed in this project. Should ACM be found, the work will stop, VCAPCD will be notified, and a licensed asbestos abatement contractor will perform the abatement.

Should there be any questions or concerns regarding this transmittal, please contact myself at (818) 586-1888.

Sincerely,

Barbara K. Ludwig for

Nina L. Mattera
Environmental Scientist

NLM:dr
Enclosure

(SHEA-091179)

SAFETY, HEALTH, & ENVIRONMENTAL AFFAIRS CONTROLLED DOCUMENT
SHEA-091179

HDMSP00136701

SHEA-091233

BOEING

The Boeing Company
Rocketdyne Propulsion & Power
6633 Canoga Ave
P.O. Box 7922
Canoga Park, CA 91309-7922

Date: September 25, 2000 | No: SHEA-091233

To: Cris Liliedahl
D/344-055, SS19
X-65302

From: Barbara Ludwig
Safety, Health & Environmental Affairs
D/543-055, T487
X-68176

Subject: **Air Monitoring Results for Total Welding Fumes and 14 Metals - B/4038**

Survey Summary

Personal air monitoring results indicated that the airborne concentrations of total welding fumes and fourteen metals measured outside of employee John Harback's full-face HEPA-filtered respirator were well below the 8-hour Time-Weighted Average (TWA) Cal/OSHA Permissible Exposure Limits (PELs) for all contaminants and the Action Level (AL) for lead.

Introduction

On September 5, 2000, SHEA conducted personal air monitoring while employee John Harback torch cut ladders at SSFL B/4038. The employee wore a full-face HEPA-filtered respirator, and a MSA Escort Elf personal air-sampling pump attached by flexible Tygon tubing to a PVC filter cassette. Laboratory analysis of the one breathing zone air sample was performed using the NIOSH 500 method for total welding fumes and the NIOSH 7300 method for metals.

Results

Employee Name/ Sampling Location	Sample Time (mins.)	TWF (µg/m³) TWA[1]	Cr (µg/m³) TWA[1]	Cu (µg/m³) TWA[1]	Fe (µg/m³) TWA[1]	Ni (µg/m³) TWA[1]	Pb (µg/m³) TWA[1]	Ti (µg/m³) TWA[1]	Zn (µg/m³) TWA[1]
John Harback's Breathing Zone	60	28.00	1.03	1.63	6.75	0.50	1.00	0.25	7.38
Cal/OSHA Permissible Exposure Limit (PEL)[2] (µg/m³)		5,000	500	100	5,000	1,000	50	10,000	5,000
Cal/OSHA Action Level (AL)[3] (µg/m³)		N/A	N/A	N/A	N/A	N/A	30	N/A	N/A

Footnotes:
TWF = Total Welding Fumes
Cr = Chromium
Cu = Copper
Fe = Iron
Ni = Nickel
Pb = Lead
Ti = Titanium
Zn = Zinc

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HDMSP00136735

BUILDING 4038

SHEA-091262

BOEING

The Boeing Company
Rocketdyne Propulsion & Power

6633 Canoga Ave.
P.O. Box 7922
Canoga Park, CA 91309-7922

Date: September 27, 2000

No. SHEA-091262

To: Cris Liliedahl
D/344, 055 - SS19
X65302

From: Afsoun Rahimian
D/483, 055 - T487
X62219

Subject: **Air Monitoring Results For Welding/Torch Cutting At B/4038**

Survey Summary

Personal air monitoring results indicated that the airborne concentrations of total welding fumes, iron, chromium, and lead measured outside of employee John Harback's full-face HEPA-filtered respirator were well below the 8-hour Time-Weighted Average (TWA) Cal/OSHA Permissible Exposure Limits (PELs) and Action Levels (ALs), and the American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Values (TLVs).

Introduction

On September 6, 2000, SHEA conducted personal air monitoring for total welding fumes, iron, chromium, and lead while employee John Harback performed welding and torch cutting as part of the ladder repair operations at Building 4038. He wore a full-face HEPA-filtered respirator, a leather welding jacket, and a MSA Escort Elf personal air sampling pump attached by Tygon tubing to a PVC filter cassette. Laboratory analysis of the one breathing zone air sample was performed using the NIOSH 500 and 7300 methods.

Results

Employee Name/ Sampling Location	8-Hour TWA Results (mg/m³) Total Welding Fumes	Iron	Chromium	Lead
John Harback's Breathing Zone	0.0441	0.0070	0.0003	0.0220
Cal/OSHA PEL[1]	5	5	0.5	0.050
Cal/OSHA AL[2]				0.030
ACGIH TLV[3]	5	5	0.5	0.050

[1]PEL: **Permissible Exposure Limit** is the time-weighted average exposure level that is permitted by Cal/OSHA for a normal 8-hour work shift, without using respiratory protection.

[2]AL: **Action Level** is the airborne contaminant level that triggers various regulatory requirements and employer actions, such as employee training and medical surveillance.

[3]TLV: **Threshold Limit Value** is the time-weighted average exposure level that is recommended by the ACGIH for a normal 8-hour work shift, without using respiratory protection.

The **PEL**, **AL**, and **TLV** represent airborne concentrations under which it is believed that most workers may be repeatedly exposed, day after day, without experiencing adverse health effects.

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HDMSP00136754

SHEA-091364

BOEING

The Boeing Company
Rocketdyne Propulsion & Power

6633 Canoga Ave.
P.O. Box 7922
Canoga Park, CA 91309-7922

Date: October 9, 2000

No. **SHEA-091364**

To: Cris Liliedahl
D/344, 055 - SS19
X65302

From: Afsoun Rahimian
D/483, 055 - T487
X62219

Subject: **Air Monitoring Results For Welding/Torch Cutting At B/4038**

Survey Summary

Personal air monitoring results indicated that the airborne concentrations of total welding fumes, chromium, and lead measured outside of employee John Harback's full-face HEPA-filtered respirator were well below the 8-hour Time-Weighted Average (TWA) Cal/OSHA Permissible Exposure Limits (PELs) and Action Level (AL), and the American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Values (TLVs).

Introduction

On August 30, 2000, SHEA conducted personal air monitoring for total welding fumes, chromium, and lead while employee John Harback performed welding and torch cutting as part of the ladder repair operations at B/4038. He wore a full-face HEPA-filtered respirator, a leather welding jacket, and a MSA Escort Elf personal air sampling pump attached by Tygon tubing to a PVC filter cassette. Laboratory analysis of this one breathing zone air sample was performed using the NIOSH 500 and 7300 methods.

Results

Employee Name/ Sampling Location	8-Hour TWA Results (mg/m³) Total Welding Fumes	Chromium	Lead
John Harback Breathing Zone	0.826	0.0003	0.0019
Cal/OSHA PEL[1]	5	0.5	0.050
Cal/OSHA AL[2]			0.030
ACGIH TLV[3]	5	0.5	0.050

[1]PEL: **Permissible Exposure Limit** is the time-weighted average exposure level that is permitted by Cal/OSHA for a normal 8-hour work shift, without using respiratory protection.

ARCHIVE COPY

HDMSP00136980

BNA01247355

HDMSP001828037

INTERNAL LETTER
ATOMICS INTERNATIONAL
A Division of North American Aviation, Inc.

DATE October 21, 1964

TO L. A. Sadley
ADDRESS 763
SS-011

FROM R. F. Wilmes
ADDRESS 779-21
SS-040

PHONE 6301

SUBJECT Partition Installation SNAP Office, Building 038

The following items of design information were reviewed by D/779 Industrial Hygiene and Safety Unit on **October 20, 1964.**

Specification

303-038-1 Installation of Partitions SNAP Office, B/038 - 17 pages

Drawings

303-038-A13		Partitions, Plan and Details
303-038-E4	Rev 1 only	Electrical Plan, Fixture Schedule, and Symbols
303-038-E5	Rev 1 only	Lighting Plan
303-038-E6	Rev 1 only	Electrical Power Plan

We found no Industrial Hygiene and Safety comments necessary in the specifications and drawings.

R F Wilmes
R. F. Wilmes
Health and Safety Assistant
Industrial Hygiene and Safety Unit
Health and Safety Section

Approved:
J. C. Bang
Supervisor (Acting)
Industrial Hygiene and Safety Unit
Health and Safety Section

kw

cc: R. E. Alexander 779-21 Cano-6
T. O. Brintzenhoff 767-71 SS-038
I. W. Harper 779-21 SS-040
M. A. Noel 779-21 Cano-3
File (3)

OCT 23 1964

BNA02411002

HDMSP001852225

BUILDING 4038

INTERNAL LETTER
ATOMICS INTERNATIONAL
A Division of North American Aviation, Inc.

DATE: October 12, 1966

TO ADDRESS: Those Listed

FROM ADDRESS: L. A. Hadley
763
AI/SanSu-011

PHONE: 6281

SUBJECT: Job Title Partition Installation
SNAF Office Bldg. 038

Reference
JIR 763-71719
TWR
Other PBWR 71710

Engineer L. A. Hadley Phone 6281

The following items of design information are transmitted herewith for your review and approval. Your approval will signify that the design conforms with the requirements, regulations, or practices for which you have responsibilities. Please return this approval sheet before Oct. 20, 1966

Designs are approved subject to the following comments:

(SEE ATTACHED IL)

HEALTH & SAFETY IHS
☑ APPROVED ☐ SEE COMMENT SHEET
R E Wilson
SIGNATURE OF REVIEWER

M. D. Corin, B/765, B/005, H0 - W/encl.
R. G. Alexander, B/779, B/004, H - W/encl.
J. H. Stewart, B/757, B/[illegible] - W/encl.
F. S. Corin[illegible] - W/encl.
R. J. [illegible], B/76[illegible], 3[illegible]
A. [illegible] Ternssenhoff, B/767-71, B/030
F. H. Burnett, B/7[illegible], B/[illegible]
R. [illegible] Hill, B/779, B/0[illegible], 3[illegible]
R. O. Williams c/o R. H. Stanwood, B/[illegible], B/038, [illegible] - W/encl.

Signed: _____
Date: _____

BNA02415004
HDMSP001852293

Internal Letter — Rockwell International

Date: January 31, 1994 — No. 94-16

To: G. M. Brocks, D/539-167, 055-AC71, Canoga 63551
From: B. E. Bleiler, MS D/483, AB84 & FB76, CP 64799, DS 64076

Subject: **B/038 MCC GOLD CYANIDE PLATING AIR MONITORING - PART II**

INTRODUCTION

Health & Safety personnel performed air monitoring for hydrogen cyanide in B/038 on January 12, 1994. This monitoring was performed in the D/539 Plating Lab during MCC gold cyanide plating and during plating inside the small cyanide cabinet. This survey was conducted to ensure employee protection during the second phase of this new plating process.

RESULTS

A total of nine air monitoring samples for hydrogen cyanide were taken during the plating process. Monitoring was performed using the Miran 1B direct reading meter (NO127652). Measurements taken in employee breathing zones did not exceed the Occupational Safety & Health Administration's Permissible Exposure Limit of 10 ppm. Two measurements taken, both directly over the large and small cyanide tanks heated to 130 and 140 degrees F respectively, exceeded the Occupational Safety & Health Administration's (OSHA's) Short Term Exposure Limit of 4.7 ppm for a 15 minute period. As employee breathing zone access to either of these locations would be physically difficult, it is unlikely to create an employee overexposure hazard.

CONCLUSION

The large and small tank cyanide plating process set-ups used on January 12, 1994 were acceptable for testing operations as long as the following procedures are followed:

1. Ventilation must be used with the large gold plating tank during both heating and plating operations.
2. During plating solution heating, the large primary tank will remain covered with the plastic lid and the secondary tank top and SW and NW corners will remain covered with plastic. These covers allow the ventilation duct to work better by reducing the surface area over which air containing contaminants must be pulled.
3. During the plating operation, the heated large primary plating tank must remain covered with plastic.
4. During heating and plating operations, employees must limit time spent bending over the edges of the large primary and secondary heated gold plating tank and over the center of the small tank. In addition, at no time will any employee be allowed to suspend themselves or their faces over the center section of either primary tank as levels of hydrogen cyanide measured here exceed OSHA's Short Term Exposure Limit.

BNA01976758
HDMSp01639987

To: N. Fodor
From: J. Burton
Date: 9-9-92
Subject: Asbestos Concerns in Facilities B/038, SCTI, B/026, B/373, and B/006

This letter will summarize the results of a couple of telephone conversations we had today. The first telecon was to discuss the concerns at SCTI and B/373.

- At SCTI on the E-8 Cooler, there is come ACM brick that is exposed and needs to be controlled. This was discussed in a later telecon along with R. Ingersol. During this telecon, mention was made of the total removal of ACM on the E-8 Cooler. However, the ACM brick still needs to be fixated with bonding agent or other control method by Environmental.
- In B/373, I had received news from Terry Wells that there was some asbestos concerns. You had mentioned that you would get together with appropriate personnel to ascertain whether there was a concern.

The second telephone conversation was a three-way conversation between yourself, R. Ingersol and I. This telecon included discussion on B/038, SCTI (mentioned above), B/026, and B/006.

- The lady's bathroom in B/038 has some ACM drywall that has been water damaged and the resulting exposed areas should be controlled.
- B/026 has some broken ACM tiles in the restroom area that services the Kalina facility. This facility must be temporarily shut down until the situation has either been rectified or controlled.
- B/006 has some ACM pipe insulation that is exposed in a friable condition. R. Ingersol described the condition in the facility and immediate attention will be given to the matter by the Environmental Dept.

Appropriate personnel in the Health and Safety dept will also be involved in this concern to address the potential concerns to employees.

cc: C.J. Rozas, R. Ingersol, R. Moore, W.S. DeBear, K. Robinson, T. Wells, D.C. Gibbs, R. Meyer

BNA02927075
HDMSp01698440

Internal Letter — Rockwell International

Date: January 31, 1994 — No. 94-16

To: G. M. Brocks, D/539-167, 055-AC71, Canoga 63551
From: B. E. Bleiler, MS D/483, AB84 & FB76, CP 64799, DS 64076

Subject: **B/038 MCC GOLD CYANIDE PLATING AIR MONITORING - PART II**

INTRODUCTION

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RESULTS

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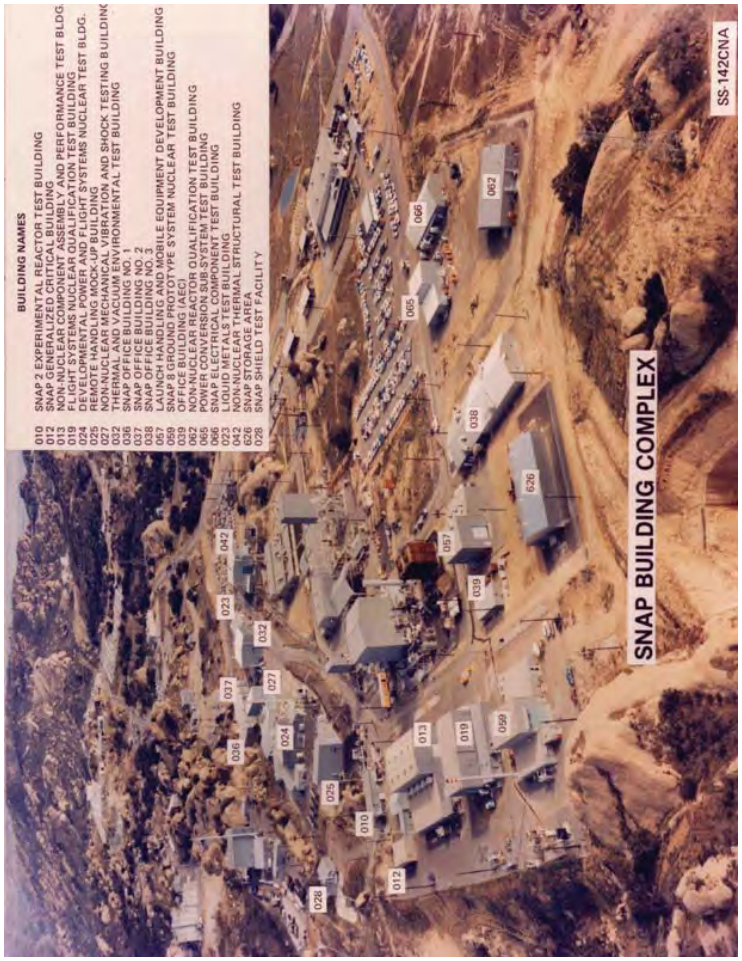
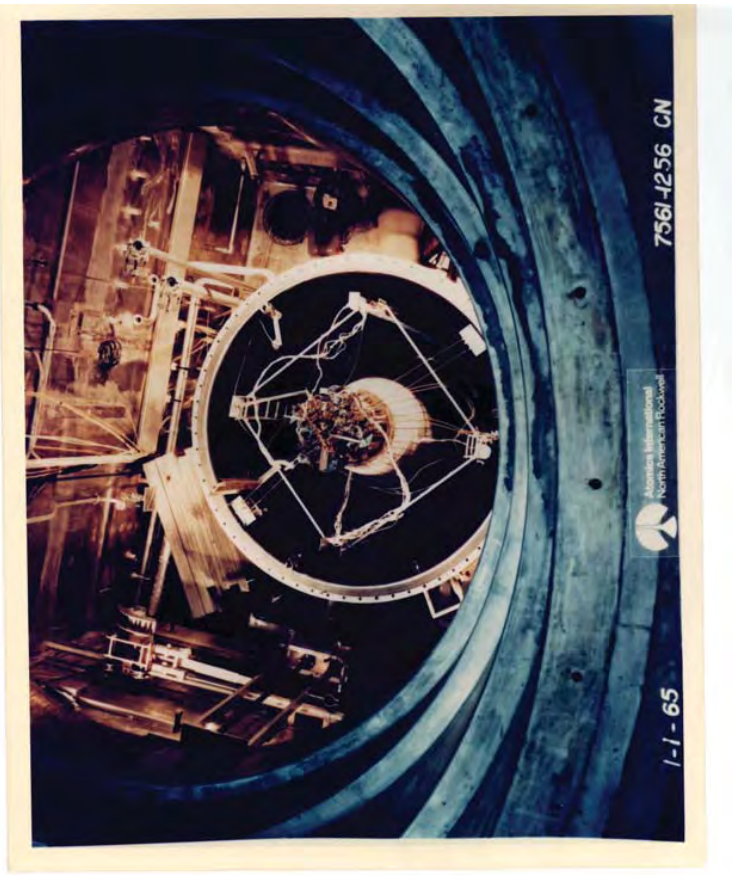
2. During plating solution heating, the large primary tank will remain covered with the plastic lid and the secondary tank top and SW and NW corners will remain covered with plastic. These covers allow the ventilation duct to work better by reducing the surface area over which air containing contaminants must be pulled.
3. During the plating operation, the heated large primary plating tank must remain covered with plastic.
4. During heating and plating operations, employees must limit time spent bending over the edges of the large primary and secondary heated gold plating tank and over the center of the small tank. In addition, at no time will any employee be allowed to suspend themselves or their faces over the center section of either primary tank as levels of hydrogen cyanide measured here exceed OSHA's Short Term Exposure Limit.

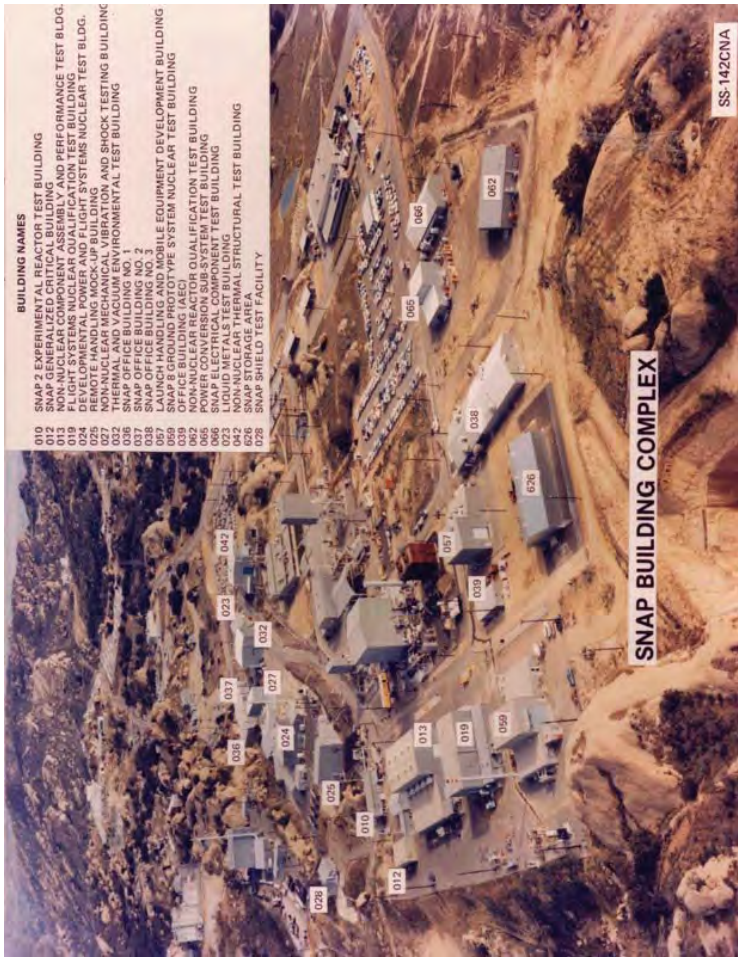
BNA01976758
HDMSp01723174

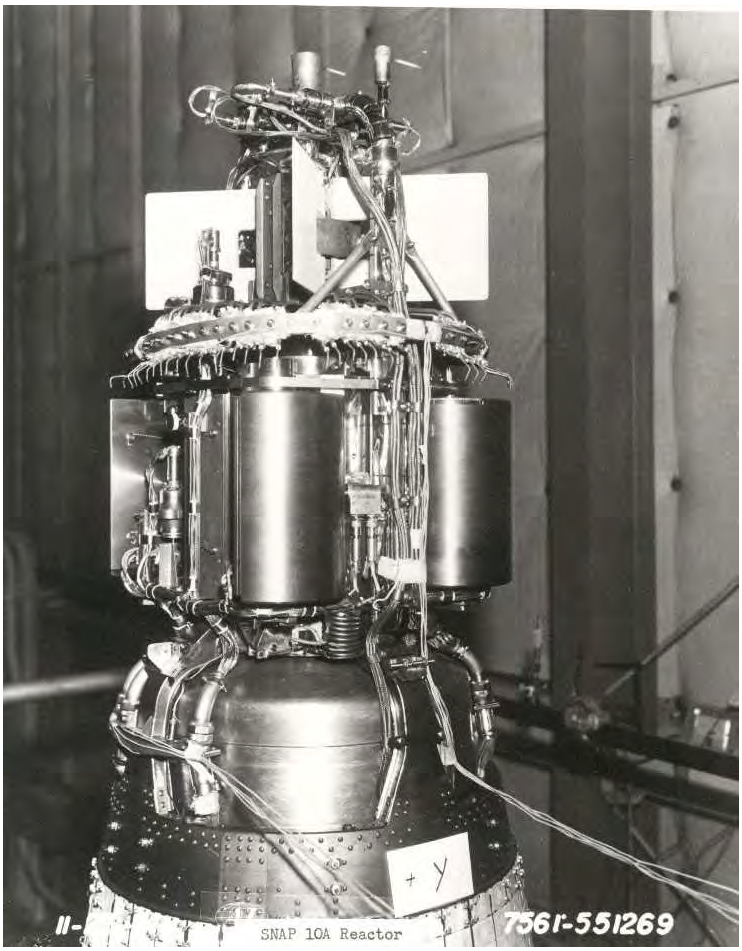
BUILDING 4038



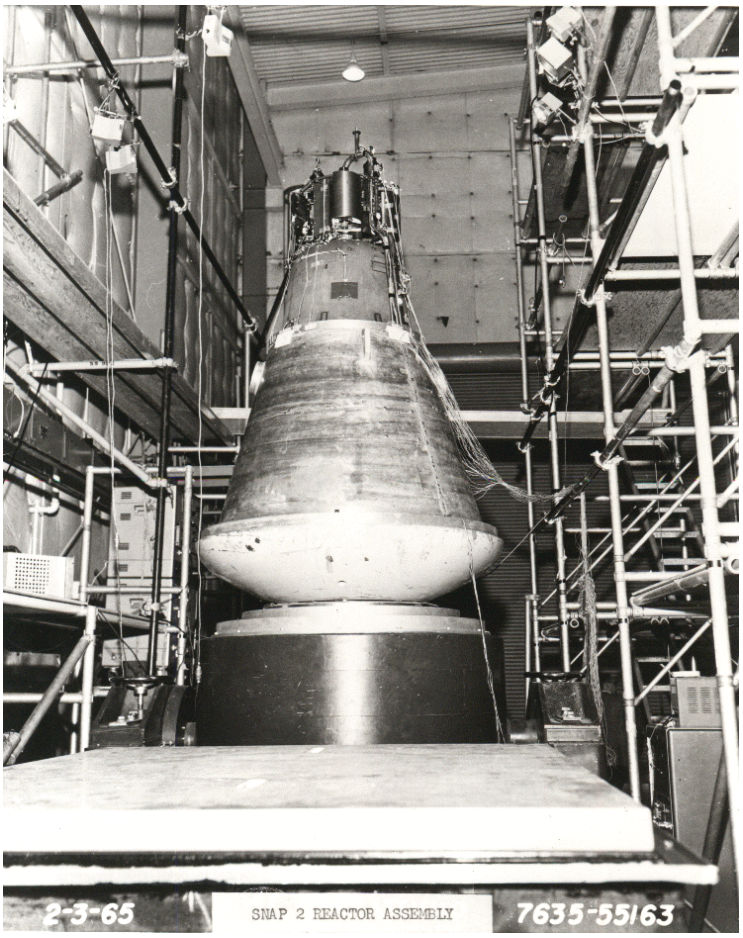


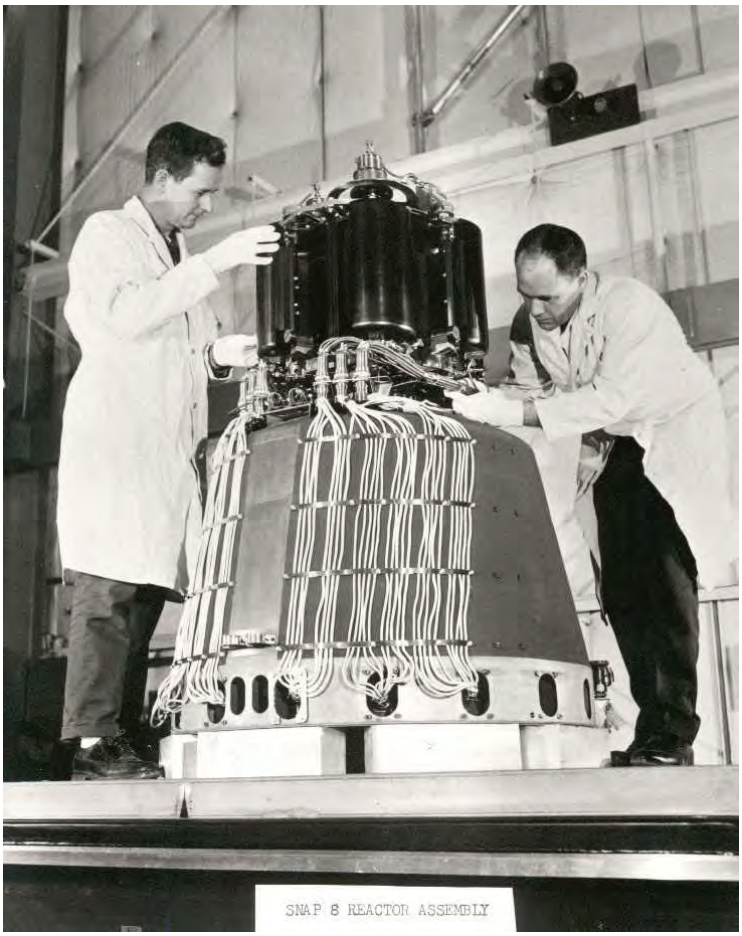
BUILDING 4038

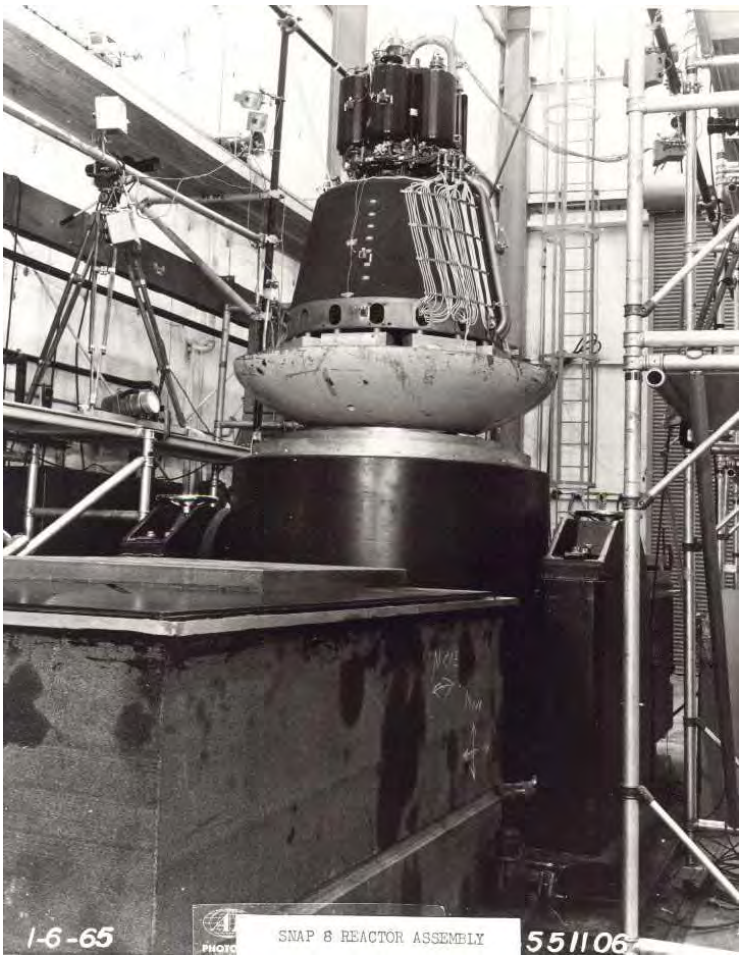


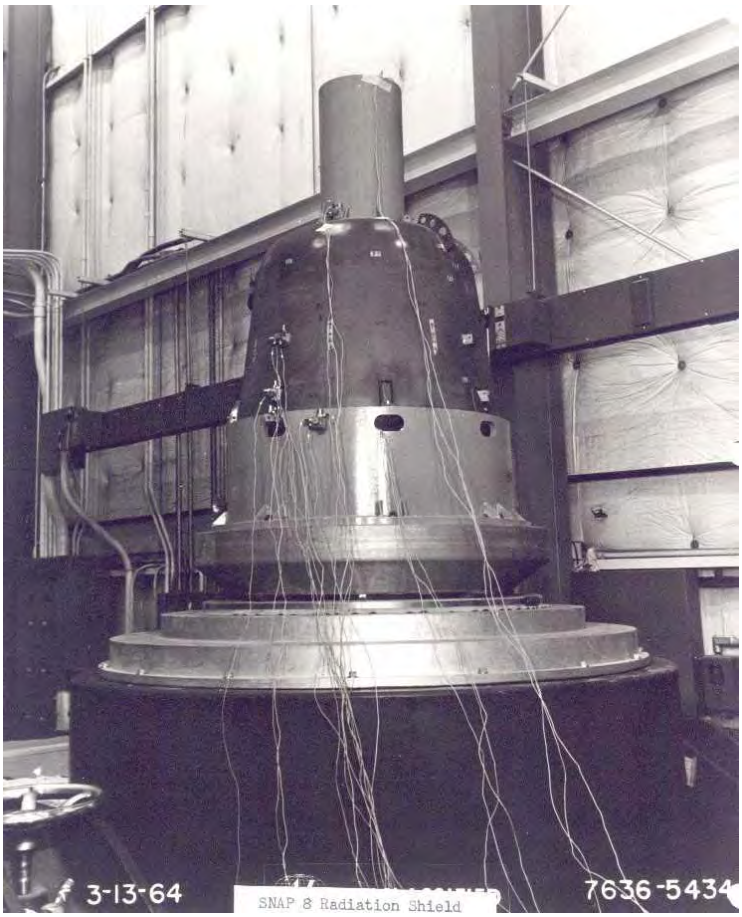


BUILDING 4038

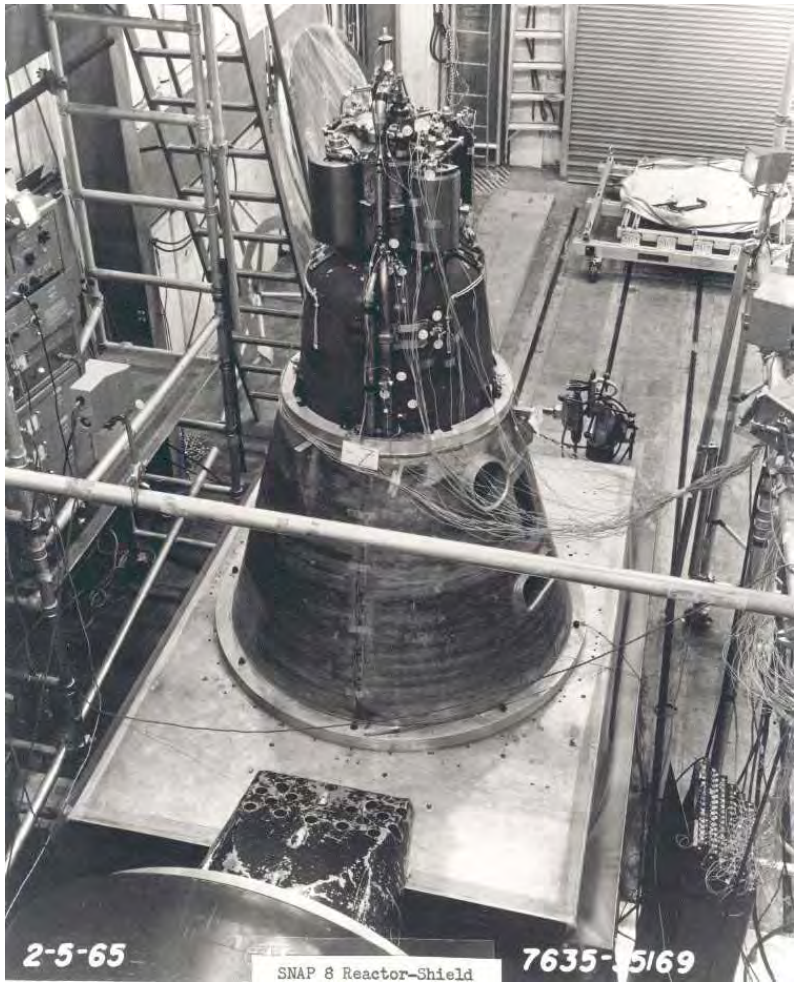


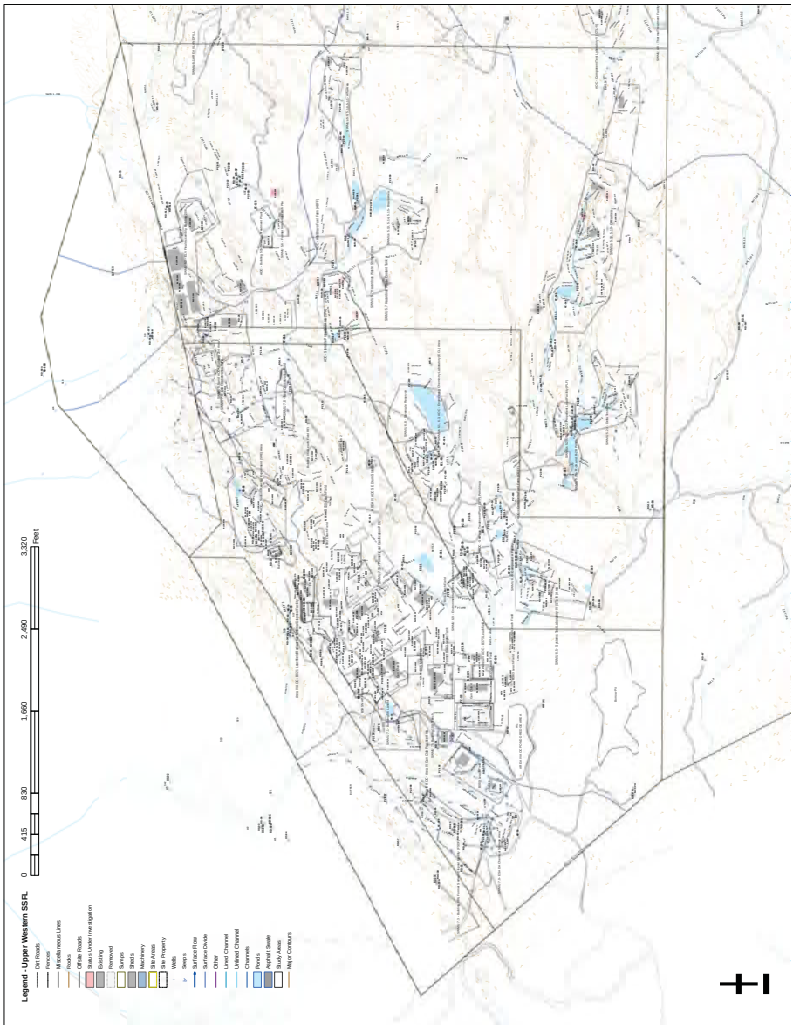






BUILDING 4038





BUILDING 4039

BUILDING 4039

DOE AREA IV BUILDINGS

BUILDING NO.	NAME	MANAGER	STATUS
012E	ETEC X-RAY FACILITY	GAYLORD	INACTIVE
013E	THERMAL TRANSIENT FACILITY	GERRITSEN	ACTIVE
014E	SODIUM STORAGE	GERRITSEN	INACTIVE STANDBY
019E	ETEC COMPUTER CENTER/CONSTRUCTION STAGING	JETTER/ZWENG	ACTIVE
021	R/A WASTE DECONTAMINATION	HORTON	INACTIVE STANDBY
022	R/A VAULT STORAGE	HORTON	INACTIVE STANDBY
023	LIQUID METALS CHEMISTRY	GAY	ACTIVE
024	DEVELOPMENT TEST BLDG.	GERRITSEN	INACTIVE STANDBY
025E	SCTI MAIN. SHOP & STORAGE	MOORE	ACTIVE
026E	SCTL CONTROL CENTER	DEBEAR	INACTIVE STANDBY
027E	LEASED TO RKD FOR WELD SHOP	GAYLORD	ACTIVE
029E	HAZARDOUS WASTE STORAGE	GERRITSEN	ACTIVE
030E	TRAFFIC & WAREHOUSING-LEASED TO ROCKETDYNE	GAYLORD	ACTIVE
032E	LMDL-1	DEBEAR	INACTIVE STANDBY
034	RMDF ENGINEERING OFFICE	HORTON	ACTIVE
036E	OFFICE BLDG. LEASED TO RKD	GAYLORD	ACTIVE
038E	ETEC HEADQUARTERS/DOE SITE OFFICE	GAYLORD	ACTIVE
039E	OFFICE BLDG.	GAYLORD	INACTIVE
041	EQUIPMENT STORAGE	GERRITSEN	ACTIVE
042	LMFBR DEV. TESTING	GAY	INACTIVE STANDBY
044	RMDF AP OFFICE	HORTON	ACTIVE
049E	POU CONTROL CENTER	GAY	INACTIVE
057E	ETEC GENERAL TEST	GERRITSEN	INACTIVE
059E	LARGE LEAK TEST RIG	GERRITSEN	ACTIVE
062E	INSTRUMENTATION LAB.	WARGO	ACTIVE
064	NUCLEAR MATERIAL STORAGE	HORTON	INACTIVE STANDBY
065E	ETEC CHEMISTRY LAB.	JETTER	ACTIVE
066E	INSTRUMENTATION LAB.	WARGO	ACTIVE
075	CONTAMINATED EQUIPMENT STORAGE	HORTON	ACTIVE
133E	SODIUM BURN FACILITY	GERRITSEN	ACTIVE
228E	POWER PAK	MOORE	ACTIVE STANDBY
226E	SCTL MG BLDG.	DEBEAR	INACTIVE STANDBY
320E	FUEL OIL PUMP BLDG.	MOORE	INACTIVE
355E	SCTI CONTROL CENTER	MOORE	ACTIVE
356E	SODIUM COMPONENT TEST INSTALLATION	MOORE	ACTIVE STANDBY
357E	SCTI SUPPLY STORAGE	MOORE	INACTIVE STANDBY
358E	SCTL SUPPORT BLDG.	DEBEAR	INACTIVE
360E	CHEMICAL STORAGE BLDG.	MOORE	ACTIVE
361E	HAS MAT'L STORAGE	MOORE	ACTIVE STANDBY
392E	SCTI ELECTRICAL EQUIPMENT	MOORE	INACTIVE
459E	UNINTERRUPTIBLE POWER SUPPLY	GERRITSEN	INACTIVE
461E	MOTOR GENERATOR BLDG.	DEBEAR	INACTIVE STANDBY
462E	SODIUM PUMP TEST FACILITY	DEBEAR	INACTIVE STANDBY
463E	COMPONENTS HANDLING & CLEANING	GERRITSEN	ACTIVE STANDBY
473E	HYDRAULIC TEST INSTRUMENTATION	GERRITSEN	INACTIVE
482E	ENGINEERING OFFICE LEASED TO ROCKETDYNE	GAYLORD	PARTIAL ACTIVE
483E	ENGINEERING OFFICE	GAYLORD	INACTIVE
484E	RESTROOM FACILITY	GAYLORD	ACTIVE
485E	ENGINEERING OFFICE,	GAYLORD	INACTIVE
486E	ENGINEERING OFFICE	GAYLORD	ACTIVE
487E	ENGINEERING OFFICE	JETTER	ACTIVE

Historical Site Assessment of Area IV
Santa Susana Field Laboratory
Ventura County, California

Volume 2 – Area IV Site Summaries

Prepared by Sapere Consulting, Inc. and
The Boeing Company for the Department of Energy
Under Contract DE-AC03-99SF21530

May 2005

BUILDING 4039

United States Environmental Protection Agency

Environmental Sciences Division
P.O. Box 93478
Las Vegas, NV 89193-3478

TS-PIC-20909963S/21009965S
March 2010

Research and Development

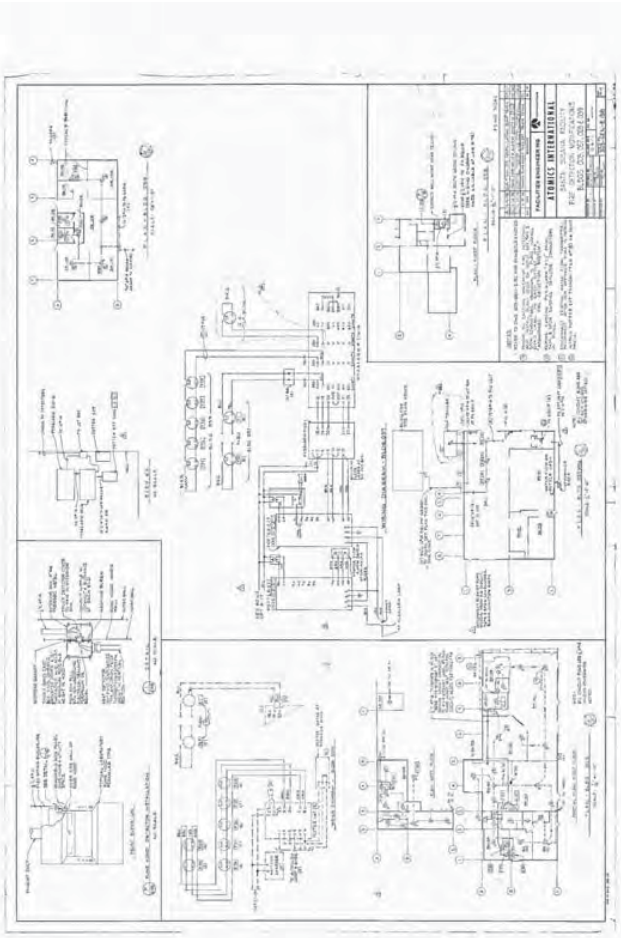
EPA

AERIAL PHOTOGRAPHIC ANALYSIS OF SANTA SUSANA FIELD LABORATORY - AREA IV

Ventura County, California

Volume 1 & 2

EPA Region 9



HDMSe00459653

The Boeing Company
Rocketdyne Propulsion & Power
6633 Canoga Avenue
P.O. Box 7922
Canoga Park, CA 91309-7922

BOEING

May 15, 2003
In reply refer to 2003RC01936

Ms. Jeri Simmons
Director of Contract Acquisition
and Property
U.S. Department of Energy
Oakland Operations Office
1301 Clay Street, 700 N
Oakland, CA 94613-5208

Subject: Contract DE-AC03-99SF21530, Notification of GFY03 Milestone Completion, "Demolish Buildings 4032, 4039 and 4042", MS06-03.

Dear Ms. Simmons:

This letter and the supporting photographs are the documentation for the completion of the GFY03 Performance Fee Environmental Milestone, Demolish Buildings 4032, 4039 and 4042.

Any questions should be referred to Sandy Samuels at (818) 586-5635 or the undersigned at (818) 586-5283.

Sincerely,

Majelle E. Lee
Program Manager
DOE Site Closure

ML:SS:je

Enclosures: 6 photographs before and after (B/4032, B/4039, B/4042)

SHEA-097510

cc w/attach: Mike Lopez, DOE-OAK
Mary Gross, DOE-OAK

RD03-212

HDMSP00014537

BUILDING 4039

American Wrecking, Inc.
Demolition Contractor
State Lic. No. 685192

TRANSMITTAL

Date: May 13, 2003

To: The Boeing Company
Shared Services Group
6633 Canoga Avenue
Canoga Park, CA 91309-7922

Attn.: Dan Trippeda

Sent: U.S. Mail

From: Robert Hall

RE: Demolition of SSFL, Area IV
Buildings B4032, B4042 & B4039

Please find enclosed a copy of the Soil Engineering Testing Report for the above referenced project.

If you have any questions, please feel free to contact me.

2459 Lee Avenue, South El Monte, CA 91733 • (626) 350-8303 • Fax (626) 350-8322

HDMSP00038089

Addendum to Job B (B4039, B4032 and B4042 Statement of Work

Contractor can subcontract the demolition portion of the job and can subcontract trucking of debris, crane portion, etc. If subcontract over 30% of entire job, must supply list of subcontractors. List must be by type of work as in demolition is 50% of work and subcontractor is XYZ Company.

Prime contractor must have their supervisor on site during entire work day (see ETEC PB 02-009 Section 2.3).

Schedule for Job B is 25 calendar days from mobilization.

Debris and demolished material is to be removed from the site on a daily basis and not allowed to accumulate.

Contractor to submit a schedule showing what will be performed each day for the 25 calendar days. This includes demolition and removal offsite, such as number and size of trucks per day leaving site.

Upon notification by Purchasing Agent to mobilize, contractor has 5 working days to be at site to begin demolition work. This means start taking buildings down.

Time between Contract Award and 5 Day Mobilization is to be used for paperwork submittal. Therefore Appendix 1 in Flysheet ETEC PB02-009 is amended as follows:

5 days after Contract Award perform:
Item 5 - 1.4 - Agency Notifications (to be completed prior to Mobilization)
Item 7 - RF034 (II.E) Lead Based Material Work Plan
Item 10 - 2.10 – Lift Plans
Item 12 - 4.3 – Detailed Work Plan
Item 16 - 4.6 – Injury and Illness Prevention Plan
Item 17 - 4.6 – Health and Safety Plan

During 5 day Mobilization Period perform:
Item 2 - 2.4 – List of Service Company Personnel
Item 4 - 4.2 – Training Records
Item 6 - 1.5 – RF034 Certification

Section 4.4 – Scrap Loads is also amended in that **all** truck loads (recyclable and non-recyclable) are to be weighed prior to leaving the SSFL site.

HDMSP00038236

JOB B (B4039, B4032, and B4042)
STATEMENT OF WORK

This Statement Of Work encompasses three distinct buildings.

B4039 - Demolish/ dismantle and remove from SSFL:

- the building structure, all equipment and fixtures
- a transformer
- Remove sewer pipe to logical point of disconnect
- the concrete slab, foundation and footings
- backfill the slab footing area with No. 2 aggregate (1.5 in nominal diameter)

B4032 and B4042 - Demolish/ dismantle and remove from SSFL:

- the building structures, all equipment and fixtures
- two electrical transformers are to be deliver to Contract Coordination
- six wood power poles delivered to Con tract Coordinator and remove footings
- Remove concrete pit west of B4032
- Remove concrete slab foundations and footings
- Removed asphalt aprons around both buildings
- Remove underground electrical duct bank and cabling
- Removed sewer systems for bathrooms to logical points of disconnect
- Contractor to provide clean fill material (Gillibrand unscreened overburden) for excavations, compact and grade to natural contours to prevent or eliminate erosion. Soils engineer to verify compaction to specification.

Drawings given out at 3/6/03 job walk meeting:

B/4032:

303-32-S-1 Foundation Plant

303-32-9 Pit for Sodium Vessel

303-32-S-10 Pit Details

B/4042:

303-42-C1 Plot Plan

303-42-S1 Foundation Plan

303-42-E3 Substation 742A Plan

Attached and made a part hereof: Flysheet ETEC PB 02-009, dated 3/3/03.

HDMSP00038237

WORK PLAN

DEMOLITION
OF
BUILDINGS B4039, B4032, B4042

SSFL, AREA IV

FOR

THE BOEING COMPANY

PREPARED BY
AMERICAN WRECKING INC.

AMERICAN WRECKING INC.
BOEING BID NO. ITB-03-507930

HDMSP00038249

BUILDING 4039

27-Mar-2003 12:06pm From-American Wrecking,Inc. 626 350 8322 T-437 P.000/009 F-851

WORK PLAN

DEMOLITION
OF
BUILDINGS B4039, B4032, B4042

SSFL, AREA IV

FOR

THE BOEING COMPANY

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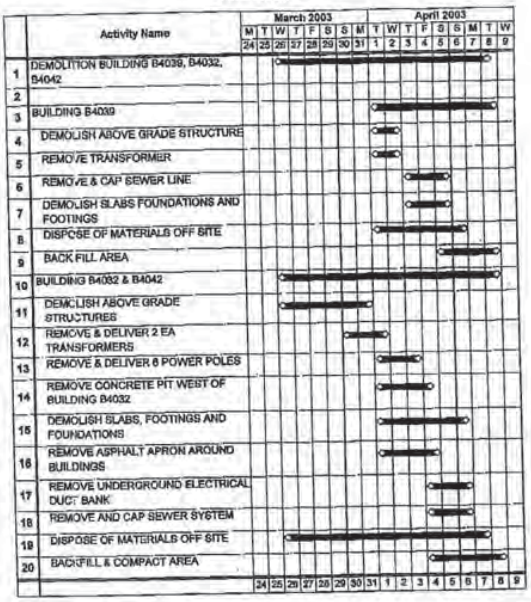
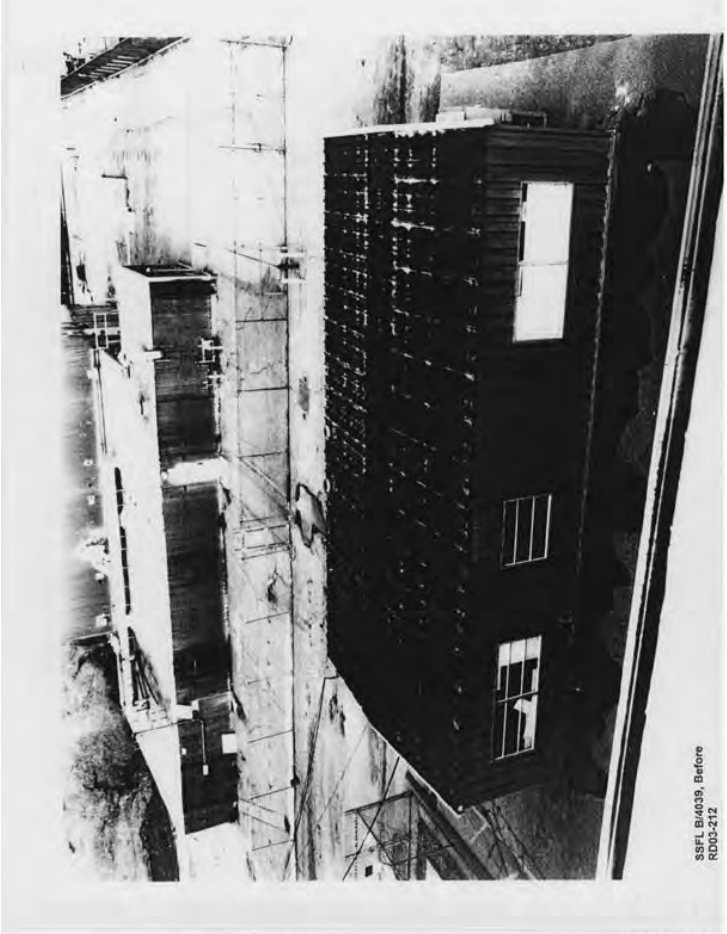
THE BOEING COMPANY ITB NO. 03-507930 SSFL AREA IV
BUILDINGS B4039, B4032, B4042
DEMOLITION



AMERICAN WRECKING INC.
2459 LEE AVE
SOUTH EL MONTE
CALIFORNIA

HDMSP00038257



SSFL B/4039, Before
RD03-212

HDMSP00106908

SSFL B/4039, After
RD03-212

HDMSP00106909

BUILDING 4039

BOEING

The Boeing Company
Rocketdyne Division

Rocketdyne's Space Group
6633 Canoga Ave
P.O. Box 7922
Canoga Park, CA 91309-7922

SHEA-096994

Date: 2/28/03 No. SHEA-096994

To: All SSFL B/4032 Employees From: Carroll W. Taylor
Safety, Health & Environmental Affairs
D/543-055, T487
x6-7257

Subject: Asbestos Air Monitoring Results-B/4039

Survey Summary

Air monitoring results indicate that the airborne asbestos fiber levels measured after the removal of 961sf of asbestos containing floor tile and mastic, were below the EPA Recommended Clearance Level (RCL) and the Cal/OSHA Permissible Exposure Limit (PEL). The less than (<) results in the table below indicate levels that were below the limit of detection.

Introduction

On February 27, 2003, air monitoring was conducted inside and outside the area. Zenco Engineering, a licensed and State-certified asbestos abatement contractor, removed approximately 961 square feet of asbestos containing floor tile and mastic, to support the future demolition activity at the DOE site, Area IV. Asset Environmental, a State-certified asbestos consultant, conducted air monitoring for airborne asbestos in the area. Three air-sampling pumps were located at normal breathing zone height inside the containment and two outside. A minimum of 3000 liters of air was collected on each filter, and the samples were analyzed using an approved NIOSH microscopy method.

Results

Air Sampling Location	Airborne Asbestos Concentration (fibers/cc)
Inside, North	<0.0016
Inside, Center	<0.0016
Inside, South	<0.0016
Outside, Decon area	<0.0015
Outside, West	<0.0015
EPA Recommended Clearance Level (RCL)	0.01
Cal/OSHA Permissible Exposure Limit (PEL)	0.1

Conclusions/Recommendations

Air sample analysis showed that the airborne asbestos fiber levels measured, after completion of the above abatement job, were below both the EPA and Cal/OSHA limits. The final clearance criteria were achieved and the area was cleared for all personnel to re-enter. This notification letter will be posted for one week. If there are any questions, please contact me at extension 6-7257 or pager 595-6802.

Carroll W. Taylor
Safety, Health & Environmental Affairs

SAFETY, HEALTH & ENVIRONMENTAL AFFAIRS CONTROLLED DOCUMENT SHEA-96994

cc:	Paul Shiroma	PA09	Carroll Taylor	T487
	Jerry Tucker	PA09	Nina Mattera	PA81
	Del Aubuchon	T038	Bu[illegible]	[illegible]
	Vic Saba	DB27	D. Trippeda	T038

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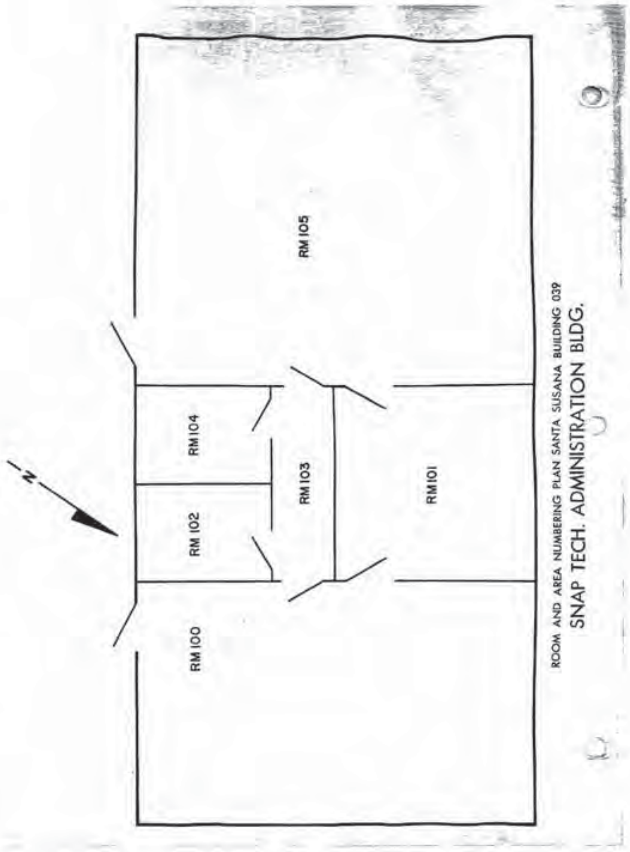


BNA00668322
HDMSP001812424

R.C. Peterson
2.98 pp

August 1, 1969

69LMEC-1013

Mr. A. P. Pollman, Contract Representative
Contract Representative Office
U. S. Atomic Energy Commission
P. O. Box 591
Canoga Park, California 91305

Subject: Pump Bearing Test Facility, LMEC Contract AT(04-3)-700

Reference: CP-69-7169, Pollman to Peterson, June 19, 1969

Dear Mr. Pollman:

In response to the referenced letter, the following information is provided:

1) Enclosure 1, schedule for design and construction of the PBTF
2) Enclosure 2, key personnel for design and construction of the PBTF
3) Enclosure 3, format for the PBTF Monthly Report

The monthly report will be submitted to SEC-CP by the 10th of each month. It will report on costs, budget, and actual progress. The first such report will be submitted for the month of July, 1969.

The schedule reflects LMEC's recommendations on how the project should proceed through the various reviews and approvals. It should be noted that the engineering effort is scheduled on a continuing basis with no interruptions to LMEC's engineering efforts during the RDT review and approval periods. As each engineering phase is completed (conceptual, Title I, and Title II) the next phase is initiated while the reviews are proceeding.

A continuous engineering effort is necessary to:

1) Allow completion of the facility and initial testing in time to utilize test results in the development of FFTF Pumps.

2) Provide continuity of manpower on the project and assure that all knowledge and experience gained in each phase of the engineering effort is directly applied to the next phase.

RECEIVED
AUG 5 1969
R. C. PETERSON

BNA04822059
HDMSp01697078

Acct Bal 75% 08.

June 3, 1969

69LMEC-721

Mr. A. P. Pollman, Contract Representative
Contract Representative Office
U. S. Atomic Energy Commission
P.O. Box 591
Canoga Park, California 91305

Subject: Design Services for Pump Bearing Test Facility

Dear Mr. Pollman:

The Pump Bearing Test Facility will consist primarily of a SNPP sodium pump and barrel assembly modified to accommodate bearing pressure and proximity instrumentation, an existing pump test loop renovated to allow recirculation of sodium, and addition of an auxiliary pumped sodium loop to supply high pressure sodium selectively to the test bearing "pockets." Designing this facility will require highly skilled and experienced engineers, familiar with the existing installation and equipment. This capability does not exist, to LMEC's knowledge, in any one organization outside the LMEC.

It has been determined that the capability can be made available from the existing LMEC staff. It is therefore planned that the design engineering necessary for conversion of the existing facilities to the Pump Bearing Test Facility, including preparation of the construction packages, be accomplished by the LMEC. Construction and modification work will be performed through fixed price, lump sum competitively procured contractor efforts.

Sincerely yours,

Robert W. Dickinson
Division Director
Liquid Metal Engineering Center

RWD:ggg

1449

BNA04822065
HDMSp01697084

BUILDING 4039

[redacted]
[redacted]

Date April 17, 1969

To File

From E. C. Powell
Address 765 AB 17

Phone 1606

Subject LMEC Substation

The current GFY '69 General Plant budget has been realigned to defer the subject EDACTE project to GFY '70.

The schedule for this project would require that approval of the funding be given early in July 1969 in order to be consistent with the current schedule of the SPTF, which may call for start of circuit check-out as early as August 1971 and going hot by February 1972.

If the substation is required at an earlier date for some other test facility, it will be necessary to authorize some pre-engineering work and requests for quotations prior to GFY '70 so that advanced orders could be placed for the long lead time switchgear (REDACTED DACTE.

If preliminary engineering is required before the start of GFY 1970, it will be necessary to resolve the question of one stage or two stage voltage reduction (which is determined by the voltage of the large pump motors).

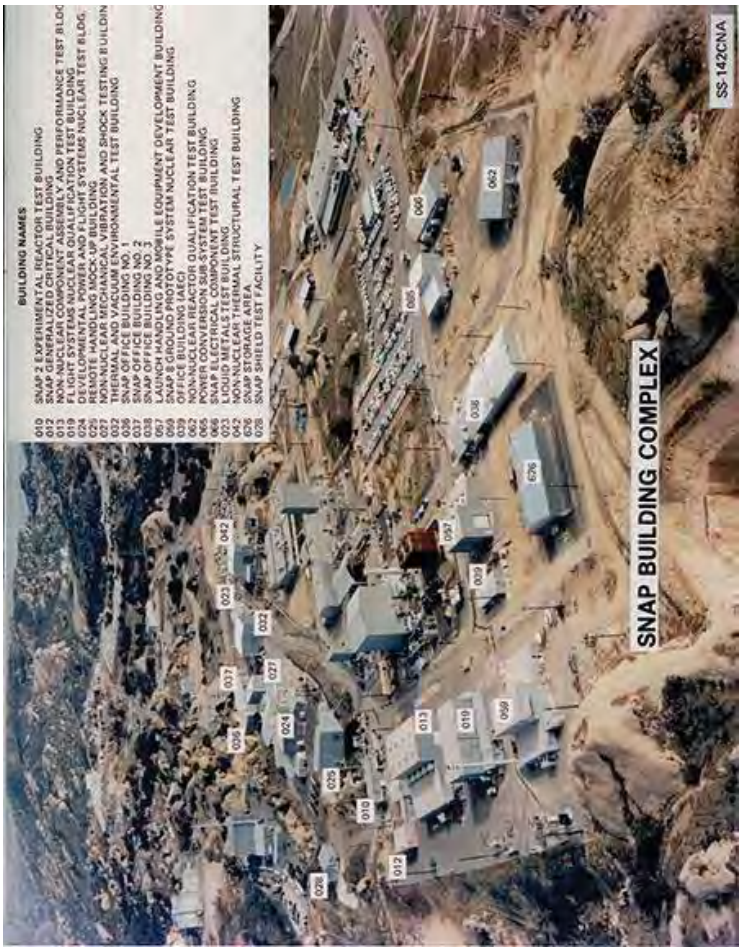
E C Powell
E. C. Powell

Ey

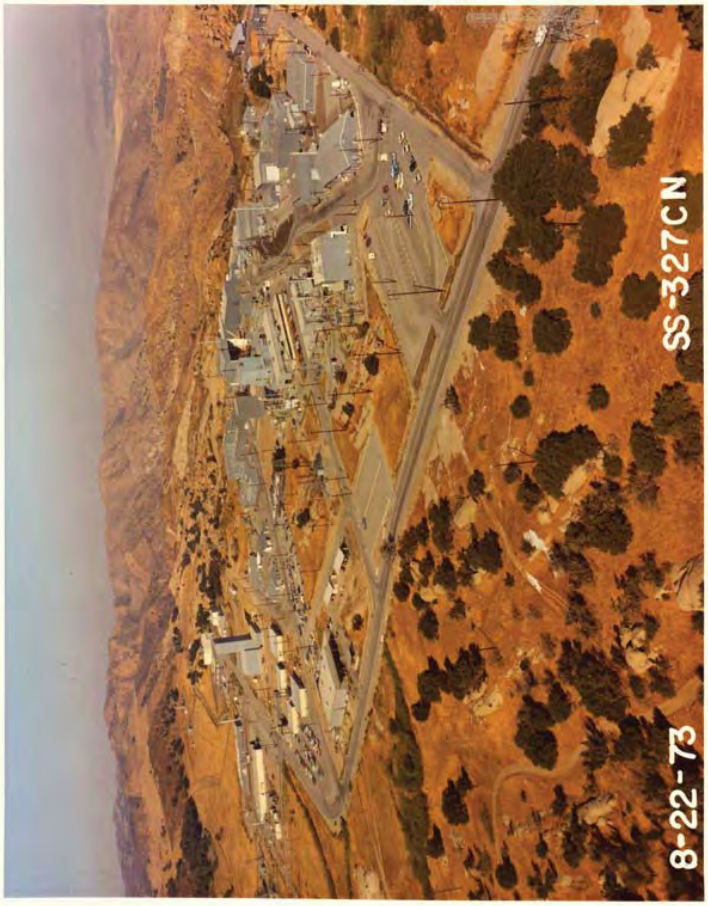
cc: T. O. Brintzenhoff
R. O. Broslow
R. D. McCalla
C. E. Daniel
H. L. Cummings
O. J. Foust
R. W. Hartzler
J. Brindley
R. W. Wisse
S. B. Dietz

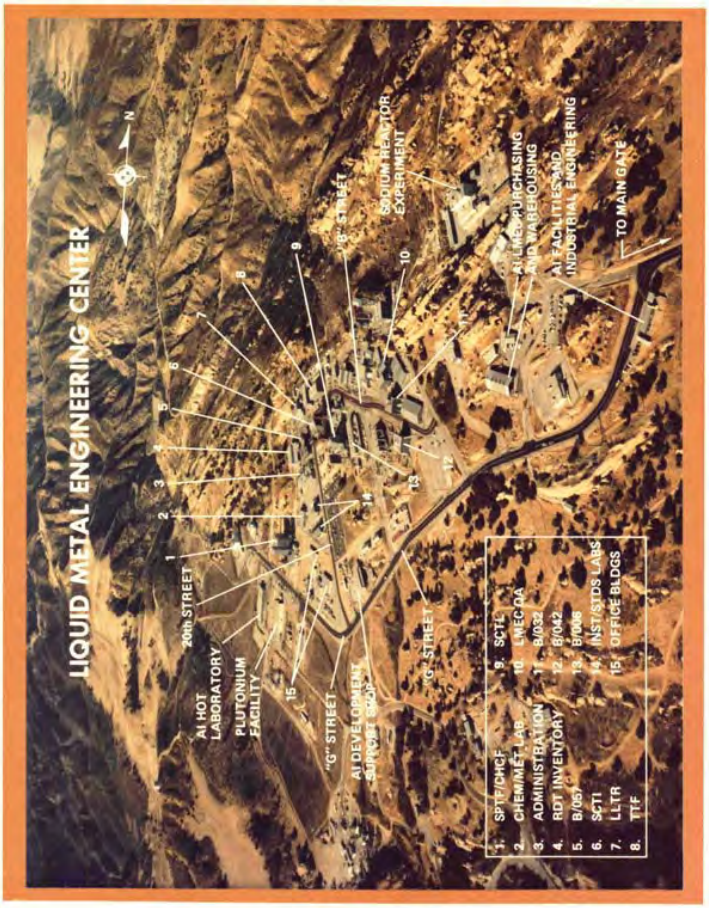
APR 18 1969
PROGRAM ADMINISTRATION

BNA04821270
HDMSp01754845



BUILDING 4039





L M E C

FACILITY DESCRIPTIONS

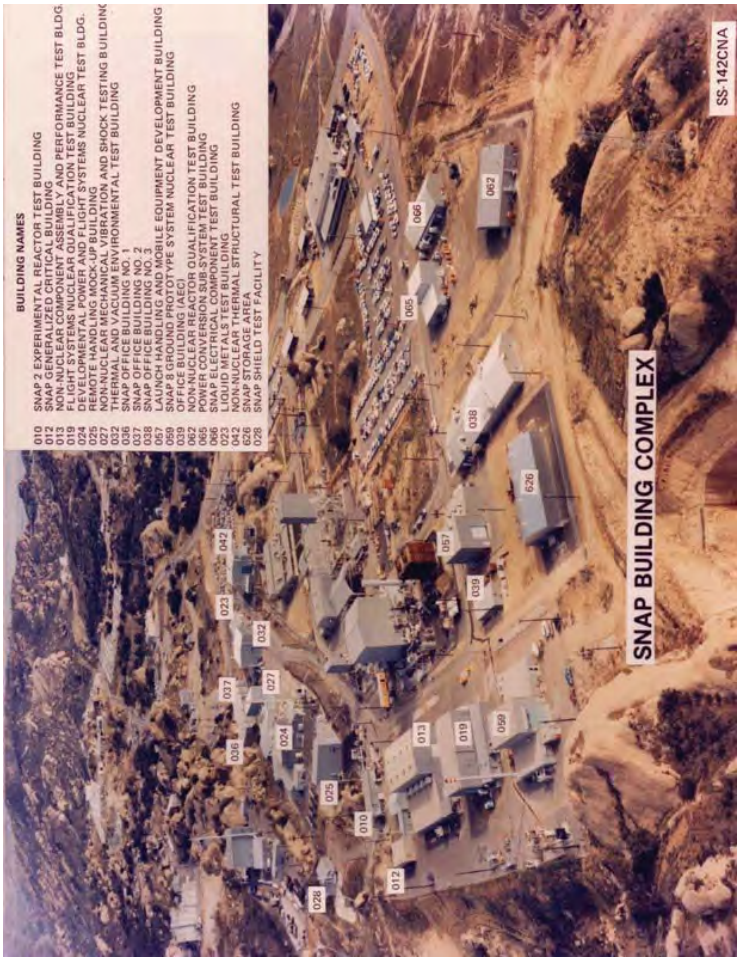
March 1973

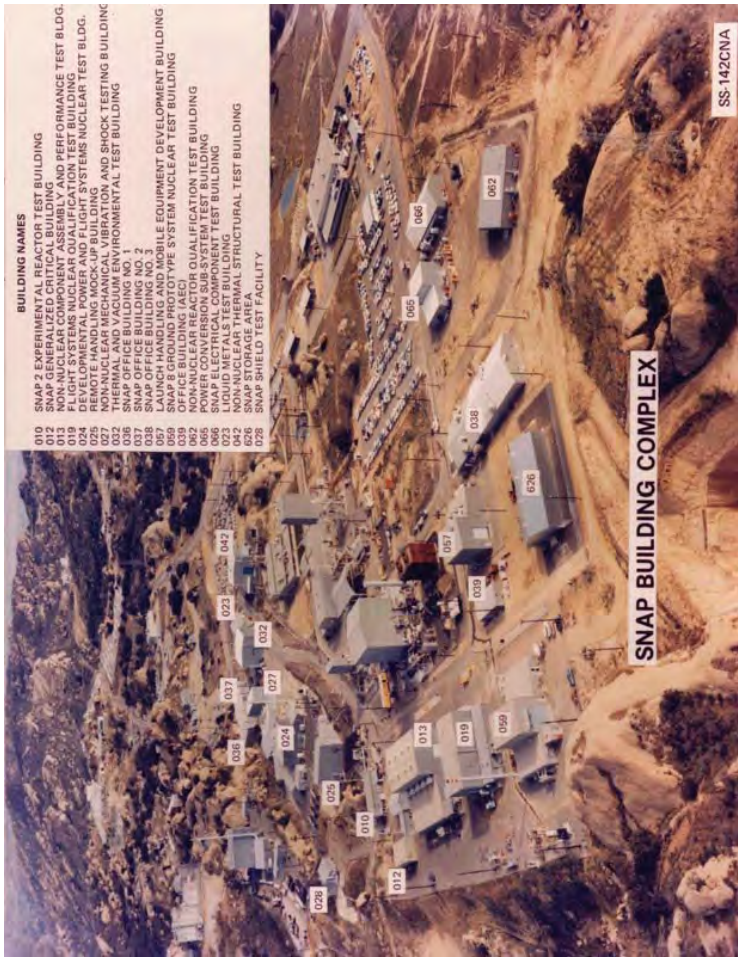
Liquid Metal Engineering Center

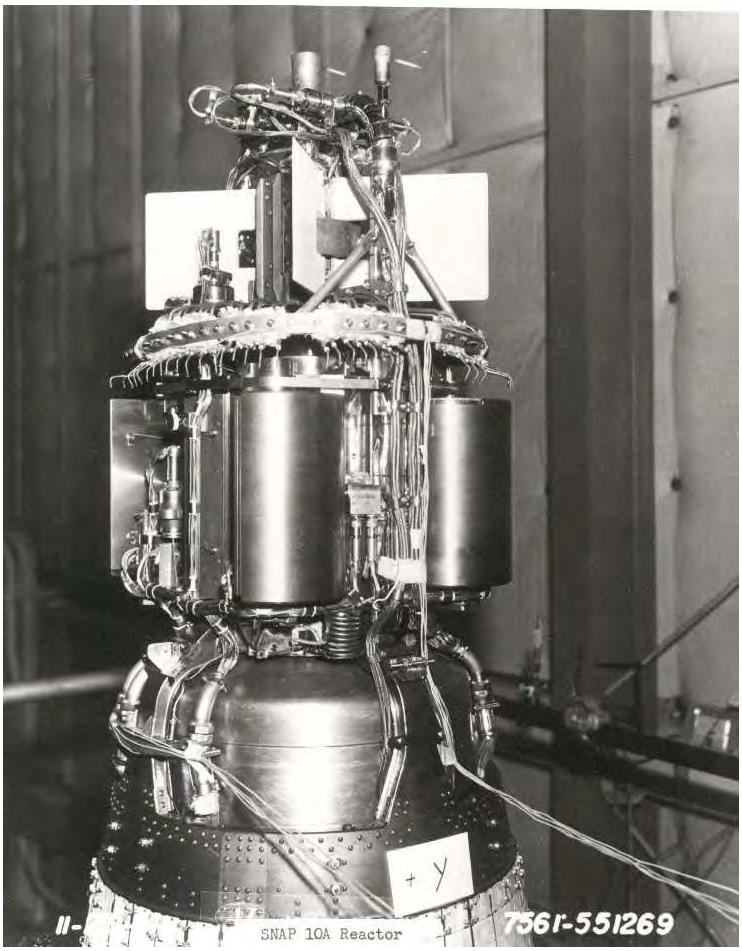
Operated for the U.S. Atomic Energy Commission by Atomics International Division

Rockwell International Corporation

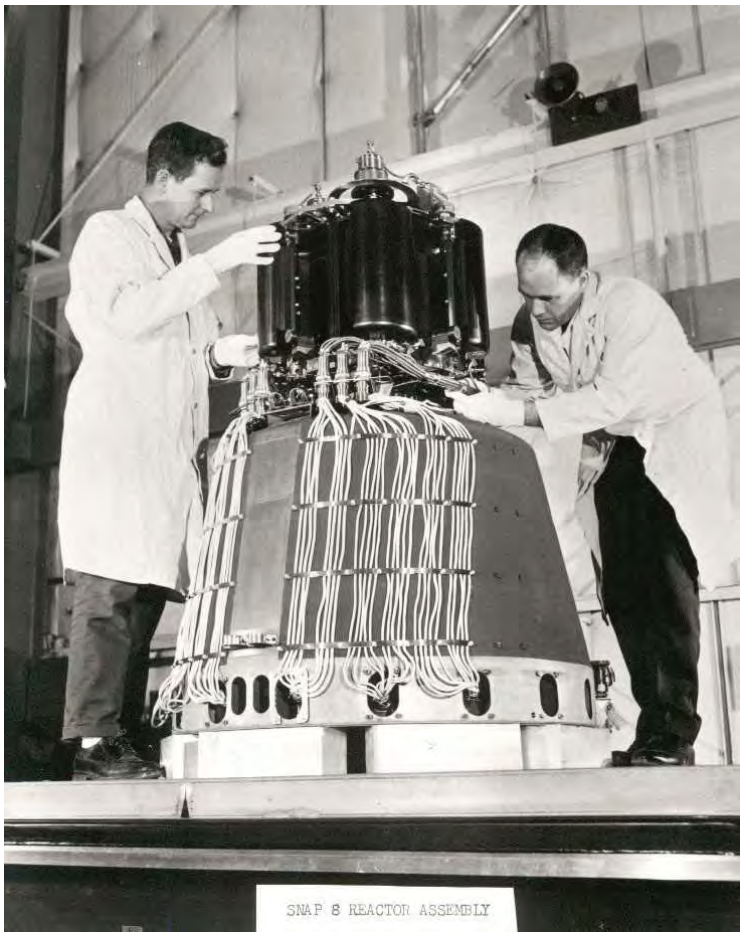
BUILDING 4039

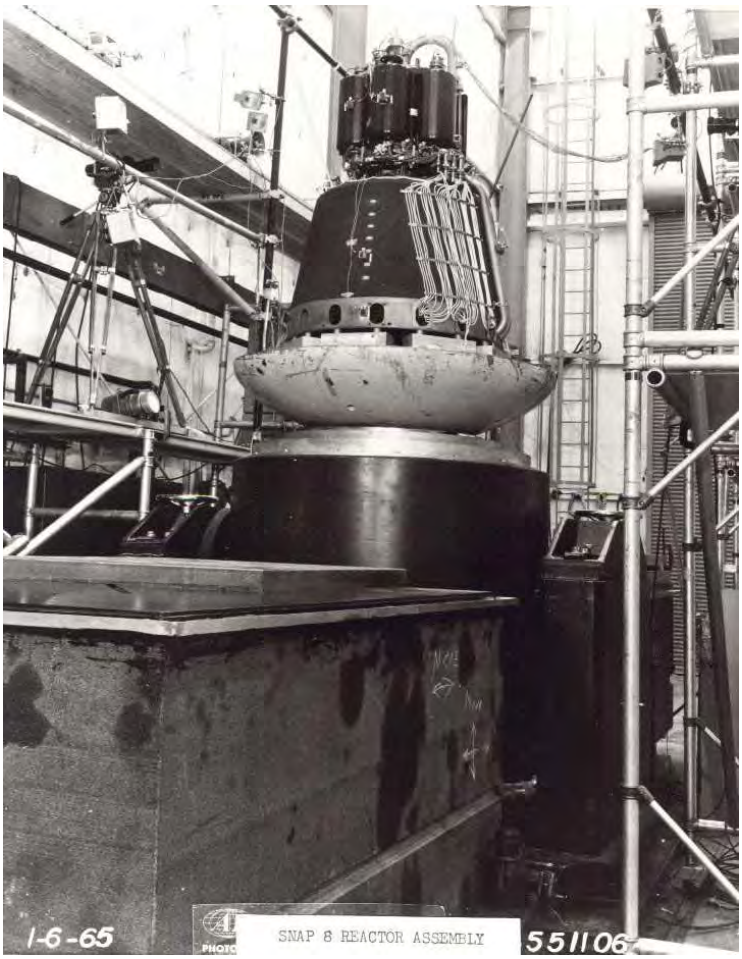


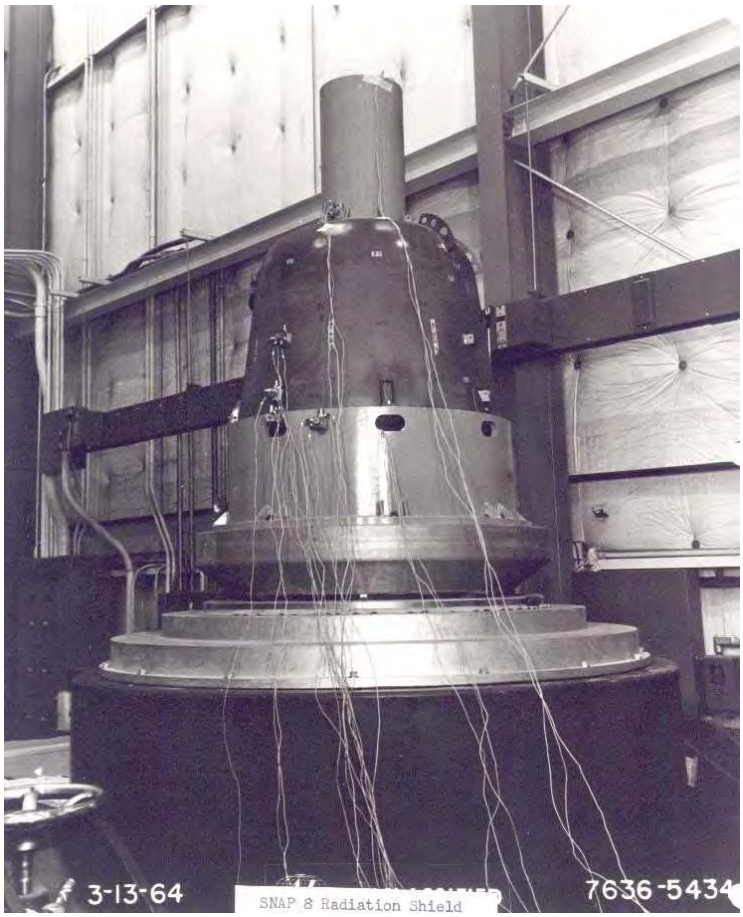




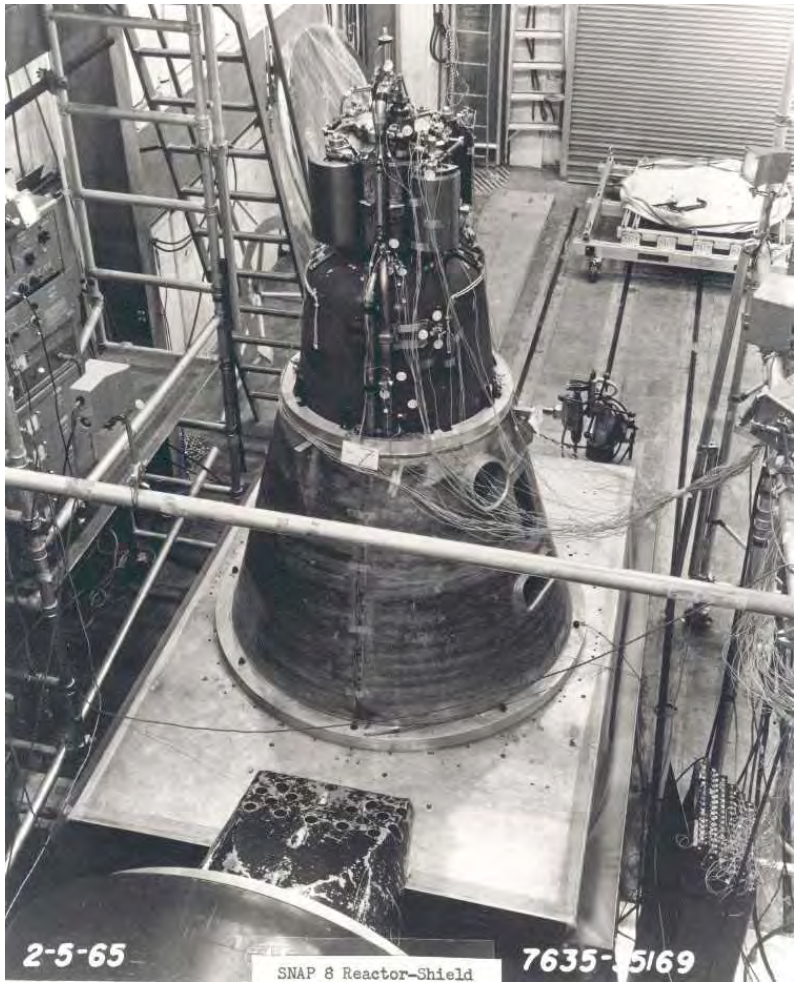
BUILDING 4039

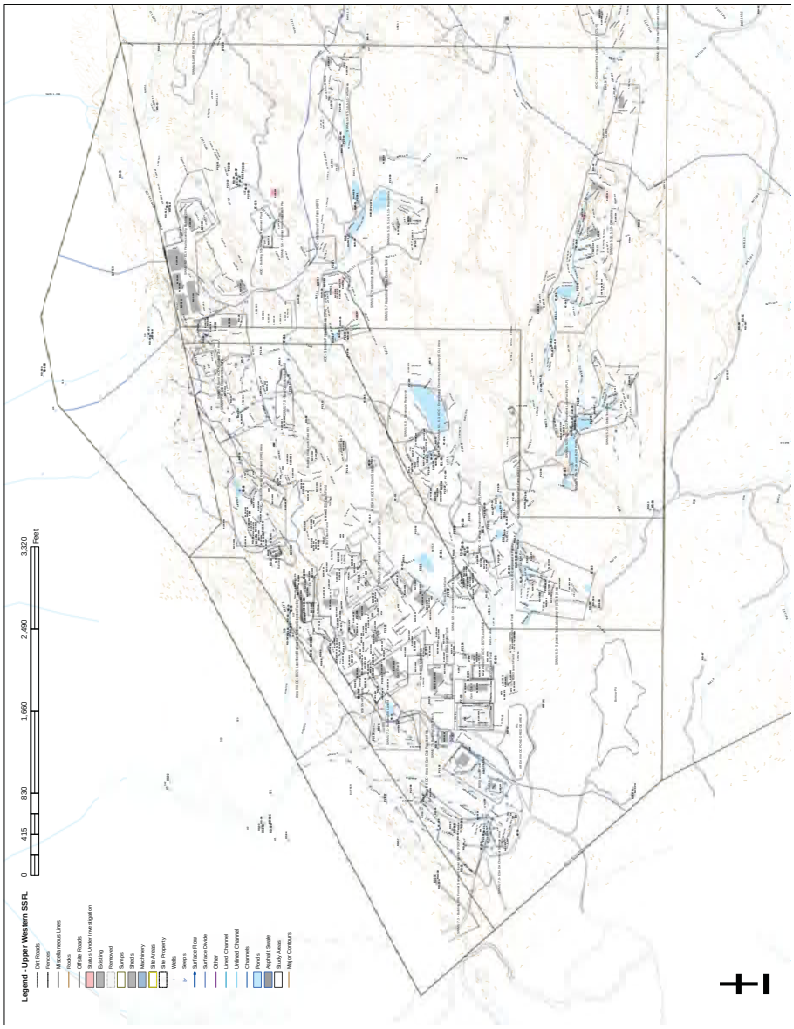






BUILDING 4039





BUILDING 4057

BUILDING 4057

APPLICATION FOR RENEWAL

STATE OF CALIFORNIA
BROAD SCOPE "A"
RADIOACTIVE MATERIALS
LICENSE #0015-19

15 August 2005

THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY

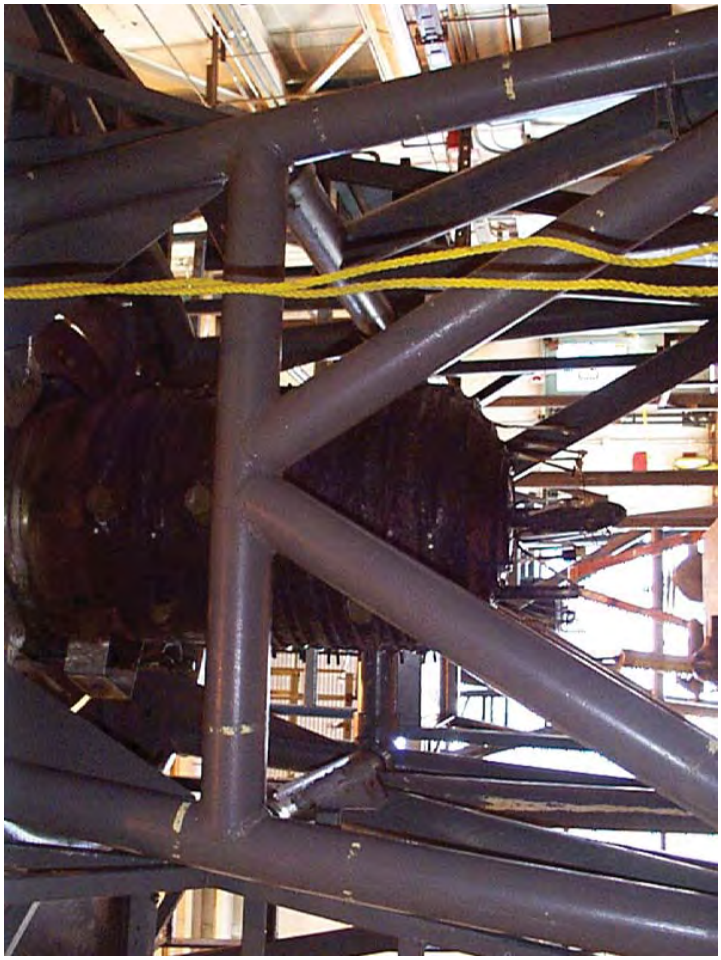
DOE AREA IV BUILDINGS

BUILDING NO.	NAME	MANAGER	STATUS
012E	ETEC X-RAY FACILITY	GAYLORD	INACTIVE
013E	THERMAL TRANSIENT FACILITY	GERRITSEN	ACTIVE
014E	SODIUM STORAGE	GERRITSEN	INACTIVE STANDBY
019E	ETEC COMPUTER CENTER/CONSTRUCTION STAGING	JETTER/ZWENG	ACTIVE
021	R/A WASTE DECONTAMINATION	HORTON	INACTIVE STANDBY
022	R/A VAULT STORAGE	HORTON	INACTIVE STANDBY
023	LIQUID METALS CHEMISTRY	GAY	ACTIVE
024	DEVELOPMENT TEST BLDG.	GERRITSEN	INACTIVE STANDBY
025E	SCTI MAIN. SHOP & STORAGE	MOORE	ACTIVE
026E	SCTL CONTROL CENTER	DEBEAR	INACTIVE STANDBY
027E	LEASED TO RKD FOR WELD SHOP	GAYLORD	ACTIVE
029E	HAZARDOUS WASTE STORAGE	GERRITSEN	ACTIVE
030E	TRAFFIC & WAREHOUSING-LEASED TO ROCKETDYNE	GAYLORD	ACTIVE
032E	LMDL-1	DEBEAR	INACTIVE STANDBY
034	RMDF ENGINEERING OFFICE	HORTON	ACTIVE
036E	OFFICE BLDG. LEASED TO RKD	GAYLORD	ACTIVE
038E	ETEC HEADQUARTERS/DOE SITE OFFICE	GAYLORD	ACTIVE
039E	OFFICE BLDG.	GAYLORD	INACTIVE
041	EQUIPMENT STORAGE	GERRITSEN	ACTIVE
042	LMFBR DEV. TESTING	GAY	INACTIVE STANDBY
044	RMDF AP OFFICE	HORTON	ACTIVE
049E	POU CONTROL CENTER	GAY	INACTIVE
057E	ETEC GENERAL TEST	GERRITSEN	INACTIVE
059E	LARGE LEAK TEST RIG	GERRITSEN	ACTIVE
062E	INSTRUMENTATION LAB.	WARGO	ACTIVE
064	NUCLEAR MATERIAL STORAGE	HORTON	INACTIVE STANDBY
065E	ETEC CHEMISTRY LAB.	JETTER	ACTIVE
066E	INSTRUMENTATION LAB.	WARGO	ACTIVE
075	CONTAMINATED EQUIPMENT STORAGE	HORTON	ACTIVE
133E	SODIUM BURN FACILITY	GERRITSEN	ACTIVE
228E	POWER PAK	MOORE	ACTIVE STANDBY
226E	SCTL MG BLDG.	DEBEAR	INACTIVE STANDBY
320E	FUEL OIL PUMP BLDG.	MOORE	INACTIVE
355E	SCTI CONTROL CENTER	MOORE	ACTIVE
356E	SODIUM COMPONENT TEST INSTALLATION	MOORE	ACTIVE STANDBY
357E	SCTI SUPPLY STORAGE	MOORE	INACTIVE STANDBY
358E	SCTL SUPPORT BLDG.	DEBEAR	INACTIVE
360E	CHEMICAL STORAGE BLDG.	MOORE	ACTIVE
361E	HAS MAT'L STORAGE	MOORE	ACTIVE STANDBY
392E	SCTI ELECTRICAL EQUIPMENT	MOORE	INACTIVE
459E	UNINTERRUPTIBLE POWER SUPPLY	GERRITSEN	INACTIVE
461E	MOTOR GENERATOR BLDG.	DEBEAR	INACTIVE STANDBY
462E	SODIUM PUMP TEST FACILITY	DEBEAR	INACTIVE STANDBY
463E	COMPONENTS HANDLING & CLEANING	GERRITSEN	ACTIVE STANDBY
473E	HYDRAULIC TEST INSTRUMENTATION	GERRITSEN	INACTIVE
482E	ENGINEERING OFFICE LEASED TO ROCKETDYNE	GAYLORD	PARTIAL ACTIVE
483E	ENGINEERING OFFICE	GAYLORD	INACTIVE
484E	RESTROOM FACILITY	GAYLORD	ACTIVE
485E	ENGINEERING OFFICE,	GAYLORD	INACTIVE
486E	ENGINEERING OFFICE	GAYLORD	ACTIVE
487E	ENGINEERING OFFICE	JETTER	ACTIVE

BUILDING 4057

BUILDING 4057

BUILDING 4057



BUILDING 4057

Historical Site Assessment of Area IV
Santa Susana Field Laboratory
Ventura County, California

Volume 2 – Area IV Site Summaries

Prepared by Sapere Consulting, Inc. and
The Boeing Company for the Department of Energy
Under Contract DE-AC03-99SF21530

May 2005

38D

RI/RD93-125
Revision A

ROCKETDYNE DIVISION
ANNUAL SITE
ENVIRONMENTAL REPORT
SANTA SUSANA FIELD LABORATORY
AND DE SOTO SITES
1992

Rockwell International
Rocketdyne Division

BUILDING 4057

United States Environmental Protection Agency

Environmental Sciences Division
P.O. Box 93478
Las Vegas, NV 89193-3478

TS-PIC-20909963S/21009965S
March 2010

Research and Development

EPA

AERIAL PHOTOGRAPHIC ANALYSIS OF SANTA SUSANA FIELD LABORATORY - AREA IV

Ventura County, California

Volume 1 & 2

EPA Region 9

Internal Letter

Rockwell International

Date: March 8, 1994

No: 94-025-SS-10

TO: (Name, Organization, Internal Address)
- E. B. Baumeister
- Rocketdyne
- D/635-118, 055-FA74

FROM: (Name, Organization, Internal Address, Phone)
- R. D. Meyer
- ETEC
- D/025, T334/T038
- X5069/5400

Subject: Recommendation on NaK Systems in Building 057

Introduction

Per R. D. Meyer's request, S. Supola assessed the status and recommended disposition of the two NaK systems presently stored in building 057. One system is a NaK heat transfer loop that was a subscale test article for the Space Station Power Generation System IR&D Program. The other system is the NaK fill cart that was used for filling the NaK loop.

Political/Regulatory Issues

Both systems belong to Rocketdyne (under former Energy Systems Group division activities) and are presently occupying space in a government (DOE) facility. These systems need to be moved to a Rockwell facility or formal permission to store them in a government-owned facility must be obtained from DOE.

If there are no planned uses for these systems, then RCRA Regulations may be invoked and Rocketdyne Environmental Protection Department should be contacted for further details and disposition requirements.

Physical Status of Systems

The NaK loading cart supply tank is estimated to contain 10 to 15 gallons of NaK (per conversation with Al Stewart). All the valves in the system are closed and the tank pressure gauge, which is uncalibrated, reads 1.0 psig.

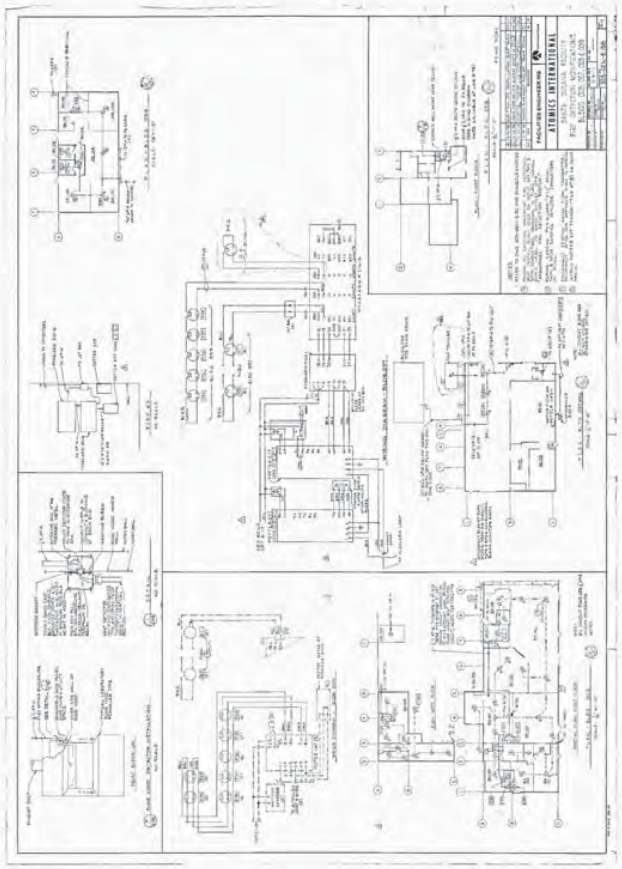
The NaK test article envelope dimensions are 42 inches wide by 42 inches high by 15.5 feet long. The NaK loop is estimated to contain 120 to 150 pounds of NaK (per conversation with Al Stewart and Lou Haba). The thermal storage unit is a tube-in-shell heat exchanger containing 117 separate 1-inch diameter by 48 inches long sealed tubes, each containing about 1.5 pounds of a salt compound (LiOH). All the tubing fittings have been plugged and the two valves in the system are closed and the valve handles have been removed. The loop was secured in this manner with a cover gas, but there are no pressure gauges in the system to verify a positive pressure still exists. Schematics and illustrations of the two NaK systems are available upon request.

Based on visual observation and historical information there is no evidence that any oxidation of the NaK has occurred. The lack of surveillance and adequate instrumentation however places some doubt as to whether any air has

Form 131-R Rev. 3-76

BNA05118101

HDMSe00210850



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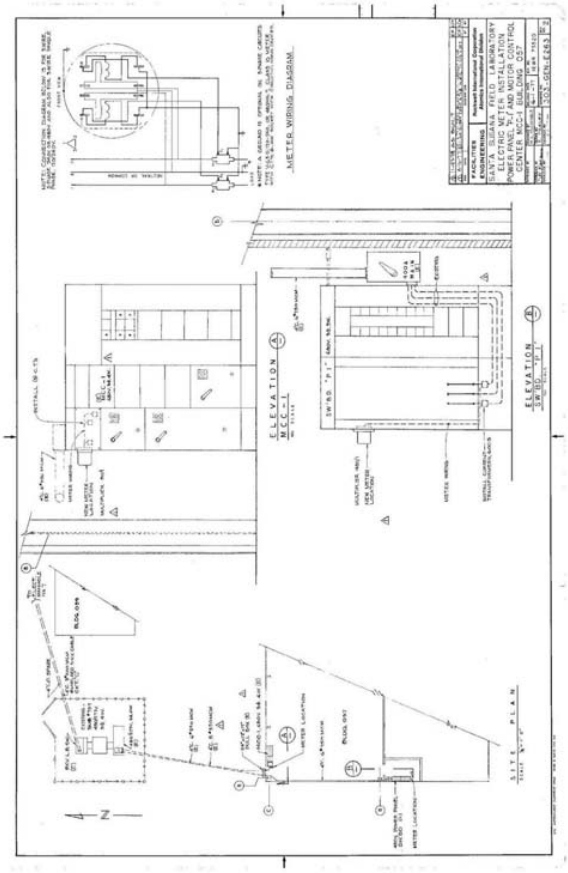

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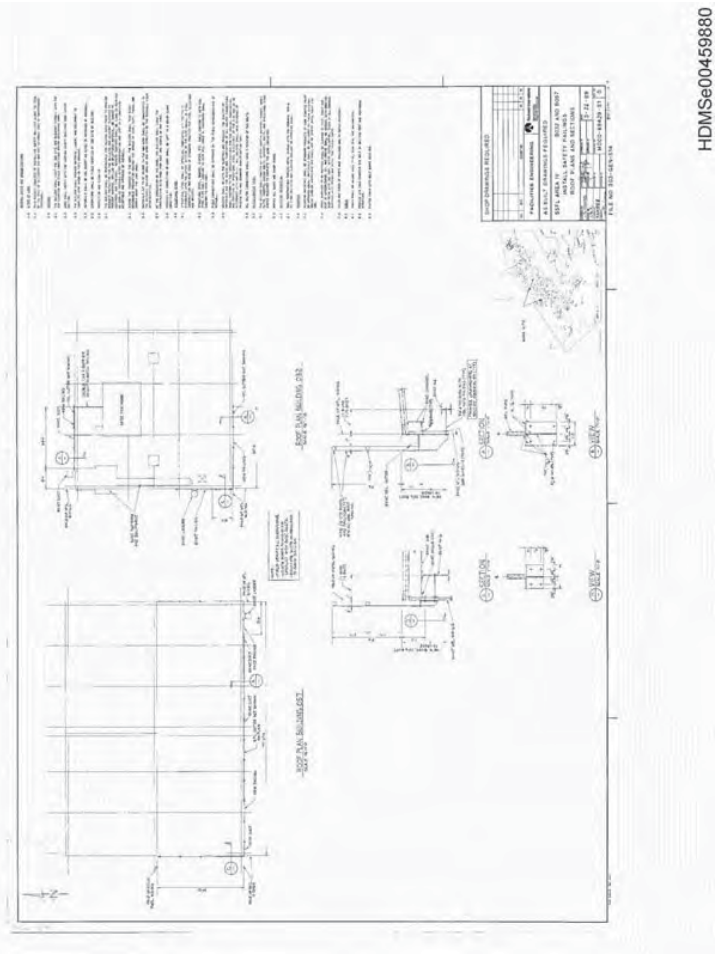
BUILDING 4057



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SHEA - 074093

BOEING

The Boeing Company
Rocketdyne Propulsion & Power

6633 Canoga Ave.
P.O. Box 7922
Canoga Park, CA 91309-7922

Date: 05/05/99 No.: SHEA-074093

To: All ETEC Employees From: Carroll W. Taylor
Safety, Health & Environmental Affairs
D/392-055, T-487
X-7257

Subject: Asbestos Air Clearance Monitoring - B/4057

Survey Summary

Monitoring results indicate that the airborne exposure was below EPA's Recommended Release **"Clearance" Level** and Cal OSHA Permissible Exposure Limit **(PEL)** for asbestos at the completion of the removal of asbestos containing Calcium Silicate insulation inside Building 4057 LMDL high bay from the Sodium Loop piping and tanks.

Introduction

On May 1, 1999, air monitoring was conducted inside and outside the asbestos abatement containment at SSFL, Building 4057 inside the LMDL high bay. Zenco Engineering, a licensed and state certified asbestos abatement contractor, removed the asbestos-containing floor tiles, mastic and carpet. Final air clearance monitoring was conducted for airborne asbestos prior to removing the containment. A third party consultant, Asset Environmental, performed the air clearance monitoring. Aggressive air monitoring was conducted using SKC sampling pumps with a PCM filter, collecting at least 3850 liters of air. Two sampling pumps were located inside the containment, at normal breathing zone height, and two sampling pumps were located outside the decontamination unit of the containment. Analysis was performed using NIOSH Method 7400A.

Results (all units in fibers >5um/cc)

Location	Airborne Asbestos Concentration	EPA's Rec. Clearance Level	PEL
Inside containment	<0.0012	0.01	0.1
Inside containment	<0.0012		
Outside Decontamination Unit	<0.0012		
Outside Decontamination Unit	<0.0012		

PEL - Permissible Exposure Limit is the equivalent average exposure over an 8-hour work shift.
EPA's Recommended Release "Clearance" Level, inside the abatement area

ARCHIVE COPY

HDMSP00130605

Rockwell International
Atomics International Division

PEWR 75052/75193

CONSTRUCTION SPECIFICATION

SPEC. NO. 303-057-07
SECTION Addendum 1
DATE March 18, 1976
PAGE 1 OF 1

PREPARED BY: APPROVED BY:

ADDENDUM 1

CONTROL ROOM MODIFICATIONS

BUILDING 057

SANTA SUSANA FACILITY, VENTURA COUNTY, CALIFORNIA

This addendum is a component part and supplementary to the above plans and specifications.

Specification — Pages

Section 123 - Suspended Acoustical Ceiling

C. Materials

1. (Add to note) after standard manufacturers finish....acoustical ceiling material shall have Underwriters Laboratories, Inc., (UL) listed or Factory Mutual (FM) approval.

Add 502 - Fire Alarm Supervisory System — 1-3

Drawings

Delete Drawing 303-057-A15
Add Drawing 303-057-A15, Revision 1, Revised Floor Plan
Delete Drawing 303-057-A16
Add Drawing 303-057-A16, Revision 1, Interior Wall Elevations
Add Drawing 303-057-E158, Revision 3 only, Fire Protection Modifications

LMEC DISPOSITION
DTR NO 12106 DATE 5-11-76

BNA01080759

HDMSP00181957O

Rockwell International
Atomics International Division

PEWR 75052

CONSTRUCTION SPECIFICATION

SPEC. NO. 303-057-07
SECTION Addendum 2
DATE May 4, 1976
PAGE 1 OF 1

PREPARED BY: APPROVED BY:

ADDENDUM 2

TO

CONTROL ROOM MODIFICATIONS

BUILDING 057

SANTA SUSANA FACILITY, VENTURA COUNTY, CALIFORNIA

This addendum is a component part and supplementary to the above specifications.

Drawing changes:

Delete 303-057-T4
Add 303-057-T4, Revision 1

Delete 303-057-T5
Add 303-057-T5, Revision 1

LMEC DISPOSITION
DTR NO 12106 DATE 5-11-76

BNA01080760

HDMSP00181957I

BUILDING 4057

PEWR 75052
75193
Rockwell International

CONSTRUCTION SPECIFICATION

SPEC. NO. 303-057-07
SECTION Table of Contents
DATE November 24, 1975
PAGE 1 OF 2

PREPARED BY: APPROVED BY:

TABLE OF CONTENTS

CONTROL ROOM MODIFICATIONS

BUILDING 057

SANTA SUSANA FACILITY, VENTURA COUNTY, CALIFORNIA

Specifications		Pages
G.R.	General Requirements	1-4
S.W.	Scope of Work	1-
101	Painting	1-4
103	Asphalt Tile	1-2
106	Gypsum Wall Board and Metal Studs	1-2
110	Concrete	1-4
113	Structural Steel and Miscellaneous Metals	1-3
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300	Plumbing	1-8
400	Air Conditioning	1-2
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LMEC DISPOSITION
DTR NO 12501 DATE 2-4-76

BNA01080761

HDMSP001819572

PEWR 75052
75193
Rockwell International

CONSTRUCTION SPECIFICATION

SPEC. NO. 303-057-7
SECTION Scope of Work
DATE November 24, 1975
PAGE 1 OF 1

PREPARED BY: APPROVED BY:

SCOPE OF WORK

CONTROL ROOM MODIFICATIONS

BUILDING 057

SANTA SUSANA FACILITY, VENTURA COUNTY, CALIFORNIA

The work to be performed shall be in accordance with the drawings and specifications and shall include, but not be limited to, the following:

1. Demolition of partitions as shown on plans.
2. Revise utility trenches as shown on plans. New trench covers as shown.
3. Remove ceilings as shown on plans.
4. Remove and relocate doors and windows.
5. Extend canopy as shown.
6. New suspended ceiling in portions of low bay as shown.
7. All new ceiling tile.
8. New floor tile.
9. Painting of low bay rooms.
10. Electrical demo and new lighting and power as shown.
11. Air conditioning demo and modification.
12. Plumbing demolition and modification.
13. Fire sprinkler system in low bay.
14. Lab bench installation.
    a. Benches and cabinets from Perma-lab. Equipment Corporation by number as called out on drawings.
    b. Tops for cabinets by Perma-lab Corporation, as called out on drawings. Field varify-lengths and conditions. Tops to be of acid resistant Formica as called for on drawings.

767-B

BNA01080767

HDMSP001819574

Rockwell International
PEWR 75052
75193

CONSTRUCTION SPECIFICATION

SPEC. NO. 303-057-07
SECTION 114 Built-Up Roofing
DATE November 24, 1975
PAGE 1 OF 3

PREPARED BY: APPROVED BY:

BUILT-UP ROOFING AND INSULATION REPAIR

FOR

BUILDING 057 CONTROL ROOM MODIFICATIONS

SANTA SUSANA FACILITY, VENTURA COUNTY, CALIFORNIA

A. General Requirements

The General Requirements form a part of this section with the same force and effect as though repeated herein.

B. Scope of Work

The work consists of furnishing all labor, materials, equipment, and services necessary to complete repairs and restoration of the roof system as follows:

1. Remove and replace Roof Mat System with 3-ply and new 2-inch rigid insulation on lower South roof.
2. Apply Emulsion Protection System.
3. Repair remaining Metal Edge systems on all three levels.
4. Repair remaining fractures and projections with Fracture Repair System on mid and high roofs.
5. Caulk all counter flashing with one part acrylic.
6. Apply white coating to entire Roof Mat System - all three levels.

C. Materials

The following materials or equals, as proven by an independent laboratory in writing, shall be used. Any substitutions shall also be approved in writing by Rockwell International before commencement of any work.

Tremco Tremprime Quick Dry Resaturant
Tremco Liqui-Mat Asphalt Emulsion
Tremco Mono, One-Part Acrylic Sealant
Tremco White Coating
Tremco Polyroof, one part elastomer 12-inch Jute membrane

BNA01080783

HDMSP001819575

PEWR 75052
75193
Rockwell International

CONSTRUCTION SPECIFICATION

SPEC. NO. 303-057-7
SECTION 600 Fire Protection
DATE November 24, 1975
PAGE 1 OF 2

PREPARED BY: APPROVED BY:

FIRE PROTECTION

FOR

CONTROL ROOM

BUILDING 057

SANTA SUSANA FACILITY, VENTURA COUNTY, CALIFORNIA

A. General Requirements

The general requirements form a part of this section with the same force and effect as though repeated herein.

B. Work Required

The work shall include, but not be limited to:

1. Install a 6-inch fire riser and post indicating valve (PIV) in accordance with AI Standard Drawing 300-MISC-P63A and AI Drawing 303-057-P5, Revision 5. Connection shall be made to the existing 10-inch C.W. main as shown on the drawing.
2. Design in accordance with NFPA Standards, furnish NELPIA approved drawings, secure all required approvals, and install an ordinary hazard wet pipe fire extinguisher system.
3. Cut and patch walls, partitions, and ceilings as required for a complete installation.

C. Codes and Regulations

1. The installation shall be in accordance with the latest edition of the NFPA Fire Code 13 and the Uniform Plumbing Code.
2. All work shall be performed by a fire protection builder holding a valid California C16 Fire Protection License.

D. Design

1. The fire protection system shall be designed to protect the low bay area of the building as shown on the drawings included with these specifications.
2. The Builder shall survey the building to determine the location of existing equipment. Piping and sprinklers shall be installed in a manner that will not interfere with the operation of existing equipment.

BNA01080817

HDMSP001819578

BUILDING 4057

CONFIGURATION SUMMARY
FACILITY B/057
GENERAL TEST

#CS-029-01 PAGE 2 0 OF
ISSUE DATE FEB 4 1981

* NEW C=CHANGE APPROVAL LEVEL	1=DOE 2=ETEC	DWG/SPEC NO	REV	TITLE	APPV LEV	RELEASE NO	DCR,MCR,AMD,MS
		7693-G0454006	A	B/057 BLIP TIC WRG DIAG RIC 2 PNL D		DRR 16159 AS BLT	
		7693-G0454007	A	B/057 BLIP LP PLUGGING MTR SCHEM		DRR 16159 AS BLT	
		7693-G0454008		B/057 BLIP LP BLIP 2 AUX ELEC EQPT PNL		DRR 16188	
				WRG DIAG			
		7693-E0454001	E	B/057 SGL LINE DIAG 480V		DRR 16159 AS BLT	
		7693-E0454001	D	B/057-R1 & 2 SGL & TERM CAB ARRGMT		DRR 14952 AS BLT	
		7693-E0454002	A	B/057 BLIP LP CONDUIT & CABLE SCHEM		DRR 16112 AS BLT	
		7693-E0454002	A	B/057 BLIP LP BLIP 2 EQPT LOCATION & CND PLAN		DRR 16188	
		7693-E0454003	A	B/057 BLIP LP BLIP 2 AUX ELEC EQPT PNL EL		DRR 16159 AS BLT	
		7693-E0454004	A	B/057 BLIP LP ELEC PNL LOCATIONS		DRR 16159 AS BLT	
		7693-E0454001	C	B/057 CT-3 CT ELEC HTR ARRGMT		DRR 14821	
		7693-E0454003	A	B/057 BLIP LP HTR & TE INSTL		DRR 16159 AS BLT	
		7693-E0454003	A	B/057 BLIP LP TR HTG SCHEM		DRR 16159 AS BLT	
		7693-F0454001	B	057-CT-3 EQPT ARRGMT & INSTL		DRR 13365 AS BLT	
		7693-F0454001	A	057-CT-3 STRL STEEL FRAMING FOR PIPE HGRS		DRR 13365 AS BLT	
		7693-F0454002	B	B/057 INSTL PLAN		DRR 14712	
		7693-G0454001		B/057 IMPROVS TEST IDX		DRR 10590	
		7693-G0454001		STRL MATL LIST B/057 CT3		DRR 05492	
		7693-G0454002	A	PP MATL LIST B/057 COLD TRAP CT3		DRR 09394	
		7693-P0454001	A	B/057 BLIP LP PR ASSY		DRR 17697 AS BLT	
		7693-P0454001	A	B/059 BLIP LP TK T-1 DETS & ASSY (2 SHTS)		DRR 17697 AS BLT	
		7693-P0454002		B/057 LITHIUM FILL TK T-2		DRR 16613 MCR 5466	
	C	7693-P0454001	C	B/057 BLIP LP LITHIUM/ARGON SYS. P&ID		DRR 17697 AS BLT/DCR 13631	
		7693-P0454001		B/057 LP LITHIUM/ARGON SYS.		DRR 14395	
		7693-P0454001	E	057-CT3 PIPE DETS		DRR 14395	
		7693-P0454001		B/057 CT3 PIPE ARRGMT		DRR 14395	
	C	7693-P0454002	B	B/057 BLIP LP LITHIUM/ARGON PP SYS. (3 SHTS)		DRR 17818 DCR 13631	
		7693-P0454003	A	B/057 BLIP LP LITHIUM/ARGON SYS INSTL (2 SHTS)		DRR 17697 AS BLT	
		7693-E0410026		057-CT3 HTR & T/C INSTL		DRR 14258	
		*		(SPECIFICATIONS)			
		*					
		7693-G0454006-4		B/057 BLIP LP ELEC. INSTR & CONT		DRR 16187	

BNA01081210

HDMSP001819589

CONFIGURATION SUMMARY
FACILITY B/057 GENERAL TEST

#CS-029-01 PAGE 1 0 OF 4
ISSUE DATE MAY 14 1981

* NEW C=CHANGE APPROVAL LEVEL	1=DOE 2=ETEC	DWG/SPEC NO	REV	TITLE	APPV LEV	RELEASE NO	DCR,MCR,AMD,MS
		303-057-07		CONT RM MOD-CONSTR SPEC	2	DTR 12501	
		303-057-07		ADDENDUM 1	2	DTR 12103	
		303-057-07		ADDENDUM 11	2	DTR 12105	
		303-057-A10	3	RE-ROLF B/057 & 059 SS FACIL	2	DTR 12501	
		303-057-A14		BIL FL PLAN	2	DIR 12501	
		303-057-A16	1	REVISED FL PLAN	2	DTR 12106	
		303-057-A16	1	INTR HALL ELS	2	DTR 12106	
		303-057-A17		SUSPENDED CLG MODS	2	DTR 12501	
		303-057-E8	4	B/057 SS FACIL-SGL LINE & MISC WRG DIAGS	2	DTR 12501	
		303-057-E10	2	B/057 SS FACIL PWR PLAN	2	DTR 12501	
		303-057-E10	2	LTG PLAN	2	DTR 12501	
		303-057-E10D	2	LTG PLAN (DWL ONLY)	2	DTR 12501	
		303-057-E11	3	B/057 SS FACIL HAV/AC R.A.S. & FA SYSTEMS	2	DTR 12501	
		303-057-H3	4	AIR CONDITIONING DETS (SHT 10 OF 13)	2	DTR 12501	
		303-057-H4	3	AIR CONDITIONING & VENTILATION	2	DTR 12501	
		303-057-P4	6	PM PLAN & EQPT SCHED	2	DTR 12501	
		303-057-P5	5	CHEM & INDL W & F SPRS	2	DTR 12501	
		303-057-P6	4	SS FACIL-B/057 LAB PP PLAN & DETS		DRR 14607	
		303-057-P7		B/057 SS FACIL PP @ EQPT	2	8/23/72	REF ONLY
		303-057-P8	2	B/057 SS FACIL FL DIAGS		8/23/72	REF ONLY
		303-057-S14	4	CONC FAD & CAN PLAN & DETS	2	DTR 12501	
		303-MEM-E10B	3	SS-FACIL-FIRE DETECTION MODS B/003, 057, C28, & 029	2	DTR 12106	
		7693-E0410026	C	B/057-CT3 HTR & T/C INSTL		DRR 14811 AS BLT	
		7693-E0410003	A	B/057-CT3 COLD TRAP SPRT STAND		DRR 13916	
		7693-E0410003		B/057-CT3 COLD TRAP SHRD DETS		DRR 09942	
		7693-E0410253	A	B/057-CT3 SHRD ASSY		DRR 09595	
		7693-E0410254	A	B/057-CT3 COLD TRAP ASSY		DRR 12334	
		7693-G0454004	C	B/057-CT3 COLD TRAP		DRR 12963	
		7693-G0454001	C	B/057 BLIP LP CONT RM INSTR PNL EL		DRR 16159 AS BLT	
		7693-G0454003	C	B/057-ELEC SCHEM CT-3 INSTL		DRR 14951 AS BLT	
		7693-G0454004	A	B/057 BLIP LP MISC SCHEM		DRR 16159 AS BLT	
	C	7693-G0454005	A	B/057 BLIP LP EM PMP & PLNTR SCHEM		DRR 16139 AS BLT/DCR 12600	
		7693-G0454005		B/057 BLIP LP RIC 2 PNL F WRG DIAG		DRR 16188	

BNA01081213

HDMSP001819590

* NEW C=CHANGE APPROVAL LEVEL	1=DOE 2=ETEC	DWG/SPEC NO	REV	TITLE	APPV LEV	RELEASE NO	DCR,MCR,AMD,MS
		B 057-H2 CONT CSL ELS & BUSS				DRR 14509 AS BLT	
		C 057-H2 CONT CSL GRND DIAG				DRR 14258 AS BLT	
		E 057-H2 ELECTRICAL SGL LINE DIAG 120 - 480V				DRR 14360 AS BLT	
		B 057-H2 HTR & T/C CND & VSS				DRR 14370 AS BLT	
		C VESSEL ASSY-NA TEST RA PMP SPT SEAL TEST				DRR 00100	
		114 T-2					
		A 114 T-2 B2 TL VESSEL ASSY - RA SPLY				DRR 14687 AS BLT	
		B 057-H2 VT2 CYP CONN VAPOR TRAP ELECTRICAL HTG DETS				DRR 14611 AS BLT	
		C 057-H2 B HTR & T/C INSTL				DRR 14411 AS BLT	
		B 057-H2 ELECTRICAL HTG CONN DIAG				DRR 14379 AS BLT	
		B 057-H2 ELECTRICAL, HTG & T/C INS				DRR 14370 AS BLT	
		C 057-H2 RE BOTTOM SPS CONN DIAG				DRR 16218	
		C 057-H2 SPT SEAL TEST RIG #2				DRR 00055	
		C 057-H2 TEST VESSEL & STRUCT ASSY				DRR 13968 AS BLT	
		B D-057-H2 VAPOR TRAP, VT2 ASSY & INSTL				DRR 11183	
		A 057-H2 RA LAB PIPING INSTRUCTION DWG RIG #2				DRR 15363 MCR V01-4-B-18 12250	
		SPLY VESSEL - RA ASPEC CONT DWG RIG #2				DRR 00055	
		SEAL TEST RIG #2, COLD TRAP LINE, & FILL				DRR 0017	
		A 057-H2 LINE SET FOR RIG #2					
		C B/057 - CT-3 COLD TRAP				DRR 13963 AS BLT	
		H 057-H2 REIN UP				DRR 17916 AS BLT	
		E 057-H2 TEST UP				DRR 16976 AS BLT	
		057-H2 RIG PMP FOR V VAR SAMPLE STA				DRR 17970	
		LINE LIST - SEAL TEST #2				NONE	
		(SPECIFICATIONS)					
		A ETEC SEAL TEST ASSY, ASSY & ADJUSTMENT OF RIG #2				DRR 00990	
		A PRELIM SEAL TEST FACIL QUALIFICATION USING A FERRIT-TYPE TEM PMP SHAFT SEAL				DRR 00764 MCR 1539	

BNA01081294

HDMSP001819594

GIQUIN METAL ENGINEERING, INC. 19 73-201-1-090

MEMORANDUM

Date: February 20, 1975

To: W. L. Peters 20-201 102

From: W. A. Dunaway 20-201 102

Phone: 6481

Subject: Construction Inspection Requirements for Building 057 Ground Fault Protection System

The following is submitted to permit preparation of a detail inspection plan for the Ground Fault Protection System in Building 057:

Task

Installation of the Ground Fault Protection System (GFI) in Building 057.

Documents

7693 EE 454002	GFI Installation	(Rev. A)
7693 EA 1410011	Electrical Single Line Diagram 057-R1	(Rev. A)
7693 EA 1410021	Electrical Single Line Diagram 057-R2	(Rev. B)

Contractor

Miller Electric Co.

Work Location

LMEC — Building 057

Schedule

February 1975

BNA01155414

HDMSP001824648

BUILDING 4057

Facilities

Internal Letter

LIQUID METAL ENGINEERING CENTER
Rockwell International

Date: June 11, 1975
No. 75-205-5-042

TO: L. W. Wheeler
Address: 798 LA33

FROM: D. R. Binns
Address: 720-205 T038
Phone: 6133

Subject: 1976 GPP RFA Submittal to ERDA - B/057 Control Room

Please transmit the enclosed Request for Authorization to ERDA in support of GFY 1976 General Plant Projects.

D. R. Binns
Project Manager
General Plant

Encl. as noted

DRB/la

cc w/o encl: L. S. Breese
J. C. Cochran
C. E. Daniel
P. A. Harris
J. T. Nagamatsu
Project File: GPP

BNA01156690
HDMSP001824651

Facilities

Internal Letter

LIQUID METAL ENGINEERING CENTER
Rockwell International

Date: June 12, 1975
No. 75-205-5-045

TO: L. W. Wheeler
Address: 798 LA33

FROM: D. R. Binns
Address: 720-205 T038
Phone: 6133

Subject: 1976 GPP RFA Submittal to ERDA - B/057 Control Station and Test Area for Out-of-Sodium Instrumentation

Please transmit the enclosed Request for Authorization to ERDA in support of GFY 1976 General Plant Projects.

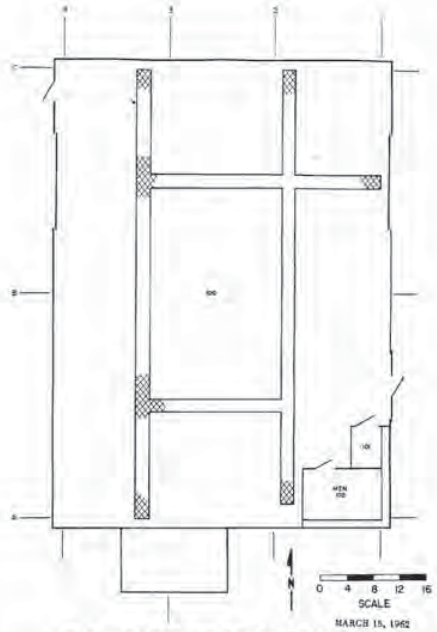
D. R. Binns
Project Manager
General Plant

Encl. as noted

DRB/la

cc w/o encl: L. S. Breese
J. C. Cochran
C. E. Daniel
P. A. Harris
J. T. Nagamatsu
Project File: Facilities

BNA01156696
HDMSP001824653



ROOM AND AREA NUMBERING PLAN SANTA SUSANA BUILDING 057

LAUNCH HANDLG. & MOBILE EQUIP. DEV. BLDG.

BNA01247358
HDMSP001828039

Ron Ruiz

L B/057 - Laying out - Grinders, pounding
Grinding - 56-7 hrs. - did use
hearing protection when necessary

Used to work in B/027
- metal fitter, Operation Test Senior
- did
Worked 4 years - Weld Shop
Used to work at Machine
Shop at De Soto - for 22 years

Work at Kelime & SCTI
- fitting pipes & valves

MARVEL SAW (BAND) & MARK II = 85-88,
Ambient w/ Band SAW - 80 dB

LAMBE LE BLAND 74 REGAL 65-80

CINCINNATI MILL - 55 - not milling

BNA01400787
HDMSP001831560

BUILDING 4057

B/057 PROCEDURES MASTER INDEX

Page 1 of 10
03/19/85

Contents:

Section I - Active Procedures

Section II - Authorization Required Procedures

Appendix A - Facility Emergency Plan

Appendix B - Preferred Practice Manuals (PPM's)

ACTIVE PROCEDURE BI - MONTHLY REVIEW RECORD

Facility Manager Signature	Date
A.E. Wagner (KEEP FROM OLD LIST)	3/6/85
A.E. Wagner	5/14/85
A.E. Wagner	7/15/85
C.A. Stewart	11-26-85

BNA01711456

HDMSP001838308

057-OP-28
Page 1
1/27/78
Revision 2

BUILDING 057 CRITICAL LIFT PROCEDURE

Approvals: A.E. Fergain 2/6/78 SWB 2/6/78
Manager, General Test

E. Ferguson 2/13/78
Engineering

BNA01711622

HDMSP001838317

Internal Letter

Rockwell International

Date: June 30, 1995

TO: John Washington
Rocketdyne-SSFL
Dept. 031, SS25

No.: 95-026-06-063

FROM: M. W. McDowell
ETEC
Dept. 026, T487
Extension 5256

Subject: **Authorization for Cooling Water Connection to B/057 Reformer**

You are requested to perform work to connect the cooling water system in Building 057 to the Reformer currently under construction. The charge number for this work is 29841-96693-69301.

M.W. McDowell
M. W. McDowell
Program Manager

cc: K. Jaquay, T487
J. Lucci, T038

BNA01889341

HDMSP001840229

1/30

Mike

In regard to our conversation last week about the activities in B/057. The following are what I think should be covered.

- Overview of the project (s)
- Schedule / Funding
- Facility Requirements
- Operations Dept. tasks

Operations Dept. attendees will be W. Dabney, T. Wells R. Ingersoll and myself.

Thanks
Roger
x 5070

BNA03057715

HDMSP001864209

BUILDING 4057

Internal Letter — Rockwell International

Date: August 7, 1995
No.: 95-026-08-068

TO:
M. W. McDowell
ETEC
D/026, 055, TA487

FROM:
R. S. Homer
ETEC
D/026, 055-T487
x65547

Subject: Electrical Items Left to Complete B/057 Hydrogen Reformer

The following list of electrical items need to be addressed when activating B/57 Hydrogen Reformer:

1. Hydrogen leak detector needs to be installed, wiring is coiled and stowed at detector location and wiring console has been terminated.
2. Gas solenoid valve needs to be installed. Wiring coiled and stowed at valve location; other end terminated in console.
3. Exhaust fan sail switch out side north wall of 57 coiled and stowed. Awaiting completion of fuel cell test.
4. H1-heater spark plug missing, new one needs to be procured.
5. Thermocouples on site but need to be installed in pipe fitting during installation of piping insulation.
6. H1-Lo natural gas pressure switch on H1 gas burner needs to be tubed up.
7. Gas burner needs to be certified and set-up for less than 1 Million BTU firing for Ventura nox emissions.
8. Lights in tent area not bought or installed.

R. S. Homer
ETEC Construction

cc: J. Berreth T487
R.I. Jetter

I:\RH068.DOC

BNA03241553
HDMSP001866774

Internal Letter — Rockwell International

Date: January 23, 1995
No.: 95-026-08-008

TO:
Butch Shoji
Rocketdyne-DeSoto
D/553, CA08

FROM:
R. S. Homer
ETEC
D/026, 055-T487
5547

Subject: **Job Walk for B/057 Mechanical Installation for Hydrogen Reformer**

A Job Walk will be held on January 31, 1995 at 10:00 AM in the Bldg. 038 Large Conference Room. A review of the bid documents will be provided by the following personnel:

A)	Bid Documents	Butch Shoji
B)	Construction Requirements	Ron Homer
C)	Quality Requirements	Ted Hunnicutt

A walk of Bldg. 057 will then take place to review site conditions and work site.

R. S. Homer
D/026, Engineering

cc: K. Jaquay, T487
M. McDowell, T487
T. Hunnicutt, T038
M. Tessier, T038
F. Cubillos, T487

BNA03241616
HDMSP001866775

Internal Letter — Rockwell International

Date: November 10, 1993
No.: 93-026-06-154

TO: Those Listed

FROM:
P.M. Green
ETEC
D/026, 055-T487
x5238

Building 057 Hydrogen Reformer Project Management Plan (PMP)

Attached is the Project Management Plan (PMP) for the Building 057 Hydrogen Reformer Project. Should you have any questions or need additional information please contact me at x5238.

P.M. Green
Systems Engineering

Those Listed

F.P. Cubillos	T487
F.L. Fletcher	T487
G.G. Gaylord	T038
R.I. Jetter	T487
K.T. Knudsen	T487
M.W. McDowell	T487

BNA03305301
HDMSP001867279

Internal Letter — Rockwell International

Date: December 22, 1993
No.: 93-026-06-179

TO: Those Listed

FROM:
P.M. Green
ETEC
D/026, 055-T487
x5238

Revised Building 057 Natural Gas System Upgrade Design Criteria

Attached is the revised Design Criteria for the Building 057 Natural Gas System Upgrade project. Should you have any questions or need additional information please contact me at x5238.

P.M. Green
Systems Engineering

#2PMG179:mc

Those Listed

F.P. Cubillos	T487
F.L. Fletcher	T487
G.G. Gaylord	T038
R.I. Jetter	T487
K.T. Knudsen	T487
M.W. McDowell	T487
D.L. Wait	T487

BNA03305318
HDMSP001867296

BUILDING 4057

Internal Letter — Rockwell International

November 8, 1993 — 93-026-06-156

Those Listed

P.M. Green
ETEC
D/026, 055-T487
x5238

Building 057 Hydrogen Reformer Design Criteria

Attached is the Design Criteria for the Building 057 Hydrogen Reformer project. Should you have any questions or need additional information please contact me at x5238.

P.M. Green
Systems Engineering

#2PMG156:mc

Those Listed

F.P. Cubillos	T487
F.L. Fletcher	T487
G.G. Gaylord	T038
R.J. Jetter	T487
K.T. Knudsen	T487
M.W. McDowell	T487
D.L. Wait	T487

BNA03305330
HDMSP001867308

Internal Letter — Rockwell International

March 8, 1994 — 94-025-SS-10

R. D. Meyer
Rocketdyne
D/635-118, 055-FA74

S. Supola
ETEC
D/025, T334
X5069

Recommendation on NaK Systems in Building 057

Introduction

Per your request, I assessed the status and recommended a disposal method for the two NaK systems presently stored in building 057. One system is a NaK heat transfer loop that was a subscale test article for the Space Station Power Generation System IR&D Program. The other system is the NaK fill cart that was used for filling the NaK loop.

Physical Status of Systems

The NaK loading cart supply tank is estimated to contain 10 to 15 gallons (70-100 lbs.) of NaK (per conversation with Al Stewart). A schematic of the NaK cart is shown in Figure 1. All the valves in the system are closed and the tank pressure gauge, which is uncalibrated, reads 1.0 psig.

The NaK test article is shown in Figure 2 and a schematic is illustrated in Figure 3. The NaK test article envelope dimensions are 42 inches wide by 42 inches high by 15.5 feet long. The NaK loop is estimated to contain 17 to 22 gallons (120 to 150 pounds) of NaK (per conversation with Al Stewart and Lou Haba). The thermal storage unit is a tube-in-shell heat exchanger containing 117 separate 1-inch diameter by 48 inches long sealed tubes, each containing about 1.5 pounds of a salt compound (LiOH). All the tubing fittings have been plugged and the two valves in the system are closed and the valve handles have been removed. The loop was secured in this manner with a cover gas, but there are no pressure gauges in the system to verify a positive pressure still exists. Schematics and illustrations of the two NaK systems are available upon request.

Based on visual observation and historical information there is no evidence that any oxidation of the NaK has occurred. The lack of surveillance and adequate instrumentation however places some doubt as to whether any air has leaked into the systems. The prolonged storage of NaK in contact with air leads to the formation of KO_2, which greatly increases the possibility of an explosion.

The NaK loop was not designed for complete drainage. There are many loops and bends in the piping and air blast heat exchanger that would leave pockets of NaK after an initial draining. The entire NaK loop would then require tilting end over end and/or rotating numerous times to get more of the NaK out. Complete drainage does not appear to be likely.

BNA03468984
HDMSP001869543

Energy Technology Engineering Center

TECHNICAL REVIEW REPORT

PROJECT: B/057 HYDROGEN PROJECTS — REVIEW DTR NO. 057-012 — PAGE 1 OF 3

SUBJECT: SAFETY ASSESSMENT — REVIEW DATE 3/17/95 — REPORT DATE 3/27/95

APPLICABLE DOCUMENTS: 057-ZR-0002

REVIEW TYPE: FINAL

REVIEW RESULTS:
- ☒ APPROVED
- ☐ APPROVAL WITHHELD
- ☐ DISAPPROVED
- ☐ SEE REMARKS

SCD AFFECTED: ☐ YES ☒ NO

INFO COPIES: M. McDowell T487; R. Jetter T487; M. Tessier T038

REVIEW BOARD MEMBERS

NAME	FUNCTION	NAME	FUNCTION
J. Erman (1)	SAFETY		
R. Uashiro (2)	ENV.		
P. Green (1)	ENGR.		
R. Sherer (1)	FIRE SAFETY		
T. Hunnicutt (1)	QA		
		CHAIRMAN	DESIGN REVIEW

SUMMARY AND REMARKS:
(1) SUBMITTED COMMENTS
(2) REVIEWED WITH NO COMMENTS
FOR DISPOSITION OF COMMENTS, SEE ATTACHED SHEET

FORM 733-A-46 REV 7-79

BNA03507099
HDMSP001869840

Rocketdyne
Department of Energy
Fire Hazard Analysis

BUILDING: 057 — DATE: 07/31/92 — APPRAISER: RS — NEXT INSP: 07/31/93

1. OCCUPANCY:

This facility is the ETEC General Test Facility and is currently inactive. All loops are cold and inactive and only Room No. 101 has any activity, with the storage of IBM dual tape drives and paper record storage on the floor. The specific occupancy is as follows:

ROOM 101: Used for the storage of paper records in corrugated boxes. These records belong to SCTI and involve read sheets (checklists on local eqp't and instrumentation), chart papers and other noncritical records. These files are over 1 yr. old. Additional storage includes 43 dual tape drives IBM P/C #5150.
ROOM 105: Idle control room without a raised floor.
ROOM 106: Vacant, except for some obsolete control eqp't.
ROOM 108: Electrical switchgear room.
ROOM 109: Restroom.
ROOM 110: Janitor's closet.
ROOM 111: Inactive, cold, liquid metal test areas. There is approximately 5 gals of lithium in a loop, 250 gals of sodium in drain tanks, and 20 gals of NaK in a tank, all of which are cold.

2. PROTECTION:

An automatic wetpipe sprinkler system protects Room 101, 105, 106, 108, 109, and 110. Room 111 and the canopy are not sprinklered due to the water reactive metals. A high voltage smoke detection system protects Rooms 101, 105, 106 and 111. A heat detection system protects Rooms 109 and 110.

3. APPROXIMATE FLOOR AREA:

7100 sq. ft.

4. CURRENT REPLACEMENT VALUES

DATE: 02/13/92 — STRUCTURE: $ — CONTENTS: $ REDACTED — TOTAL: $

BNA03533411
HDMSP001870577

BUILDING 4057

Internal Letter

Rockwell International

February 04, 1986

JRL-86-003

W. I. Greenwell
Rocketdyne - SSFL
052, 055, SS12

J. R. Lopez
Rocketdyne - SSFL
052, 055-SS12
SS17

Glove Box Building 057

On Saturday 01 February 1986 at approximately 3:55 p.m., Detex Patrol 562, PSO Lewis notified the SSFL Control Center of a glove on a Glove Box ready to blow off. At 3:58 p.m., the glove blew off the Glove Box located in the high bay of building 057. CCO Gardea immediately notified General Test Personnel to respond, and the writer and FPO Romas responded to the scene.

At 4:08 p.m., General Test Personnel Leo Edwards, D/025 entered the building. Edwards assessed the situation and notified H. H. Neely, D/026 at home. Neely stated there was no immediate problem and he would be in to correct the glove.

At approximately 4:30 p.m., H. Neely arrived on the facility, corrected the problem and met with the writer. He stated that a bad O-Ring was the cause for the glove to blow off of the Glove Box. The unit, a vacuum pressure Glove Box, is being used to annode surfaces per a contract with Sandia National Labs.

H. Neely departed the facility at 4:55 p.m.

J. R. Lopez
Lieutenant
Protective Services

JRL/vs

cc: R. D. Barto
File

INDUSTRIAL SECURITY OFFICE ROCKETDYNE
FEB 6 1986

J. Rizzo
L. Bot. → FILE P 7

BNA03568031
HDMSP001871016

Energy Technology Engineering Center
Rocketdyne Division
Rockwell International Corporation
P.O. Box 1449
Canoga Park, California 91304

Operated for U.S. Department of Energy

Rockwell International

January 11, 1990

In reply refer to 90ETEC-DRF-0041

Mr. A. J. Adducl
U. S. Department of Energy
San Francisco Operations Department
1333 Broadway
Oakland, CA 94612

Subject: Proposed SBA-8a Project - Building 057 Air Conditioning Replacement

Dear Mr. Adducl:

Enclosed is the construction drawings and specification for the subject project. Also enclosed is a copy of the In-House Cost Estimate for the proposed work.

When the Los Angeles office of the Small Business Administration is ready to schedule a Job Walk with the selected contractors, arrangements should be made by calling Mr. Stan Pendleberry at ETEC on 818-700-5121.

Very truly yours,

G. G. Gaylord
Program Manager
Facility Programs

35-28

Enclosures

B/057 A/C Replacement Cost Estimate
A/C Replacement Plans M057-69656-M1, 7 copies
A/C Replacement Title 24 Forms, 7 copies
A/C Replacement Electrical, 7 copies

BNA04133751
HDMSP001881257

Phil - boxes supplies } any records who?

8 boxes Bldg. 057 paid for

any plans for S&M next ~~mo~~ this month.
Inventory of field waste boxes. -

19

(57) B 969
(56) 966

BNA04231345
HDMSP001885515

BUILDING 057 PROCEDURES INDEX

Page 2
2/1/78

Procedure No.	Title (Abbreviated)	Revision Date	Rev No.	Review Status
	SECTION II - EMERGENCY			
057-EM-1	Fac Emer Plan	11/7/77	8	771107
057-EM-2	Emer Proc for Sod Spills	2/21/75	2	Inprep
057-EM-3	Corrective Action for 057-R1 & R2	4/27/71	New	Inprep

BNA04517710
HDMSP001895841

BUILDING 4057

057-EM-1
Page 1
11/7/77
Revision 8

FACILITY EMERGENCY PLAN

BUILDING NUMBER - B/057

BUILDING NAME - LMEC TEST AND SERVICE LAB

LOCATION - SANTA SUSANA

Approved by
Facility Manager

11/10/77
Health and Safety

Vice President/Director

11-15-77
Emergency Coordinator

11/15/77
Manager, Industrial Security

BNA04517740
HDMSP001895848

057-EM-2
PAGE 01
02/21/73
REVISION 1

APPROVED
MANAGER, GENERAL TEST

REVIEWED 2/22/73
HEALTH AND SAFETY

BUILDING 057 - EMERGENCY PROCEDURE FOR SODIUM SPILLS ASSOCIATED WITH TEST RIGS NO. 1 AND NO. 2.

I. PURPOSE

THE PURPOSE OF THIS PROCEDURE IS TO PROVIDE THE EMERGENCY STEPS NECESSARY TO ISOLATE AND CONTROL THE AMOUNT OF SODIUM SPILLAGE DURING AN EMERGENCY CONDITION INVOLVING EITHER TEST RIG NO. 1 OR NO. 2.

II. DESCRIPTION

THE FACILITY FLOOR PLAN LOCATING THE TEST RIGS, INSTRUMENTATION CONTROL CONSOLES AND POWER CONTROL PANELS IS SHOWN ON FIGURE 1. FIGURE 2 IS A TYPICAL TEST RIG SODIUM PIPING, SYSTEM COMPONENT, AND VALVE SCHEMATIC.

III. SPECIAL INSTRUCTIONS

1. THE FOLLOWING STEPS ARE REQUIRED FOR ALL OF THE EMERGENCY CONDITIONS LISTED.

1.1. IMMEDIATELY NOTIFY PROTECTIVE SERVICES, EXTENSION 6244, OR PICKUP THE RED PHONE LOCATED AT THE FACILITY SOUTHEAST EXIT AND RELATE THE FOLLOWING INFORMATION

1.1.1. NATURE OF EMERGENCY, I.E., SODIUM LEAK, ELECTRICAL FIRE, ETC.

1.1.2. LOCATION, B/057 HI-BAY.

1.1.3. NAME OF PERSON REPORTING EMERGENCY.

1.1.4. WHETHER PERSONNEL INJURY IS INVOLVED.

BNA04517753
HDMSP001895861

Health & Safety

BUILDING 057 EMERGENCY PROCEDURE
FOR
CORRECTIVE ACTIONS - RIG NO. 2

OBJECTIVE
This procedure describes the necessary immediate corrective action to be taken for the Building 057 alarm condition on Rig. 02.

A. Test Vessel T-2 Over Temperature
B. Bearing Housing Over Temperature
C. Pump Shaft Coupling - High Torque
D. Test Vessel T-3 Cover Gas Under Pressure
E. Pump Speed - Overspeed
F. Gas Supply - Under Pressure
G. Oil Pressure - Hi or Low Pressure
H. Seal Pressure - High
I. Cooling Water - Low Pressure
J. Supply Vessel T-1 Over Temperature
K. Seal Temperature - High

PROCEDURE
Each alarm condition is discussed separately, followed by the necessary corrective action required to re-establish system safety and operability.

NOTE
Each of the above alarms generates automatic action and is displayed on the annunciator panel (laid out below) along with an audible alarm. All alarms trigger a signal at the Area II Security Control Station.

BNA04517761
HDMSP001895869

CIRCUIT NO. [illegible]
B/057 HI-BAY ELECTRICAL POWER CIRCUITS

[illegible]ITS AND PURPOSE:
[illegible] B/057 Hi-Bay electrical power circuits called out in Emergency [illegible] by Evacuation Procedure to verify that the [illegible] Bldgs II or III [illegible]

[illegible]

BNA04517768
HDMSP001895875

BUILDING 4057

057-OP-26
PAGE 01
03/22/72

APPROVED.....
MANAGER, GENERAL TEST

BUILDING 057 - OPERATION OF FACILITY CLOSED CIRCUIT COOLING WATER SYSTEM.

I. PURPOSE

THE PURPOSE OF THIS PROCEDURE IS TO PROVIDE THE NECESSARY STEPS REQUIRED FOR OPERATING THE FACILITY CLOSED CIRCUIT WATER SYSTEM.

II. METHOD

THE CLOSED CIRCUIT WATER SYSTEM SUPPLY RESERVOIR, MAIN FILTER, AND COOLING TOWER WILL BE FILLED WITH INDUSTRIAL WATER. THE SYSTEM VALVES WILL BE POSITIONED AS SPECIFIED. PRIMARY PUMP ENERGIZED, AND WATER FLOW ESTABLISHED TO FACILITY INLET/OUTLET HEADER THROUGH THE PUMP BYPASS TO RESERVOIR AND COOLING TOWER PIPING. THE SYSTEM STAND-BY PUMP WILL BE OPERATIONAL IN THE EVENT OF A FAILURE OF THE PRIMARY PUMP BY RESETTING THE DISCHARGE LINE PRESSURE SWITCH.

III. DESCRIPTION

THE CLOSED CIRCUIT COOLING WATER SYSTEM PIPING, COMPONENTS, VALVES, AND CONTROLS ARE SHOWN ON FIGURE 1.

IV. REFERENCES

1. OPERATING PROCEDURES

1.1. 057-OP-6, PSTF-1, OPERATION OF COOLING WATER SYSTEM FOR TEST RIG NO. 1 FLANGES.

1.2. 057-OP-17, PSTF-2, OPERATION OF COOLING WATER SYSTEM FOR TEST RIG NO. 2 FLANGES.

BNA04517915
HDMSP001895885

BUILDING 057
DECEMBER 19, 1974

SECTION VI CORRECTIVE MAINTENANCE

057-CMP-1	REMOV AND REINSTALL OF RIG NO. 1 M-G SET	11/03/72	NEW	NOTREQ
057-CMP-2	REMOV AND REINSTALL OF RIG NO. 2 M-G SET	11/03/72	NEW	NOTREQ

BNA04517981
HDMSP001895892

Energy Technology Engineering Center — DOCUMENT TRANSMITTAL RECORD — PAGE 1 OF ___

PROJECT B/057 — REFURBISHING — SUBMITTING FIRM: PENHALL COMPANY — P.O./CONTRACT NO. 139 — DTR NO. 24678

SUBJECT: CONTRACT DOCUMENTS — DTR INITIATOR: S. PENDLEBERRY — DISPOSITION DUE DATE

DATE RECD BY ESL: 6/20/91 — DTR REV. DATE: 6/21/91 — REVIEW RPT. NO.

DTR REV. DATE: 6/21/91 — TRANSMITTAL REV.: NONE — DTR NO.: NONE

LEVEL OF APPROVAL REQD	DESIGN REVIEW REQUIRED	DOCUMENT NO.	REV.	COPIES	TITLE	APPROVED AS SUBMITTED	APPROVED W/COMMENT	REVIEW IMPLY TO SUBMITTER	DISAPPROVED W/COMMENT	RESUBMITTAL REQUIRED	RECOMP ON CONFIG. SUBMT	RECOMP INFORMATION	ACCEPTED AS SUBMITTED
4		169243	1		ROCKETDYNE RFQ SUBMITTAL QUOTATION							X	
4		331457	1		ROCKETDYNE PURCHASE ORDER REQUISITION							X	
4		739-U	1	7/19	ROCKWELL INTERNATIONAL CONSTRUCTION CONTRACT							X	
4		33420	1		OUTSIDE CONTRACT PAYMENT AUTHORIZATION							X	
4		15-670399	1		PENHALL BILLINGS INVOICE							X	
4		11-026-05-026	1		ROCKETDYNE BUILDING 057 WALL STRUCTURAL ANALYSIS							X	

REVIEWERS

NAME	LOC.	NO.	NAME	LOC.	NO.
S. PENDLEBERRY	T038	+	T. HUMPHREY	T038	+
			[redacted]		
			S. GARRONIS	T038	+
			V. WILLCUTS	T037	+
			S. PENDLEBERRY	T037	+
			F. ROCHELLE	T038	+
				T058	+

DOCUMENT DISTRIBUTION — COMMENTS: NO ADDITIONAL DISTRIBUTION REQUIRED.

FUNDING MGR. APPROVAL: R.D. Meyer 6-19-91

DTR ONLY: AR G. GAYLORD

FORM TB-A-30 REV 6-78

BNA04556020
HDMSP001896341

Rockwell — Internal Letter

Date: 7/9/96 — No: 96-021-051

To: Majelle Lee, Dept. 022, T038 — From: M. W. McDowell, Dept. 021, T038

Subject: **Use of ETEC Building 057 for the Support of UOP Sodium Leak Testing**

Over the past year, ETEC has been marketing ETEC's sodium technology to UOP, a large petrochemical process engineering and research and development firm. UOP has determined that several of their patented petrochemical processes would be enhanced if sodium were used as the process heating medium. To date, it appears that a engineering services and technology transfer and licensing contract between ETEC/Rockwell and UOP will soon be realized. Recent technical discussions between ETEC and UOP have resulted in agreement on the need of sodium leak verification tests. These tests will demonstrate that leaks of UOP process fluids into sodium will result in relatively benign consequences. As such, ETEC has recommended that this leak testing be performed in ETEC Building 057. Building 057 was previously used for evaluating the effects of high pressure steam leaks into sodium, simulating steam generator tube failures for the Liquid Metal Fast Breeder Reactor (LMFBR) program.

The purpose of this letter is to inform you that ETEC is currently preparing a proposal and cost estimate for a leak test program to UOP, utilizing the Rig 1 sodium system in Building 057. UOP has given verbal approval in principle of the test program, with final UOP approval to be made once a satisfactory test program and cost estimate has been prepared. In the event that the sodium used for the Rig 1 test needs to be cold trapped, the use of Rig 2 may also need to be utilized. As such, I request that you remove the Building 057 Rig 1 and 2 sodium systems from the current D&D list, until their use for UOP testing has been exhausted.

UOP concurrence on this letter does not financially obligate UOP for performance of the testing described above. That obligation will only be made through a Rockwell-UOP contract.

Sincerely,

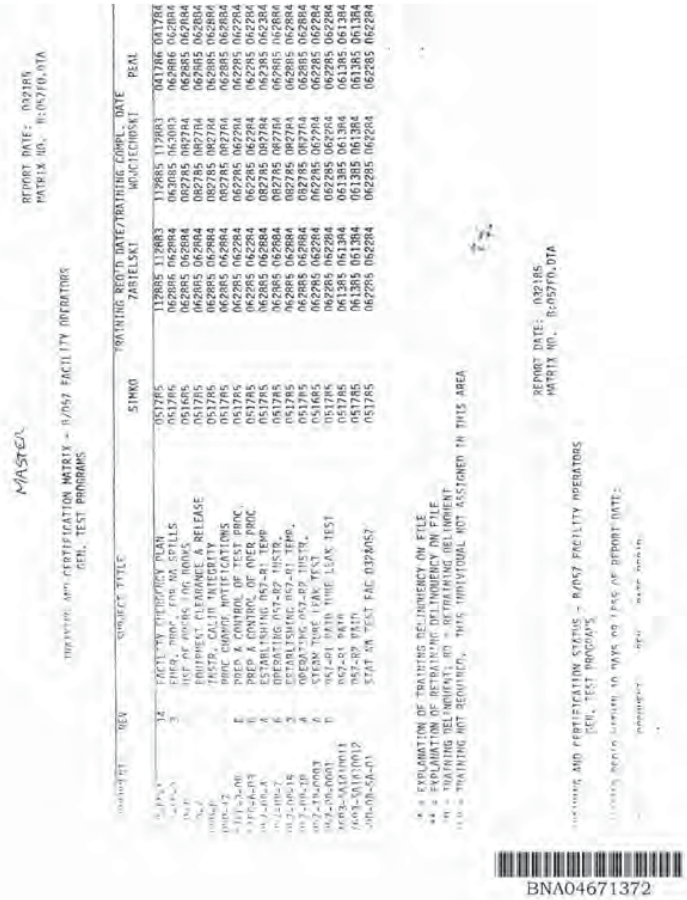
Michael McDowell
Manager
General Programs

UOP Concurrence:

R. K. Olson
Director, Research & Development

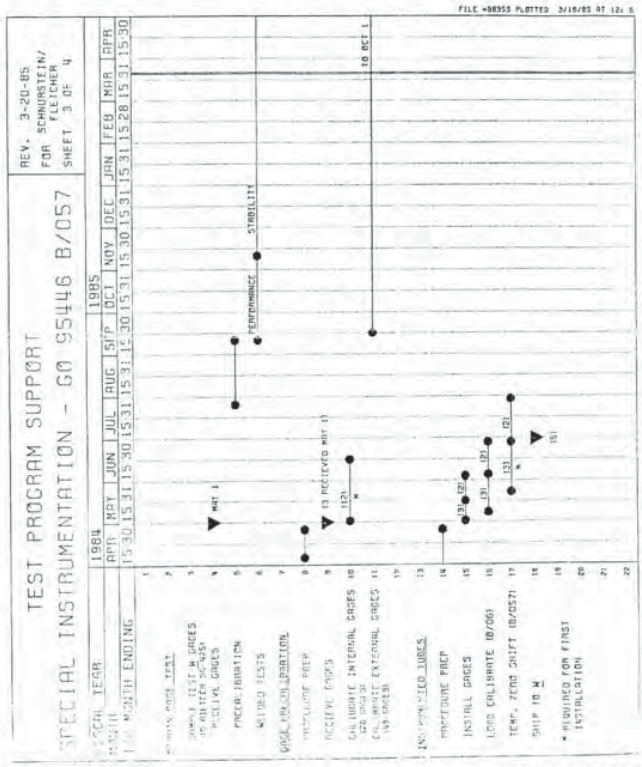
BNA04652833
HDMSP001897036

BUILDING 4057



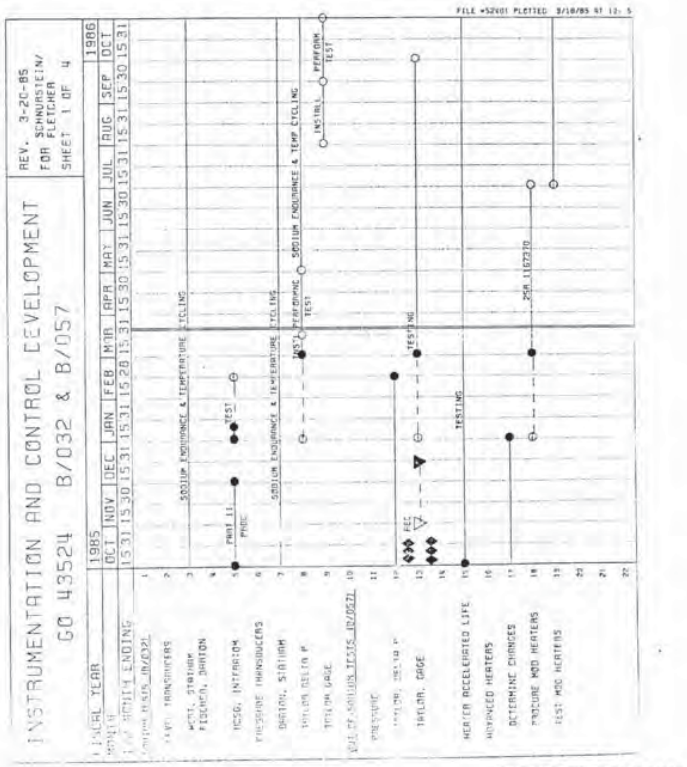
BNA04671372

HDMSP001897211



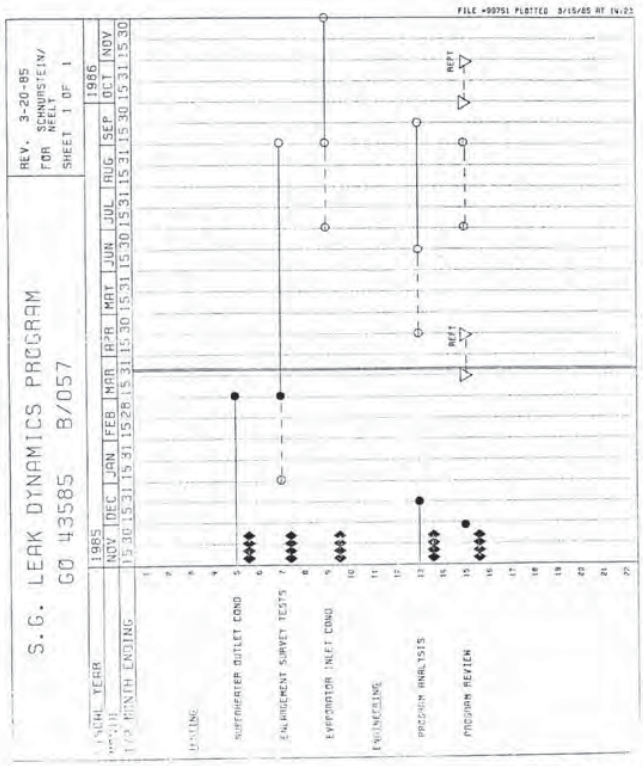
BNA04671376

HDMSP001897212



BNA04671377

HDMSP001897213



BNA04671378

HDMSP001897214

BUILDING 4057

057-EM-1
Page 1
10/25/78
Rev. 11, 6/6/01

FACILITY EMERGENCY PLAN

BUILDING NUMBER - B/057

BUILDING NAME - ETEC TEST AND SERVICE LAB

LOCATION - SANTA SUSANA

Approved by _____ 6/8/01
Facility Manager

_____ 6/22/01
Health and Safety

_____
Vice President/Director

_____ 27-01
Emergency Coordinator

_____
Quality Assurance

_____
Director, Industrial Security

BNA04671460

HDMSP001897215

057-EM-1
Page 1
10/25/78
Rev. 11, 02/10/83

FACILITY EMERGENCY PLAN

BUILDING NUMBER - B/057

BUILDING NAME - ETEC TEST AND SERVICE LAB

LOCATION - SANTA SUSANA

Approved by _____ 2/10/83
Facility Manager

_____ 2/21/83
Health and Safety

_____
Vice President/Director

_____ 2-23-83
Emergency Coordinator

_____
Quality Assurance

_____
Director, Industrial Security

BNA04671521

HDMSP001897233

Energy Technology Engineering Center — DOCUMENT RELEASE RECORD — No. 24223

FACILITY OR PROJECT NAME AND PROGRAM NO.: B/057 REMEDIATION

DOCUMENT NO.: ER-SP-0001 — REV.: No — TITLE: MINIMIZE EXPOSURE AND DISPOSITION OF LARGOS OR POTENTIALLY HAZARDOUS WASTES CONTAINING HAZMAT — NO. OF SHEETS: 18

CONFIGURATION SUMMARY RECORD: YES ✓ NO

TYPE OF RELEASE: CONCEPTUAL X; NEW; REVISED; VAULT ONLY; OBSOLETION; AS-BUILT

PRINT DISTRIBUTION

NAME	LOC	QTY
P. WILTON	7020	1
R. METZG	7030	X
D. CANLSED	0.05	1
B. PALING	7030	1
T. VERBLE	7030	1
P. BOTHSTEED	7100	1
M. TESSIER	7100	1
T. HARRICOTT	0.75	1
W. CLEVELAND	0.5	1
N. WILLIAMS	0.53	1
T. KARDINAL	0.90	1
[illegible]	1.05	1

ORIGINATOR R.D. Meyer — DATE 10-25-91
MANAGER [illegible] — DATE 10-25-91
QUALITY ASSURANCE [illegible] — DATE 10/25/91
PROGRAM MANAGER [illegible] — DATE 10-25-91
MGR. ENGINEERING [illegible] — DATE 10-25-91
REGULATORY [illegible] — DATE 10-25-91
DOCUMENT ID REVIEWED: YES ☒ NO ☐

LEVEL II: "FOR CUSTOMER APPROVAL" ☐ "APPROVED BY CUSTOMER" ☐

COMMENTS: RE-INVESTIGATE AND PUT POINT FOR PROPERTY ACTION - RIDDING OFFICE TO SUBMIT TO DOSE FOR CONCURRENCE

REVIEW NO. 057-020 — G.O. NO. 95131 — SUBACCT. NO. 27500 — ENGINEER [illegible] — RELEASE DATE 11-25-91

FORM 725-0-01 REV. 9-90

BNA04672071

HDMSP001897251

Rockwell International
Rocketdyne Division

Energy Technology Engineering Center

REQUEST FOR TECHNICAL REVIEW

ETEC - ORIGINATED DOCUMENTS

PROJECT: B/057 H PROJECT — SUBJECT: SAFETY ASSESSMENT

DOCUMENT NUMBERS	REFERENCE DOCUMENTS
057-7R-0002	

GENERAL DESCRIPTION AND PURPOSE OF REVIEW: CONDUCT INDEPENDENT REVIEW OF SAFETY ASSESSMENT PER ETEC PROCEDURE Z-34

TYPE OF REVIEW: CONCEPTUAL ☐ PRELIMINARY ☐ FINAL ☒

SUGGESTED REVIEW BOARD MEMBERS						INFO COPIES	
NAME	FUNCTION	LOC	NAME	FUNCTION	LOC	NAME	LOC
J Erman	Safety	456					
R Ueshiro	Env	486					
P Green	Eng	487					
R Sherer	Fire	PA50					

PROJECT CHARGE:	LEDGER	G.O.	SUBACCT
	29841	96692	69200

DESIRED REVIEW DATE: 3-15 — REVIEW METHOD: DISTRIBUTION ☒ MEETING ☐

REQUESTED BY: K Knudsen — DATE 3-8-95

FORM 725-0-03 REV. 9-90

BNA04722378

HDMSP001899005

BUILDING 4057

Energy Technology Engineering Center

B057

COMPUTER LOG

DATA LOGBOOK

BNA04733456

HDMSP001899567

Energy Technology Engineering Center

DAILY LOG

INSTRUMENT COMPONENT TEST LAB.
BUILDING 057 - LOW BAY

DATA LOGBOOK

START DATE 11-17-82
STOP DATE 3-24-83

FROM Vol # 907
VOLUME 911
To Vol # 945.

BNA04733662

HDMSP001899569

Energy Technology Engineering Center

DAILY LOG

INSTRUMENT COMPONENT TEST LAB.
BUILDING 057 LOW BAY

DATA LOGBOOK

START DATE 7-29-83.
STOP DATE 12-5-83

FROM Vol # 945
VOLUME 948
To Vol # 975

BNA04733767

HDMSP001899673

BUILDING 057 PROCEDURES INDEX

Page 9
2/1/78

Procedure No.	Title (Abbreviated)	Revision Date	Rev No.	Review Status
	SECTION VIII - TEST			
057-TP-21	MCIS-Sliding Contact Test	8/21/74	A	Notreq
057-TP-22 X	MCIS-Variable Vel Fric Test	6/5/74	New	Notreq
057-TP-27 X	MCIS-Signal Conditioner Checkout	4/11/75	New	Notreq
057-TP-28 X	MCIS-Instrument Console	4/11/75	New	Notreq
057-TP-29	Kaman In-Sodium Transducers	5/12/75	New	Notreq
057-TP-30	MCIS-Sliding Contact Test In Na	5/5/75	New	Notreq
057-TP-31 X	MCIS-Removal & Disassy	6/23/75	New	Notreq
057-TP-32	MCIS-Assy and Installation	6/23/75	New	Notreq
057-TP-33 X	Heated Transducer Pressure Test	11/14/77	New	Notreq

3-9-78

To Shift Leader
Need these test Procedures
Marked with X

Head Zebelski
3-9-78

Called operations for
these Procedures 10 each for our
file #2. 3-9-78 #2

BNA04733874

HDMSP001899777

BUILDING 4057

BUILDING 057 PROCEDURES INDEX

Page 9
2/1/78

Procedure No.	Title (Abbreviated)	Revision Date	Rev No.	Review Status
	SECTION VIII - TEST			
057-TP-21	MCIS-Sliding Contact Test	8/21/74	A	Notreq
057-TP-22	MCIS-Variable Vel Fric Test	8/5/74	New	Notreq
057-TP-27	MCIS-Signal Conditioner Checkout	4/11/75	New	Notreq
057-TP-28	MCIS-Instrument Console	4/11/75	New	Notreq
057-TP-29	Kaman In-Sodium Transducers	5/12/75	New	Notreq
057-TP-30	MCIS-Sliding Contact Test In Na	6/9/75	New	Notreq
057-TP-31	MCIS-Removal & Disassy	6/23/75	New	Notreq
057-TP-32	MCIS-Assy and Installation	6/23/75	New	Notreq
057-TP-33	Heated Transducer Pressure Test	11/14/77	New	Notreq
057-TP-34	PROCEDURE FOR SLIDING CONTACT TESTS OF SPECIMENS IN NACON AS A FUNCTION OF TEMP.	3/6/78	NEW	

BNA04733875

HDMSP001899778

Liquid Metal Engineering Center

Operated for
the U.S. Energy Research and Development Administration
by Atomics International Division, Rockwell International

APPROVAL

TEST PROCEDURE

NO. (057-TP-30) TP-29-MT-001
PAGE 1 OF 8
ORIG. DATE 6/9/75
REV. DATE

DRR NO. 7991

TITLE: Building 057 Procedure for Sliding Contact Tests of Specimens in Sodium as a Function of Temperature

REV. LTR.	REVISION	APPROVAL/DATE

OFFICIAL COPY
RELEASE DATE
JUN 11 1975
NOTICE: THIS COPY SUPERSEDES ALL PRIOR COPIES ISSUED.

BNA04733876

HDMSP001899779

Liquid Metal Engineering Center

Operated for
the U.S. Energy Research and Development Administration
by Atomics International Division, Rockwell International

APPROVAL

CONSTRUCTION SPECIFICATION

NO. 7691-GA65400-2
PAGE 1 OF 120
ORIG. DATE 12-12-75
REV. DATE 1-28-76

DRR NO. 10270

TITLE: BUILDING 057 INPROVEMENTS
ELECTRICAL INSTRUMENTATION AND CONTROL

REV. LTR.	REVISION
A	(See Summary of Changes, next page) DRR 11345
B	(See Summary of Changes Pg 1a & 1b) DRR 12278

OFFICIAL COPY
RELEASE DATE
JUL 10 1976
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FORM TAS-A-6 REV. 5-75

BNA04734267

HDMSP001899804

Rockwell International
Atomics International Division

PEWR 75052/75193

CONSTRUCTION SPECIFICATION

PREPARED BY: APPROVED BY:

SPEC. NO. 303-057-07
SECTION Addendum 1
DATE March 18, 1978
PAGE 1 OF 1

ADDENDUM 1

CONTROL ROOM MODIFICATIONS

BUILDING 057

SANTA SUSANA FACILITY, VENTURA COUNTY, CALIFORNIA

This addendum is a component part and supplementary to the above plans and specifications.

Specification — Pages

Section 123 - Suspended Acoustical Ceiling

C. Materials

1. (Add to note) after standard manufacturers finish...,acoustical ceiling material shall have Underwriters Laboratories, Inc., (UL) listed or Factory Mutual (FM) approval.

Add 502 - Fire Alarm Supervisory System — 1-3

Drawings

Delete Drawing 303-057-A15
Add Drawing 303-057-A15, Revision 1, Revised Floor Plan
Delete Drawing 303-057-A16
Add Drawing 303-057-A16, Revision 1, Interior Wall Elevations
Add Drawing 303-057-E158, Revision 3 only, Fire Protection Modifications

LMEC DISPOSITION
DTR NO. 12106 DATE 5-11-78

BNA04734431

HDMSP001899967

BUILDING 4057

Rockwell International
PEWR 75052 and 75193
CONSTRUCTION SPECIFICATION

SPEC. NO. 303-057-7
SECTION 101 - Painting
DATE November 26, 1975
PAGE 1 OF 4

PREPARED BY: APPROVED BY:

PAINTING

CONTROL ROOM MODIFICATION

BUILDING 057

SANTA SUSANA FACILITY, VENTURA COUNTY, CALIFORNIA

A. General Requirements

The General Requirements form a part of this section with the same force and effect as though repeated herein.

B. Surfaces Not Requiring Paint

Unless specifically indicated on drawings, these listed surfaces are examples of the types that shall not be painted. Approval for not painting other surfaces shall be obtained from Rockwell International.

1. Stainless steel.
2. Aluminum members and trim.
3. Materials and equipment with complete factory finish.

C. Painting Specified in Other Sections

It shall be the Builder's responsibility to provide all shop coating and prime coating as specified in other sections of the specifications.

D. Materials

1. All painting materials shall be delivered to the premises in sealed containers bearing the manufacturer's label and shall be mixed and applied in accordance with the instructions of the manufacturer.
2. Unless otherwise authorized, paints, primers, and finishes shall be ready-mixed materials equal to first time line products manufactured by Sinclair, Sherwin-Williams, W. P. Fuller, or approved equal.

BNA04734440

HDMSP001899968

PEWR 75052
75193
Rockwell International
CONSTRUCTION SPECIFICATION

SPEC. NO. 303-057-07
SECTION 103-Asphalt Tile
DATE November 24, 1975
PAGE 1 OF 2

PREPARED BY: APPROVED BY:

ASPHALT TILE

FOR

BUILDING 057

SANTA SUSANA FACILITY, VENTURA COUNTY, CALIFORNIA

A. General Requirements

The General Requirements form a part of this section with the same force and effect as though repeated herein.

B. Scope of Work

Remove existing asphalt tile in rooms as shown on drawings. Power sand the existing adhesive smooth and fill any voids in concrete so as to have a smooth concrete floor to install new asphalt tile.

Install new floor tile in Rooms 101, 104, 105, and 106. Install tile to match over trench covers. Use edge strips as required at covers.

C. Materials

1. Asphalt Tile - 1/8-inch thick, 9-inch x 9-inch beige Kentile C277.
2. Cove Base - Where indicated on the drawings, furnish and install 4-inch, top-set cove base with preformed end-stops and external corners. Maticove 1100 black or as directed.
3. Edge Strips - Asphalt edge-reducing strips with beveled or round edges where required.
4. Primers, Fillers, and Adhesives - Standard products, with characteristics appropriate for specified type of installation as recommended by flooring manufacturer.

D. Surface Conditions

The tile Builder shall report to Rockwell International in writing the condition of any surface which is considered unsatisfactory to receive required filler or covering. If work is commenced before defects have been reported or corrected, the Builder assumes full responsibility and shall rectify any resulting unsatisfactory work. Unless otherwise specified, all methods of installation used shall be in strict accordance with the recommendations of the manufacturer.

BNA04734444

HDMSP001899972

75193
Rockwell International
CONSTRUCTION SPECIFICATION

SPEC. NO. 303-057-07
SECTION 103-Gypsum Wall
DATE November 24, 1975
PAGE 1 OF 2

PREPARED BY: APPROVED BY:

GYPSUM WALL BOARD AND METAL STUDS

FOR

CONTROL ROOM MODIFICATIONS

BUILDING 057

SANTA SUSANA FACILITY, VENTURA COUNTY, CALIFORNIA

A. General Requirements

The General Requirements form a part of this section with the same force and effect as though repeated herein.

B. Scope of Work

Erect interior nonload-bearing partitions with related metal components and accessories as required and surface with gypsum wall board in accordance with the specifications and drawings. Fill in door openings and arc openings in same manner.

C. Materials

1. All materials shall be as manufactured by U.S. Gypsum Co., or approved equal.
2. Gypsum Wall Board: 5/8-inch tapered edge sheet rock 48 inches wide and in lengths as long as practical to satisfy the ceiling conditions.
3. Studs, Floor, and Ceiling Runners: 3-1/2 inches roll-formed metal-channel studs of 20-gage (minimum), electro-galvanized steel with holes punched in web to facilitate installation of horizontal electrical wiring and conduit.
4. Fasteners: Self-tapping sheet metal, flat-head screw to provide the optimum surface depression for proper concealment. Power driving this screw is recommended.
5. Joint Cement and Reinforcing Tape: Shall be as recommended by the manufacturer of the gypsum wall board.
6. Accessories:
   a. Corner Beads: Number 100 Perf-A-Bead
   b. Metal Trim: Number 200

BNA04734446

HDMSP001899974

PEWR 75052 - 75193
Rockwell International
CONSTRUCTION SPECIFICATION

SPEC. NO. 303-057-7
SECTION 113-Str. Stl. & M.M.
DATE November 24, 1975
PAGE 1 OF 3

PREPARED BY: APPROVED BY:

STRUCTURAL STEEL AND MISCELLANEOUS METALS

FOR

CONTROL ROOM MODIFICATIONS

BUILDING 057

SANTA SUSANA FACILITY, VENTURA COUNTY, CALIFORNIA

A. General Requirements

The General Requirements form a part of this section with the same force and effect as though repeated herein.

2. Applicable Standards, Codes and Specifications
   1. Standards - Designations of the ASTM shall apply.
   2. Codes which apply are:
      a. A.I.S.C. Code of Standard Practice for Steel Buildings and Bridges.
      b. American Welding Society Standard Code for Arc and Gas Welding in Building Construction.
   3. Specifications - A.I.S.C. Specification for the Design, Fabrication, and Erection of Structural Steel for buildings shall apply.

C. Materials

1. Structural Steel shall conform to ASTM A36.
2. Bolts, nuts and washers shall conform to ASTM A307 unless otherwise indicated.
3. Sheet steel shall conform to ASTM A245.
4. Arc welding electrodes shall conform to A.W.S. specifications.
5. Steelplate, bars and rods shall be of mild or structural steel grades conforming to applicable ASTM standard specifications.

BNA04734452

HDMSP001899980

BUILDING 4057

Rockwell International

PEWR 75052
75193

CONSTRUCTION SPECIFICATION

PREPARED BY: APPROVED BY:

SPEC. NO. 303-057-07
SECTION 114 Built-Up Roofing
DATE November 24, 1975
PAGE 1 OF 3

BUILT-UP ROOFING AND INSULATION REPAIR

FOR

BUILDING 057 CONTROL ROOM MODIFICATIONS

SANTA SUSANA FACILITY, VENTURA COUNTY, CALIFORNIA

A. General Requirements

The General Requirements form a part of this section with the same force and effect as though repeated herein.

B. Scope of Work

The work consists of furnishing all labor, materials, equipment, and services necessary to complete repairs and restoration of the roof system as follows:

1. Remove and replace Roof Mat System with 3-ply and new 2-inch rigid insulation on lower South roof.
2. Apply Emulsion Protection System.
3. Repair remaining Metal Edge systems on all three levels.
4. Repair remaining fractures and projections with Fracture Repair System on mid and high roofs.
5. Caulk all counter flashing with one part acrylic.
6. Apply white coating to entire Roof Mat System - all three levels.

C. Materials

The following materials or equals, as proven by an independent laboratory in writing, shall be used. Any substitutions shall also be approved in writing by Rockwell International before commencement of any work.

Tremco Tremprime Quick Dry Resaturant
Tremco Liqui-Mat Asphalt Emulsion
Tremco Mono, One-Part Acrylic Sealant
Tremco White Coating
Tremco Polyroof, one part elastomer
12-inch Jute membrane

BNA04734455

HDMSP001899983

75193

Rockwell International

CONSTRUCTION SPECIFICATION

PREPARED BY: APPROVED BY:

SPEC. NO. 303-057-07
SECTION 123-Acous. Ceiling
DATE November 24, 1975
PAGE 1 OF 2

SUSPENDED ACOUSTICAL CEILING

FOR

CONTROL ROOM MODIFICATIONS

BUILDING 057

SANTA SUSANA FACILITY, VENTURA COUNTY, CALIFORNIA

A. General Requirements

The General Requirements form a part of this section with the same force and effect as though repeated herein.

B. Scope of Work

Remove existing T-bar system in areas as called for on suspended ceiling drawing. In Room 101, align new T-bar system with existing area to remain. In Room 106, provide new T-bar system as shown on drawings 303-057-A17.

C. Materials

1. Acoustical Units - Shall be nominal 24 inches x 48 inches Armstrong mineral fiber fissured design ceiling board with a minimum thickness of 5/8-inch. Each unit shall have a white paint surface on the exposed face provided as a standard manufacturer's finish.
2. Suspension Members - Shall be aluminum tees for the main and the cross runners with aluminum angles at edges. Channel hangers shall be steel. Aluminum tees shall be white.
3. Hanger Wire - Shall be not less than Number 8.
4. Rectangular Studs - If hanger studs are used, they shall be 1/8 x 3/8 R7P as specified by "Nelson Stud Welding Co.," or approved equal.

D. Installation

All work shall be coordinated with the electrical and mechanical trades.

BNA04734458

HDMSP001899986

PEWR 75052
75193

Rockwell International

CONSTRUCTION SPECIFICATION

PREPARED BY: APPROVED BY:

SPEC. NO. 303-057-07
SECTION 125-Glass & Glazing
DATE November 24, 1975
PAGE 1 OF 1

GLASS AND GLAZING

FOR

CONTROL ROOM MODIFICATIONS

BUILDING 057

SANTA SUSANA FACILITY, VENTURA COUNTY, CALIFORNIA

A. General Requirements

The General Requirements form a part of this section with the same force and effect as though repeated herein.

B. Scope of Work

Install vision glass in aluminum frames from the Control Room Area to High Bay Test Rig Area, and from Out-of-Sodium Room 101 to High Bay Test Rig Area. Also, vision panes in doors shall be installed.

C. Materials

1. All wire glass shall be manufactured by Pittsburgh Glass Co., or approved equal.
2. Wire glass shall be 1/4-inch thick, clear-polished.

D. Labeling

Each light of glass shall be labeled with the manufacturer's label showing quality, weight, and thickness.

E. Installation

All glass set in vision light openings of doors and windows shall be so installed with metal snap-in devices. Excess caulking left neatly pointed at all intersections. The Builder shall replace all broken glass or glass that is rejected.

rea:4/9

BNA04734460

HDMSP001899988

Rockwell International

PEWR 75052
75193

CONSTRUCTION SPECIFICATION

PREPARED BY: APPROVED BY:

SPEC. NO. 303-057-07
SECTION 132 Metal Doors &
DATE January 16, 1975
PAGE 1 OF 2

METAL FRAMES AND DOORS

FOR

CONTROL ROOM MODIFICATIONS

FOR

BUILDING 057

SANTA SUSANA FACILITY, VENTURA COUNTY, CALIFORNIA

A. General Requirements

The General Requirements form a part of this section with the same force and effect as though repeated herein.

B. Materials

1. Sheet Steel - Prime quality, stretched leveled carbon steel sheet, ASTM A366 or A415, with electro-deposited zinc coating, ASTM A164, Class G5, or hot dip galvanizing ASTM A525 with coating, Class 1.25 commercial.
2. Shop Prime Coating - Rust-inhibitive baked enamel prime coating, shop applied to exposed surfaces of door panels, and door frames after thorough cleaning and phosphate coating. Minimum thickness of one mil without including phosphate coating.
3. Glass - Wire glass shall be 1/4-inch thick, clear-polished.

C. Design and Fabrication

1. Doors - Full flush, hollow steel construction, 1-3/4 inch thick, size indicated on the drawings. Top and bottom shall have flush-end closure. Faces shall be formed from single pieces of zinc-coated steel sheet, without seams, and not lighter than 18 U.S. gage. Doors and panels shall be all welded construction with welds continuous and dressed flush and smooth on exposed surfaces. Provide removable glazing stops or mouldings.
2. Frames - Pressed steel, not lighter than 16 gage, size and profile shown on the drawings, welded unit type with welded mitered corners. All welds shall be dressed down smooth and flush with adjacent metal surfaces. Anchors shall be spot welded to inside of jambs and punched for floor anchorage.

BNA04734461

HDMSP001899989

BUILDING 4057

PEWR 75052
75193

Rockwell International

CONSTRUCTION SPECIFICATION

SPEC. NO. 303-057-07
SECTION 134-Hardware
DATE November 24, 1975
PAGE 1 OF 2

PREPARED BY: APPROVED BY:

HARDWARE

FOR

CONTROL ROOM MODIFICATIONS

BUILDING 057

SANTA SUSANA FACILITY, VENTURA COUNTY, CALIFORNIA

A. General Requirements

The General Requirements form a part of this section with the same force and effect as though repeated herein.

B. Finishes

1. Hardware shall have the following U.S. Standard finishes:

   a. US 26D - Exposed surfaces of brass or bronze when corrosion-resisting steel is furnished.

   b. Metallic Jacquer - Exposed surfaces of surface-type door closers.

C. Manufacturers'

All hardware manufacturers' shall be as indicated below or approved equal.

1. All butts shall be 4-1/2 x 4-1/2 Stanley FBB 191 prime coat.

2. Norton or Yale and Towne74.

3. Lock sets, latch sets, and dummy knobs by Best Universal Lock Company, Inc.

4. Push plate - Quality No. 40 4 x 16.

5. Door pull - Quality No. 400 4 x 16.

6. Extension flush bolt - Quality No. 1358.

BNA04734463

HDMSP001899991

Rockwell International

CONSTRUCTION SPECIFICATION

PEWR 75052
75193

SPEC. NO. 303-057-07
SECTION 300-Plumbing
DATE November 24, 1975
PAGE 1 OF 8

PREPARED BY: APPROVED BY:

PIPING

FOR

CONTROL ROOM

BUILDING 057

SANTA SUSANA FACILITY, VENTURA COUNTY, CALIFORNIA

A. General Requirements

The general requirements form a part of this section with the same force and effect as though repeated herein.

B. Work Required

The work described in this specification shall include the following:

1. Demolition of existing piping.

2. Installation of gaseous nitrogen (GN_2) lines, valves, and fittings and connection to GN_2 supply.

3. Extend natural gas service.

4. Leak test piping systems.

5. Remove Cooling Tower CT-2, pump and piping.

6. Extend hot and cold water services to sink.

C. Material and Equipment

1. GN_2 diaphragm valves - malleable iron body, neophrene diaphragm, 1/2-inch MPT screwed ends unlined, ITT Grinnel 1/2-inch, Fig. 2401-T or equal.

2. Quick connect - Hansen Manufacturing Company, Push-Tite Coupling Series 5000, socket 1/2 inch and 3/8 inch or equal.

3. Pressure Regulator - 4000 psi supply 200 psi delivery set @ 120 psig. Linde Type R2428, Cat 104x13 or equal.

4. Master Valves - 3500 GN_2 service 1-inch Rockwell-Edward Forged Steel Gage Valve, Fig. 152, screwed, globe, or equal.

BNA04734465

HDMSP001899993

Rockwell International

CONSTRUCTION SPECIFICATION

PEWR 75052
75193

SPEC. NO. 303-057-07
SECTION 302-Air Conditioning
DATE November 24, 1975
PAGE 1 OF 7

PREPARED BY: APPROVED BY:

AIR CONDITIONING

FOR

CONTROL ROOM

BUILDING 057

SANTA SUSANA FACILITY, VENTURA COUNTY, CALIFORNIA

A. General Requirements

The general requirements form a part of this section with the same force and effect as though repeated herein.

B. Work Required

The work described in these specifications shall include the following:

1. Remove clean room air conditioning.

2. Remove exhaust fans and ductwork.

3. Add new duct and diffusers and replace diffuser.

4. Relocate thermostats.

5. Patch walls, ceilings, and roof as required.

C. Demolition

1. Remove clean room air conditioning, ductwork, piping, and associated equipment in its entirety as shown on the drawings. Repair all openings in walls and ceilings which are to remain in place.

2. Remove exhaust fan and duct near Column 7 on outside wall of building and patch wall.

3. Remove fume hood ducts, exhaust air register, and exhaust fan EF-5 and associated ductwork as shown on drawings and repair walls and ceilings.

4. Remove exhaust fan in attic space and associated ductwork as shown on drawings and repair roof and ceilings.

5. Patch roof openings in accordance with AI Standard Drawing 300-MISC-M43.

6. All material and equipment shall be returned to Rockwell International salvage.

BNA04734473

HDMSP001900001

Rockwell International

PEWR 75052/75193

CONSTRUCTION SPECIFICATION

SPEC. NO. 303-057-07
SECTION 502-Fire Alarm Sys
DATE March 18, 1976
PAGE 1 OF 3

PREPARED BY: APPROVED BY:

FIRE ALARM AND SUPERVISORY SYSTEM

FOR

CONTROL ROOM MODIFICATIONS

AT

BUILDING 057

LMEC DISPOSITION
DTR NO. 12106 DATE 5-11-76

Code of Approval	Approved as Specified	Approved as Noted	Revise and Resubmit	Not Approved	Receipt Acknowledged	Exceptions Taken	Other
2	X						

SANTA SUSANA FACILITY, VENTURA COUNTY, CALIFORNIA

A. General Requirements

The General Requirements form a part of this section with the same force and effect as though repeated herein.

B. Scope of Work

The work described herein consists of additions and modifications to an existing pyralarm fire detection installation.

C. Materials and Equipment

Except where existing material and equipment is designated for reuse by Rockwell International, all materials and equipment shall be new and shall comply with the requirements of the Fire Underwriters' Laboratories, Inc. and all governing codes.

D. Fire Alarm and Supervisory System

1. The Atomics International fire, supervisory and alarm system at the Santa Susana Field Laboratory Site consists of multiple McColloh loops terminating at the Rockwell Protective Services Control Center Building (Building 207).

2. Coded alarm signals originated by local transmitters, Potter Electric Signal Company type EFT indicates the location and type of fire signal at the Central Station in Building 207.

3. Inputs to the EFT transmitter may be any configuration of the following originating devices:

   a. Heat actuated device (HAD).

   b. Manual fire switch (pull stations and break glass stations).

BNA04734486

HDMSP001900003

BUILDING 4057

Internal Letter — Rockwell International

October 13, 1976 — No. 76-217-1-256

TO: R. V. Steele, 720-218, T019

FROM: S. R. Kacin, 720-217, T483, Phone 6205

Subject: Building 057, Pressure Lab (Room 106)

All work in Room 106 has been completed by outside contractors.

All test results are on file in B/483, Construction Department. These test results will be retained for completed turn-over package.

The following is given to Operations in a partial turn-over of B/057:

1. Full occupancy of pressure lab (room 106).
2. Operation and Maintenance Manuals on equipment furnished by this contract.
3. Redline prints and punch list (room 106).
4. Two keys to rooms 101 and 106.

S. R. Kacin
Construction

B/057, Pressure Lab Accepted by:

Operations Department

Partial Turn-Over of B/057 Approved by:

Quality Assurance

cc w/Attach: T. Brewer
cc w/Punch List only:
E. Barrett
W. Armstrong
J. Irvin
F. Fletcher
J. LaBue
H. Boswell
J. Hentzer
J. Meyer
F. W. Poucher
G. Twa

BNA04734554
HDMSP001900006

LMEC SPEED LETTER
INTERNAL CORRESPONDENCE

DATE 10/27/76 FILE NO.

TO R.V. STEELE FROM S.R. KACIN

BLDG. 019 BLDG. 483 PHONE 6205

SUBJECT: B/057 OSCILLOSCOPE TRANSFER TO W. BURNS

MESSAGE

REF: TEKTRONICS SCOPE MODEL 465, CONTROL NUMBER ZD-~~250550~~ 250505.

ITEM HAS BEEN GIVEN TO W. BURNS FOR USE IN B/059.
CONSTRUCTION DEPT. WILL NO LONGER CONCERN IT SELF WITH THIS ITEM

S. R. Kacin
10/27/76

REPLY

DATE PHONE

cc:
W. BURNS
J. POUCHER
R. STEELE
H. STAFFORD
V. FLETCHER

DISTRIBUTION: WHITE & PINK — ADDRESSEE
YELLOW — ORIGINATOR
PINK — REPLY — ORIGINATOR

FORM 775-A-64 NCN 9-69

BNA04734556
HDMSP001900008

LIQUID METAL ENGINEERING CENTER
Internal Letter — Rockwell International

Date: November 16, 1976 — No.: 76-217-1-312

TO:
- R. V. Steele
- 720-218
- T019

FROM:
- S. R. Kacin
- 720-217
- T483
- 6205

Subject: Building 057 I & C Test Lab and Rig 2 Turn-Over

All work in reference areas has been completed by outside contractors.

All test results are on file in B/483 or at the job site. These test results will be compiled for the turn-over package at completion of Rig 1.

The following is given to Operations in the second partial turn-over of Building 057.

1. Full occupancy of I & C Lab (including high bay area).
2. Full occupancy of Rig 2, including Control Room portion.
3. Redline prints - I & C Lab (not in prior turn-over), and Rig 2.
4. Punch List
5. Rig 2 motor generator will not be turned-over at this time (not required for present testing).

S. R. Kacin
LMEC Construction

B/057 I & C Lab, Accepted By

Operations

B/057 Rig 2, Accepted By

Operations

Partial Turn-Over of B/057 Approved By

Quality Assurance

cc: w/Attach: T. W. Brewer
cc w/Punch List only:
E. E. Barrett
J. Armstrong
W. A. Dunaway
J. L. Ervin
F. L. Fletcher
H. W. Hanna
E. T. Stafford
J. LaBue
H. D. Boswell
M. E. McCrae
J. V. Hentzer
J. T. Meyer
F. W. Poucher
G. J. Twa

Form 331-H Rev. 3-76

BNA04734557
HDMSP001900009

BUILDING 057
IMPROVEMENTS & UPGRADE TURNOVER
INDEX

1. Turnover Letter
2. Construction Completion and Final Acceptance Record
3. Punch List
4. Turnover Package

BNA04734559
HDMSP001900010

BUILDING 4057

Liquid Metal Engineering Center

Operated for
the U.S. Atomic Energy Commission by Atomics International Division
Rockwell International Corporation

APPROVAL

INDEX

NO. 7693-GD454001
PAGE 1 OF 3
ORIG. DATE 4-14-76
REV. DATE

DRR NO. 10548

TITLE:
BUILDING 057 IMPROVEMENTS TEST INDEX

REV. LTR.	REVISION	APPROVAL/DATE

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Liquid Metal Engineering Center

Operated for
the U.S. Atomic Energy Commission by Atomics International Division
Rockwell International Corporation

APPROVAL

TEST PROCEDURE

NO. CP-29-GA-002
PAGE 1 OF 23
ORIG. DATE 6-30-76
REV. DATE

DRR NO. 12604

TITLE:
B/057 Electrical Distribution System With Instrumentation and Power Grounding Systems

REV. LTR.	REVISION	APPROVAL/DATE

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FORM 735-A-40 REV 3-72

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Liquid Metal Engineering Center

Operated for
the U.S. Atomic Energy Commission by Atomics International Division
Rockwell International Corporation

APPROVAL

TEST PROCEDURE

NO. CP-29-GA-003
PAGE 1 OF 8
ORIG. DATE July 20, 1976
REV. DATE

DRR NO. 12606

TITLE:
B/057 GROUND FAULT INTERRUPTER SYSTEMS

REV. LTR.	REVISION	APPROVAL/DATE

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Liquid Metal Engineering Center

Operated for
the U.S. Atomic Energy Commission by Atomics International Division
Rockwell International Corporation

APPROVAL

CONSTRUCTION
TEST PROCEDURE

NO. CP-29-GA-004
PAGE 1 OF 10
ORIG. DATE 5-27-76
REV. DATE

DRR NO. 12611

TITLE:
Building 057 - Rig 1 & 2, Instrument Check-Out

REV. LTR.	REVISION	APPROVAL/DATE

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HDMSP001900049

BUILDING 4057

Liquid Metal Engineering Center

Operated for
the U.S. Atomic Energy Commission by Atomics International Division
Rockwell International Corporation

APPROVAL: SKRuen 8/27/76; 8/27/76; 8/27/76; 8/27/76

CONSTRUCTION **TEST PROCEDURE**

NO. CP-29-GA-006
PAGE 1 OF 18
ORIG. DATE July 17, 1976
REV. DATE 17

DRR NO. 12601

TITLE: B/057-Rig 1 & 2, Heater Controller Systems

REV. LTR.	REVISION	APPROVAL/DATE

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705-B:gbx

BNA04734621
HDMSP001900071

Liquid Metal Engineering Center

Operated for
the U.S. Atomic Energy Commission by Atomics International Division
Rockwell International Corporation

APPROVAL: SKRuen; 9/16/76

TEST PROCEDURE

NO. CP-29-GA-010
PAGE 1 OF 5
ORIG. DATE 10-8-76
REV. DATE

DRR NO. 12608 GA

TITLE: B/057 - I&C Test Lab, Pressure Transducer Recording System

REV. LTR.	REVISION	APPROVAL/DATE

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BNA04734660
HDMSP001900110

Liquid Metal Engineering Center

Operated for
the U.S. Atomic Energy Commission by Atomics International Division
Rockwell International Corporation

APPROVAL: SKRuen 10/12/76; 10/12/76; 10/11/76

TEST PROCEDURE

NO. P-055E-040-TS022
PAGE 1 OF 9
ORIG. DATE 10-12-76
REV. DATE

DRR NO. 12609 GA

TITLE: B/057 I&C TEST LAB, CYLINDRICAL OVEN SYSTEM

REV. LTR.	REVISION	APPROVAL/DATE

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OCT 19 1976
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BNA04734665
HDMSP001900115

JONES BROTHERS CONSTRUCTION CORPORATION

RECEIVED
OCT 15 1976
DRR 3851

SEPTEMBER 29, 1976

MR. WILLIAM N. MCCRAE
ATOMICS INTERNATIONAL
8900 DESOTO STREET
CANOGA PARK, CALIFORNIA 91304

SUBJECT: ATOMICS INTERNATIONAL
BUILDING 057 - CONTROL ROOM MODIFICATIONS

DEAR BILL:

STAN KACIN HAS REQUESTED A LETTER STATING THAT THE SUBJECT JOB WAS COMPLETED IN ACCORDANCE WITH THE CONTRACT DRAWINGS AND SPECIFICATIONS. WE HOPE THE FOLLOWING WILL MEET WITH YOUR APPROVAL:

1. ALL THE MISCELLANEOUS IRON WORK MEETS WITH A.I.S.C. SPECIFICATIONS.
2. THE NEW ACOUSTICAL CEILING IS FABRICATED FROM CHICAGO METALLIC "T" BARS AND ARMSTRONG "FIREGUARD" PEBBLED TILE AND HAS A ONE-HOUR FIRE RATING.
3. CONSTRUCTION OF THE PROJECT WAS COMPLETED IN ACCORDANCE WITH THE SPECIFICATIONS AND DRAWINGS WITH EXCEPTIONS AS NOTED ON THE "AS-BUILT" DRAWINGS.

IF THE ABOVE MEETS WITH YOUR APPROVAL, PLEASE FORWARD A COPY OF THE "NOTICE OF COMPLETION" WHEN FILED.

CORDIALLY,

JONES BROTHERS CONSTRUCTION CORPORATION

RANDAL G. MOTSHER
PROJECT MANAGER

RGM:NHG

LMEC DISPOSITION
DTR NO. 13358 DATE 10/18/76

DTR 13358

145 SAN VICENTE BOULEVARD • BEVERLY HILLS, CALIFORNIA 90211 • 213-826-8000

BNA04734704
HDMSP001900138

BUILDING 4057

FORM OF WARRANTY AND / OR GUARANTEE

WE, THE UNDERSIGNED, HEREBY WARRANT AND/OR GUARANTEE THAT THE ROOFING WORK WHICH WE HAVE FURNISHED AND/OR INSTALLED FOR THE FOLLOWING PROJECT:

PROJECT TITLE: ATOMICS INTERNATIONAL/BUILDING 057 CONTROL ROOM MODIFICATIONS

PROJECT OWNER: ROCKWELL INTERNATIONAL CORPORATION/ATOMICS INTERNATIONAL DIVISION

PROJECT ADDRESS: LMEC AT THE ROCKWELL INTERNATIONAL FIELD LABORATORY, SANTA SUSANA, VENTURA COUNTY, CALIFORNIA

HAS BEEN PERFORMED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, DRAWINGS AND THE SPECIFICATIONS PREPARED BY OWNER'S ENGINEERING FACILITIES, AND THAT SAID WORK AS INSTALLED WILL FULFILL AND/OR EXCEED ALL OF THE WARRANTY AND/OR GUARANTEE REQUIREMENTS INCLUDED IN SAME. WE HEREBY AGREE TO REPAIR OR REPLACE ANY OR ALL OF OUR WORK, TOGETHER WITH ANY OTHER ADJACENT WORK WHICH MAY BE DISPLACED OR DAMAGED BY SO DOING, THAT MAY PROVE TO BE DEFECTIVE IN ITS WORKMANSHIP OR MATERIAL WITHIN A PERIOD OF 15 (15) YEAR (S) FROM THE DATE OF FINAL ACCEPTANCE OF THE PROJECT BY THE OWNER, ORDINARY WEAR AND TEAR AND UNUSUAL ABUSE OR NEGLECT EXCEPTED.

IN THE EVENT OF OUR FAILURE TO COMPLY WITH THE ABOVE MENTIONED CONDITIONS WITHIN A REASONABLE PERIOD OF TIME, AS DETERMINED BY THE OWNER, AFTER BEING NOTIFIED IN WRITING, WE THE UNDERSIGNED, COLLECTIVELY OR SEPARATELY, DO HEREBY AUTHORIZE THE OWNER TO PROCEED AND HAVE SAID DEFECTS REPAIRED AND/OR REPLACED AND MADE GOOD, AND TO REFUND TO THE OWNER UPON DEMAND ALL MONEYS THAT THE LATTER MAY BE COMPELLED TO PAY IN DISCHARGING SAID WORK, INCLUDING ALL COSTS AND REASONABLE ATTORNEY FEES.

JOSEPH L. DE LANCEY
(SUBCONTRACTOR, SUB-SUBCONTRACTOR, MANUFACTURER OR SUPPLIER)

BY: Joseph L. De Lancey

TITLE: Owner

DATE: 8/11/76 STATE LICENSE NO. C-13 [illegible] (CORPORATE SEAL)

JONES BROTHERS CONSTRUCTION CORPORATION

BY: [illegible]

TITLE: RANDAL G. WAITHER, PROJECT MANAGER

DATE: 9-26-76 STATE LICENSE NO. 146022 (CORPORATE SEAL)

LOCAL REPRESENTATIVE TO BE CONTACTED FOR MAINTENANCE, REPAIR AND/OR REPLACEMENT SERVICES:

NAME: JOSEPH L. DELANCEY
ADDRESS: P. O. BOX 5671 HUNTINGTON, CALIFORNIA 90650
PHONE NUMBER: [illegible]

RECEIVED AUG 12 1976 S. BROTHERS (CONTRACTOR CORPORATION)

JONES BROTHERS CONSTRUCTION CORPORATION
145 SAN VICENTE BOULEVARD · · · BEVERLY HILLS CALIFORNIA · · · 90211

BNA04734705

HDMSP001900139

LIQUID METAL ENGINEERING CENTER
Internal Letter

N. T. Stafford
Rockwell International

Date	January 15, 1976	No.	76-201-3-021
TO Address	W. L. Peters 720-201 T027	FROM Address	W. A. Dunaway 720-201 T027
		Phone	6481

RECEIVED JAN 20

Subject: Construction Inspection Requirements for Building 057 Improvements, Electrical, Instrumentation and Control

The following is submitted to permit preparation of a detailed inspection plan for the electrical construction for the improvements to Building 057 at LMEC.

The detailed inspection plan should be documented in Inspection Plan Book No. 38.

Documents

Applicable documents are listed in Part I of Construction Specification 7693-GA45400-2.

Contractors

Unknown at this time.

Schedule

Unknown at this time.

Inspection Required

The inspector shall be familiar with Specification 7693-GA45400-2 prior to the implementation of this inspection plan.

1. Verify that all rigid conduit is hot lip galvanized inside and outside (Spec. 3.4.3).

2. Verify that the conductor insulation for trace heater systems are rated at 90°C, 600 Volts, Type THHN (Spec. 3.9.2).

3. Verify that conductor insulation for power and lighting systems is type THHN or THWN rated at 600 Volts (Spec. 3.9.3).

BNA04734708

HDMSP001900141

LIQUID METAL ENGINEERING CENTER
Internal Letter

S. R. Kacin
Rockwell International

Date	April 12, 1976	No.	76-201-3-100
TO Address	W. L. Peters 720-201 T027	FROM Address	W. A. Dunaway 720-201 T027
		Phone	6481

Subject: Construction Inspection Requirements for I&S Lab Support of Building 057 Improvements

The following is submitted to permit preparation of a detailed inspection plan for the assembly of consoles performed by the I&S Lab for Building 057 modification.

The detailed inspection plan is to be added to Inspection Plan Book No. 38 as a separate section.

Documents

Documents are listed in Specification 7693-GA45400-2 and Memorandum 76-217-1-38 (S. R. Kacin to J. T. Meyer).

Inspection Requires

The inspector shall be familiar with Specification 7693-GA45400-2 and Memorandum 76-217-1-38 (S. R. Kacin to J. T. Meyer) prior to the implementation of this inspection plan.

The inspector will be required to make spot overchecks during assembly and test of the consoles. When an overcheck is performed the "buy-off" will be accomplished on the "as-built" drawings maintained by the I&S Lab.

1. On a weekly basis verify that the contractor is maintaining an up-to-date set of drawings per Specification 7693-GA45400-2, par. 2.1.3.

2. Approximately 10% overchecks are to be made on the following items for conformance to referenced contract requirement.

2.1 Verify conductors within cabinets are installed to provide neatness and ease of wiring maintenance (Spec. 3.10.1).

2.2 Verify that Panduit plastic wire duct is installed where indicated on drawings (Spec. 3.10.4).

2.3 Verify that conductors are terminated per the requirements of Specification par. 3.11.

BNA04734712

HDMSP001900145

INSPECTION PLAN/RECORD No. 038 PAGE 1 OF 3

TITLE: Electrical, Instrumentation, Control DRAWINGS: Attached Copies

SPECIFICATION: 7693-GA45400-2 TITLE: Bldg. 057 Modification

PREPARED BY: [illegible] 2-26-76 QA ENGR [illegible] CONST. QA [illegible] 3/26/76

OK TO PROCEED: [illegible] CONSTRUCTION ENGINEER [illegible] DRAWING S/OR PARAGRAPH NO. OF BUY-OFF

1.	Verify all rigid conduit used is hot dip galvanized inside and outside.	Sect. 3.4.3	(B) 11/4/76	(B) 11/4/76	(B) 11/4/76	11/4/76 (B)	11/4/76 (B)	11/4/76 (B)
2.	Verify conduit entries to enclosures and trace heater terminal boxes are provided with an insulating grounding bushing and "lock type" lock nuts inside and outside.	Sect. 3.6.2	(B) 11/4/76	(B) 11/4/76	(B) 11/4/76	11/4/76 (B)	11/4/76 (B)	11/4/76 (B)
3.	Verify rigid conduit is supported at intervals of not more than 7 feet.	Sect. 3.7.3	(B) 11/4/76	(B) 11/4/76	(B) 11/4/76	11/4/76 (B)	11/4/76 (B)	11/4/76 (B)
4.	Verify that flexible conduits are supported at intervals not exceeding 3 feet and within 12 inches of outlet boxes and wiring enclosures.	Sect. 3.7.4	(B) 11/4/76	(B) 11/4/76	(B) 11/4/76	11/4/76 (B)	11/4/76 (B)	11/4/76 (B)
5.	Verify conduit runs assigned conduit numbers are identified per the requirements of the spec.	Sect. 3.7.5	(B) 11/4/76	(B) 11/4/76	(B) 11/4/76	11/4/76 (B)	11/4/76 (B)	11/4/76 (B)
6.	Verify liquid tight flexible conduit connectors are used on all flexible conduits.	Sect. 3.5.2	(B) 11/4/76	(B) 11/4/76	(B) 11/4/76	11/4/76 (B)	11/4/76 (B)	11/4/76 (B)
7.	Verify conductor insulation for trace heater systems are rated at 90°C, 600 volts, type THHN.	Sect. 3.9.2	(B) 11/4/76	(B) 11/4/76	(B) 11/4/76	11/4/76 (B)	11/4/76 (B)	11/4/76 (B)
8.	Verify conductor insulation for power and lighting systems are THHN or THWN rated at 600 volts.	Sect. 3.9.3	(B) 11/4/76	(B) 11/4/76	(B) 11/4/76	11/4/76 (B)	11/4/76 (B)	11/4/76 (B)

11-16-76 DATE

ALL STATIONS COMPLETED AND ACCEPTED

BNA04734718

HDMSP001900149

BUILDING 4057

LIQUID METAL ENGINEERING CENTER 72-203-B-071

MEMORANDUM

RECEIVED
MAR 31 1972
LMEC O & RA

Date: March 30, 1972

To: D. L. Polino
720-203 T038

From: J. R. Prevost,
A. S. Karwowski,
720-203 T211

Phone: 5785

Subject: Building 057, PSTF-1 Operating Temperature Limits

References:

(1) TI-682-30-001, "Piping Stress Analysis of Fill & Drain, and Overflow Lines for Sodium Pump Shaft Seal Test."
(2) N-68214010, "Test Vessel - Sodium (Spec Control Dwg)"
(3) 7693-SA1410011, "Sodium Pump Shaft Seal Test #1 P&I Diagram"
(4) R-N68214002, "Sodium Pump Shaft Seal Test Piping - Test Rig No. 1"

A review was made of the referenced documents to determine whether the cold trap supply and return line, the sample station line and the T-2 test vessel could be operated isothermally at 1350°F at 1 psi.

The test vessel (T-2) presents no problems since the design pressure-temperature is 55 psi at 1400°F.

The design pressure-temperature for piping system is 55 psi at 1200°F; therefore the operating temperature of 1350°F is above the design temperature of 1200°F.

The analysis presented in Reference (1) was reviewed to determine the thermal expansion and weight stresses to determine whether they are within the allowable stress limits for operation at 1350°F. The maximum computed thermal expansion stress in the line in question for 1200°F operation was 9580 psi. Since the maximum condition would be a linear relationship with temperature, the expansion stress as 1350°F would be approximately 10800 psi. This would be within the allowable thermal expansion stress of $1.25\ S_c + 0.25\ S_h$, where from ASME Section VIII the hot allowable stress $S_h = 2900$, and from the power piping code B31.1 the cold allowable stress $S_c = 18750$. ASME Section VIII is utilized for the hot allowable since B31.1 allowables are for 1200°F maximum. The resulting allowable thermal expansion stress is 24162 psi.

No previous analysis was available for the weight stress analysis. However, a conservative estimate of the weight effect results in a stress of approximately 300 psi. This is well below the allowable stress of 2900 psi. Pressure effects will be negligible.

Therefore, it is recommended that the line can be operated at the proposed operating condition, 1350°F, and 1 psi at isothermal conditions, with no detrimental effects.

BNA04759647
HDMSP001900304

Rockwell International
Energy Systems Group

INSPECTION AND ACCEPTANCE RECORD
DOE AUTHORIZED CONSTRUCTION

DOE AUTHORIZATION NO.	ESG ORDER NO.	FACILITY TITLE
78-CP-12	9850-78210 9850-78211 9850-78212	Bimetallic Lithium Loop (BLIP) Building 057

CONSTRUCTION SUBCONTRACTORS	SUBCONTRACT NO.	TASK TITLE	INSPECTED BY	DATE
Sechrist & Kelly	946-7037 CC	Mech. Construction	Stafford KTS Bergstrom	5-14-80
Miller Bros. Electric	046-7001 CC	Elect. Construction	Brown JEB Forster EGF	

THE UNDERSIGNED, OR THEIR DESIGNATED REPRESENTATIVES, HAVE INSPECTED THE SUBJECT FACILITY AND CONCUR WITH THE FOLLOWING:

1. THE CONSTRUCTION IS IN GENERAL CONFORMANCE WITH THE PLANS AND SPECIFICATIONS OF THE CONTRACT.
2. THE EXECUTION OF THE CONSTRUCTION WORK DID NOT INVOLVE USE OF GOVERNMENT OWNED MATERIALS OR EQUIPMENT, EXCEPT AS AUTHORIZED BY THE CONTRACT, AND A COMPLETE PROPERTY SETTLEMENT EXISTS.
3. THE WORK APPEARS TO HAVE BEEN PERFORMED IN A SATISFACTORY MANNER AND THE SCOPE OF WORK IS COMPLETE.

THE INSPECTION PARTY CONSISTED OF:

K. T. Stafford KTStafford
J. E. Brown J. E. Brown
E. G. Forster EGF
E. L. Bergstrom E. L. Bergstrom

ACCEPTED AS OF Aug 12 19 80

J. K. [illegible], Mgr., ETEC Project Office
DOE REPRESENTATIVE

KTStafford
ESG PROJECT MANAGEMENT

KORM 740-U REV. 12-78

BNA04794744
HDMSP001900801

UNITED STATES
ATOMIC ENERGY COMMISSION
CANOGA PARK AREA OFFICE
P.O. Box 591
CANOGA PARK, CALIFORNIA 91305

RECEIVED
JUN 12 1967
Correspondence Dept.

CP-67-6214

JUN 12 1967

Construction Authorization
Number CPP-67-5

Mr. R. C. Petersen, Chief
AEC Program Administration
Atomics International
A Division of North American Aviation, Inc.
P. O. Box 309
Canoga Park, California

Subject: INSTALLATION OF AN ELECTRICAL SUBSTATION AT BUILDING 057, SANTA SUSANA

Dear Mr. Petersen:

Atomics International by your letter 67AT 2213, dated April 20, 1967, and the attached planning report, has requested authorization to expend General Plant funds in the amount of ±DACT1 for the subject project which will consist of installation of relocated substation equipment on a pad outside Building 057 and the necessary electrical hook-up to the power supply and to cabinets in Building 057. This installation is required to provide the power for the loads that were recently established for the Seal Test Project of the LMEC Sodium Pump Bearing and Seal Test Program and other future tests requiring large power loads.

Atomics International is hereby authorized to proceed with the subject work, as outlined in Planning Report IMS 566, utilizing FY 1967 General Plant funds not to exceed ±DACTE. Design and inspection shall be accomplished by AI and construction by AI through competitively bid lump-sum subcontract. All work on this project shall be completed at the earliest possible date, but no later than September 15, 1967.

AI shall proceed with the administrative transfer from Contract AT (04-4)-701 to AT (04-3)-700 the substation equipment which,

2756AT

BNA04821346
HDMSP001901113

SYSTEM D SUB-SYSTEM 40

BNA05004018
HDMSP001902573

BUILDING 4057

PSWO Request

ETEC 96-061

DATE: January 30, 1996

TO: Maintenance.

CONTACT: R. Ingersoll

RE: Building 4057

CC:

Please provide support to repair the drywall ceiling in the bathroom.

Replace the ceiling tile in the controlroom.

Approval Authorization: R.D. Ingersoll

R.D. Ingersoll, ETEC Maintenance

BNA05011428

HDMSP001902588

PSWO Request

ETEC 96-063

DATE: January 30, 1996

TO: Maintenance.

CONTACT: R. Ingersoll

RE: Building 4057

CC:

Please provide support to install cabinet seismic supports on the relocated file cabinets and bookshelfs.

Approval Authorization: R.D. Ingersoll

R.D. Ingersoll, ETEC Maintenance

BNA05011430

HDMSP001902589

10.21.94

B-019

Move SGTF equipment

Aquamatic Valves

PSV-1411A/B (new)

3 boxes relief valves

PVDF tubing
Allen Bradley boxes
Therma Elect NOX analyser
H1/H2 burner forms
} Cage area

ARC valve
UPS 120 VDC Rectifier

B-057

Ozone generator

B-025

Remove Atom. Air blowers & oil skids & stage out side.

Relocate Air dryer & stage next to A.A. blowers.

BNA05011751

HDMSP001902590

ENERGY TECHNOLOGY ENGINEERING CENTER

OPERATED FOR THE U.S. DEPARTMENT OF ENERGY
ROCKETDYNE DIVISION, ROCKWELL INTERNATIONAL

No. 057-MS-0024 Rev. ___
Page 1 of 40
Orig. Date 01/25/95
Rev. Date ___

CONSTRUCTION SPECIFICATION

TITLE: BUILDING 057 NATURAL GAS SYSTEM UPDATE MECHANICAL CONSTRUCTION SPECIFICATION

- APPROVALS -

Originator R. Santa Ines

REV. LTR.	REVISION	APPROVAL/DATE

OFFICIAL COPY
JAN 31 1995
NOTICE: THIS COPY SUPERSEDES ALL PRIOR COPIES ISSUED.

Form 735-A-6 Rev 6-91

BNA05077245

HDMSP001903860

BUILDING 4057

REVISED 5/14/99

SODIUM SYSTEMS PIPE DEMOLITION
CURRENT BOX INVENTORY
B/057

	A	B	C	D	E	F	G	H
	NUMBER	ACCUM. DATE	DESCRIPTION	AMOUNT	CONT. TYPE	PROCESS REQ.	DATE SHIPPED	BOX LOCATION AND STATUS
1	962725	3/29/99	SMALL S/S VALVES W/ SODIUM OXIDES		B-12 BOX	SIZE REDUCTION REQ		STORED AT B/032 HIBAY
2	963382	5/5/99	VARIOUS SIZES OF S/S PIPE W/ SOLID SODIUM		B-12 BOX	SIZE REDUCTION REQ		STORED AT B/032 HIBAY
3	976151	5/13/99	S/S TANKS (2) W/ SOLID SODIUM		LONG BOX	TBD		STORED AT B/032 HIBAY
4	976152	5/12/99	S/S SODIUM PUMP W/ OXIDES & VESSEL W/ SOLID SODIUM		LONG BOX	TBD		STORED AT B/032 HIBAY
5	199491	5/13/99	S/S SODIUM VESSEL W/ SODIUM OXIDES		LONG BOX	TBD		STORED AT B/032 HIBAY
6								

PAGE 1 OF 1

BNA05513522

HDMSP001912568

Internal Letter

Rockwell International

June 14, 1978

78-218-3-012

TO: L. E. Berwager
ETEC
T482

FROM: A. E. Wergo
ETEC
T485
X6538

SUBJECT: B/057

The purpose of B/057 Low Bay is to have a clean well equipped laboratory environment for the evaluation of commercially available transducers that may be used in a power generating environment.

The objectives of the operations in B/057 Low Bay are to evaluate the commercially available instruments to see that they perform to manufacturer's specifications.

There are six basic areas associated with the B/057 Low Bay starting with the Pressure Laboratory in Room 106, moving out of Room 106 into Room 101 we have the level transducer probe test area, the strain gage test area, the cylindrical oven test area, the heater life test control area, and the data processing/data acquisition area. Each of these six special test areas has a unique set of instrumentation and control functions associated with it. We'll start back in the Pressure Room 106 at the pressure test console identified as IM0018 Panel 1 and IM0018 Panel 2. The 3500 psig nitrogen system enters the room through the valve located directly behind the IM0018 Panels where there is a hand shutoff valve that takes the nitrogen system off line inside the building for Room 106. This is a convenient source of nitrogen that is used for testing in the pressure lab. Going back one step further the 3500 psig enters B/057 on the northwest corner of the building through hand shutoff valve V-14 and then splits into a 1-in. line and a 3/4-in. line. The 3/4-in. line has a regulator on it which keeps the pressure at or near 40 psi. Also, on this 3/4-in. line we have a pressure relieve valve set for approximately 200 psig. The 1-in. line feeds directly into the Pressure Lab Room 106 hand shutoff valve. The 3/4-in. line is distributed as a convenient source of nitrogen throughout B/057. The black tape flow diagram on the front of Panel IM0018 Panel 2 indicates the flow path as it exists today on the 3500 psig step down system. This is primarily a convenience panel with different pressure levels developed for distribution of gas according to test requirements. Tests in progress will specify the range of pressures to be used. Page 8 of 570-OP-118 is the Engineering Test Laboratories schematic that shows the distribution of nitrogen gas throughout the Pressure Laboratory and is posted on the pressure bench console.

The pressure recording console IM004 is a convenience recording station comprised of a Fluke 2240A data logger, a Tektronix oscilloscope, and a Fluke 8400 digital voltmeter. The operation of these instruments will be

Form 131-B Rev. 3-76

BNA05563881

HDMSP001913047

Internal Letter

Rockwell International

DATE: 15 March 1994

TO: R. D. Meyer
025, 055-T038
5400

FROM: R. L. Gay
635-143, 055-T006
382-6110

SUBJECT: Disposal of NaK Components

Ref: 8 Mar 94, IL, Meyer to Baumeister, "Recommendation on NaK Systems in Building 057"

The above reference requested a recommendation regarding disposition of two NaK components presently stored in B/057. These two components were used by Rocketdyne up to 1986. At that time Rocketdyne was prepared to dispose of both components as excess equipment. Funds were available to safely convert the hazardous materials in the components into a form safe for disposal, and to clean and dispose of the hardware. At the request of Bruce Pilling and Horace Neely of ETEC both components were transferred to ETEC for use by ETEC. The ultimate disposition of the components was clearly discussed and agreed to be an ETEC task by Pilling and Neely. There is no present need at Rocketdyne for this hardware on any of our programs. Disposal or use of the components is at ETEC discretion.

R L Gay

R. L. Gay
Manager
System Test & Chemical Processes

cc:

E. B. Baumeister	FA74
J. Boggio	T039
J. Burton	T486
W. DeBear	T038
E. Eberle	IA45
G. Fuentes	T133
G. Gaylord	T038
W. Gernisen	T038
J. Klein	IA48
S. Laffiam	AA24
M. Shoemaker	T486
H. Weiseneck	T486
A. E.Stewart	T006

BNA05632828

HDMSP001913235

Internal Letter

Rockwell International

DATE: March 8, 1994

NO. 94-025-SS-10

TO: E. B. Baumeister
Rocketdyne
D/635-118, 055-FA74

FROM: R. D. Meyer
ETEC
D/025, T334/T038
X5069/5400

SUBJECT: Recommendation on NaK Systems in Building 057

Introduction

Per R. D. Meyer's request, S. Supola assessed the status and recommended disposition of the two NaK systems presently stored in building 057. One system is a NaK heat transfer loop that was a subscale test article for the Space Station Power Generation System IR&D Program. The other system is the NaK fill cart that was used for filling the NaK loop.

Political/Regulatory Issues

Both systems belong to Rocketdyne (under former Energy Systems Group division activities) and are presently occupying space in a government (DOE) facility. These systems need to be moved to a Rockwell facility or formal permission to store them in a government-owned facility must be obtained from DOE.

If there are no planned uses for these systems, then RCRA Regulations may be invoked and Rocketdyne Environmental Protection Department should be contacted for further details and disposition requirements.

Physical Status of Systems

The NaK loading cart supply tank is estimated to contain 10 to 15 gallons of NaK (per conversation with Al Stewart). All the valves in the system are closed and the tank pressure gauge, which is uncalibrated, reads 1.0 psig.

The NaK test article envelope dimensions are 42 inches wide by 42 inches high by 15.5 feet long. The NaK loop is estimated to contain 120 to 150 pounds of NaK (per conversation with Al Stewart and Lou Haba). The thermal storage unit is a tube-in-shell heat exchanger containing 117 separate 1-inch diameter by 48 inches long sealed tubes, each containing about 1.5 pounds of a salt compound (LiOH). All the tubing fittings have been plugged and the two valves in the system are closed and the valve handles have been removed. The loop was secured in this manner with a cover gas, but there are no pressure gauges in the system to verify a positive pressure still exists. Schematics and illustrations of the two NaK systems are available upon request.

Based on visual observation and historical information there is no evidence that any oxidation of the NaK has occurred. The lack of surveillance and adequate instrumentation however places some doubt as to whether any air has

BNA05632921

HDMSP001913236

BUILDING 4057

NSTF (Static Sodium Test Facilities)
B/032 & B/057

ETEC MATERIAL INVENTORY REVIEW
(FOR PERIOD ENDING DECEMBER 31, 1982) E. Ferguson 2/8/83

MIR/land
Page 1
01/31/83

Ident No.	Description	Quant. Req'd	Use	Remarks
	BARSTOCK, RDT M 7-3T, 304H (S)			
9510-02	1/2 RD 10-12-ft lengths (R)			
9510-08	2 RD 10-12-ft lengths (R)			
9510-12	3 RD 10-12-ft lengths (R)			
9510-40	10 sq. 10-12-ft lengths (D)			
	BARSTOCK, ASME SA-479, 304H (S)			
9510-102	1/2 RD (50/10/50/5)			
9510-104	1 RD (50/10/50/5)			
9510-108	2 RD (50/10/50/5)			
9510-112	3 RD (30/10/30/5)			
9510-116	4 RD (30/10/30/5)			
9510-120	5 RD (30/10/30/5)			
9510-124	6 RD (30/10/30/5)			
9511-01	2-1/8 RD, 316H (50/10/50/5) Dbl vac mlt, RDT M7-3T (for thermowell fabrication)			
	BILLETS, 304H STAINLESS STEEL (S)			
9640-011	10-in. 316H (dbl vac mlt) RD cornered sq type (D)			
9640-2502	25-in. x 16-1/2-in. tapered (D)			
	CAPS, WELD, RDT M 2-5T, WP 304H (U)			
4736-0107	3-40S (R)			
4736-0109	6-40S (R)			
4736-0110	8-40S (R)			
	CAPS, WELD, ASME SA-403, WP 304H (U)			
4736-1102	1/2-40S (10/2/10/1)	4 Ea.	M(H)	SSTF
4736-1103	3/4-40S (10/2/10/1)			
4736-1104	1-40S (20/5/20/2)	4 Ea.	M(H)	SSTF
4736-1105	1-1/2-40S (10/2/10/1)	2 Ea.	M(H)	SSTF
4736-1106	2-40S (20/5/20/2)			
4736-1107	3-40S (10/2/10/1)			
4736-1108	4-40S (10/2/10/1)			
4736-1109	6-40S (5/2/5/1)			
4736-1110	8-40S (5/2/5/1)			
4736-1111	10-40S (5/2/5/1)			

BNA05668389

HDMSP001914120

APPROVED: J.O. Nicholson, Manager, General Test Unit

REVIEWED BY: R. Leland, Health & Safety

057-EM-2
Page: 1
April 21, 1971

BUILDING 057 EMERGENCY PROCEDURE FOR SODIUM SPILLS
ASSOCIATED WITH RIGS 1, 2,
AND
THE LEAK DETECTION EXPERIMENT

I. OBJECTIVE:

This procedure describes the action to be taken for the following emergency conditions:

A. Rig #1 (adjacent to west wall) or Rig #2 (2nd from west wall).
   1. Sodium leak at sample station #1 (adjacent to T-1 supply tank).
   2. Sodium leak at sample station #2 (adjacent to T-2 test vessel).
   3. Sodium leak in the cold trap CT-1.
   4. Sodium leak from T-2 test vessel.
   5. Sodium leak from T-1 supply vessel.
   6. Sodium leak from fill and drain piping.
   7. Other emergencies.

B. Leak detection experiment (along north wall, center of building enclosed area).
   1. Sodium leaks.
   2. Other emergencies.

II. DETAILED PROCEDURES

A. Rigs 1 and 2

NOTE

Rigs #1 and 2 are plumbed identically alike, including component identification numbers, therefore, the following steps apply to either rig.

Sodium Leak at Sample Station No. 1 (adjacent to supply tank).

1. Immediately notify Protective Services, Ext. 2444 advising:
   a. Nature of emergency
   b. Location - Building 057, Hi-Bay
   c. Reporter's name.

BNA05669101

HDMSP001914134

Atomics International

SPEED LETTER

INTER-OFFICE CORRESPONDENCE

773

TO: L. J. Aiuge — MAIL CODE: T211 — PHONE: 1647

FROM: E. Ferguson — MAIL CODE: T856 — PHONE: 6574

DEPT. NO. 220 — DEPT. NO. 720

SUBJECT: Mechanical Drawing Update for B/032 and B/057 — DATE: 3/31/77

MESSAGE

Per your request of 3/30/77, I got together with one of the Mechanical & Civil Design Unit personnel (Del Arganda) and reviewed the subject drawings inorder to obtain a realistic estimate of hours required for the drawings to be updated.

The attached listings reflect the estimated hours for drawings requiring update, along with the priority in which I feel they should receive attention.

Fergie

CC: J.O. Bates, I.W. Brewer, N.D. Dinzich, R.E. Fenton, G.G. Gaylord, J.V. Minteer, J.O. Nicholson, R.V. Steele, A.E. Wargo, H.R. Zweig

REPLY — DATE

DISTRIBUTION: WHITE & PINK—ADDRESSEE; CANARY—ORIGINATOR; PINK COPY—REPLY—ORIGINATOR

FORM 1384-N REV. 7-75

BNA05669475

HDMSP001914138

DATA SHEET — B/057 Valve History Rig #1 — Dug. 8/67

Valve No.	Size	Type	Actuator	Seal Type	Mfg.	Service From	Service To	Remarks
1	3/4	Globe	Manual	Bellows	NUPRO	4/26 (1)	8/77	Free 15 mos.
2	3/4	↓	↓	↓	↓	4/26 (1)	8/77	Free 15 mos.
101	1	Gate		FS	Pacific	12/69 (3)	4/10/75	* Free 10 mos.
103	1	Gate		FS	Pacific	12/69 (3)	10/6/75	Free 12 mos.
5	3/4	Globe		Bellows	NUPRO	8/5/72 (4)	8/77	—
6	3/4	Globe		Bellows	NUPRO	8/5/72 (4)	8/77	—
104	1	Gate		Packing Stem	Pacific	12/69 (5)	8/77	* Free 26 mos.
105	1					12/69 (5)	8/77	*
106	1 1/2					12/69 (5)	8/77	*
107	1					12/69 (5)	8/77	*
108	1	↓	↓		↓	12/69 (5)	8/77	*
111	1 1/2	Gate	Manual	Packing Stem	Pacific	12/69 (5)	8/8/75	* Free 26 mos.
102	1	Gate	Manual	FS	Pacific	12/69 (4)	10/6/75	} Removed
112	1	Gate	Manual	FS	Pacific	12/69 (4)	10/6/75	}
				* - Single stem support rod becomes stem to bend under thermal stress. (See: NCR)				
				** - Valve stem bent (failure)				— invalidated
101	⊗ 1	Gate	Manual	FS	Powell	4/25/73	10/5/75	Free 3 mos.
101	⊗ 1/2	Globe	Manual	Bellows	NUPRO	6/74 (4)	8/77	Free 3 mos.
103	⊗ 3/4	Globe	Manual	Bellows	NUPRO	11/74 (4)	8/77	Free 8 mos.
				300 – 1200 F				
						573 × 720 =		412,560
						556 × 720 =		400,320
						17 × 720 =		12,240

FORM 43-2 REV. 12-66

BNA05670244

HDMSP001914141

BUILDING 4057

DATA SHEET B/057 Valve History Rq #2 Dwg. 5/68

Valve No	Size	Type	Actuator	Seal Type	Mfg.	Service From	Service To	Remarks
3	3/4	Globe	Manual	Bellows	NUPRO	4/70 (4)	8/77	Size 8 mm
4	3/4	Globe	Manual	Bellows	NUPRO	4/70 (4)	8/77	Size 8 mm
No. 7	3/4	Globe	Manual	Bellows	NUPRO	Not in Service		
No. 8	3/4	Globe	Manual	Bellows	NUPRO	Not in Service		
101**	1	Gate		Packed Stem	Pacific	4/70 (4)	12/20/73	Size 27 mm
102*	1	Gate		Packed Stem	Pacific	4/70 (4)	8/3/72	Size 16 mm
102A	1/2	Globe		Bellows	NUPRO	4/70 (4)	8/77	Size 8 mm
103	1	Gate		FS	Pacific	4/70 (4)	8/77	Size 47 mm
104	1				Pacific (Model)	4/70 (4)	8/77	
105	1					4/70 (4)	8/77	
106	1 1/2					4/70 (4)	8/77	
107	1					4/70 (4)	8/77	
108	1					4/70 (4)	8/77	
111	1	Gate		FS	Pacific (Model)	4/70 (4)	8/77	
#-	IPR * T 57 R2		(Inc. 1974) L-028	(V-10) Large Stem seal	Gate Broken - equipment stabilization			
*-	NCR 1619 (1972)		V-102	damaged				
101	5) 1	Gate	Manual	FS	Powell	11/5/74 (4)	8/77	Size 27 mm
102	5) 1	Gate	Manual	FS	Powell	9/20/74 (4)	8/77	Size 33 mm
103	5) 3/4	Globe	Manual	Bellows	NUPRO	4/70 (4)	8/77	Size 8 mm
						398 × 720 =		286,560
						32 × 720 =		23,040
						366 × 720 =		263,520

FORM 45-2 REV. 12-64

BNA05670256

HDMSP001914142

Rocketdyne Metal Engineering Center

PAGE NO. OF

CHECKED BY / DATE

Rocketdyne 3/9/78

Listing of Sodium Valves to be Replaced - B/032 & B/057

Building	Valve No.	Size	Function
B/057	V-104	1"	Filter (F-1) outlet
B/057	V-106	1"	Filter (F-1) inlet
B/057	V-105	1"	Test vessel (T-2) outlet
B/057	V-104	1"	Filter (F-1) outlet
B/057	V-106	1"	Filter (F-1) inlet
B/057	V-105	1"	Test vessel (T-2) outlet
~~B/057~~	~~[illegible]~~	~~1"~~	~~Test vessel (T-2) inlet~~
~~B/057~~	~~[illegible]~~	~~1"~~	~~Test vessel (T-2) inlet~~
B/057	[illegible]	1 1/2"	R3 outlet
B/057	[illegible]	1 1/2"	R3 equip return bypass
~~B/057~~	~~[illegible]~~	~~1 1/2"~~	~~R3 inlet~~
B/057	[illegible]	1 1/2"	CT-2 bypass
B/057	[illegible]	1 1/2"	CT-2 outlet
B/057	[illegible]	1 1/2"	T-5 inlet
B/057	[illegible]	1 1/2"	T-5 outlet
B/057	[illegible]	1 1/2"	T-4 inlet
B/057	[illegible]	1 1/2"	T-4 outlet
B/057	[illegible]	1 1/2"	CT-1 bypass
B/057	[illegible]	1 1/2"	Emergency drain
B/057	[illegible]	1 1/2"	Emergency drain
B/057	[illegible]	1 1/2"	Emergency drain
B/057	[illegible]	1"	T-2 Sample Station inlet
B/057	[illegible]	1"	CT-1 Outlet
B/057	[illegible]	1"	T-1 Sample Station inlet
B/057	[illegible]	1"	T-1 Sample Station outlet
B/057	[illegible]	1"	T-1 drain
B/057	[illegible]	1"	T-1 Sample Station inlet
B/057	[illegible]	1"	T-1 Sample Station outlet
B/057	[illegible]	1"	T-1 drain
B/057	V-100EM	1"	Bypass
B/057	V-103-4	1"	SS-1 Inlet
B/057	V-104	1"	SS-1 Outlet
B/057	V-100GA	1"	T-10 Inlet

Speed Ltr. 78-203-09-37

FORM 750-A-54 NEW 3-68

BNA05670288

HDMSP001914144

Beringer

057-EH-1
Page 1
10/25/78
Rev. 11, 6/9/81

FACILITY EMERGENCY PLAN

BUILDING NUMBER - B/057

BUILDING NAME - ETEC TEST AND SERVICE LAB

LOCATION - SANTA SUSANA

Approved by: 6/9/81
Facility Manager

6/22/81
Health and Safety

Vice President/Director

Emergency Coordinator

Quality Assurance

Director, Industrial Security

BNA05682607

HDMSP001914149

Bell

057-EH-1
Page 1
10/25/78
Rev. 15, 03/19/85

FACILITY EMERGENCY PLAN

BUILDING NUMBER - B/057

BUILDING NAME - ETEC TEST AND SERVICE LAB

LOCATION - SANTA SUSANA

Approved by: 3/21/85
Facility Manager

3/21/85
Health and Safety

3/21/85
Vice President/Director

3/29/85
Emergency Coordinator

4.4.85
Director, Industrial Security

BNA05682950

HDMSP001914167

BUILDING 4057

ETEC OPERATIONS DEPARTMENT

TRAINING SESSION RECORD

1. Name: [illegible]
2. Facility: B057
3. Subject: FACILITY [illegible]
4. Session Date(s): 5/22/81 Total Hours 2
5. Training Method: Document Review — Presentation ____
   Procedure Dry Run ____ Supervised Procedure Performance ____
   Other (Specify) ORAL
6. Documents/Drawings Utilized: 057-EM1, 057-EM2
7. Training Presented or Monitored By: A. E. WARGO
8. Comments:
9. Training Status (On this subject):
   a. Training Satisfactorily Completed ✓ AEWargo
   b. Additional Training Required ____ (Specify Below)

Approved By: A. Wargo 5/22/82

BNA05993115

HDMSP001925324

February 28, 1984 84-240-3-02

W. D. Lane
ETEC
T483

D. E. Goggin
ETEC
T483
X5568

B/057 Operations Engineer

Due to the continuation of testing at B/057 without major change to facility systems or operations, certification of the facility OE, A. E. Wargo should be extended one year.

All new requirements for B/057 testing are covered by the T&C Matrix specifically prepared for B/057, whereby training on new procedures and re-training on revised procedures will be accomplished before use of those procedures.

D. E. Goggin
Manager
General Test

sh

BNA06054905

HDMSP001925724

72-215-3-32

LIQUID METAL ENGINEERING CENTER

MEMORANDUM

To: C. A. Parker
D/751
MA01

Date: April 7, 1972
From: J. O. Nicholson
D/720-218
T478

Subject: Training of General Test Unit Operators

Attachments: 1) Final Examinations for B/057 Facility Training Course
2) Attendance Record for B/057 Facility Training Course

The following listed personnel have completed the 20-hour training course for the Building 057 facility, and all personnel have successfully passed a one-hour written examination for this facility.

W. F. Baron	R. A. Johnson	E. O. Peal, III	J. E. Sorrenson
L. E. Berwager	G. D. Kelley	E. L. Rhea	D. J. Sullivan
G. A. Craig	R. C. Kennedy	R. P. Rothering	H. W. Tangren
R. E. Forrester	A. W. Mason	R. G. Sisler	E. Wahl
W. J. Fotheringham	J. V. Meitzer		

Please make the necessary entries in your training files to include the above described training course for these operators.

J. O. Nicholson
Manager
General Test

/k
dc: J. L. Campbell, w/encl.
w/o enclosures:
R. V. Steele
E. F. Burg
F. M. Phillips
L. E. Berwager
Personnel listed

BNA06055174

HDMSP001925767

FIRE PREPLAN BUILDING 057 ETEC

STRUCTURE – Frame – steel

Exterior Walls – corrugated metal clad

Interior Walls – insulated corrugated metal clad

High Bay Ceiling – corrugated metal clad

Control Room Ceiling – Fiber board 2' x 4'

Roof – metal clad covered with a roofing composite

SIZE – 69 ft. x 98 ft. – 6,762 sq. ft.

OCCUPANCY – High Bay – sodium NaK and lithium loops, restrooms, electrical panels, general work bench, two overhead cranes, K-Bottles of helium, argon, nitrogen and also these chemical gases are piped in from outside bottle banks.

Control Room – recording equipment, computer equipment and control consoles.

Rm. 101 – Lab type work bench, lunch area, oven(s) control consoles and computer equipment

Rm. 106 – Pressure testing equipment, control consoles, oven(s) and work bench

FIRE PROTECTION – Automatic sprinkler system except in High Bay, water flow alarm to Control Center code 1-2-3-1.

Sprinkler heads fuse at 165 F.

Riser south wall exterior controlled by locked PIV located in front of riser.

Inspector Test Valve – exterior southeast wall

BNA06067167

HDMSP001925809

BUILDING 4057

11-15-79

MEL,

USE THIS TO UPDATE THE EMPLOYEE TRAINING REPORT FOR DEPT 720

~~AND THE EMERGENCY TEAM MASTER LISTING FOR BLDG~~ ____.

NEW EXPIRATION DATE IS 8-81.

E. O. PEAL (TRAINEE'S NAME) IS [redacted] RETREAD IN FAC FAM - 2 (SUBJECT)

COURSE TIME 2-HRS.

GENE

CONFIDENTIAL LEVEL II – UNDER PROTECTIVE ORDER
United States District Court for the
Central District of California, No. CV 971554

BNA08205250

Did not send copy to Wd. Personnel required. The man is instructor.

ETEC - ~~3-16-79~~ 3-25-79

FACILITY FAMILIARIZATION

Attachment 3

Training requirements for Facility Emergency Team Members and Facility Maintenance Personnel. This is applicable to facilities: Bldg. 013, 026, 027, 032, 057, 059, 062, 065, 066, 355/356, 462, 463, and all areas related directly to the facility.
Cross off any item which does not apply to the particular facility.

H. W. BABIEKEI (Employee's Name) 338-18-8536 (Soc. Sec. No.)

has completed the Facility Familiarization training course related to 8/057 (Facility Name) and has satisfactorily done the following items checked, as they apply to the particular facility.

	Check
1. Describe general facility layout naming the rooms and elevations as applicable.	✓
2. Tell the location and routing of natural gas, electrical power, water, sodium, fire protection, oil, and alarm systems as applicable.	✓
3. Tell the nature and location of all potentially hazardous substances including sodium, NaK, alcohol, hydrogen, propane, acids, bases, mercury, radio-active materials, and other possible dangerous materials, if such material is in the facility.	✓

List other dangerous materials: ARGON GAS SUPPLY - NITROGEN SUPPLY HI PRESSURE

4. Describe potentially hazardous areas due to possible argon accumulation, hydrogen accumulation, steam leak, sodium leak, deep pits, X-ray equipment, radio-frequency emissions, radio-activity, and other unusual hazards in the facility.

List other hazards: HIGH VOLTAGE HEATER TEST CAGE GRID. C - 3

CONFIDENTIAL LEVEL II – UNDER PROTECTIVE ORDER
United States District Court for the
Central District of California, No. CV 971554

BNA08205263

11-12-79

MEL,

USE THIS TO UPDATE THE EMPLOYEE TRAINING REPORT FOR DEPT 720

~~AND THE EMERGENCY TEAM MASTER LISTING FOR BLDG~~ 057.

NEW EXPIRATION DATE IS 11-81.

C. M. QUIRK (TRAINEE'S NAME) IS NEW/[redacted] IN FAC FAM - 2 (SUBJECT)

COURSE TIME 2 HRS.

GENE

CONFIDENTIAL LEVEL II – UNDER PROTECTIVE ORDER
United States District Court for the
Central District of California, No. CV 971554

BNA08205408

MEL,

USE THIS TO UPDATE THE EMPLOYEE TRAINING REPORT FOR DEPT 720

~~AND THE EMERGENCY TEAM MASTER LISTING FOR BLDG~~ 057.

NEW EXPIRATION DATE IS 10-80.

M. A. SPENARD (TRAINEE'S NAME) IS NEW [redacted] IN FAC FAM - 2 (SUBJECT).

COURSE TIME 2-HRS.

GENE

CONFIDENTIAL LEVEL II – UNDER PROTECTIVE ORDER
United States District Court for the
Central District of California, No. CV 971554

BNA08205426

BUILDING 4057

NOMENCLATURE OR DESCRIPTION	ZONE	MATERIAL	DATA: SPECIFICATIONS SIZES, NOTES, VENDORS	LINE NO.
TABLE	G 3	CARBON STL. PLATE	1/4 × 4 × 8 1/2	014
LEG	F 4	CARBON STL. PLATE	1/4 × 4 × 11.00	013
PAD	D 6	CARBON STL. PLATE	3/8 × 3 × 8	012
PAD	G 6	CARBON STL PLATE	1/2 × 2 1/2 × 10	011
PAD	F 6	CARBON STL. PLATE	1/2 × 2 1/2 × 4	010
STIFFENER	C 6	CARBON STL. ANGLE	1 1/2 × 1 1/2 × 3/16 × 26	009
MOUNTING POST	E 6	CARBON STL. ANGLE	2 × 2 × 3/16 × 3 1/2" ASTM-A-36 OR EQUIV.	008
CROSS TIE	F 6	CARBON STL. RECTANGULAR TUBE	1 × 1 1/2 × .083 (14 GA.) × 10" ASTM-A-513 OR EQUIV.	007
CROSS TIE	D 6	CARBON STL. RECTANGULAR TUBE	1 × 1 1/2 × .083 (14 GA.) × 24 ASTM-A-513 OR EQUIV.	006
POST	C 6	CARBON STL. ANGLE	1 1/2 × 1 1/2 × 3/16 × 45 1/4" ASTM-A-36 OR EQUIV.	005
PAN	B 6	CARBON STL SHEET	.12 (11 GA.) × 27 × 29 ASTM A 36 OR EQUIVALENT	004
				003
				002
ASSEMBLY				001

PARTS LIST

Rockwell International Corporation
Atomics International Division

DR BY D. BEIMLER 10/10/74
CHK BY D.D. MONINO 10/11/74
12-9-74
1-7-75
12/1/74

BLDG 057-CT3 COLD TRAP SUPPORT STAND

SIZE E | CODE IDENT NO. 09974 | DRAWING NO. 7693-FS1410022

SCALE 1/4 | SHEET 1 OF 1

FORM 1139-A-58 REV. 3/72

BNA01081122
HDMSp01696093

HDMSp01696093
BNA01081125

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Rockwell International Corporation
Atomics International Division

DR BY T. VARLACHER 10/24/74
CHK BY D.D. MONINO 10/11/74
12-9-74
1-7-75
12-18-74

BLDG 057
CT3 COLD TRAP
SHROUD DETAILS

SIZE E | CODE IDENT NO. 09974 | DRAWING NO. 7693-PA1410025 2

SCALE 1/4 | SHEET 2 OF 2

FORM 1139-A-58 REV. 3/72

7693-PA1410025

NOMENCLATURE OR DESCRIPTION	ZONE	MATERIAL	DATA: SPECIFICATIONS SIZES, NOTES, VENDORS	LINE NO.
DAMPER	D			013
BLOWER WITH INLET SCREEN	A-B	PEERLESS, 2000 CFM — D.E. MOTOR, OPEN DRIP PROOF, 3/4 H.P., 1150 RPM, 60 CYCLE, 115/230 V, 1 PHASE		012
				011
FREEZE VENT	H 7		KEC-1484 SUPPLIED BY LMEC	010
LOWER TRANSITION PLATE	C 8			009
BLOWER DUCT	B 8			008
SPLIT DUCT	C 9			007
SHROUD ASSY.	E 6			006
				005
SUPPORT STAND	A 6			004
				003
ASSEMBLY				001
NOMENCLATURE OR DESCRIPTION	ZONE	MATERIAL	DATA: SPECIFICATIONS SIZES, NOTES, VENDORS	LINE NO.

PARTS LIST

LIQUID METAL ENGINEERING CENTER

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Rockwell International Corporation
Atomics International Division

DR BY D. BEIMLER 10/11/74
CHK BY D.D. MONINO 10/11/74
12-9-74
1-7-75
12-18-74

BLDG 057
CT3 COLD TRAP
ASSEMBLY

SIZE E | CODE IDENT NO. 09974 | DRAWING NO. 7693-PA1409254

SCALE 1/4 | SHEET 1 OF 1

BNA01081131
HDMSp01696097

NOMENCLATURE OR DESCRIPTION	ZONE	MATERIAL	DATA: SPECIFICATIONS SIZES, NOTES, VENDORS	LINE NO.
COLD TRAP				010
-7 PIPE		ST. STL TYPE 304 H	1" SCH 40 ASTM A 312	009
-6 PIPE			1/2" SCH 40 ASTM A 312	008
-5 PIPE CAP			1/2" SCH 40 ASTM A 105	007
-4 PIPE		ST. STL. TYPE 304 H	1/2" SCH 40 ASTM A 312	006
-3 ADAPTER		ST. STL. TYPE 304 (.04% MIN. C)	1/2" DIA. × 1 1/2" LONG	005
-1 COLD TRAP MOD				004
				003
				002
				001
NOMENCLATURE OR DESCRIPTION	ZONE	MATERIAL	DATA: SPECIFICATIONS SIZES, NOTES, VENDORS	LINE NO.

PARTS LIST

OFFICIAL COPY
RELEASE DATE
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Rockwell International Corporation
Atomics International Division

DR BY D. BEIMLER 10/11/74
CHK BY D.D. MONINO 10/11/74
12-9-74
1-7-75
12-18-74

BLDG 057
CT3 COLD TRAP
ASSEMBLY

SIZE E | CODE IDENT NO. 09974 | DRAWING NO. 7693-PA1409255

SCALE 1/4 | SHEET 1 OF 1

BNA01081134
HDMSp01696099

BUILDING 4057

-057-

Liquid Metal Engineering Center

Operated for the U.S. Atomic Energy Commission by Atomics International Division Rockwell International Corporation

December 13, 1974

In reply refer
741LMEC-DRF-5270

Mr. D. B. Campbell, Director
Southern California Reactor Program Office
U. S. Atomic Energy Commission
P. O. Box 1446
Canoga Park, California 91304

Subject: Revision 1 – Building 057 SDD Change Notice B/057-3 – Increased Cold Trap Capability

References: (1) LMEC Letter 741LMEC-DRF-2466, J. C. Cochran to D. B. Campbell, "Building 057 SDD Change Notice B/057-3 – Increased Cold Trap Capability," April 3, 1974

(2) AEC Letter RRD:SL:294, J. W. Crawford to D. E. Reardon," RRD Approval of Building 057 SDD Change Notice B/057-3 – Increased Cold Trap Capability," July 1, 1974 (DRF-5086)

Dear Mr. Campbell:

Reference (1) submitted Building 057 SDD Change Notice B/057-3 proposing installation of a forced flow cold trap to service test rigs 1 and 2. Reference (2) approved the change notice. A subsequent LMEC review of the ensuing installation design indicated that it would be operationally advantageous to replace the proposed valve operators with hand operated valves. Advantages of this change would be to 1) reduce system maintenance costs and time, and 2) minimize the possibility of operating a valve containing frozen sodium, which could damage the bellows seal. Detailed operating procedures and valve tag-out would assure that valve position changes were effected with heated valves (liquid sodium) and in a manner that would prevent the inadvertent transfer of sodium between test rigs. Frozen-off pipe sections between the cold trap and the selected test rig would provide additional protection.

P. O. Box 1449, Canoga Park, California 91304

BNA04508388
HDMSp01696714

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LMEC LETTER REVIEW RECORD

PREPARED BY: H. F. Dolohus (JCC) TYPED BY: TTP DATE: 4-3-74
ADDRESSEE: D. B. Campbell, SCRPO LTR NO. 74 LMEC-DRF-744
RRD LEAD BR.: LMEC RESPONSE TO: DRF None
SUBJECT: Building 057 SDD Change Notice B057-3 – Increased Cold Trap Capability
REMARKS: This does not respond to an action item.

REVIEW AND/OR APPROVAL REQUIREMENT AND RECORD

DEPARTMENT/UNIT	REVIEW ROUGH	REVIEW FINAL	APP	REVIEWER'S SIG.	MANAGER'S APP.
ENGINEERING – MGR					
COMPONENTS					
THERMAL					
MECHANICAL					
INSTR. ( )					
SYSTEMS	✓	✓	✓		
PROCESS					
STRESS					
SYST. ANAL.	✓	✓			
MATERIALS	✓				
DESIGN					
QA – MGR					
QV					
QA ENGINEERING					
CONSTRUCTION–MGR					
TECH. SERVICES–MGR					
ASU					
ESU					
OPERATIONS – MGR					
FACILITY (057)	✓				
C&M LAB					
I&E					
SPTF – MGR					
SYSTEMS					
TECH. ADMIN.					
CONSTRUCTION					
COMP. ( )					
PROJ. COORD. – MGR					
OTHER					
E. Fournier	✓	✓			
D. Hammond	✓	✓			
J. Dinns	✓				

BNA04508399
HDMSp01696716

Internal Letter — **Rockwell International**

November 13, 1975

TO: J. Ervin, 720 071 1027

FROM: W.W. Dillingham, 704 071 2011

6364

Building 057 Cold Trap Installation

I wish to render a commendation to your Inspection services group for their timely support on this job. In particular Mr. Peters and Mr. Rochelle who provided quality x-rays during rest breaks and lunch time with a minimum of interaction between the work forces. This support allowed us to produce a quality installation under the target budget and almost on the schedule planned. This effort is appreciated by program management and should allow for the capture of added business.

Thank you.

W.W. Dillingham
Manager D/704
Dev. Support Shop

cc
Peters, R.L.
Vandervort, F.S.

W.D/rs

BNA04736520
HDMSp01696888

OFFICIAL COPY
RELEASE DATE AUG 25 1977
NOTICE: THIS COPY SUPERSEDES ALL PRIOR COPIES ISSUED

LIQUID METAL ENGINEERING CENTER

Atomics International
North American Rockwell CANOGA PARK, CALIFORNIA

B/057
EMIS-MCIS, EQUILIBRATION DEV.
ELECTRICAL EQUIP. PLAN

ENG. F.W. Chatterton
DR BY W.G. BENNETT 7/3/73
CHK BY 7/6/73
7/3/73
7/13/73

DOCK. INSTR. NO. E 0997
DRAWING NO.
SCALE
SHEET

TE-9 (INLET)

BNA01081225
HDMSp01712803

BUILDING 4057

Atomics International Division
Rockwell International

8900 De Soto Avenue
Canoga Park, California 91304

Mr. D. B. Campbell, Director
Southern California Energy Programs Office
U. S. Energy Research and Development
Administration
P. O. Box 1446
Canoga Park, California 91304

Subject: Request for Authorization - B/057 Instrumentation and Control Consoles Upgrade

Reference: 75LMEC-DRF-2192, Cochran to Campbell (SCEPO), "AI/LMEC General Plant Projects (GPP FY 1976)," dated May 9, 1975

Dear Mr. Campbell:

The above reference requested ERDA approval of the AI/LMEC proposed General Plant Projects for GFY 1976, listed in order of priority. Priority #2a provides for B/057 instrumentation and control consoles upgrade. The objective of the upgrade is to: (1) change the location of the instrumentation and control panels to a controlled environment, (2) improve the method of instrumentation and control through the implementation of current technologies, and (3) eliminate the potential safety hazards that exist in the present system.

The enclosed Request for Authorization includes the request for the subject upgrade described in the above reference. An SDD Change Notice is not required because the proposed upgrade does not involve sodium system piping and instrumentation modifications.

The estimated cost of design, material procurement, and construction is $290,000. LMEC proposes to initiate this project utilizing GFY 1976 General Plant Funding. ERDA authorization to proceed with this project is requested by July 1, 1975.

THIS IS SUBMITTED FOR ERDA APPROVAL.

Very truly yours,

ROCKWELL INTERNATIONAL CORPORATION
ATOMICS INTERNATIONAL DIVISION

L. W. Wheeler, Director
Contract Administration

BNA01155455
HDMSp01712846

Atomics International Division
Rockwell International

LIQUID METAL ENGINEERING CENTER

INSPECTION AND ACCEPTANCE RECORD
ERDA AUTHORIZED CONSTRUCTION

ERDA AUTHORIZATION NO.	AI ORDER NO.	FACILITY TITLE
74-CP-4	G.O. 09804 S/A 74041	Sodium Leak & Fire Protection, B/057

CONSTRUCTION SUBCONTRACTORS	SUBCONTRACT NO.	TASK TITLE	INSPECTED BY	DATE
WARCO	583-0540C	Sodium Leak & Fire, Protection, B/057	Binns Spencer Nealy	4-4-5

THE UNDERSIGNED, OR THEIR DESIGNATED REPRESENTATIVES, HAVE INSPECTED THE SUBJECT FACILITY AND CONCUR WITH THE FOLLOWING:

1. THE CONSTRUCTION IS IN GENERAL CONFORMANCE WITH THE PLANS AND SPECIFICATIONS OF THE CONTRACT.
2. THE EXECUTION OF THE CONSTRUCTION WORK DID NOT INVOLVE USE OF GOVERNMENT OWNED MATERIALS OR EQUIPMENT, EXCEPT AS AUTHORIZED BY THE CONTRACT, AND A COMPLETE PROPERTY SETTLEMENT EXISTS.
3. THE WORK APPEARS TO HAVE BEEN PERFORMED IN A SATISFACTORY MANNER AND THE SCOPE OF WORK IS COMPLETE.

THE INSPECTION PARTY CONSISTED OF:
J. Spencer, ERDA
D. Binns, LMEC
W. Nealy, LMEC

ACCEPTED AS OF 4/16 1975
ERDA REPRESENTATIVE
A. P. Kelley, SCEPO
4/16/75
LMEC PROGRAM MANAGEMENT
J. T. Nagamatsu
Director, Construction Programs

BNA01156655
HDMSp01712853

Atomics International Division
Rockwell International

LIQUID METAL ENGINEERING CENTER

INSPECTION AND ACCEPTANCE RECORD
ERDA AUTHORIZED CONSTRUCTION

ERDA AUTHORIZATION NO.	AI ORDER NO.	FACILITY TITLE
74-CP-10	G.O. 09804 S/A 74100, 74101, 74102 & 74103	Piping Protection for Heaters, SCTL, SCTI, B/057 & B/032

CONSTRUCTION SUBCONTRACTORS	SUBCONTRACT NO.	TASK TITLE	INSPECTED BY	DATE
Mathews Electric Co.	581-0509C	B/032	Spencer	4-4-5
Miller Bros. Electric	571-0556	B/057 & SCTI SCTL	Binns Nealy	
Luscombe Electric	483-0513		Homer	

THE UNDERSIGNED, OR THEIR DESIGNATED REPRESENTATIVES, HAVE INSPECTED THE SUBJECT FACILITY AND CONCUR WITH THE FOLLOWING:

1. THE CONSTRUCTION IS IN GENERAL CONFORMANCE WITH THE PLANS AND SPECIFICATIONS OF THE CONTRACT.
2. THE EXECUTION OF THE CONSTRUCTION WORK DID NOT INVOLVE USE OF GOVERNMENT OWNED MATERIALS OR EQUIPMENT, EXCEPT AS AUTHORIZED BY THE CONTRACT, AND A COMPLETE PROPERTY SETTLEMENT EXISTS.
3. THE WORK APPEARS TO HAVE BEEN PERFORMED IN A SATISFACTORY MANNER AND THE SCOPE OF WORK IS COMPLETE.

THE INSPECTION PARTY CONSISTED OF:
J. Spencer, ERDA
D. Binns, LMEC
W. Nealy, LMEC
R. Homer, LMEC

ACCEPTED AS OF 4/16 1975
ERDA REPRESENTATIVE
A. P. Kelley, SCEPO
4/16/75
LMEC PROGRAM MANAGEMENT
J. T. Nagamatsu, Dir., Constr. Progs.

BNA01156667
HDMSp01712855

SAMPLE LIST AND CHAIN OF CUSTODY FORM
GENERATED: 03/07/96 AT 16:03

Page 1

TAS No.: B-057

LOG NO.	SAMPLE DESCRIPTION	#CONT	SAMPLER	SAMPLED	DUE DATE
[redacted]	STP1-Influent 11.4 - Biochemical Oxygen Demand (BOD) SM 18ed # 5210 11.19 - Oil and Grease SM 18ed # 5520 B 11.21 - pH SM 18ed # 4500-H B 11.28 - Residue, Nonfilterable (TSS) SM 18ed # 2540 D	3	FGL	02/27/96	03/12/96
[redacted]	STP1-Effluent 11.4 - Biochemical Oxygen Demand (BOD) SM 18ed # 5210 11.19 - Oil and Grease SM 18ed # 5520 B 11.21 - pH SM 18ed # 4500-H B 11.28 - Residue, Nonfilterable (TSS) SM 18ed # 2540 D	3	FGL	02/27/96	03/12/96
[redacted]	STP2-Influent 11.4 - Biochemical Oxygen Demand (BOD) SM 18ed # 5210 11.19 - Oil and Grease SM 18ed # 5520 B 11.21 - pH SM 18ed # 4500-H B 11.28 - Residue, Nonfilterable (TSS) SM 18ed # 2540 D	4	FGL	02/27/96	03/12/96
[redacted]	STP2-Effluent 11.4 - Biochemical Oxygen Demand (BOD) SM 18ed # 5210 11.19 - Oil and Grease SM 18ed # 5520 B 11.21 - pH SM 18ed # 4500-H B 11.28 - Residue, Nonfilterable (TSS) SM 18ed # 2540 D	3	FGL	02/27/96	03/12/96
[redacted]	21.6 - Sampling Charge for Weekly STP Monitoring - STP weekly Comp sample with FGL equipment-per week	1	FGL	02/27/96	03/12/96

Relinquished by: N/A on: / / at: Rec'd by: on: / / at:

Rept Rec'd 3/6/96

BNA01926518
HDMSp01712920

BUILDING 4057

Internal Letter — Rockwell International

Date: March 13, 1995

TO: J. Erman
HS&FE
483,055-T486

FROM: S. Benjamin
025,055-T038
586-5070

Subject: Safety audit findings at B/057
Reference: Safety Report (03/09/95)

In response to the audit findings referenced above, please find the following close out information.

* "94233, PIPES STORED IN FRONT OF INSTRUMENT TERMINAL CABINET. MOVE OBJECTS IN FRONT OF CABINET BY AT LEAST 36 INCHES." (Opened: 09/06/94)

  The pipes have been removed (Closed: September 1994).

* "94234, SSR CABINET BL1P4 HAS A VACUUM COATING UNIT IN FRONT. MOVE OBJECTS FROM ELECTRICAL CABINETS BY AT LEAST 36 INCHES." (Opened: 09/06/94)

  The objects have been removed (Closed: September 1994).

* "95033, EXTENSION CORD IS STRUNG ACROSS THE WALKWAY AND PRESENTS A TRIP HAZARD. TAPE DOWN OR REMOVE." (Opened: 02/28/95)

  The extension cord was removed and the operators have been instructed not to leave the cords unattended (Closed: March 1995).

* "95034, METAL PLATE REMOVED ON NORTH END OF CABLE RACEWAY. HOLE PRESENTS TRIP HAZARD. HOLE NEEDS TO BE COVERED OR CAUTION TAPE NEEDS TO BE PLACED AROUND HOLE TO PREVENT ACCESS." (Opened: 02/28/95)

  The metal plate has been replaced (Closed: March 1995).

If you have any questions or require more information please contact me. Thank you for your cooperation.

S. Benjamin
Operations Department
Energy Technology Engineering Center

cc: W. DeBear

BNA03032690
HDMSp01713113

Internal Letter — Rockwell International

Date: February 10, 1995

TO: J. Erman
HS&FE
483,055-T486

FROM: S. Benjamin
025,055-T038
586-5070

Subject: Subject: Safety audit findings at B/057
Reference: IL-No. ET-029J (12/23/94) & ET-036J (02/03/95)

In response to the audit findings referenced above, please find the following close out information.

ET-029J (12/23/94)

* "94476, MO14357 CRANE PROOF IS EXPIRED. NEEDS PROOF TESTING."

  The crane has been proof tested (January 1995).

ET-036J (02/03/95)

* "94566, PANEL D HAS DO NOT TOUCH SIGN TAPED OVER A SWITCH. SWITCH NEEDS TO BE LOCKED AND TAGGED PROPERLY ACCORDING TO THE ECPL PROCEDURE."

  The tape has been removed (02/10/95), the switch is operational.

* "94567. PROOF TEST HOIST IS WITHIN THE 36" BOUNDARY."

  The 36" boundary for the GFI panel has been cleared (02/10/95).

If you have any questions or require more information please contact me. Thank you for your cooperation.

S. Benjamin
Operations Department
Energy Technology Engineering Center

cc: W. DeBear T. Wells

BNA03032695
HDMSp01713114

Internal Letter — Rockwell International

Date: February 10, 1995

TO: J. Erman
HS&FE
483,055-T486

FROM: S. Benjamin
025,055-T038
586-5070

Subject: Subject: Safety audit findings at B/057
Reference: IL-No. ET-029J (12/23/94) & ET-036J (02/03/95)

In response to the audit findings referenced above, please find the following close out information.

ET-029J (12/23/94)

* "94476, MO14357 CRANE PROOF IS EXPIRED. NEEDS PROOF TESTING."

  The crane has been proof tested (January 1995).

ET-036J (02/03/95)

* "94566, PANEL D HAS DO NOT TOUCH SIGN TAPED OVER A SWITCH. SWITCH NEEDS TO BE LOCKED AND TAGGED PROPERLY ACCORDING TO THE ECPL PROCEDURE."

  The tape has been removed (02/10/95), the switch is operational.

* "94567. PROOF TEST HOIST IS WITHIN THE 36" BOUNDARY."

  The 36" boundary for the GFI panel has been cleared (02/10/95).

If you have any questions or require more information please contact me. Thank you for your cooperation.

S. Benjamin
Operations Department
Energy Technology Engineering Center

cc: W. DeBear T. Wells

BNA03057657
HDMSp01713115

May 06, 1985 — 85-021-1-104

F. R. Newton/S. R. Kamin, ETEC /ETEC, 021, 055-T027/027, 055-T483
D. R. Rochelle, ETEC, 021, 055-T027, 5165

Overcheck of Radiographs of B/05' Test Article No. 1

References (from ASME Boiler and Pressure Vessel Code Section V, Article 2):

1) T-233.2 All radiographs shall be free from mechanical, chemical, or other blemishes to the extent that they cannot mask or be confused with the image of any discontinuity in the area of interest.

2) T-235 A system shall be used to produce permanent identification on the radiograph traceable to the contract, component, weld or weld seam, or part numbers.

3) T-237 Location markers, which are to appear as radiographic images on the film, shall be placed on the part and their locations shall be marked on the surface of the part being radiographed or on a map, in a manner permitting the area of interest on a radiograph to be accurately traceable to its location on the part for the required retention period of the radiograph, and provide evidence on the radiograph that the required coverage of the region being examined has been obtained.

4) T-263.1.1 Penetrameters shall be placed on the source side of the part being examined.

The radiographs submitted by Halsey Machine Mfg. of welds on Test Article No. 1 were overchecked and rejected for noncompliance to contract and code requirements. The drawing, ref. 057-PA-0002 R/C, requires radiography per ANSI B31.1, which requires that radiography be performed in accordance with Section V, Article 2 of the ASME Code.

A review of the radiographs reveals a lack of traceability from the radiographs to the radiographic reports to the ETEC Purchase Order, see ref. No. 2, T-236. Radiographic report No. RSR04035, page 1 of 2, and reports for welds G & H (film identification SWG & SWH) have not been included in the film package. Film for welds WGA R-3 and W-LB are included, but without reports or an explanation as to what they are. Also, those reports which have been included do not indicate the correct acceptance criteria.

An effort to match the radiographic views to the areas radiographed failed because location markers were not marked on the part, ref. No. 3, T-237, and the welds have been ground on after being radiographed.

BNA04744669
HDMSp01713604

BUILDING 4057

SSTF (Static Sodium Test Facilities)
B/032 & B/057

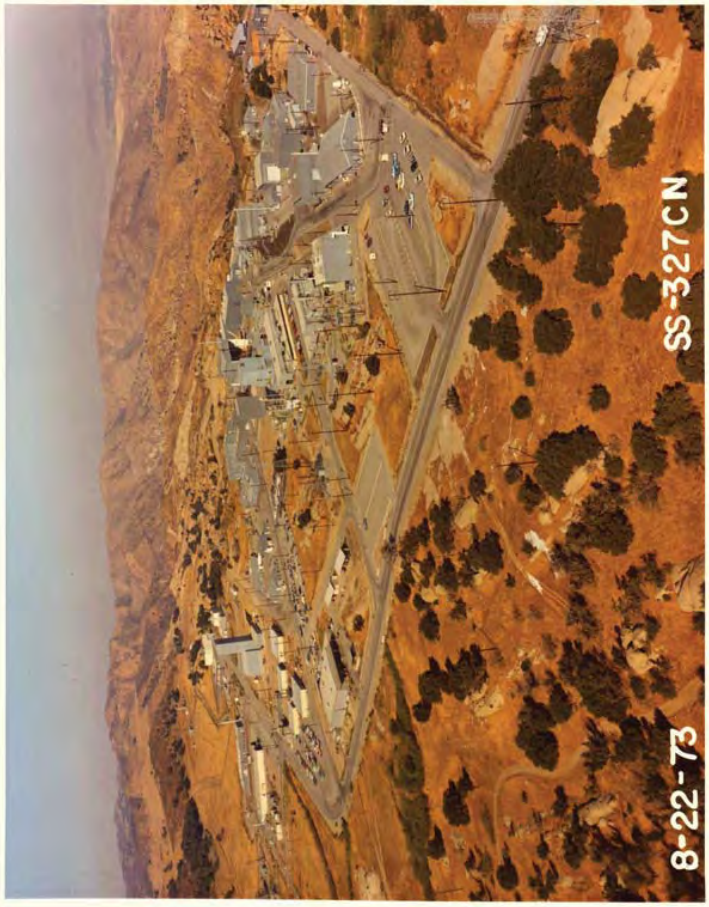
ETEC MATERIAL INVENTORY REVIEW
(FOR PERIOD ENDING DECEMBER 31, 1981)

MIR/land
Page 1
1/18/82

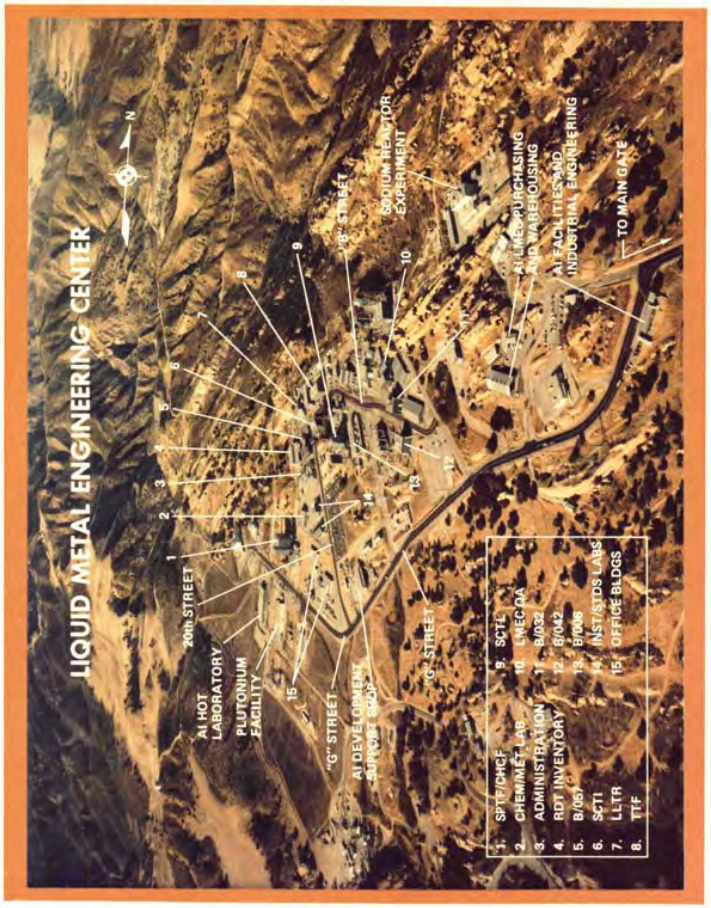
E. Ferguson 2/5/82

Ident No.	Description	Quant. Req'd	Use	Remarks
BARSTOCK, RDT M 7-3T, 304H (S)				
9510-02	1/2 RD 10-12-ft lengths (R)			
9510-08	2 RD 10-12-ft lengths (R)			
9510-12	3 RD 10-12-ft lengths (R)			
9510-40=	10 sq. 10-12-ft lengths (D)			
BARSTOCK, ASME SA-479, 304H (S)				
9510-102	1/2 RD (50/10/50/5)			
9510-104	1 RD (50/10/50/5)			
9510-108	2 RD (50/10/50/5)			
9510-112	3 RD (30/10/30/5)			
9510-116	4 RD (30/10/30/5)			
9510-120	5 RD (30/10/30/5)			
9510-124	6 RD (30/10/30/5)			
9511-01	2-1/8 RD, 316H (50/10/50/5) Dbl vac mlt, RDT M7-3T (for thermowell fabrication)			
BILLETS, 304H STAINLESS STEEL (S)				
9640-011	10-in. 316H (dbl vac mlt) RD cornered sq type (D)			
9640-2502	25-in. x 16-1/2-in. tapered (D)			
CAPS, WELD, RDT M 2-5T, WP 304H (U)				
4736-0107	3-40S (R)			
4736-0109	6-40S (R)			
4736-0110	8-40S (R)			
CAPS, WELD, ASME SA-403, WP 304H (U)				
4736-1102	1/2-40S (10/2/10/1)	4 Ea.	M(N)	SSTF
4736-1103	3/4-40S (10/2/10/1)			
4736-1104	1-40S (20/5/20/2)	4 Ea.	M(N)	SSTF
4736-1105	1-1/2-40S (10/2/10/1)	2 Ea.	M(N)	SSTF
4736-1106	2-40S (20/5/20/2)			
4736-1107	3-40S (10/2/10/1)			
4736-1108	4-40S (10/2/10/1)			
4736-1109	6-40S (5/2/5/1)			
4736-1110	8-40S (5/2/5/1)			
4736-1111	10-40S (5/2/5/1)			

BNA05668410
HDMSp01713737



BUILDING 4057



L M E C

FACILITY DESCRIPTIONS

March 1973

Liquid Metal Engineering Center

Operated for
the U.S. Atomic Energy Commission by Atomics International Division
A Division of North American Rockwell Corporation

LMFBR/FFTF Test and Facility Data

RECEIVED
AUG 29 1972
LMIC

Liquid Metal Engineering Center

Operated for
the U.S. Atomic Energy Commission by Atomics International
A Division of North American Rockwell Corporation

BOEING

GO Number	S/A Number	Page 1 of	Total Pages	Rev. Ltr/Chg. No. See Summary of Chg.	Number
97055	32620	150	150	0	RS-00036

Program Title
Closure of ETEC

Document Title
Building 4059 Site Final Status Survey Report (Phase A and Phase B)

Document Type
Supporting Document

Related Documents

Original Issue Date 07/01/2005
Release Date 4/21/2006 RELEASED DOCUMENT

Approvals / Date
P. D. Rutherford 4/19/06
J. R. Vargo 4-20-06
B. D. Sujata 21 April 2006

Prepared By/Date
E. R. McGinnis
Ning Liu 02/28/2006
4/19/06

Dept. C55W
Mail/Addr T038

R&D Program? Yes ☐ No ☒
If Yes, Enter Authorization No.

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*	P. D. Rutherford	T038
*	B. D. Sujata	T038
*	J. R. Vargo	T038
*	Radiation Safety File	T057
*	Facility Release Files	T057

Abstract

This document provides the results of the Phase A and Phase B Final Status Survey of Building 4059 (SNAP Ground Prototype Facility) at the Santa Susana Field Laboratory. The data analysis follows the protocols recommended by the Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM). The survey results demonstrate that the Building 4059 site meets the Department of Energy (DOE) and the State of California, Department of Health Services (DHS) approved release criteria, and the site is therefore suitable for release for unrestricted use.

* Complete Document
No Asterisk, Title Page/Summary or Change Page Only.

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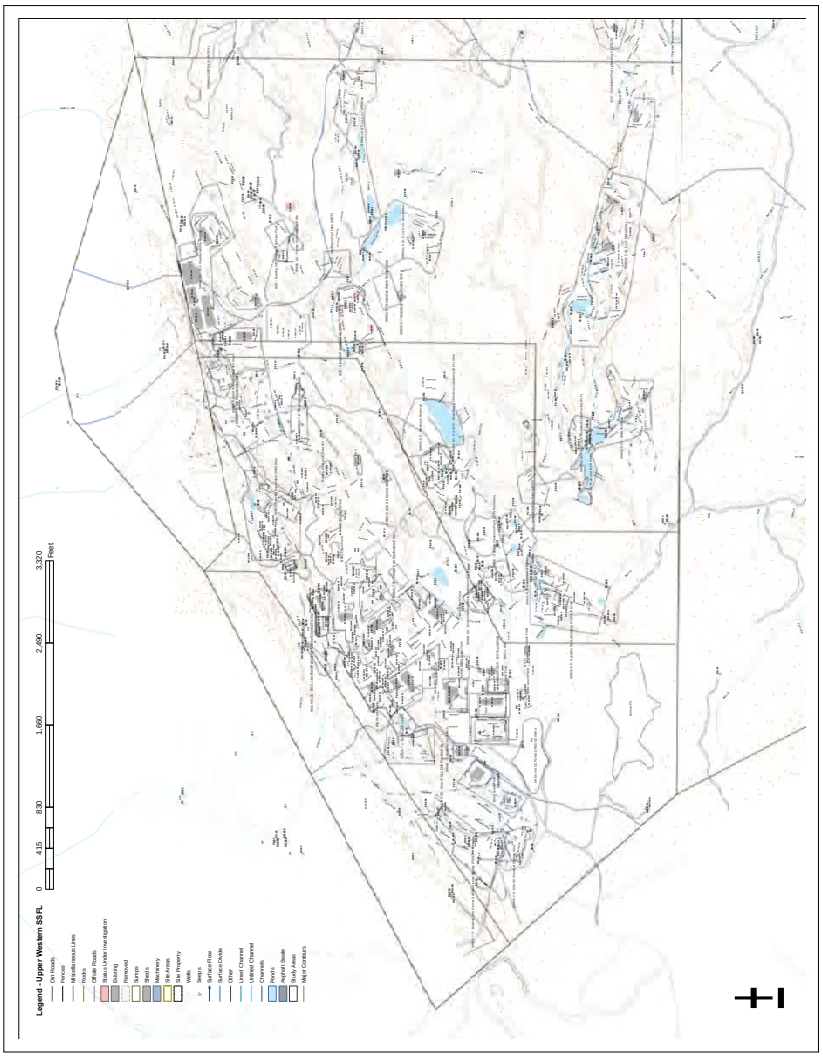
Rocketdyne Form 4515 REV. 8-99

BUILDING 4057



BUILDING 4059

BUILDING 4059

ORISE
OAK RIDGE INSTITUTE FOR SCIENCE AND EDUCATION

June 6, 2008

Mr. Thomas Johnson, Jr.
Deputy Federal Project Director
U.S. Department of Energy
Energy Technology Engineering Center
P.O. Box 10300
Canoga Park, CA 91309

DOE CONTRACT NO. DE-AC05-06OR23100

SUBJECT: FINAL REPORT—VERIFICATION SURVEY OF THE BUILDING 4059 SITE (PHASE B); POST HISTORICAL SITE ASSESSMENT SITES, BLOCK 1; and RADIOACTIVE MATERIALS HANDLING FACILITY HOLDUP POND (SITE 4614), SANTA SUSANA FIELD LABORATORY, THE BOEING COMPANY, VENTURA COUNTY, CALIFORNIA
DCN 0453-SR-01-0

Dear Mr. Johnson:

The Oak Ridge Institute for Science and Education (ORISE) is providing the enclosed final verification survey report for the subject areas at the Santa Susana Field Laboratory. Comments provided on the draft report have been incorporated.

Please contact me at 865.576.5073 or Sarah Roberts at 865.241.8893 should you have any questions.

Sincerely,

Timothy J. Vitkus
Survey Projects Manager
IEAV/Survey Projects

TJV:bf

Enclosure

c: P. Rutherford, Boeing
E. Ahelquist, ORISE
S. Roberts, ORISE
File/0453

Voice: 865.576.5073 Fax: 865.241.3497 E-mail: tim.vitkus@orau.org

P. O. Box 117
Oak Ridge, TN 37831

Figure 1-1. Artist's Conceptual Drawing of Building 059

142 B

B/059 Demolition/Release Approach

1.0 Introduction

As with the Building 020 (Hot Lab) site and the Building 064 site, the release of the Building 059 site will necessarily take place over a time frame of 2 to 3 years Because of the special characteristics and location of the remaining radioactive materials within the facility structure, the removal of these radioactive materials requires a special approach and advanced planning. Most radioactively contaminated facilities can be released by removing all radioactive materials and surface contamination and then releasing the cleaned structures and site through detailed, comprehensive surveys. The planned end state of the Building 059 site is facility demolition - all structural materials surveyed, removed and either released for unrestricted use or packaged and disposed as radioactive waste. The remaining excavation will then be surveyed and released; the excavation filled after verification surveys, and the site restored to "natural" conditions. The following sections are intended to provide background information and rationale for the approach to planning and proceeding to the final end state.

2.0 Facility History and Background

Building 059 (Figure 1), located in Area 4 at Rocketdyne's SSFL, has a large below-grade test vault with two reactor test cells and below grade support rooms. It was used in the late 1960s for ground-testing the Space Nuclear Auxiliary Power (SNAP) prototype reactor, S8DR. During the early 1970s, following successful completion of the ground tests, the reactor and the north reactor test cell portion of the liquid metal heat transfer circuits was removed. All reactor systems were removed intact and no loose, surface contamination was present after the reactor systems were removed. The facility was then placed under a maintenance and surveillance regime while waiting for future decontamination and decommissioning (D&D).

DOE funded the D&D program to be initiated in 1987. The overall objectives of the Building 059 Remediation Program performed by Rocketdyne for the Department of Energy (DOE) were threefold:

1. Prevent radiological contamination of the environment
2. Remove all radiologically activated material above Federal and State of California designated unrestricted release limits from within the building and its structure

The Boeing Company
Rocketdyne Propulsion & Power
6633 Canoga Avenue
P.O. Box 7922
Canoga Park, CA 91309-7922

142 B

BOEING

November 11, 1999
In reply refer to 99RC-5821

Mike Lopez
Department of Energy
Oakland Operations Office
1301 Clay Street
Oakland, CA 94612-5208

Subject: Residual Activation Products in the B/4059 Concrete and RESRAD Analysis

Dear Mr. Lopez:

The attached documents provide a basis for the remaining activation products in the concrete of Building 4059, as of the summer of 1995.

1. Internal Letter, R. J. Tuttle to P. D. Rutherford "Comparison of Potential Radiation Doses and Costs for Alternative Treatments of T059 Reactor Pit", 1/26/95
2. ORISE Report 95/G-18, "Radiological Survey of the Building 059 Reactor Vault, Santa Susana Field Laboratory, Rockwell International, Ventura County, California, June 1995
3. Letter from P. Rutherford to Ed Bailey, "ORISE Report of Building 059 Reactor Vault", 95ETEC DRF-0606, July 5, 1995
4. Internal Letter from R. J. Tuttle to P. D. Rutherford, "RESRAD Calculations for the Remaining Activated Concrete in T059", 7/13/95
5. Internal Letter from R. J. Tuttle to P. D. Rutherford, "RESRAD Calculations for the Remaining Activated Concrete in T059", 9/08/95

BUILDING 4059

ORAU | Oak Ridge Mission & Services | MJW

DATA CAPTURE DOCUMENT DISCOVERY AND REVIEW

ORAU TEAM Dose Reconstruction Project for NIOSH

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Name: M. Chew

Site/Facility of Data Capture: San Bruno

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Date: March 17, 2005

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Name(s): ETEC

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Name(s):

☐ **Other**
Name(s):

☐ Use document title clearly written on document
Document Title & Comments:
Radiological Surveys (Many) 1988

Document Type:

☐ **Facilities/Process** (i.e. source terms, contamination surveys, general area/breathing zone air sampling, area radiation surveys, radon/thoron monitoring, fixed location dosimeters, missed dose information, radiological control limits, Radiation Work Permits, incidents/accidents)

☐ **Medical Dose** (i.e. X-rays, occupational medical dose, exam frequencies, equipment performance characteristics)

☑ **Environmental Dose** (i.e. ambient radiation, on-site releases, on-site radionuclide concentrations)

☐ **Internal Dose** (i.e. urinalysis, fecal, In-Vivo, breath sampling, radon/thoron, nasal smears, analytical methods, exchange frequency, detection limits, record keeping practices, codes, performance characteristics)

☐ **External Dose** (i.e. Thermoluminescent Dosimeters (TLDs), film badges, Pocket Ion Chambers, analytical methods, exchange frequency, detection limits, record keeping practices, codes, performance characteristics)

☐ **Privacy Act Data** (i.e. individual or group data)

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ORAU-FORM-0015 Rev 05, Effective 09/14/2004

DOE AREA IV BUILDINGS

BUILDING NO.	NAME	MANAGER	STATUS
012E	ETEC X-RAY FACILITY	GAYLORD	INACTIVE
013E	THERMAL TRANSIENT FACILITY	GERRITSEN	ACTIVE
014E	SODIUM STORAGE	GERRITSEN	INACTIVE STANDBY
019E	ETEC COMPUTER CENTER/CONSTRUCTION STAGING	JETTER/ZWENG	ACTIVE
021	R/A WASTE DECONTAMINATION	HORTON	INACTIVE STANDBY
022	R/A VAULT STORAGE	HORTON	INACTIVE STANDBY
023	LIQUID METALS CHEMISTRY	GAY	ACTIVE
024	DEVELOPMENT TEST BLDG.	GERRITSEN	INACTIVE STANDBY
025E	SCTI MAIN. SHOP & STORAGE	MOORE	ACTIVE
026E	SCTL CONTROL CENTER	DEBEAR	INACTIVE STANDBY
027E	LEASED TO RKD FOR WELD SHOP	GAYLORD	ACTIVE
029E	HAZARDOUS WASTE STORAGE	GERRITSEN	ACTIVE
030E	TRAFFIC & WAREHOUSING-LEASED TO ROCKETDYNE	GAYLORD	ACTIVE
032E	LMDL-1	DEBEAR	INACTIVE STANDBY
034	RMDF ENGINEERING OFFICE	HORTON	ACTIVE
036E	OFFICE BLDG. LEASED TO RKD	GAYLORD	ACTIVE
038E	ETEC HEADQUARTERS/DOE SITE OFFICE	GAYLORD	ACTIVE
039E	OFFICE BLDG.	GAYLORD	INACTIVE
041	EQUIPMENT STORAGE	GERRITSEN	ACTIVE
042	LMFBR DEV. TESTING	GAY	INACTIVE STANDBY
044	RMDF AP OFFICE	HORTON	ACTIVE
049E	PDU CONTROL CENTER	GAY	INACTIVE
057E	ETEC GENERAL TEST	GERRITSEN	INACTIVE
059E	LARGE LEAK TEST RIG	GERRITSEN	ACTIVE
062E	INSTRUMENTATION LAB.	WARGO	ACTIVE
064	NUCLEAR MATERIAL STORAGE	HORTON	INACTIVE STANDBY
065E	ETEC CHEMISTRY LAB.	JETTER	ACTIVE
066E	INSTRUMENTATION LAB.	WARGO	ACTIVE
075	CONTAMINATED EQUIPMENT STORAGE	HORTON	ACTIVE
133E	SODIUM BURN FACILITY	GERRITSEN	ACTIVE
228E	POWER PAK	MOORE	ACTIVE STANDBY
226E	SCTL MG BLDG.	DEBEAR	INACTIVE STANDBY
320E	FUEL OIL PUMP BLDG.	MOORE	INACTIVE
355E	SCTI CONTROL CENTER	MOORE	ACTIVE
356E	SODIUM COMPONENT TEST INSTALLATION	MOORE	ACTIVE STANDBY
357E	SCTI SUPPLY STORAGE	MOORE	INACTIVE STANDBY
358E	SCTL SUPPORT BLDG.	DEBEAR	INACTIVE
360E	CHEMICAL STORAGE BLDG.	MOORE	ACTIVE
361E	HAS MAT'L STORAGE	MOORE	ACTIVE STANDBY
392E	SCTI ELECTRICAL EQUIPMENT	MOORE	INACTIVE
459E	UNINTERRUPTIBLE POWER SUPPLY	GERRITSEN	INACTIVE
461E	MOTOR GENERATOR BLDG.	DEBEAR	INACTIVE STANDBY
462E	SODIUM PUMP TEST FACILITY	DEBEAR	INACTIVE STANDBY
463E	COMPONENTS HANDLING & CLEANING	GERRITSEN	ACTIVE STANDBY
473E	HYDRAULIC TEST INSTRUMENTATION	GERRITSEN	INACTIVE
482E	ENGINEERING OFFICE LEASED TO ROCKETDYNE	GAYLORD	PARTIAL ACTIVE
483E	ENGINEERING OFFICE	GAYLORD	INACTIVE
484E	RESTROOM FACILITY	GAYLORD	ACTIVE
485E	ENGINEERING OFFICE,	GAYLORD	INACTIVE
486E	ENGINEERING OFFICE	GAYLORD	ACTIVE
487E	ENGINEERING OFFICE	JETTER	ACTIVE

BUILDING 4059

ORAU | DATA CAPTURE DOCUMENT DISCOVERY AND REVIEW | ORAU TEAM Dose Reconstruction Project for NIOSH

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Reviewers – complete all information that applies to the document, then place in front of the document.

Name: M.H. Chew
Site/Facility of Data Capture: San Bruno
Site/Facility Box Number: 1
Site That Document Applies To:
- [x] DOE Site(s) Name(s): ETEC
- [ ] AWE Site(s) Name(s):
- [ ] Other Name(s):
- [ ] Use document title clearly written on document

Document Title & Comments: Program Historical Data Aug 1975

Date: March 17 2005
Accession Number: 434-93-0120
Document Type:
- [x] Facilities/Process (i.e. source terms, contamination surveys, general area/breathing zone air sampling, area radiation surveys, radon/thoron monitoring, fixed location dosimeters, missed dose information, radiological control limits, Radiation Work Permits, incidents/accidents)
- [ ] Medical Dose (i.e. X-rays, occupational medical dose, exam frequencies, equipment performance characteristics)
- [ ] Environmental Dose (i.e. ambient radiation, on-site releases, on-site radionuclide concentrations)
- [ ] Internal Dose (i.e. urinalysis, fecal, In-Vivo, breath sampling, radon/thoron, nasal smears, analytical methods, exchange frequency, detection limits, record keeping practices, codes, performance characteristics)
- [ ] External Dose (i.e. Thermoluminescent Dosimeters (TLDs), film badges, Pocket Ion Chambers, analytical methods, exchange frequency, detection limits, record keeping practices, codes, performance characteristics)
- [ ] Privacy Act Data (i.e. individual or group data)

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Records Staff – fill out the following prior to scanning or copying.
Project Box Number: Project Document Number: 030003035
Folder Title:

ETEC 114

ORAUT-FORM-0015 Rev 05, Effective 09/14/2004

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Reviewers – complete all information that applies to the document, then place in front of the document.

Name: M.H Chew
Site/Facility of Data Capture: San Bruno
Site/Facility Box Number: 1
Site That Document Applies To:
- [ ] DOE Site(s) Name(s): ETEC
- [ ] AWE Site(s) Name(s):
- [ ] Other Name(s):
- [ ] Use document title clearly written on document

Document Title & Comments: Additions to implementation Plan for DIE 5486.11 Feb 14, 1989

Date: March 16, 2005
Accession Number: 434-93-0226
Document Type:
- [ ] Facilities/Process (i.e. source terms, contamination surveys, general area/breathing zone air sampling, area radiation surveys, radon/thoron monitoring, fixed location dosimeters, missed dose information, radiological control limits, Radiation Work Permits, incidents/accidents)
- [ ] Medical Dose (i.e. X-rays, occupational medical dose, exam frequencies, equipment performance characteristics)
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Folder Title:

ETEC-2

ORAUT-FORM-0015 Rev 05, Effective 09/14/2004

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Reviewers – complete all information that applies to the document, then place in front of the document.

Name: M.H Chew
Site/Facility of Data Capture: San Bruno
Site/Facility Box Number: 1
Site That Document Applies To:
- [x] DOE Site(s) Name(s): ETEC
- [ ] AWE Site(s) Name(s):
- [ ] Other Name(s):
- [ ] Use document title clearly written on document

Document Title & Comments: Long Range Plan for Decommissioning Surplus Facilities at the Santa Susana Field Lab N001710 200

Date: March 17 2005
Accession Number: 434-93-0120
Document Type:
- [x] Facilities/Process (i.e. source terms, contamination surveys, general area/breathing zone air sampling, area radiation surveys, radon/thoron monitoring, fixed location dosimeters, missed dose information, radiological control limits, Radiation Work Permits, incidents/accidents)
- [ ] Medical Dose (i.e. X-rays, occupational medical dose, exam frequencies, equipment performance characteristics)
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- [ ] Internal Dose (i.e. urinalysis, fecal, In-Vivo, breath sampling, radon/thoron, nasal smears, analytical methods, exchange frequency, detection limits, record keeping practices, codes, performance characteristics)
- [ ] External Dose (i.e. Thermoluminescent Dosimeters (TLDs), film badges, Pocket Ion Chambers, analytical methods, exchange frequency, detection limits, record keeping practices, codes, performance characteristics)
- [ ] Privacy Act Data (i.e. individual or group data)

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Project Box Number: Project Document Number: 030003037
Folder Title:

ETEC-22

ORAUT-FORM-0015 Rev 05, Effective 09/14/2004

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Reviewers – complete all information that applies to the document, then place in front of the document.

Name: M.H. Chew
Site/Facility of Data Capture: San Bruno
Site/Facility Box Number: 1
Site That Document Applies To:
- [x] DOE Site(s) Name(s): ETEC
- [ ] AWE Site(s) Name(s):
- [ ] Other Name(s):
- [ ] Use document title clearly written on document

Document Title & Comments: External Dosimetry and NVLAP at ETEC

Date: March 16 2005
Accession Number: 434-93-0226
Document Type:
- [ ] Facilities/Process (i.e. source terms, contamination surveys, general area/breathing zone air sampling, area radiation surveys, radon/thoron monitoring, fixed location dosimeters, missed dose information, radiological control limits, Radiation Work Permits, incidents/accidents)
- [ ] Medical Dose (i.e. X-rays, occupational medical dose, exam frequencies, equipment performance characteristics)
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- [ ] Internal Dose (i.e. urinalysis, fecal, In-Vivo, breath sampling, radon/thoron, nasal smears, analytical methods, exchange frequency, detection limits, record keeping practices, codes, performance characteristics)
- [x] External Dose (i.e. Thermoluminescent Dosimeters (TLDs), film badges, Pocket Ion Chambers, analytical methods, exchange frequency, detection limits, record keeping practices, codes, performance characteristics)
- [ ] Privacy Act Data (i.e. individual or group data)

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Records Staff – fill out the following prior to scanning or copying.
Project Box Number: Project Document Number: 030003039
Folder Title:

ETEC-4

ORAUT-FORM-0015 Rev 05, Effective 09/14/2004

BUILDING 4059

ORAU	DATA CAPTURE DOCUMENT DISCOVERY AND REVIEW	ORAU TEAM Dose Reconstruction Project for NIOSH

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Reviewers – complete all information that applies to the document, then place in front of the document.

Name: MH CHEW

Site/Facility of Data Capture:

Date: 3/16/05

Site/Facility Box Number: 1

Accession Number: 434-93-0123

Site That Document Applies To:

☒ **DOE Site(s)**
Name(s): ETEC

☐ **AWE Site(s)**
Name(s):

☐ **Other**
Name(s):

☐ Use document title clearly written on document Document Title & Comments:
ENV. Monitoring Report 1985

Document Type:

☐ **Facilities/Process** (i.e. source terms, contamination surveys, general area/breathing zone air sampling, area radiation surveys, radon/thoron monitoring, fixed location dosimeters, missed dose information, radiological control limits, Radiation Work Permits, incidents/accidents)

☐ **Medical Dose** (i.e. X-rays, occupational medical dose, exam frequencies, equipment performance characteristics)

☒ **Environmental Dose** (i.e. ambient radiation, on-site releases, on-site radionuclide concentrations)

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☐ **Privacy Act Data** (i.e. individual or group data)

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Project Box Number: _____ Project Document Number: 03000 3044

Folder Title: _____

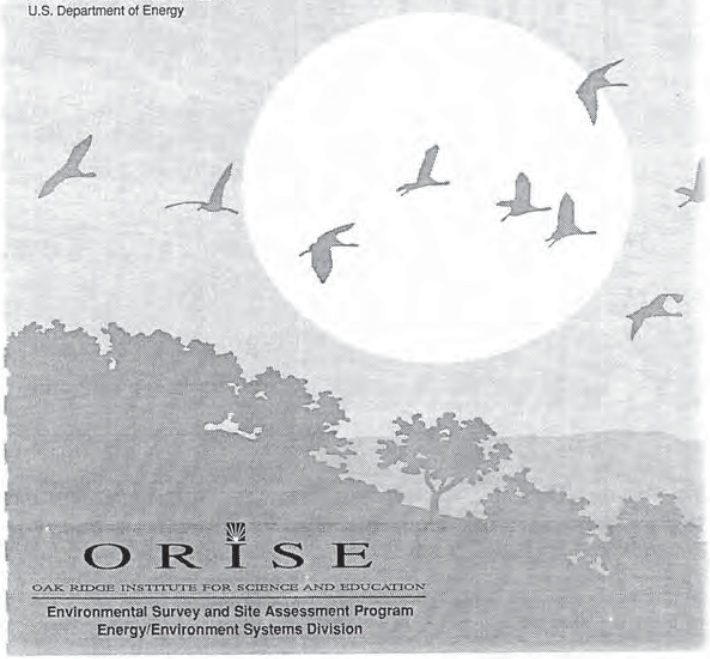
ETEC-8

ORAUT-FORM-0015 Rev 05, Effective 06/14/2004

RADIOLOGICAL SURVEY
OF THE
BUILDING 059 REACTOR VAULT
SANTA SUSANA FIELD LABORATORY
ROCKWELL INTERNATIONAL
VENTURA COUNTY, CALIFORNIA

T. J. VITKUS AND J. R. MORTON

Prepared for the
Office of Environmental Restoration
U.S. Department of Energy



ORISE
OAK RIDGE INSTITUTE FOR SCIENCE AND EDUCATION
Environmental Survey and Site Assessment Program
Energy/Environment Systems Division

A4CM-ZR-0011
Revision A.

AREA IV RADIOLOGICAL CHARACTERIZATION SURVEY

FINAL REPORT

Volume I

Santa Susana Field Laboratory
Rocketdyne Division
Rockwell International

August 15, 1996

A4CM-ZR-0011
Revision A.

AREA IV RADIOLOGICAL CHARACTERIZATION SURVEY

FINAL REPORT

Volume II

Santa Susana Field Laboratory
Rocketdyne Division
Rockwell International

August 15, 1996

BUILDING 4059

A4CM-ZR-0011
Revision A.

AREA IV RADIOLOGICAL CHARACTERIZATION SURVEY

FINAL REPORT

Volume III

Santa Susana Field Laboratory
Rocketdyne Division
Rockwell International

August 15, 1996

A4CM-ZR-0011
Revision A.

AREA IV RADIOLOGICAL CHARACTERIZATION SURVEY

FINAL REPORT

Volume IV

Santa Susana Field Laboratory
Rocketdyne Division
Rockwell International

August 15, 1996

ORISE
OAK RIDGE INSTITUTE FOR SCIENCE AND EDUCATION

March 13, 1996

Mr. Don Williams
U.S. Department of Energy
EM-421
Cloverleaf Building
Washington, DC 20585-0002

SUBJECT: FINAL REPORT - 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; SANTA SUSANA FIELD LABORATORY, ROCKWELL INTERNATIONAL, VENTURA COUNTY, CALIFORNIA

Dear Mr. Williams:

Enclosed are two copies of the subject report. Comments on the draft report that were provided in your December 28, 1995 memorandum have been incorporated into the final report. The report describes the procedures and results of the radiological surveys that the Environmental Survey and Site Assessment Program (ESSAP) of the Oak Ridge Institute for Science and Education (ORISE) performed during the period of September 11 through 14, 1995.

Please contact me at (423) 576-5073 or W. L. (Jack) Beck at (423) 576-5031 if we may provide you with any additional information.

Sincerely,

Timothy J. Vitkus
Project Manager
Environmental Survey and
Site Assessment Program

TJV:tsf

Enclosure

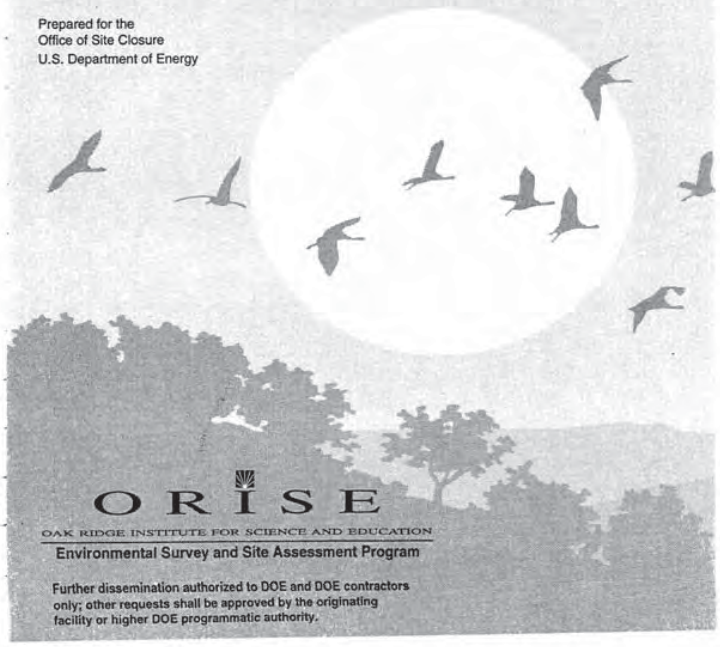
cc: M. Lopez, DOE/OAK
W. Beck, ORISE/ESSAP
T. Bright, ORISE/ESSAP
File/386

P. O. BOX 117, OAK RIDGE, TENNESSEE 37831-0117
Managed and operated by Oak Ridge Associated Universities for the U.S. Department of Energy

VERIFICATION SURVEY OF BUILDING 4059 (PHASE I) SANTA SUSANA FIELD LABORATORY THE BOEING COMPANY VENTURA COUNTY, CALIFORNIA

J. R. MORTON

Prepared for the
Office of Site Closure
U.S. Department of Energy



ORISE
OAK RIDGE INSTITUTE FOR SCIENCE AND EDUCATION
Environmental Survey and Site Assessment Program

Further dissemination authorized to DOE and DOE contractors only; other requests shall be approved by the originating facility or higher DOE programmatic authority.

BUILDING 4059

VERIFICATION SURVEY OF
THE BUILDING 4059 EXCAVATION
SANTA SUSANA FIELD LABORATORY
THE BOEING COMPANY
VENTURA COUNTY, CALIFORNIA

T. J. VITKUS

Prepared for the
Oakland Environmental Programs
U.S. Department of Energy

ORISE
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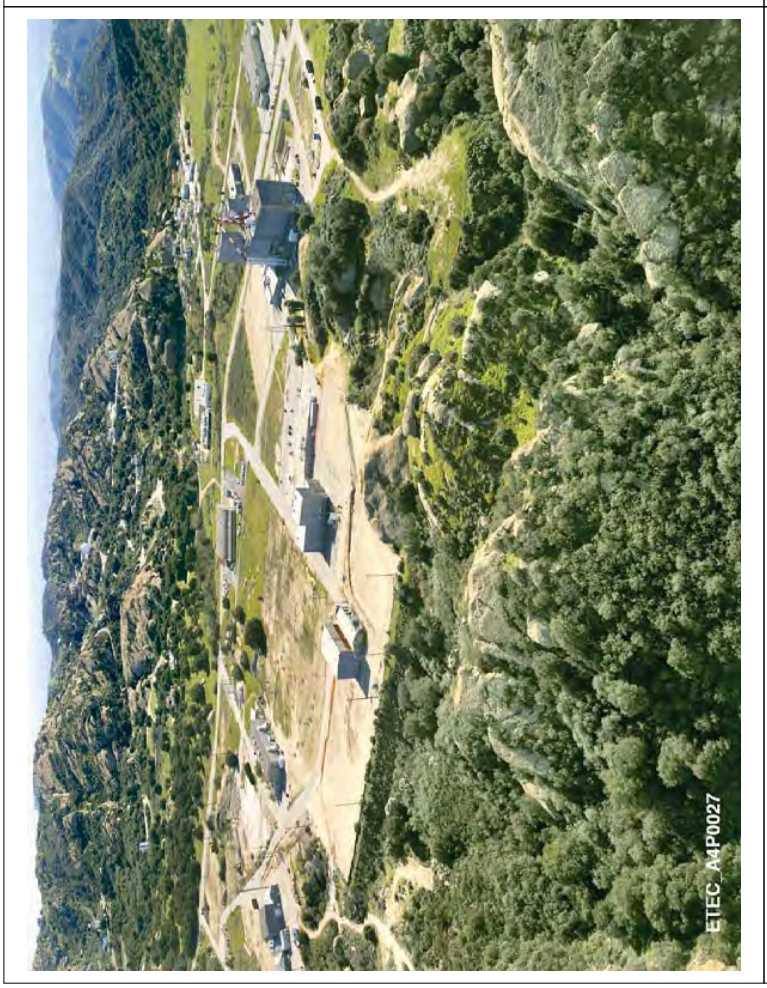
Environmental Survey
and Site Assessment Program

Further dissemination authorized to U.S. Government Agencies and their contractors; other requests shall be approved by the originating facility or higher DOE programmatic authority.



BUILDING 4059

Department of Energy
National Nuclear Security Administration
Service Center

NNSA
National Nuclear Security Administration

December 17, 2003

Majelle Lee
Program Manager
DOE Site Closure
The Boeing Company
Rocketdyne Propulsion & Power
P.O. Box 7922
Canoga Park, CA 91309-7922

OPTIONAL FORM 99 (7-90)
FAX TRANSMITTAL
# of pages ►
To Majelle Lee
From Mike Lopez
Dept./Agency
Phone #
Fax #
Fax #
NSN 7540-01-317-7368 5099-101 GENERAL SERVICES ADMINISTRATION

Subject: Release of Building 4059

Dear Ms. Lee:

Phase I of the B4059 decontamination and demolition included all above ground structures, plus below ground structures down to the basement level. The Phase I portion of Building 4059 has now undergone a final status radiological survey by Boeing, and a verification survey by the Oak Ridge Institute of Science and Education (ORISE). Both surveys confirmed that the federal cleanup limits in Regulatory Guide 1.86 and DOE Order 5400.5 have been met. Subsequently, the EPA confirmed that federal cleanup limits had been met.

Therefore the facility is suitable for release for unrestricted use. Approval is given for building demolition. The building debris may be disposed of as conventional waste. However in compliance with the Governor Davis' September 2002 moratorium on decommissioned wastes, the building debris should be disposed of at a Class I hazardous waste landfill or a Class 2 industrial waste landfill.

Sincerely,

Michael Lopez
Environmental Restoration
Project Manager

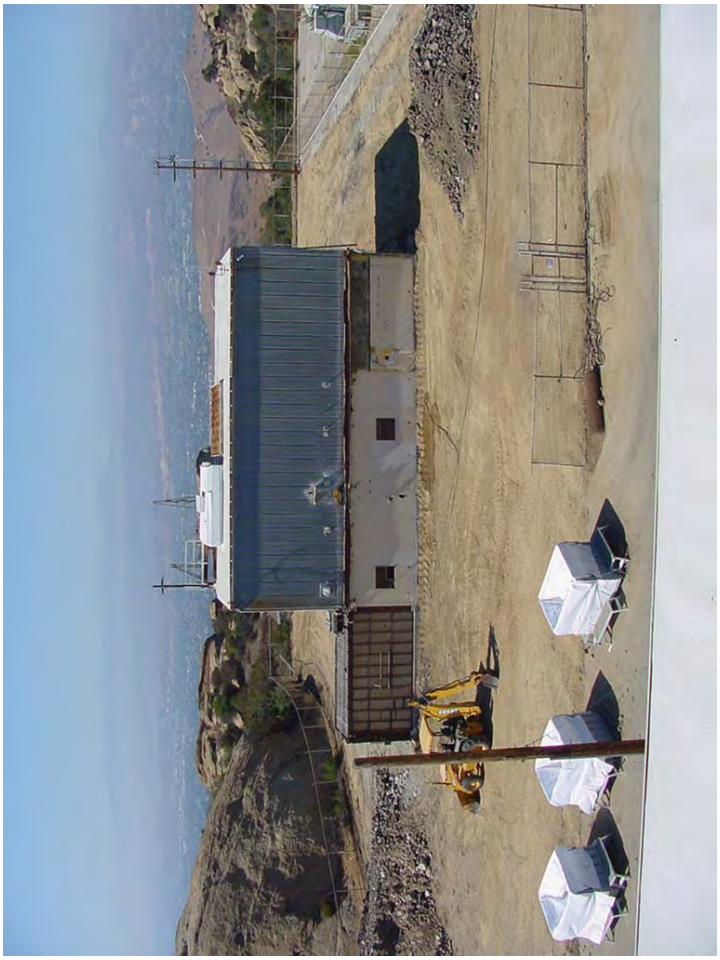
Albuquerque Office
P.O. Box 5400
Albuquerque, NM 87185-5400

Germantown Office
Germantown Building – USDOE
1000 Independence Avenue, SW
Washington, DC 20585-1290

Nevada Office
P.O. Box 98518
Las Vegas, NV 89193-8518

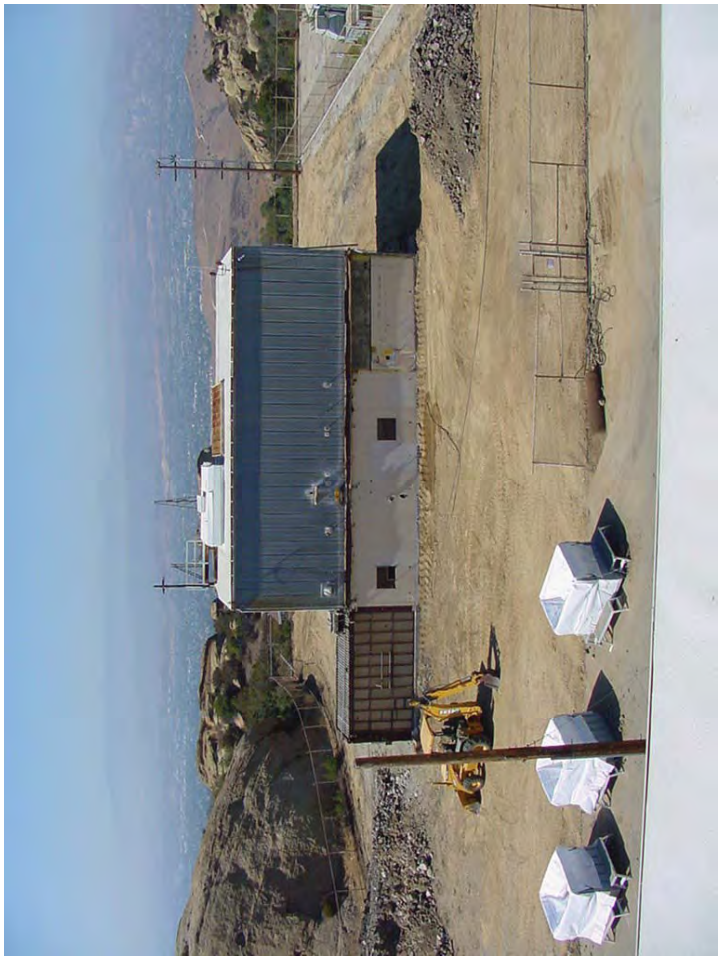
Oakland Office
1301 Clay Street, Suite N-700
Oakland, CA 94612-5208

BUILDING 4059

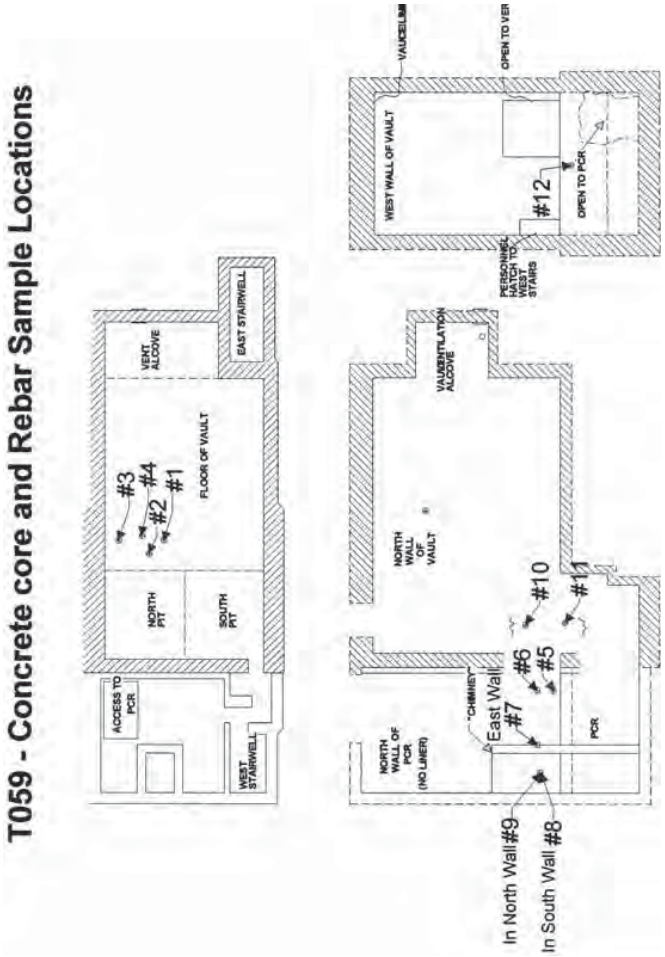


BUILDING 4059

BUILDING 4059



BUILDING 4059



BUILDING 4059

70D

September 1989 558list.rjt
Prepared by R. J. Tuttle

Listing of locations in SSFL Area IV associated with radioactive materials

On the map, clockwise from the top:

ETB Annex (T003)

A "counting room" in the ETB Annex was used for measurements of very small amounts of radioactivity in activation foils used in the SRE and other reactor tests. Check sources were used here.

ETB Hot Cave (T003)

A shielded installation in the northeast-end of the Engineering Test Building (ETB, T003) was used for analysis of irradiated fuel samples. It was decontaminated and decommissioned in 1976. Traces of uranium were found in the sewer line from this building. No activity was found in accessible locations downstream. (SRE fuel elements were also temporarily stored, before use, in T003)

T030

A Van de Graff accelerator using tritium targets was operated here. The accelerator was removed about 1962 and the facility was surveyed. A survey in 1988 confirmed that there was no activation in the building and no tritium in the soil around the building.

Old Conservation Yard

A survey in 1988 found low levels of Cs-137 in soil that had accumulated on the surface of a paved area. This was removed in August 1989.

Decon Trailer

This facility was set up for the possible emergency decontamination of injured personnel. No radioactive material has ever been in this trailer.

AE-6/L-85

The AE-6 was the first reactor to be operated in California. It was converted to the L-85 and operated at 3kW. Several related buildings are at this facility. It was decommissioned in 1987.

BUILDING 4059

AI-75-31

ATOMICS INTERNATIONAL
ENVIRONMENTAL MONITORING
AND
FACILITY EFFLUENT
ANNUAL REPORT
1974

By
J. D. MOORE

APPROVED R. J. Tuttle
R. J. TUTTLE
Manager
Radiation and
Nuclear Safety

Atomics International Division
Rockwell International

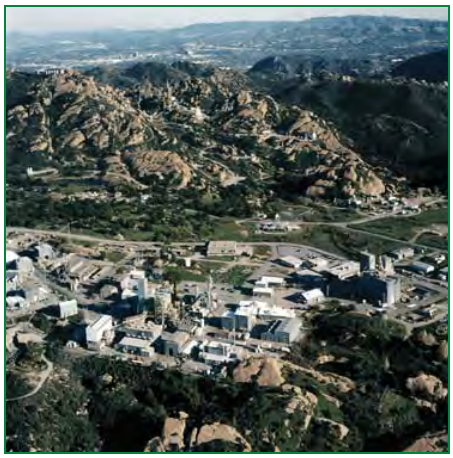
8900 De Soto Ave.
Canoga Park, California 91304

BUILDING 4059

BOEING

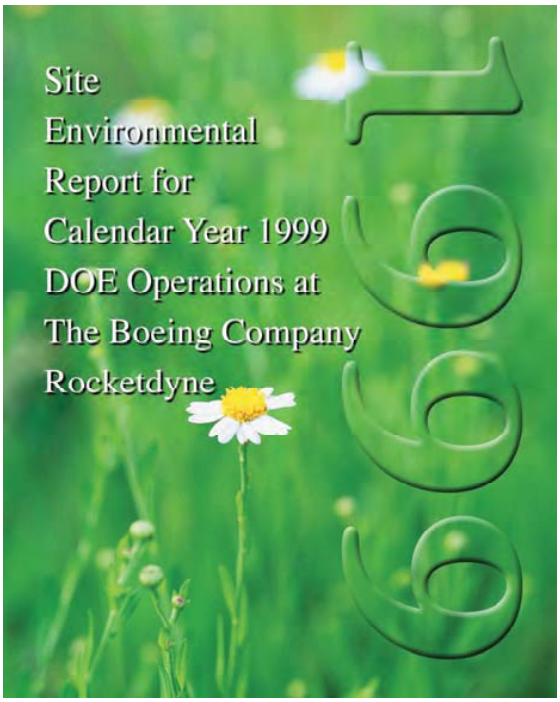
RD99-115

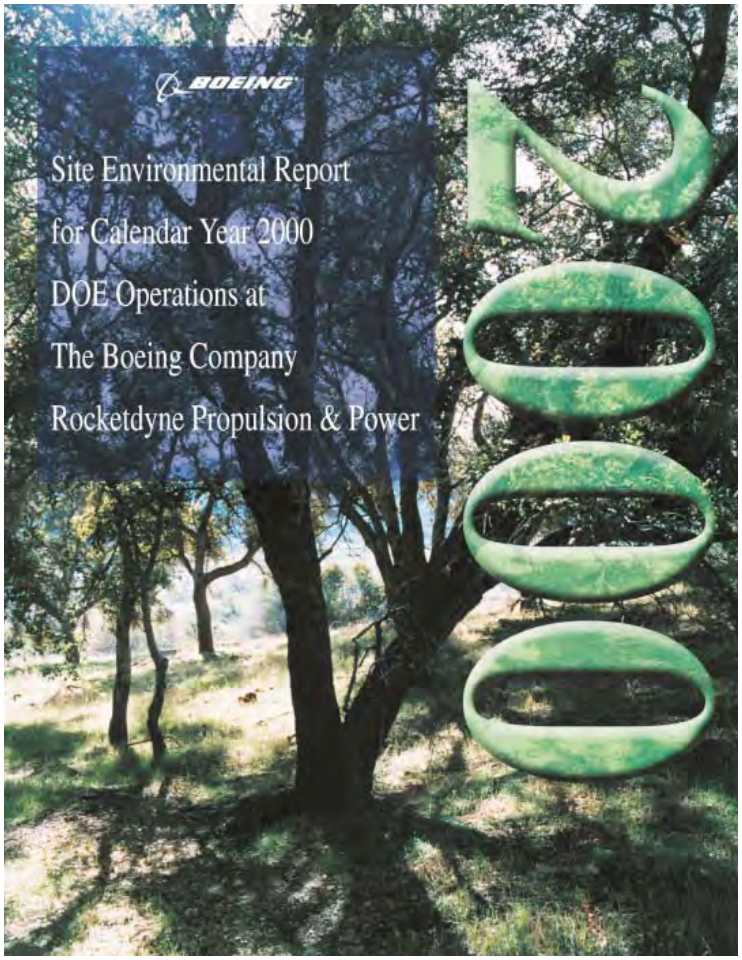
Site Environmental Report for Calendar Year 1998 DOE Operations at Rocketdyne Propulsion & Power



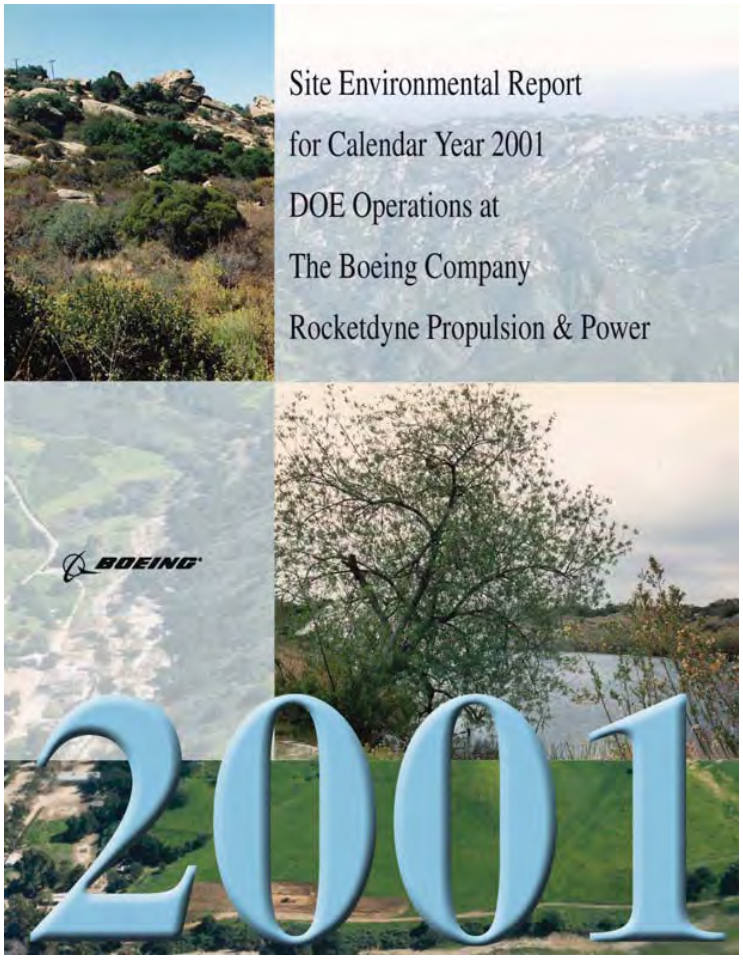
BOEING

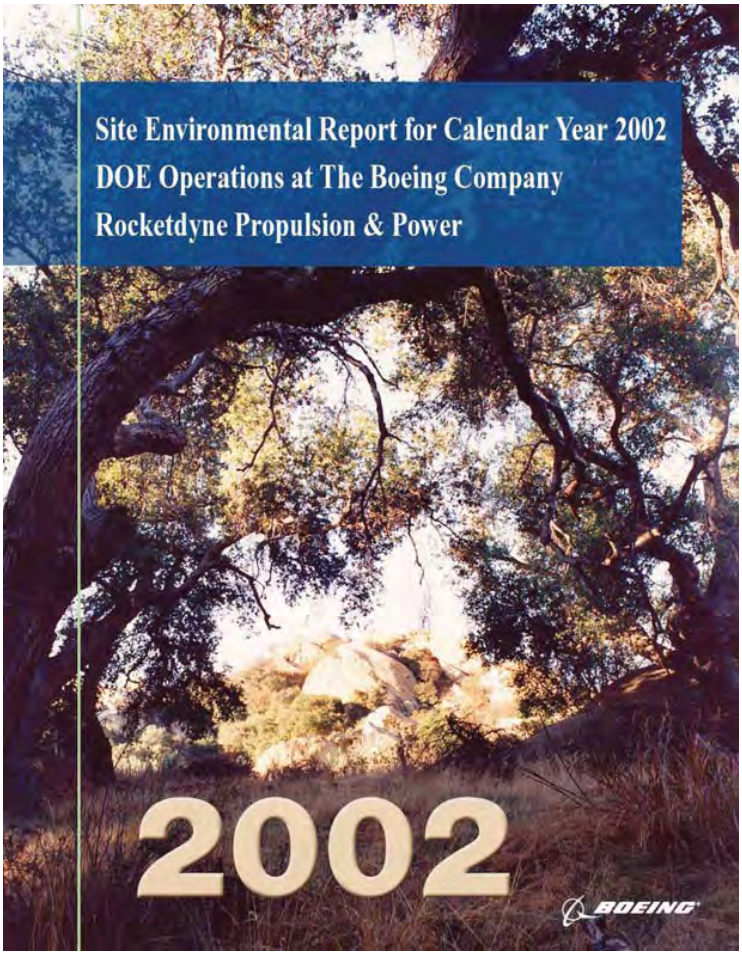
RD00-159

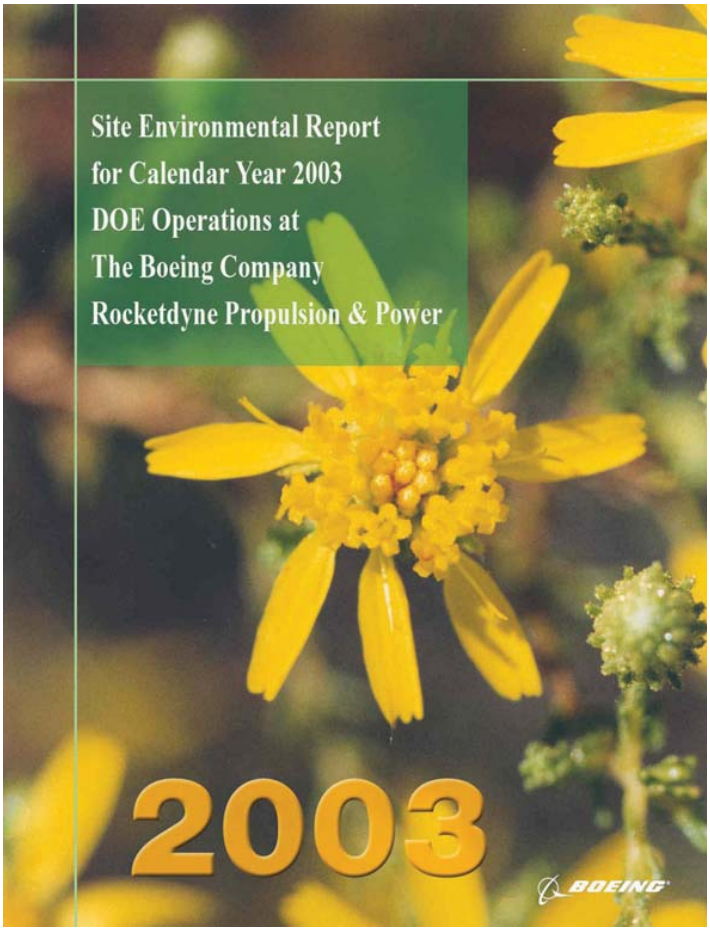


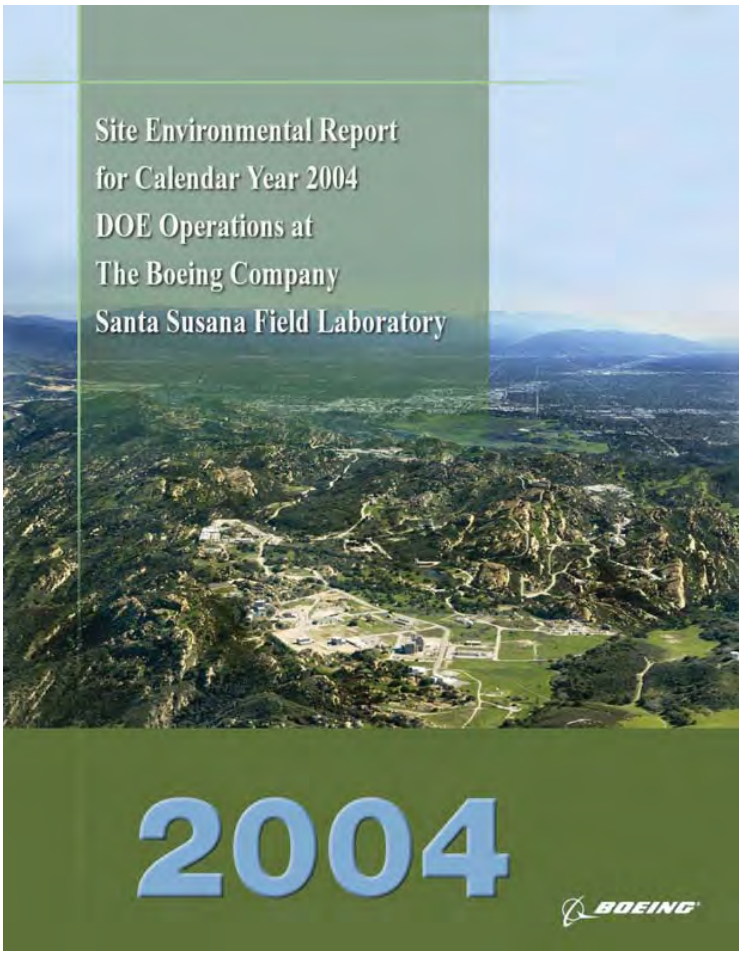


BUILDING 4059









BUILDING 4059

BOEING

Site Environmental Report
for Calendar Year 2005

DOE Operations at
The Boeing Company
Santa Susana Field Laboratory

September 2006

BOEING

Site Environment Report for
Calendar Year 2006

DOE Operations at
The Boeing Company
Santa Susana Field Laboratory
Area IV

BOEING

Site Environment Report for

Calendar Year 2007

DOE Operations at

The Boeing Company

Santa Susana Field Laboratory

Area IV

BUILDING 4059

BUILDING 4059

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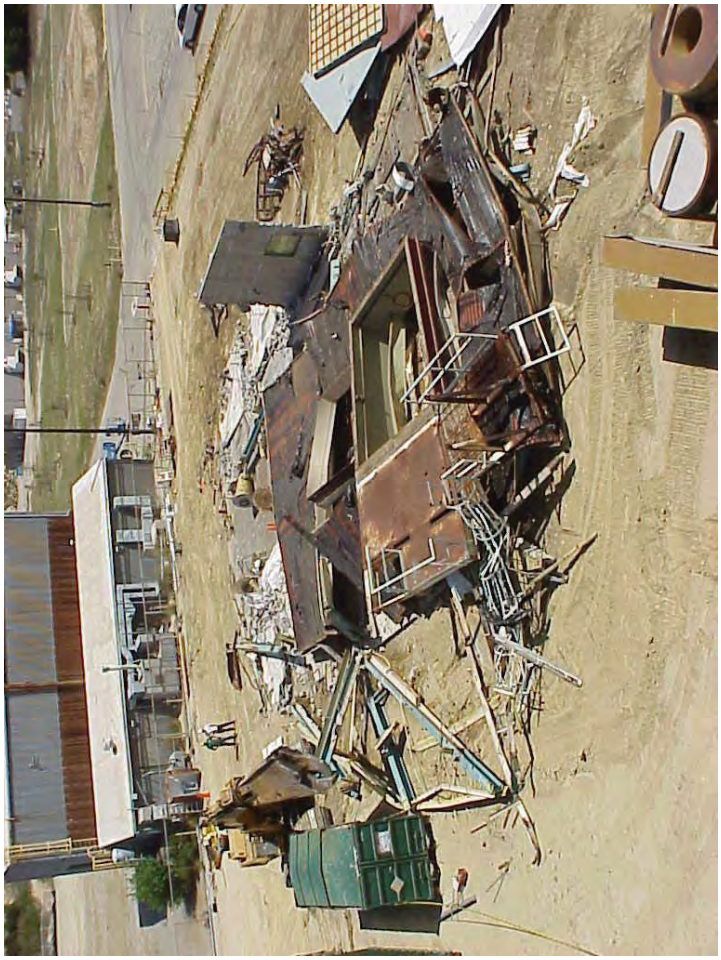

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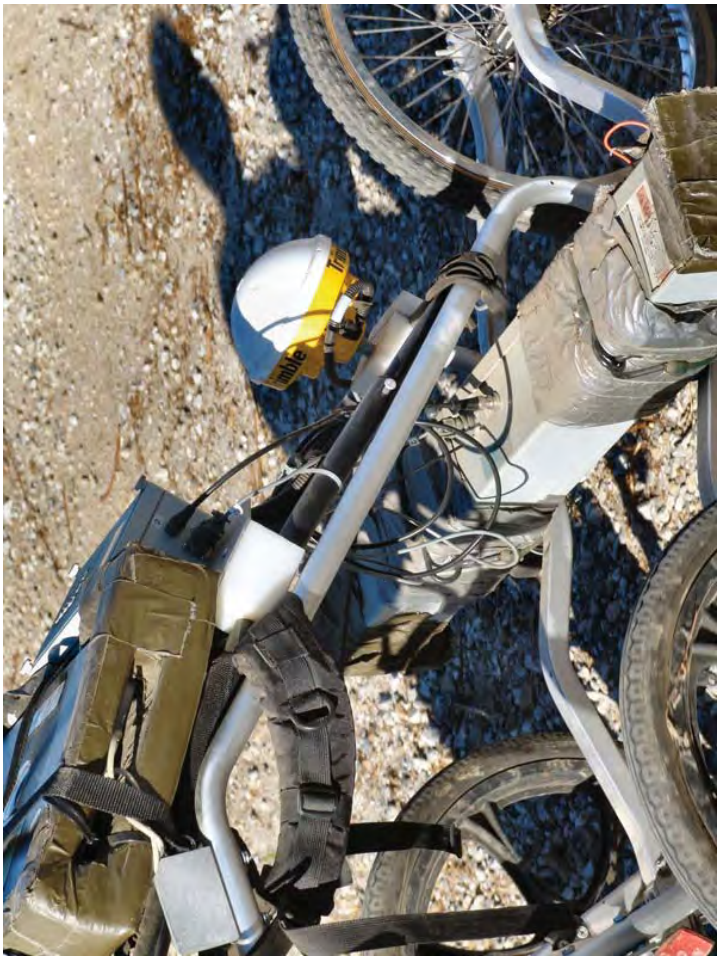

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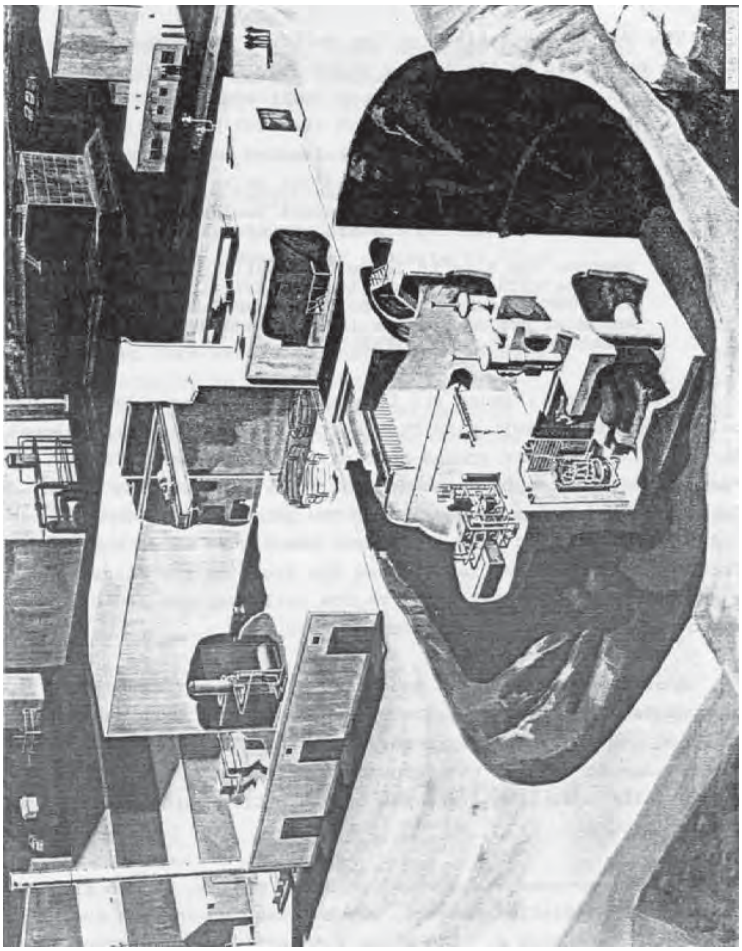

BUILDING 4059

TECHNICAL REPORT INDEX/ABSTRACT

ACCESSION NUMBER N-901229	R	DOCUMENT SECURITY CLASSIFICATION UNCLASSIFIED	

TITLE OF DOCUMENT: EVALUATION OF THE ATOMICS INTERNATIONAL NUCLEAR DEVELOPMENT FIELD LABORATORY AS A LOCATION FOR REACTOR FACILITIES

LIBRARY USE ONLY

AUTHOR(S): ASHLEY, R. L.

CODE	ORIGINATING AGENCY AND OTHER SOURCES	DOCUMENT NUMBER
QNO13862	ATOMICS INTERNATIONAL	NAA-SR-7300

PUBLICATION DATE	CONTRACT NUMBER
25 MAY 62	AT/11-1/-GEN-8

DESCRIPTIVE TERMS

ABSTRACT

BNA08401054

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Historical Site Assessment of Area IV
Santa Susana Field Laboratory
Ventura County, California

Volume 2 – Area IV Site Summaries

Prepared by Sapere Consulting, Inc. and
The Boeing Company for the Department of Energy
Under Contract DE-AC03-99SF21530

May 2005

DOE/EH-0175

U.S. Department of Energy

Environment, Safety, and Health
Washington, DC 20585

Tiger Team Assessment
Energy Technology Engineering Center

APRIL 1991

BUILDING 4059

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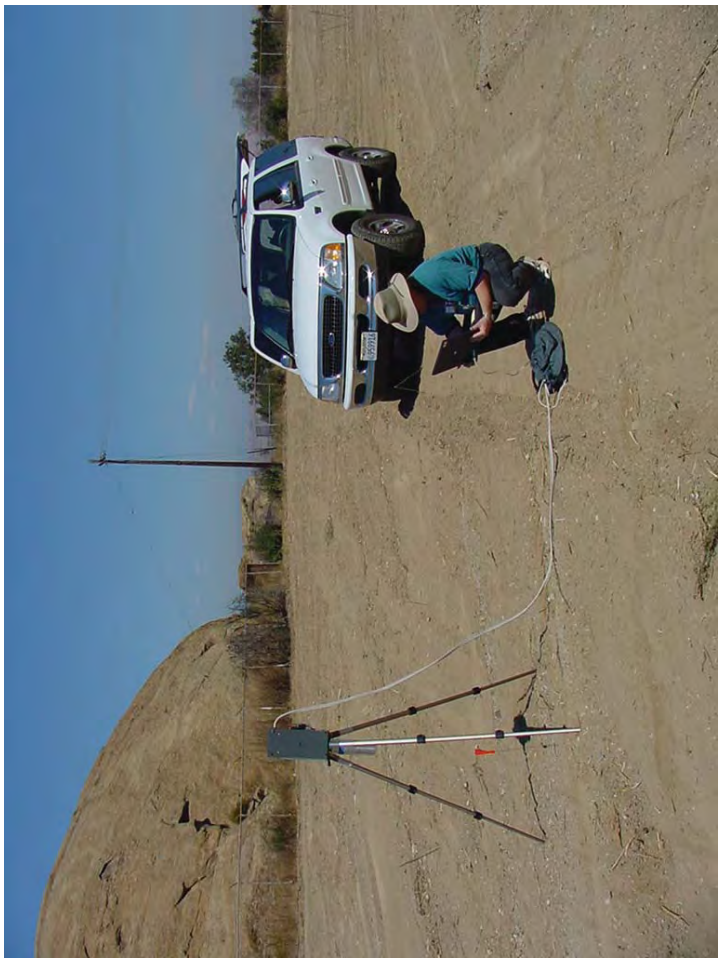

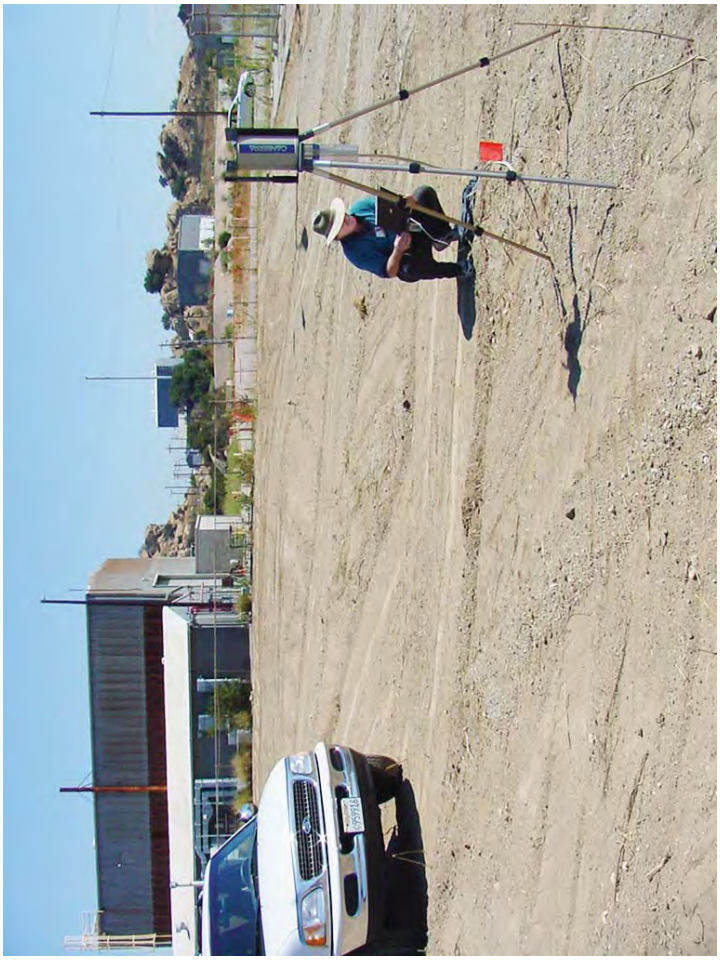

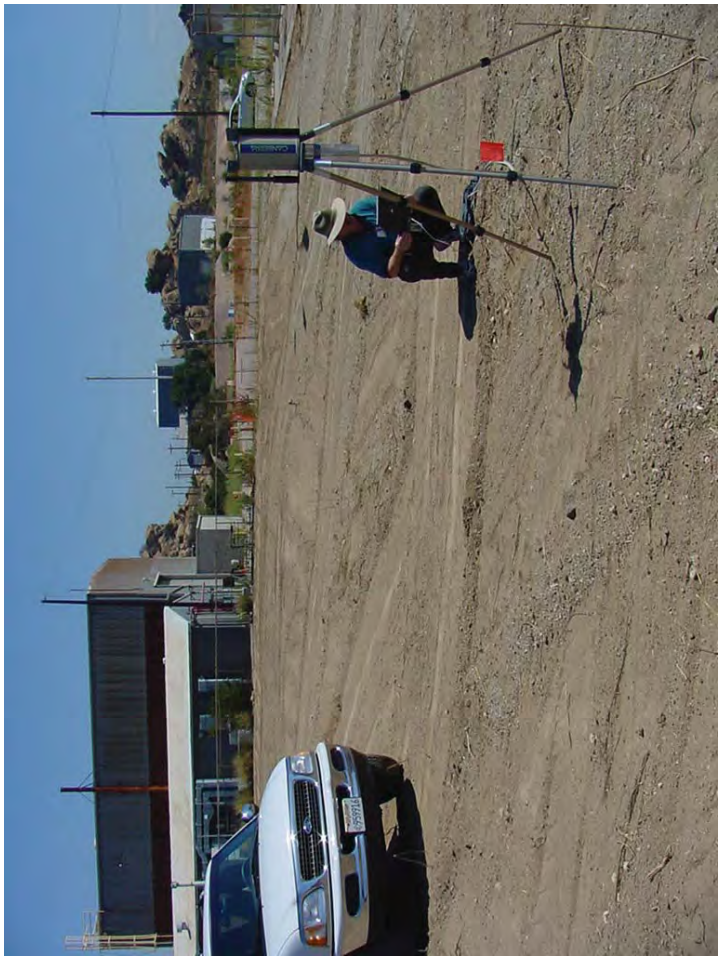

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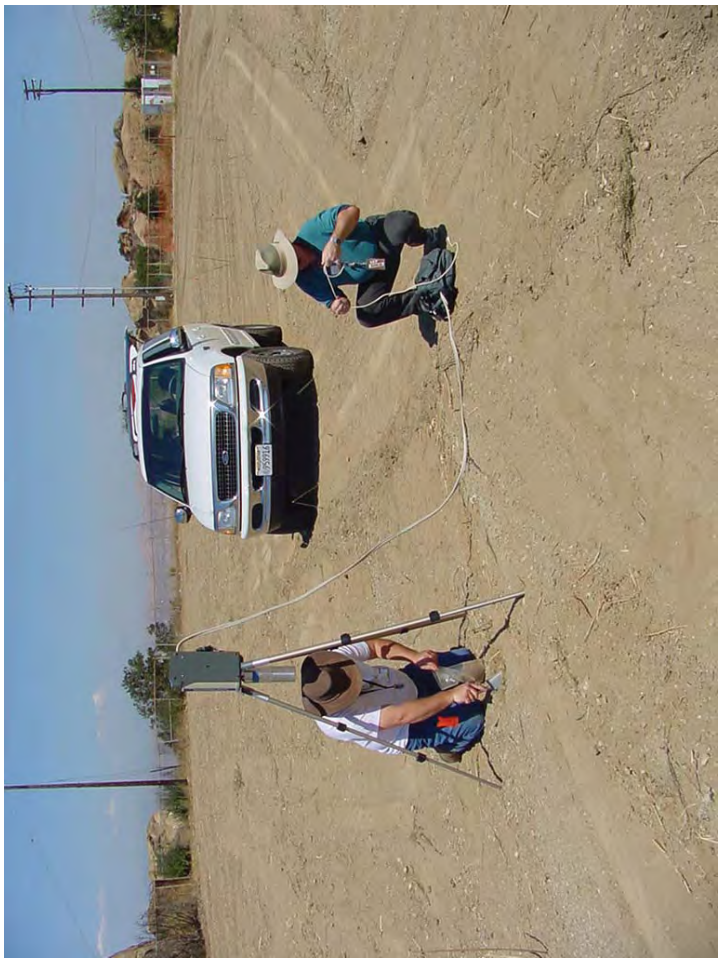

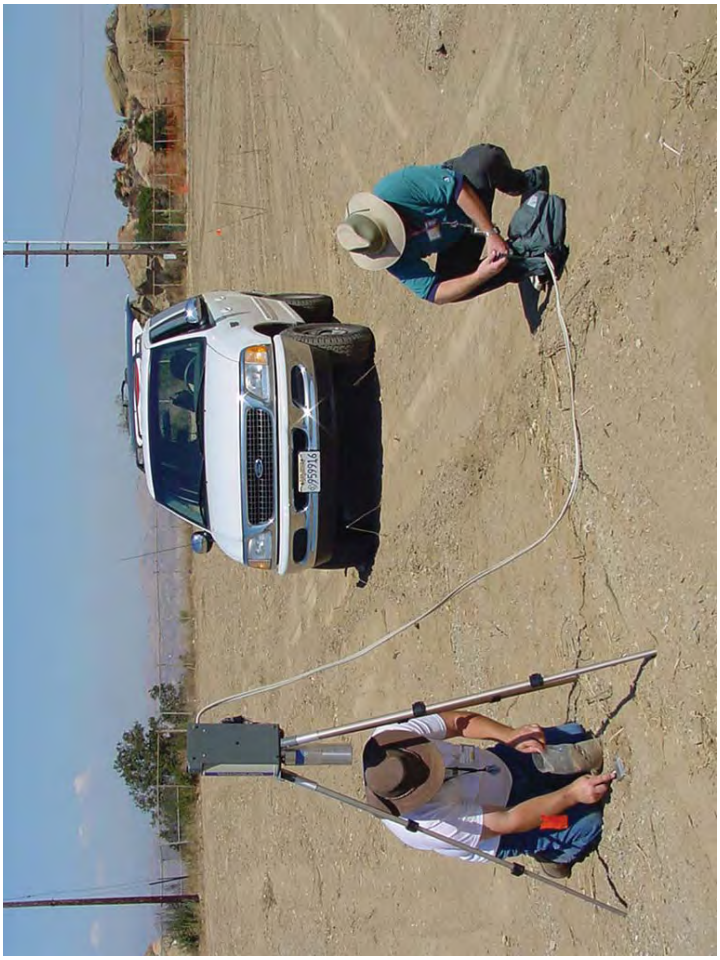

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LR-6571

BOEING

Engineering Product Document

GO Number	S/A Number	Page 1 of	Total Pages	Rev. Ltr/Chg. No. See Summary of Chg.	Number
97055	37154		172	N/C	EID-04422

Program Title CLOSURE OF ETEC (R21-RF)

Document Title PHASE II, REACTOR TEST CELL REMEDIATION

Document Type Remediation Report

Related Documents

Original Issue Date 7-14-99

Release Date RELEASE 3/1/00

Approvals

Date

Prepared By/Date Alex Klein / June 24, 1999

Dept. 117

Mail/Addr T038

R. D. Meyer 6-28-99

P. H. Horton 6/28/99

S. E. Reeder 6/28/99

M. E. Lee 6/28/99

IR&D Program? Yes ☐ No ☒

If Yes, Enter Authorization No.

Distribution

*	Name	Mail Addr
*	Horton, P. H.	T038
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*	Meyer, R. D. (2)	T038
	Reeder, S. E.	T038
*	Rutherford, P. D.	T487
*	Shah, S. (2)	T038

Abstract

This report documents the activities and results of Phase II, Reactor Test Cell Remediation of the Energy Technology Engineering Center (ETEC) Building 059 Remediation Program.

* Complete Document No Asterisk, Title Page/Summary or Change Page Only.

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GO Number	S/A Number	Page 1 of 59	Total Pages	Rev. Ltr/Chg. No. See Summary of Chg.	Number
97055	32120		59	New	EID-08640

Program Title
Closure of ETEC (R21-RF)

Document Title
Building 4059 (SGPTF) Decontamination and Decommissioning Final Report

Document Type
Engineering Information Document

Related Documents

Original Issue Date 05-02-2005 Release Date RELEASE 05-02-05 CV

Approvals

Date

B. D. Sujata

Prepared By/Date

	Dept.	Mail/Addr
R. D. Meyer	694	T038
D. M. Trippeda	117	T038

IR&D Program? Yes ☐ No ☒
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Distribution

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*	D. M. Trippeda	T038
*	ETEC Closure	T038

Abstract

The former SNAP Ground Prototype Test Facility (SGPTF), designated as Building 4059, located at Boeing Canoga Park's Santa Susana Field Laboratory in Ventura County, California, operated under Department of Energy funding from 1963 until 1969. It was used to test a SNAP nuclear reactor having a maximum thermal power output of one megawatt under simulated space environmental conditions for duration of one year. Various decontamination and decommissioning (D&D) activities were conducted in phases, starting in 1970. In addition, a non-nuclear sodium test system (LLTR) was installed and operated in the facility during the late 1970's and 1980's. This report provides a summary of the SGPTF and LLTR decontamination and dismantlement activities. It includes a description of the facility, an overview of the D&D program, details and highlights of the program activities, waste management and cost summaries, and a synopsis of lessons learned from the program.

Responsible Person: B. D. Sujata

The latest version of this document is maintained on the Boeing Canoga Park on-line Metaphase system.

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Responsible Person: B. D. Sujata

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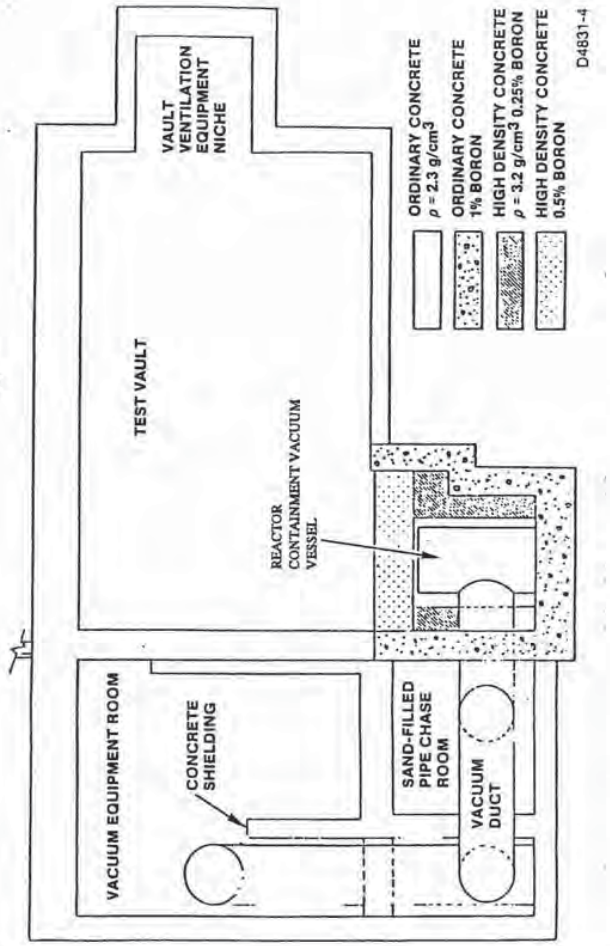

AI-77-14

ATOMICS INTERNATIONAL
ENVIRONMENTAL MONITORING
AND
FACILITY EFFLUENT
ANNUAL REPORT
1976

By
J. D. MOORE

APPROVED
R. J. TUTTLE
Manager
Radiation and
Nuclear Safety

Rockwell International
Atomics International Division
8900 DeSoto Avenue
Canoga Park, California 91304

38E

ESG-82-21

1037

ENERGY SYSTEMS GROUP
ENVIRONMENTAL MONITORING
AND
FACILITY EFFLUENT
ANNUAL REPORT
1981

Rockwell International
Energy Systems Group
8900 De Soto Avenue
Canoga Park, California 91304

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ENERGY SYSTEMS GROUP
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1982

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BUILDING 4059

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RI/RD85-123

ROCKETDYNE DIVISION
ENVIRONMENTAL MONITORING
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ANNUAL REPORT
DE SOTO AND
SANTA SUSANA FIELD LABORATORIES SITES
1984

Rockwell International

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Canoga Park, CA, U.S.A. 91304

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ANNUAL REPORT
DE SOTO AND
SANTA SUSANA FIELD LABORATORIES SITES
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6633 Canoga Avenue
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BUILDING 4059

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1988

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ENVIRONMENTAL MONITORING
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FACILITY EFFLUENT
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DE SOTO AND
SANTA SUSANA FIELD LABORATORIES SITES
1989

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6633 Canoga Avenue
Canoga Park, California 91303

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RI/RD91-136

ROCKETDYNE DIVISION
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ANNUAL REPORT
SANTA SUSANA FIELD LABORATORY,
DE SOTO, AND CANOGA SITES
1990

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Rocketdyne Division

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RI/RD92-138

ROCKETDYNE DIVISION
ANNUAL SITE
ENVIRONMENTAL REPORT
SANTA SUSANA FIELD LABORATORY
AND DE SOTO SITES
1991

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Rocketdyne Division

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38D

RI/RD93-125
Revision A

ROCKETDYNE DIVISION
ANNUAL SITE
ENVIRONMENTAL REPORT
SANTA SUSANA FIELD LABORATORY
AND DE SOTO SITES
1992

Rockwell International
Rocketdyne Division

38D

RI/RD94-126

ROCKETDYNE DIVISION
ANNUAL SITE
ENVIRONMENTAL REPORT
SANTA SUSANA FIELD LABORATORY
AND DE SOTO SITES
1993

Prepared by the Staffs of
Radiation Protection and Health Physics Services
and
Environmental Protection

21 October 1994

Rockwell Aerospace
Rocketdyne

RI/RD95-153
38D
1050

ROCKETDYNE DIVISION
ANNUAL SITE
ENVIRONMENTAL REPORT
SANTA SUSANA FIELD LABORATORY
AND DE SOTO SITES
1994

Rockwell Aerospace
Rocketdyne

38D

RI/RD96-140

ROCKETDYNE DIVISION
ANNUAL SITE
ENVIRONMENTAL REPORT
SANTA SUSANA FIELD LABORATORY
AND DESOTO SITES
1995

Rockwell Aerospace
Rocketdyne

BUILDING 4059

BOEING 38c

RD97-134

Rocketdyne Propulsion & Power
DOE Operations
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1996

38c

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Rocketdyne Propulsion & Power
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Annual Site
Environmental Report
1997

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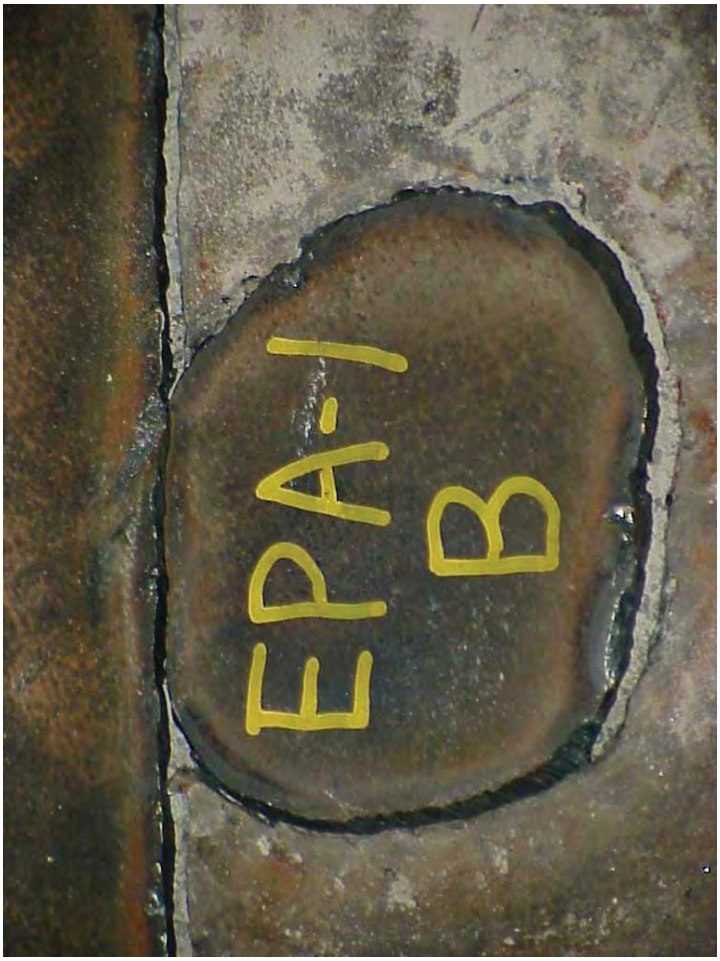

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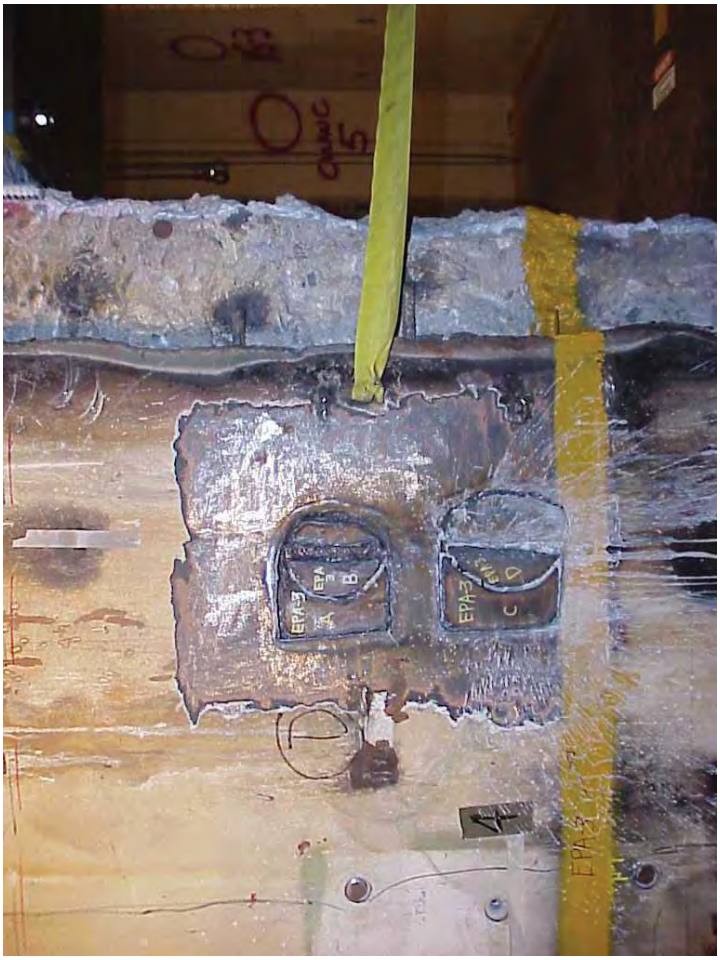

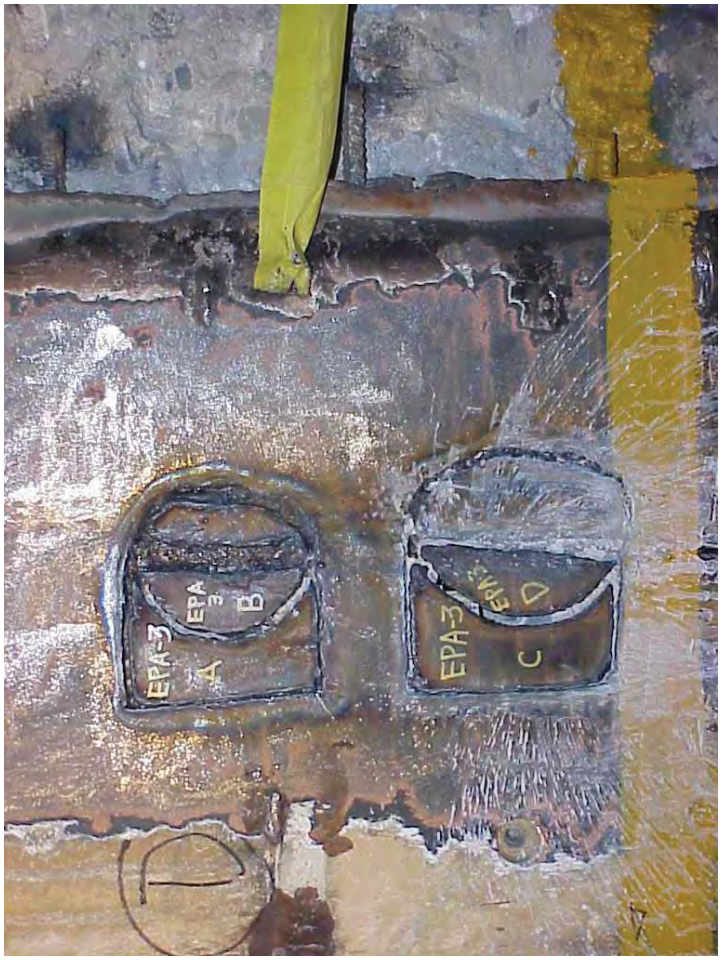

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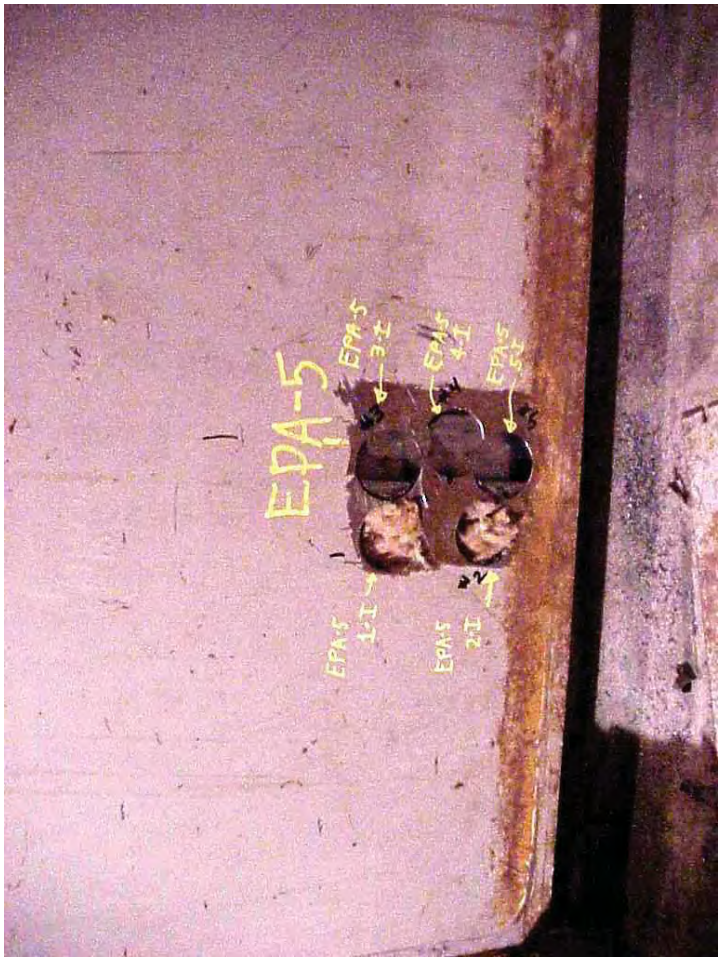

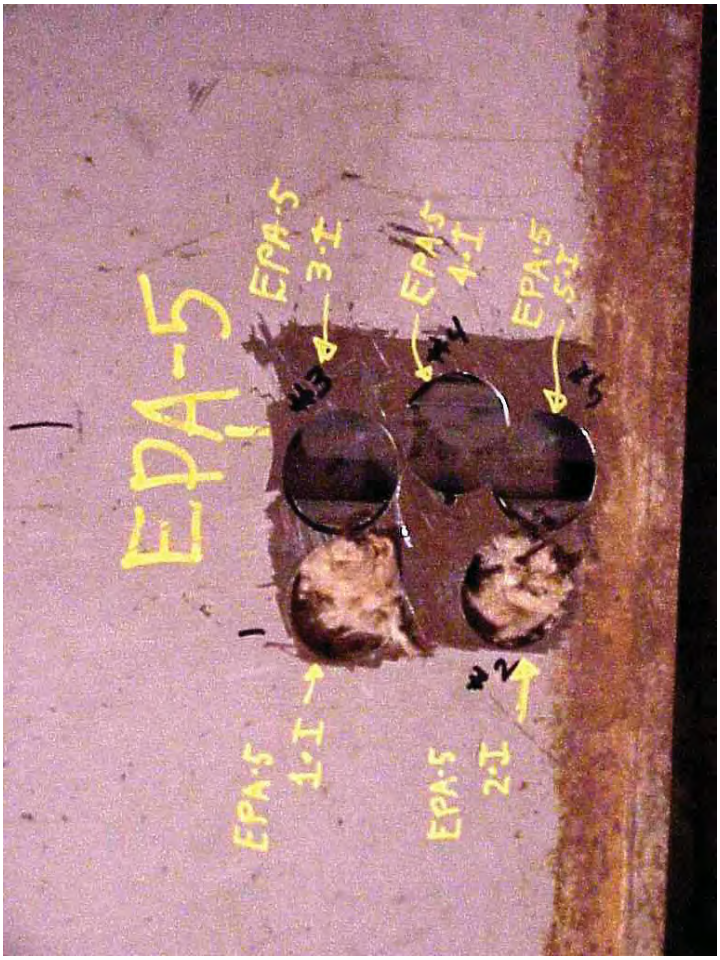

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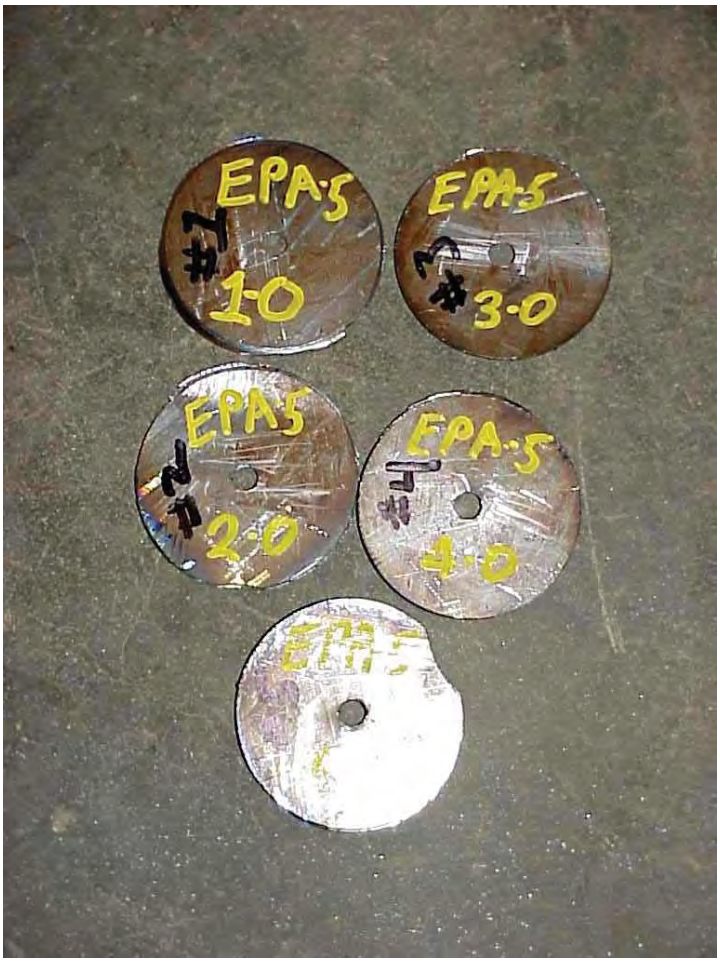


Preliminary Assessment/Site Inspection Report
Santa Susana Field Laboratory
Simi Valley, California

EPA ID No.: CAN000908498
USACE Contract No.: W91238-06-F-0083
Document Control No.: 12767.063.419.1650

November 30, 2007

Prepared for:
U.S. Environmental Protection Agency
Region 9

Prepared by:
Weston Solutions, Inc.
1575 Treat Blvd, Suite 212
Walnut Creek, CA 94598

United States Environmental Protection Agency
Environmental Sciences Division
P.O. Box 93478
Las Vegas, NV 89193-3478
TS-PIC-20909963S/21009965S
March 2010
Research and Development

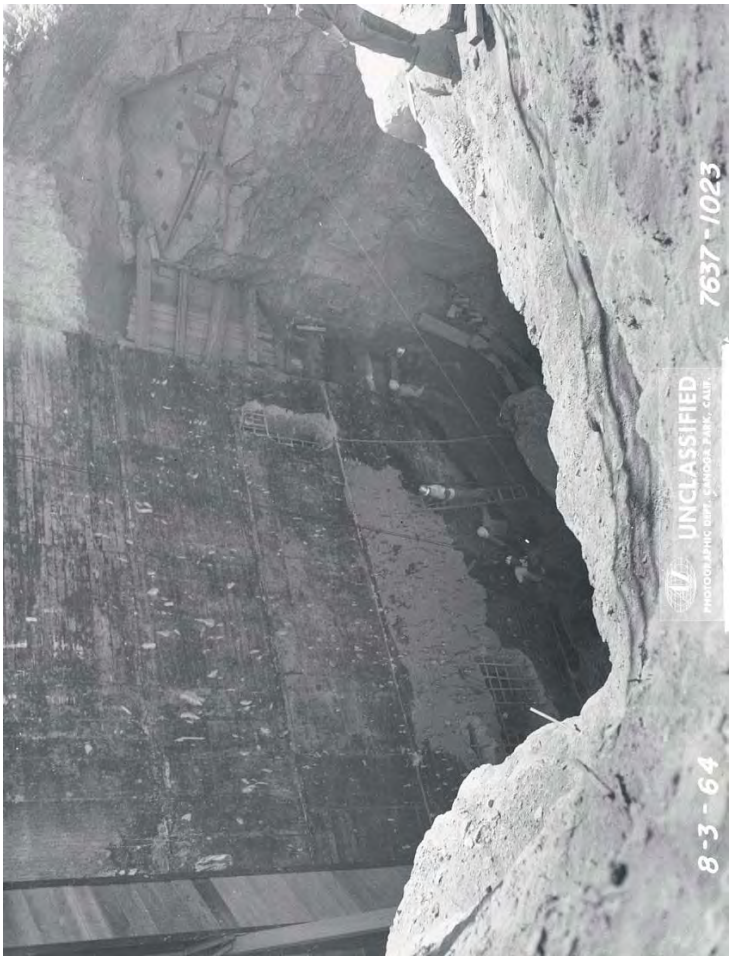
EPA

AERIAL PHOTOGRAPHIC ANALYSIS OF SANTA SUSANA FIELD LABORATORY - AREA IV

Ventura County, California

Volume 1 & 2

EPA Region 9



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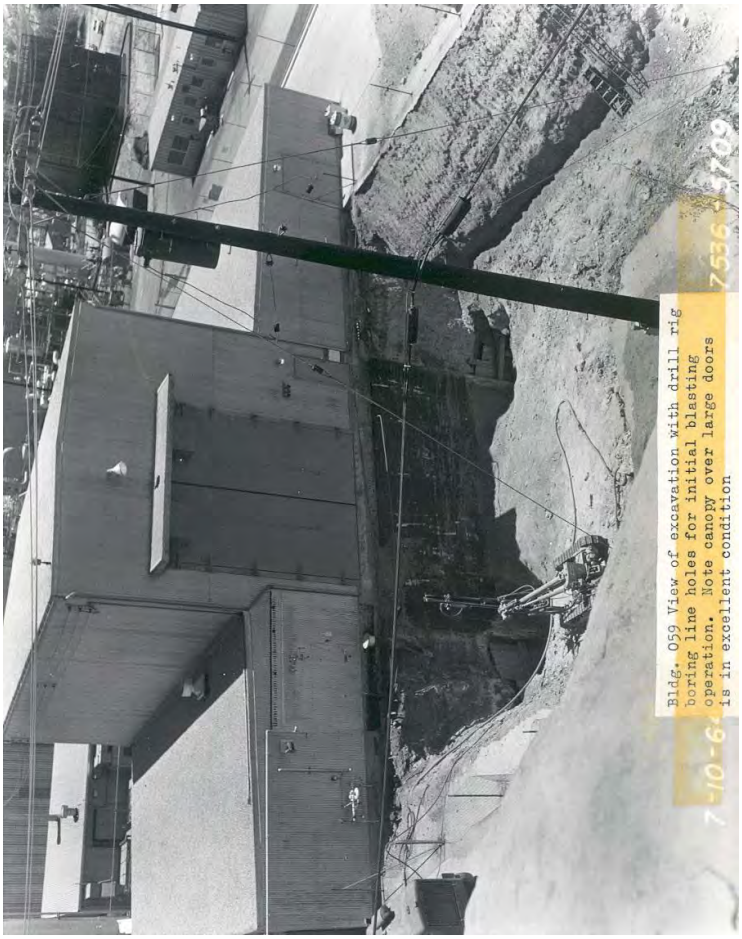

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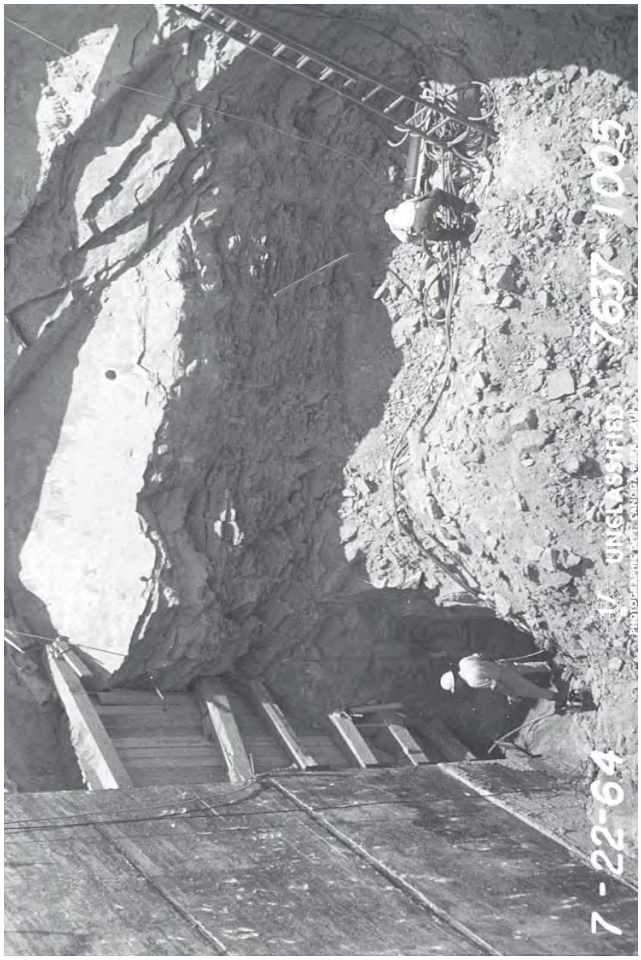

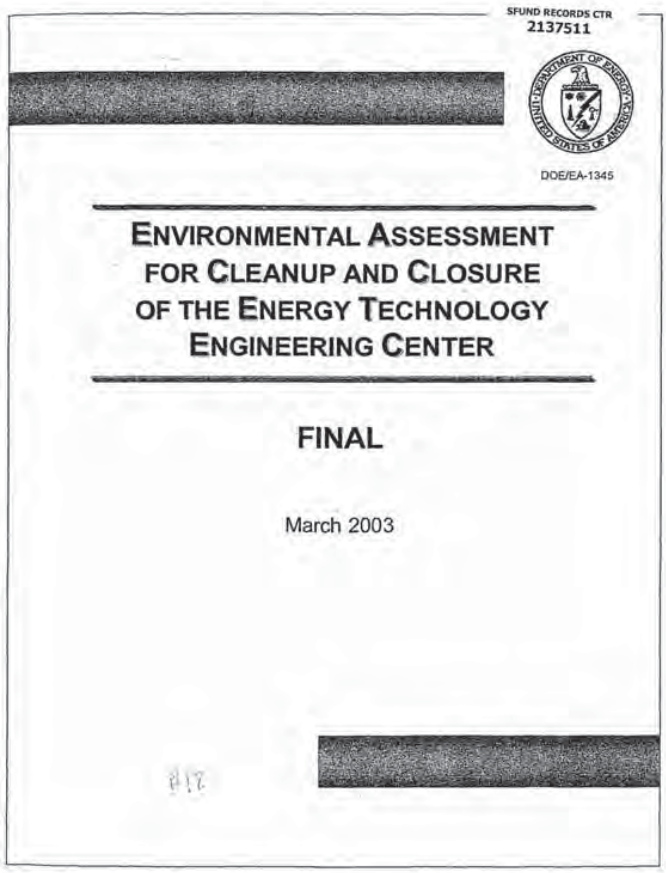

SFUND RECORDS CTR
2137511

[redacted]

DOE/EA-1345

ENVIRONMENTAL ASSESSMENT FOR CLEANUP AND CLOSURE OF THE ENERGY TECHNOLOGY ENGINEERING CENTER

FINAL

March 2003

[redacted]

BUILDING 4059

Return to Pulsford

GEN-AR-0031
69A

ACTION PLAN

in response to the

April, 1991

Tiger Team Assessment

of the

Energy Technology Engineering Center

October 1, 1991

OFFICIAL
FOR CUSTOMER
APPROVAL ONLY
RELEASE DATE
OCT 10 1991

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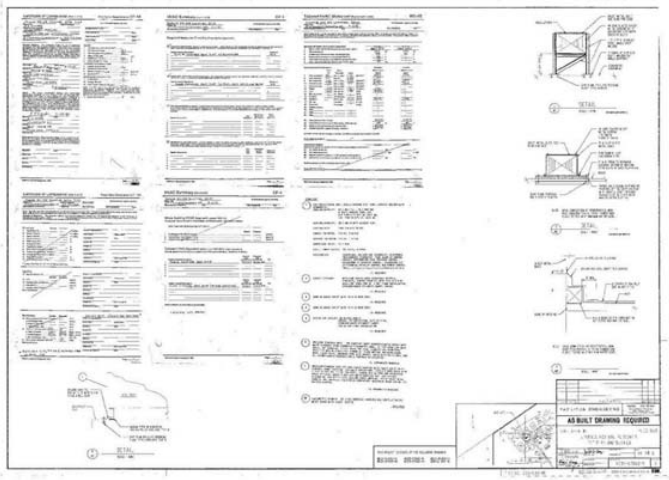

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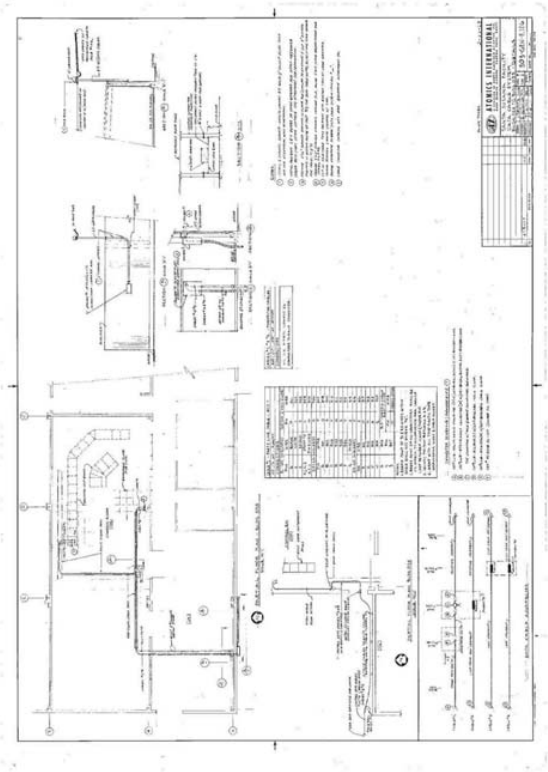


BUILDING 4059

SSFL AREA - IV - BUILDING 059
(FORMER SNAP B REACTOR)

- DOE OWNED FACILITY ON DOE OPTIONED (ROCKWELL OWNED) LAND
- BASEMENT RA CONTAMINATED
- AWAITING DOE DEACTIVATION AND DECOMMISSIONING (D&D) FUNDS
  - $0.5 MILLION EXPECTED FY'87 — Did not materialize
  - REMAINING FUNDS NOT EXPECTED UNTIL FY'90
- SOLVENT CONTAMINATED GROUNDWATER INFILTRATING BASEMENT — Still Continues weekly
- CONTROLLING INFILTRATION RATE TO PRECLUDE POTENTIAL RA RELEASE TO GROUNDWATER
  - ~~"MIXED WASTE" CONCERNS~~ Not Sure!
- MAINTAIN STATUS QUO UNTIL DOE FUNDS AVAILABLE
- CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD NOTIFIED MAY 1986
- POTENTIAL FOR MEDIA INVOLVEMENT SINCE NOW PUBLIC RECORD

Proposed De Watering to DOE submitted FY'88 (Remove RA Phase I Source Unit)
Phase II Remove RA Cont. Phase II Remove RA Cont. (FY'90) Vacuum Ducts

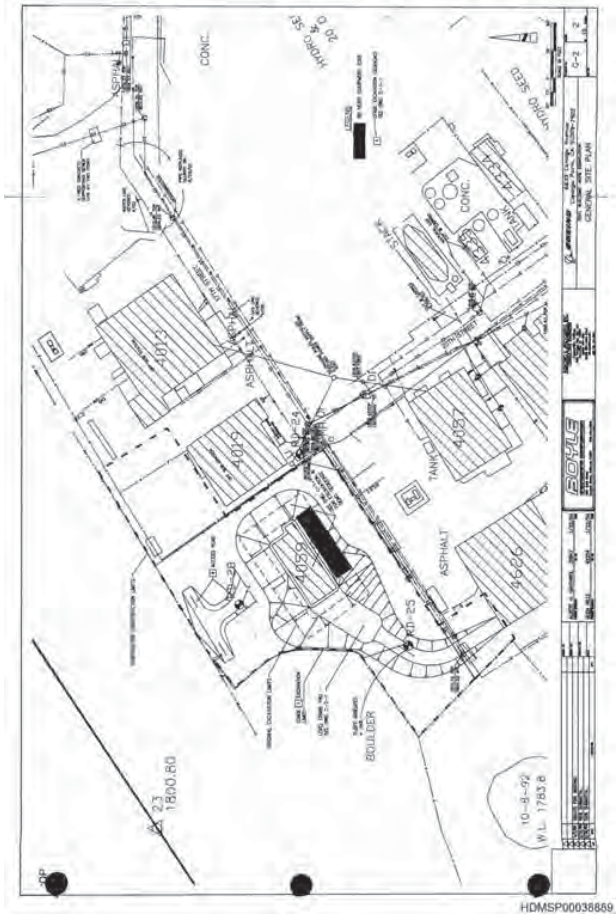
- Briefed Asst. Sec of DOE (Mary Walker 8/87)
- Comprehensive DOE Environmental Appraisal 9/28-10/6

HDMSP00000139

SSFL B/4059, AFTER
RD04-218

HDMSP00014541

HDMSP00016069



HDMSP00038859

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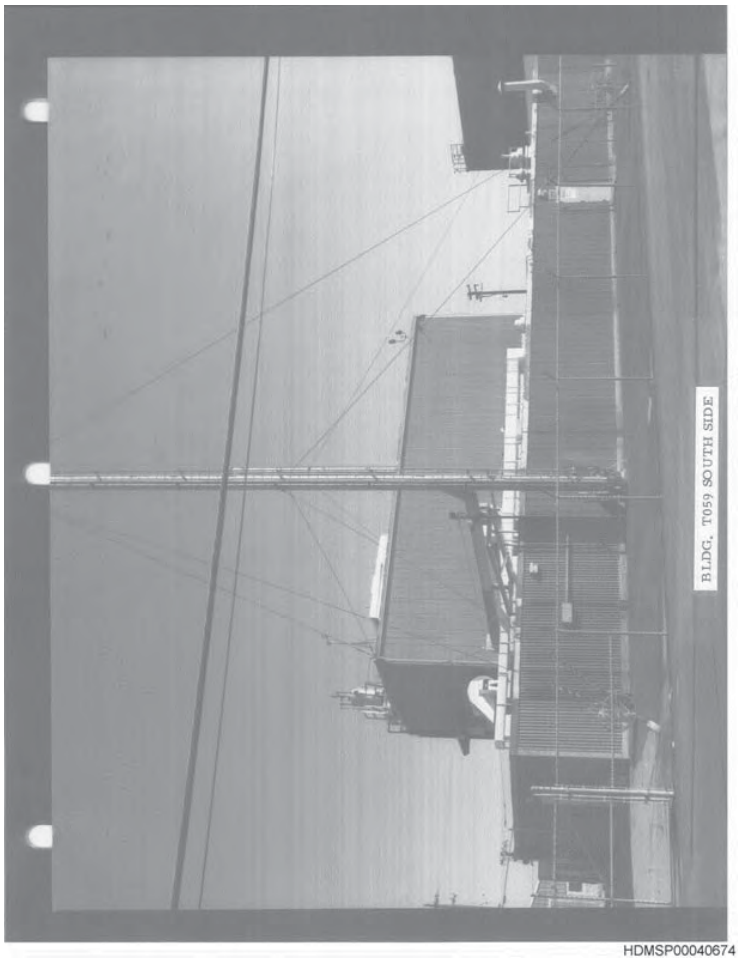

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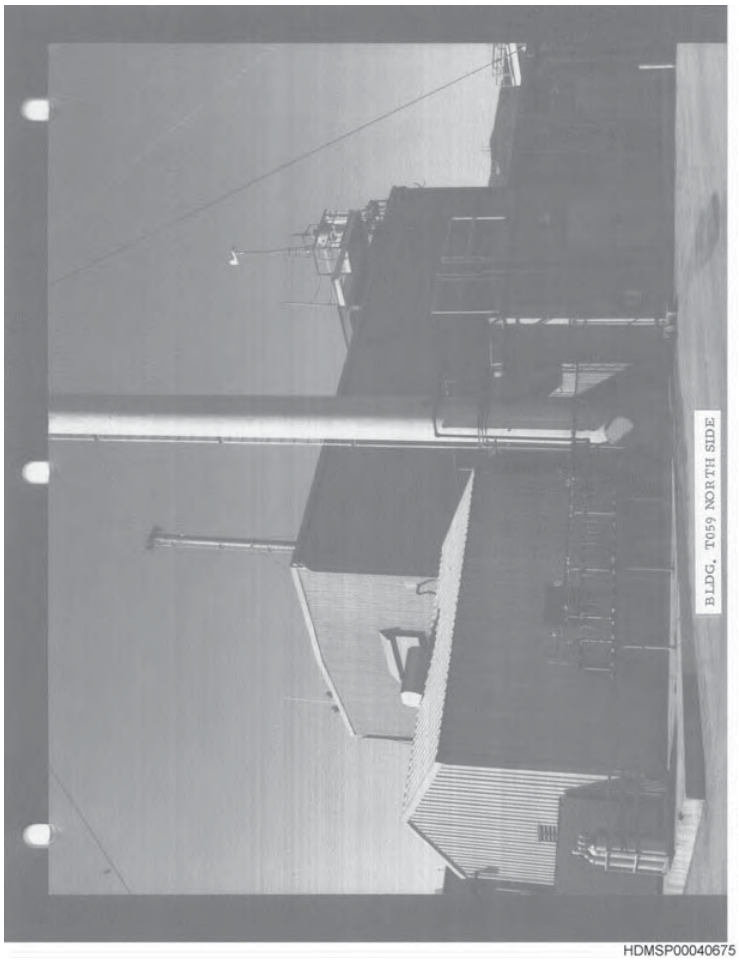

HDMSP00040675

Internal Letter — **Rockwell International**

Date: December 19, 1989

No: 89-027-02-123

TO: Those Listed

FROM: H. H. Neely
ETEC
D/027, 055-T487
5040

Subject: **Bldg. 059 Vault Remediation Meeting - Minutes of December 18, 1989**

Refs:
1) A&Cs compliance from the October 24 Readiness Review for Vessel Segmenting, H. H. Neely/R. D. Meyer to G. G. Gaylord, 89-027-02-116
2) Completion of A&C's from B/059 Vacuum Vessel Removal Readiness Review, G. G. Gaylord to A. J. Adduci, DRF-2321
3) B/59 Groundwater VOCs Analysis, H. H. Neely to B. R. Hurt, 89-027-02-114
4) B/59 Groundwater R/A Sampling, H. H. Neely to R. J. Tuttle, 89-027-02-113
5) B/59 Groundwater Transport, H. H. Neely to R. Y. Uoshiro, 89-027-02-115
6) Completed Operating Instructions, 059-OI-713, H. H. Neely to S. Cusimano, 89-027-02-246
7) GE Owned Hittman Cask Availability, R. D. Meyer to Those Listed, HN-300.wr

Attendees: G. G. Gaylord, P. S. Olson, K. L. Adler, F. C. Schrag, [redacted], V. L. Willcuts

Following are the subjects of discussions and actions addressed during the weekly meeting on remediation of the Bldg. 059 reactor vault held on Monday, December 18, 1989.

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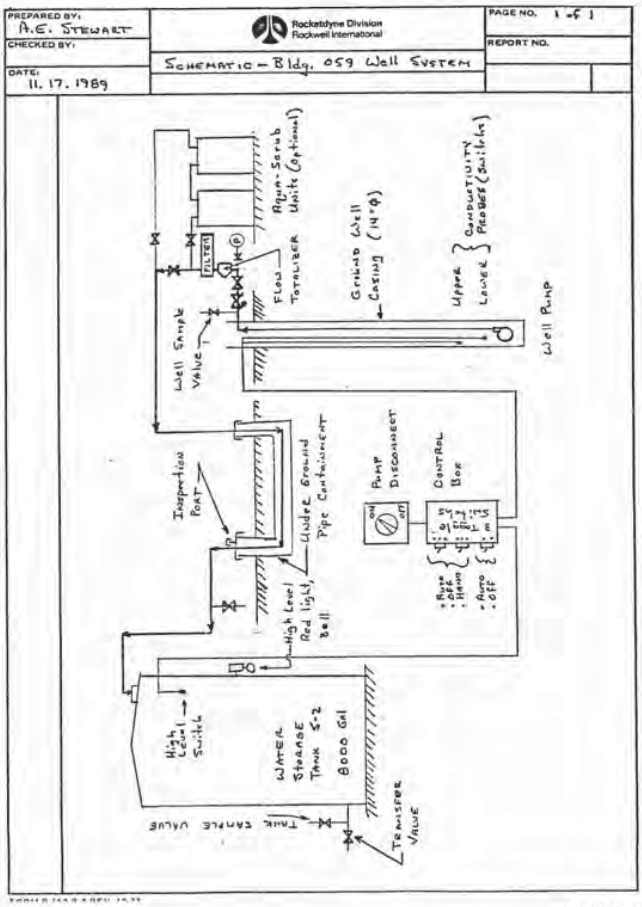

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BUILDING 059
PHASE-1

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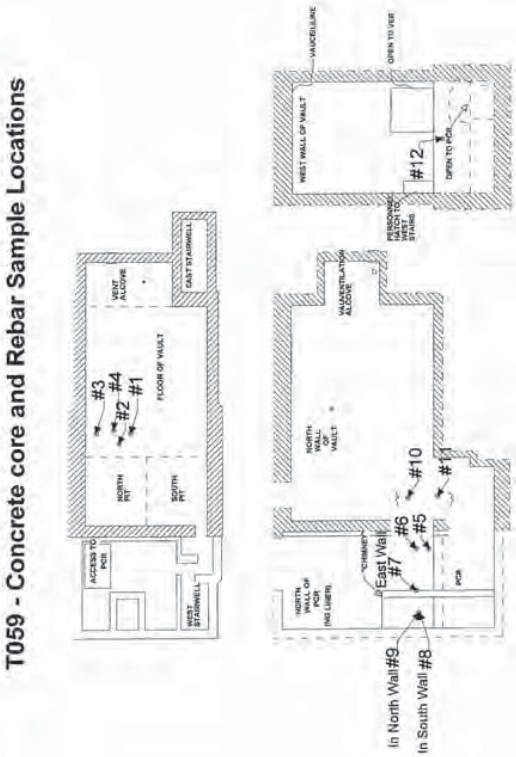

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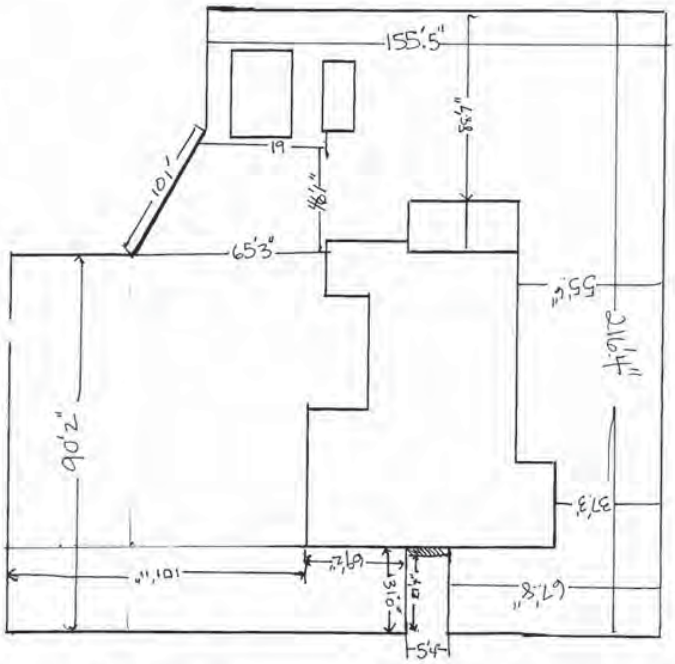

LEGEND:

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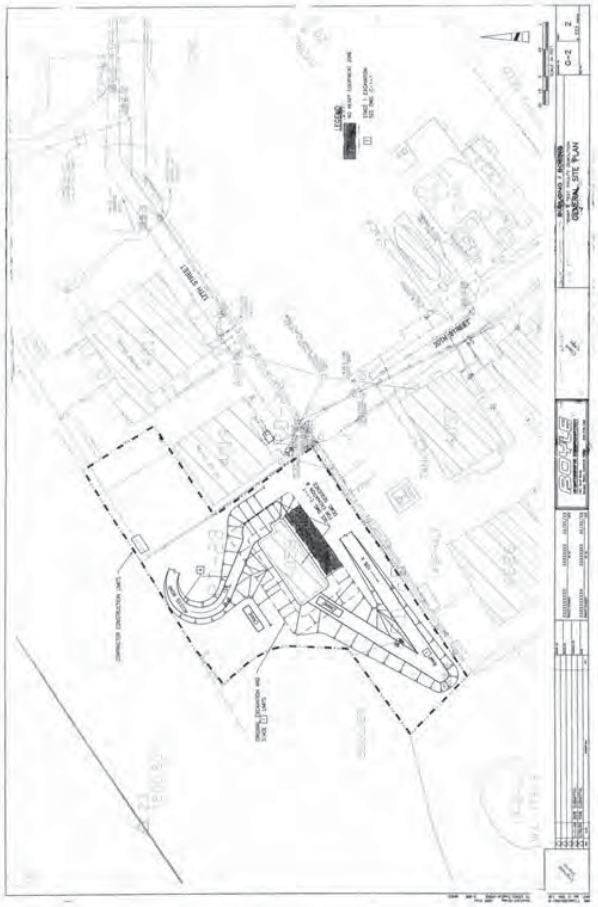

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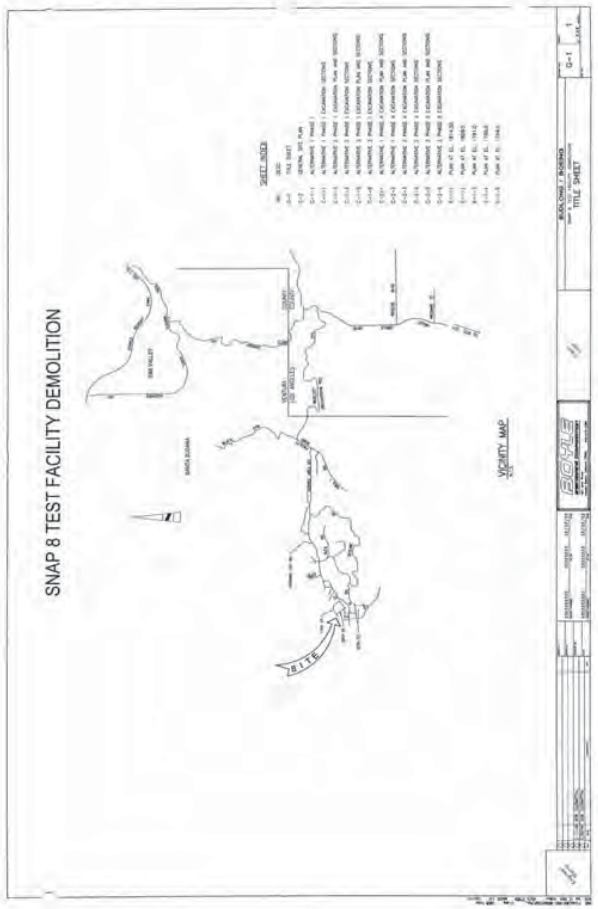

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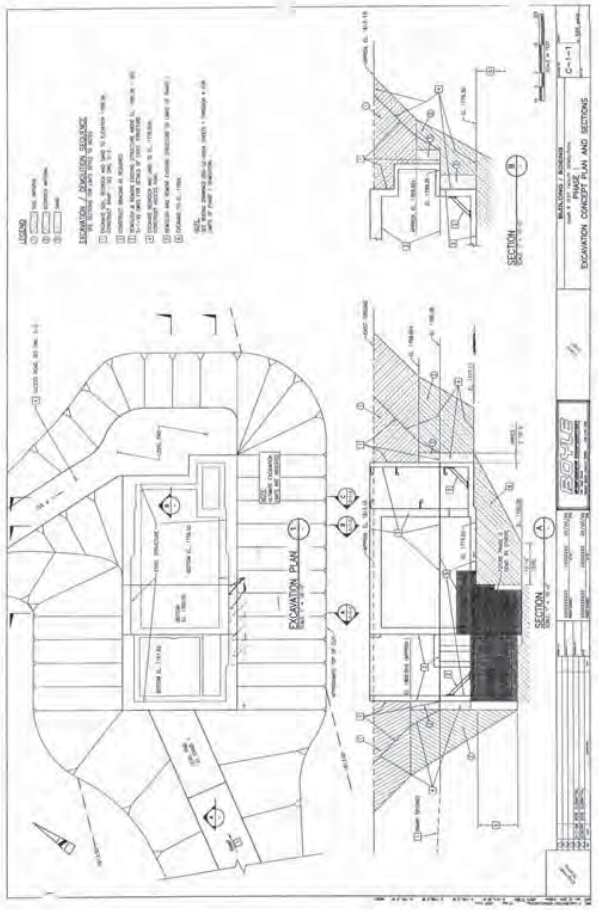

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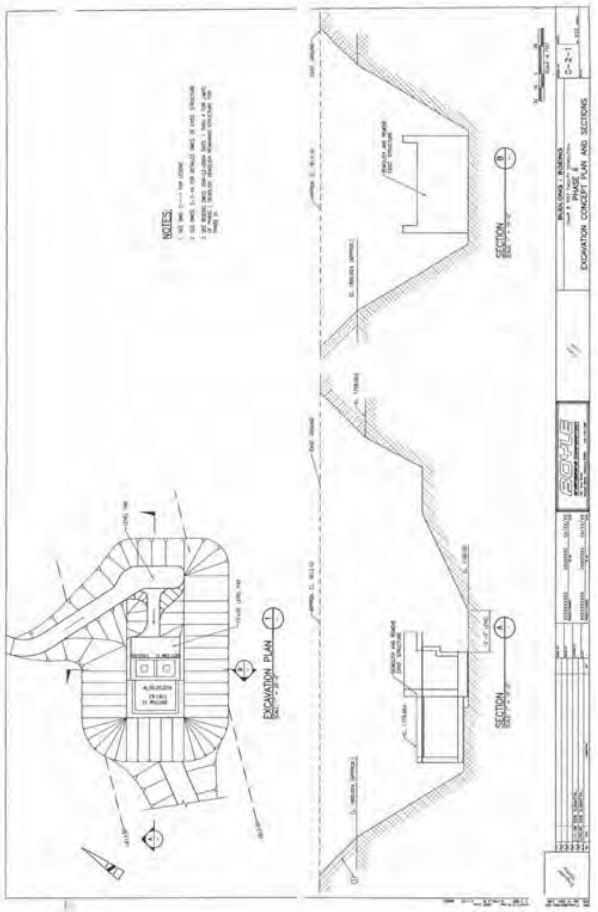

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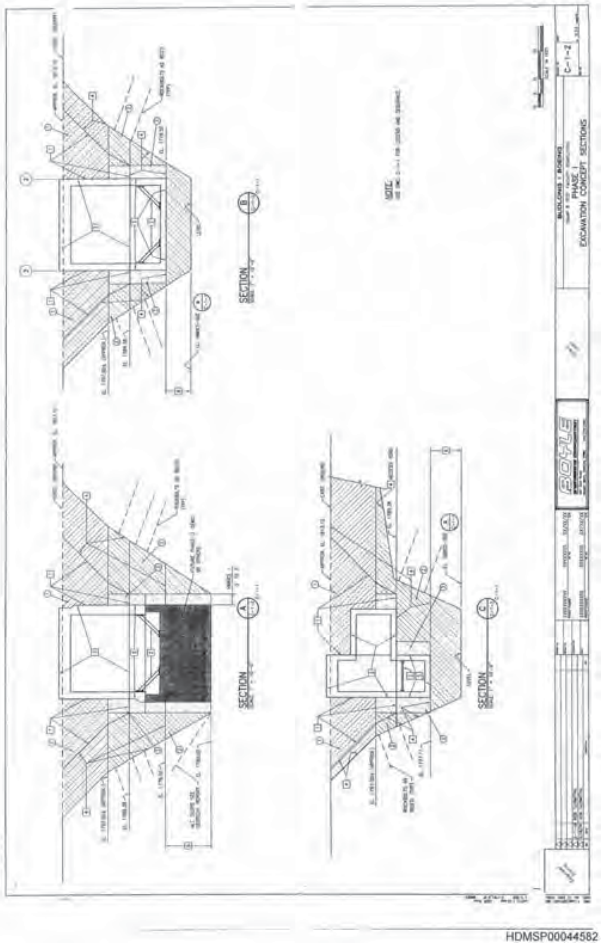

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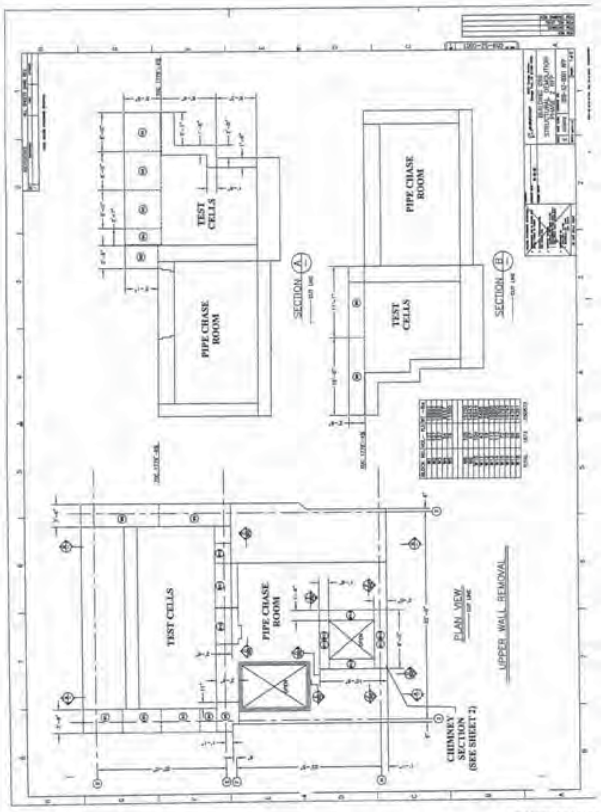

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HDMSP00044590

Geomatrix

August 3, 2005
9806.000.0

Mr. Randy Mayes
Standard Industries, Inc.
1905 Lirio Avenue
Ventura, California 93004

Subject: Report of Compacted Backfill
Boeing Building 4059 Excavation
Ventura, California

Dear Mr. Mayes:

Geomatrix Consultants, Inc. (Geomatrix) provided observation and field density testing for the above referenced site from November 24, 2004 through May 11, 2005 during backfilling of the excavation associated with demolition of the building. This letter summarizes field activities and presents results of the field density tests performed during earthwork construction.

CONSTRUCTION AND EARTHWORK ACTIVITIES

Earthwork consisted of removing all loose soil from the bottom and sidewalls of the excavation and backfilling the excavation with compacted fill. The deepest area of the excavation was approximately 57 feet with bottom elevation of about 1755 feet and ground surface elevation of approximately 1812 feet. Fill materials consisted of silty sand excavated below and around the building and silt from a nearby borrow area. All fill was placed in approximately 8-inch loose lifts. Each lift was moisture conditioned by drying or adding water, mixed by Caterpillar 973 track loaders and compacted by sheepsfoot roller and haul trucks until at least 90 percent of the maximum dry density was achieved. The maximum dry density and optimum moisture content for each soil type was determined in accordance with ASTM D1557.

FIELD AND LABORATORY TESTING

At least one density test was performed for every 1000 cubic yards or 2 vertical feet of backfill. A total of 56 field density tests were performed by sand cone (ASTM D1556) and nuclear (ASTM D2922 and ASTM D3017) methods. The majority of the tests were performed with a nuclear density gauge. Sand cone tests were performed periodically to check calibration of the nuclear gauge device. A summary of the field density tests is presented in Table 1. Approximate test locations are shown on Figure 1.

Laboratory compaction tests on excavated and borrow soils were performed by AP Engineering and Testing, Inc. of Pomona, California. The results of the laboratory compaction tests are summarized in Table 2.

510 Superior Avenue, Suite 200
Newport Beach, California 92663-3637
Tel 949.642.0245
Fax 949.645.4474
www.geomatrix.com

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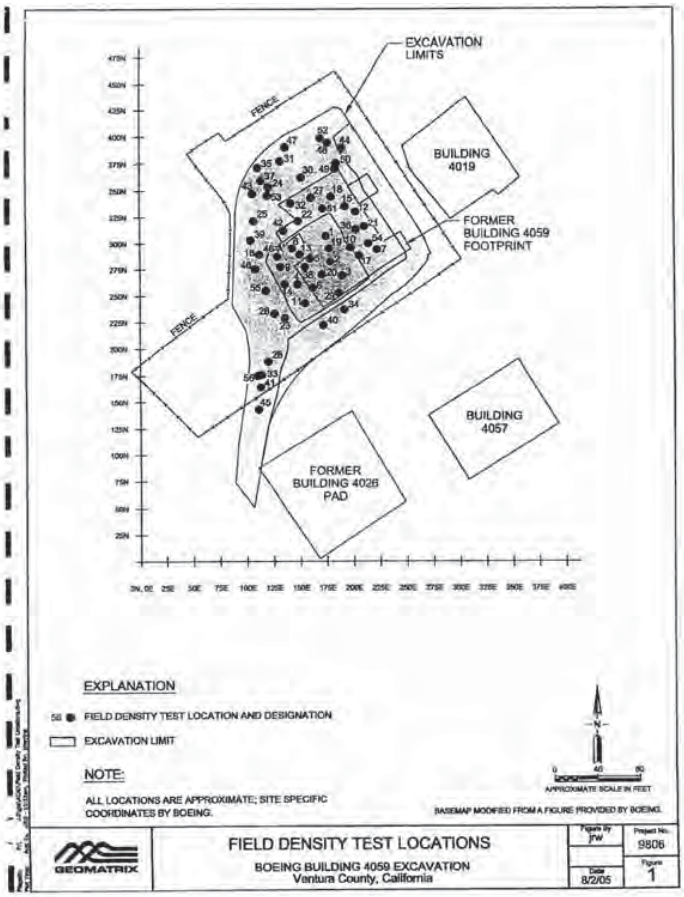
BUILDING 4059



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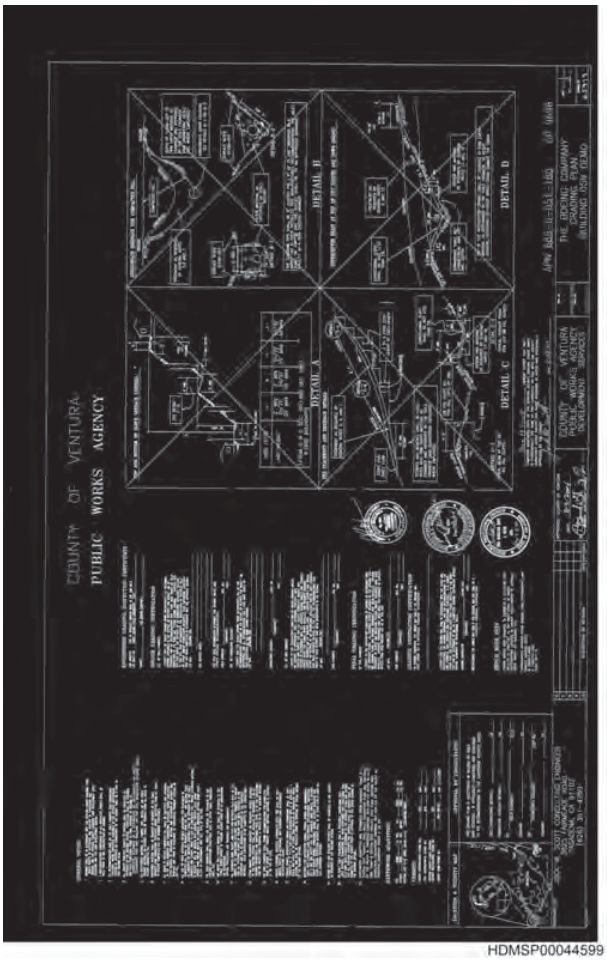

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BUILDING 4059

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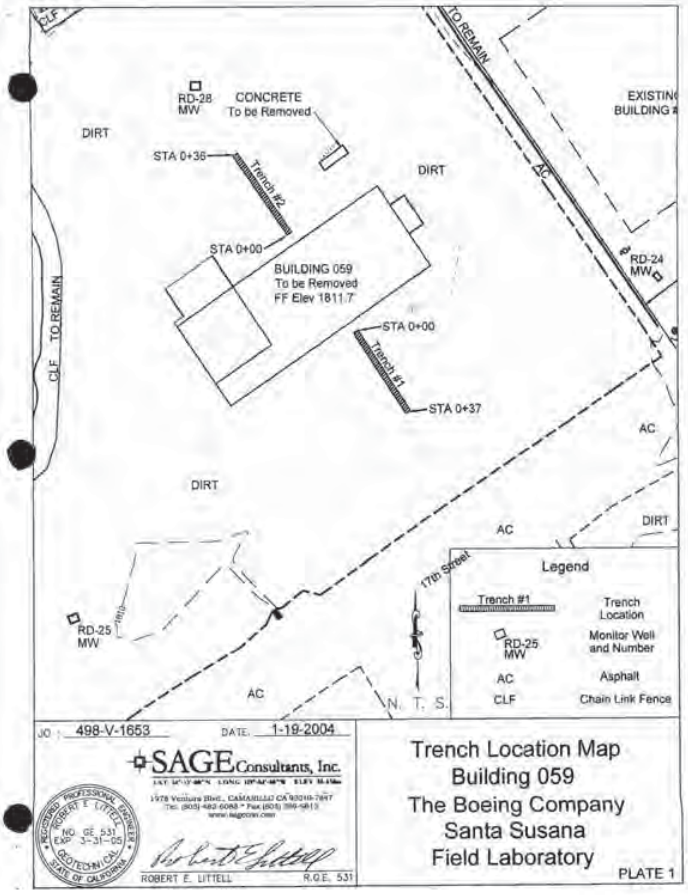

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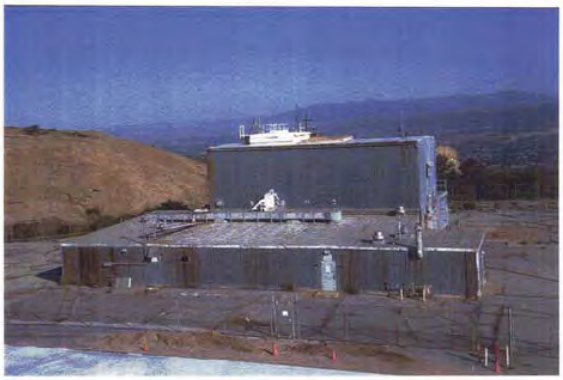

After Phase-1A & the Start of Phase-1B & 2

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BUILDING 4059

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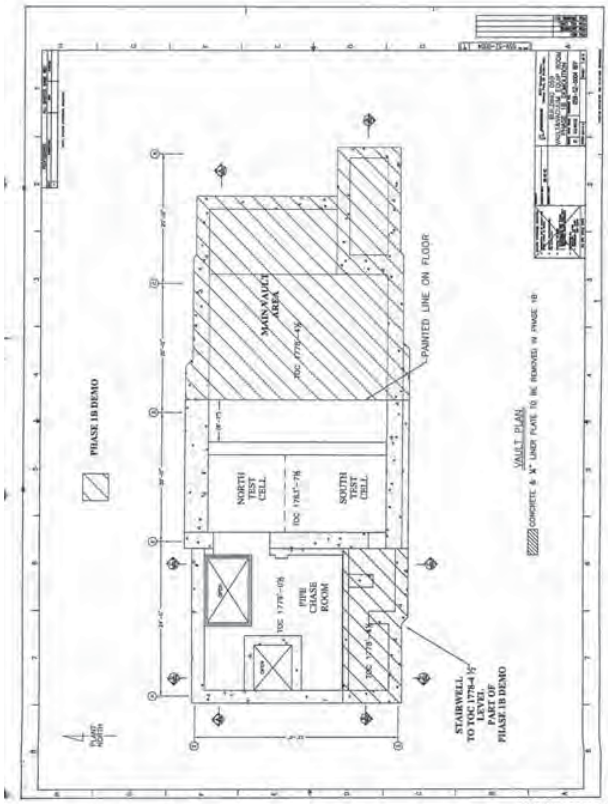

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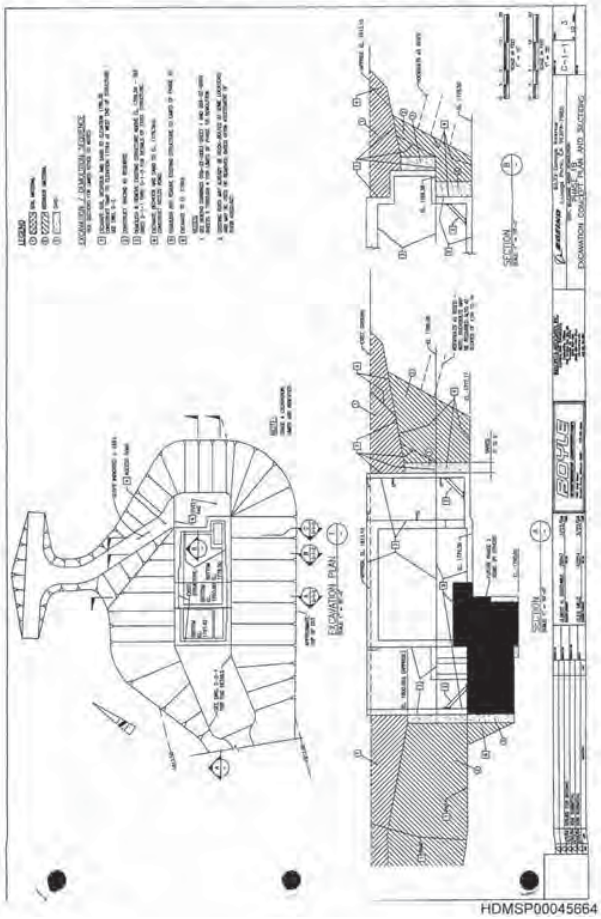

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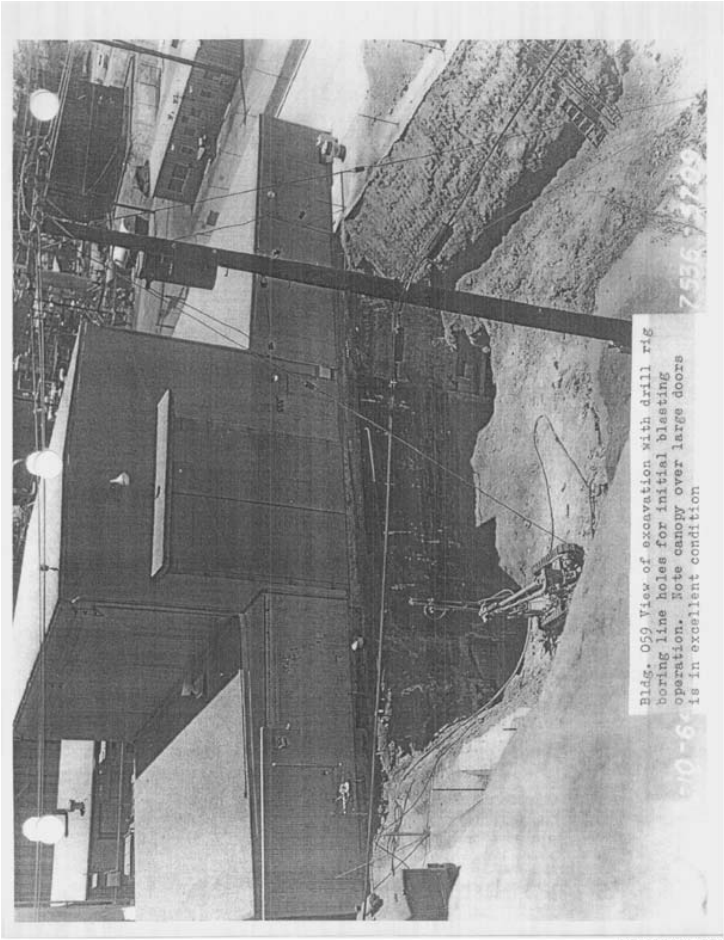
BUILDING 4059



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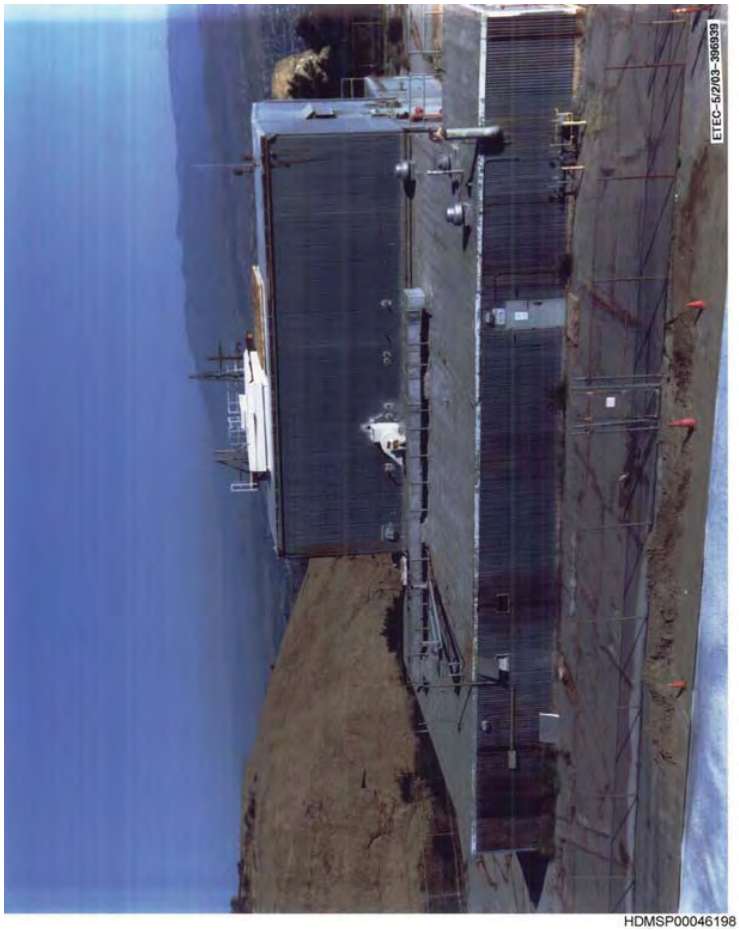

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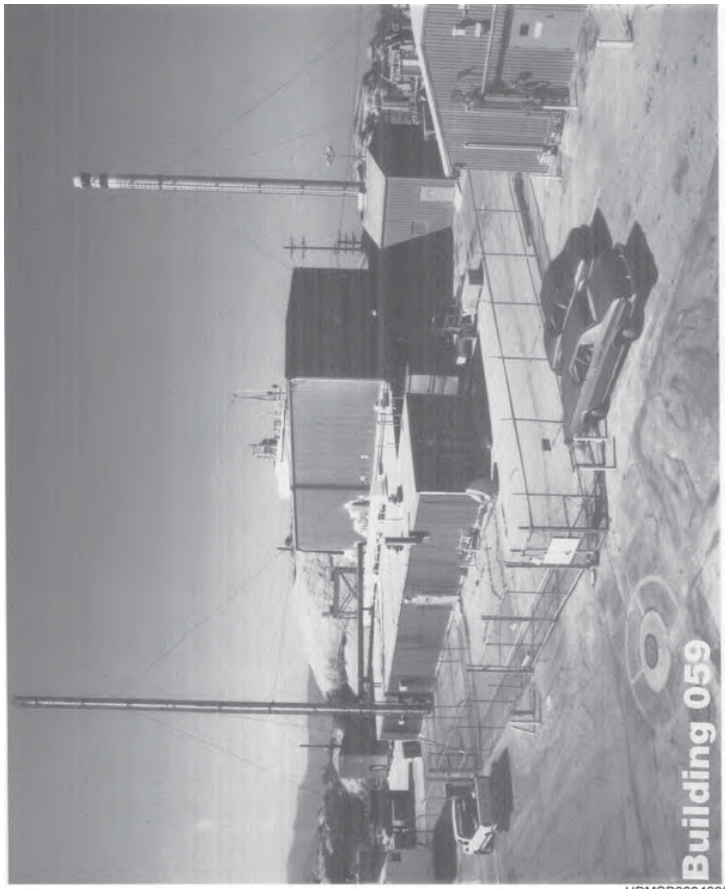

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BUILDING 4059

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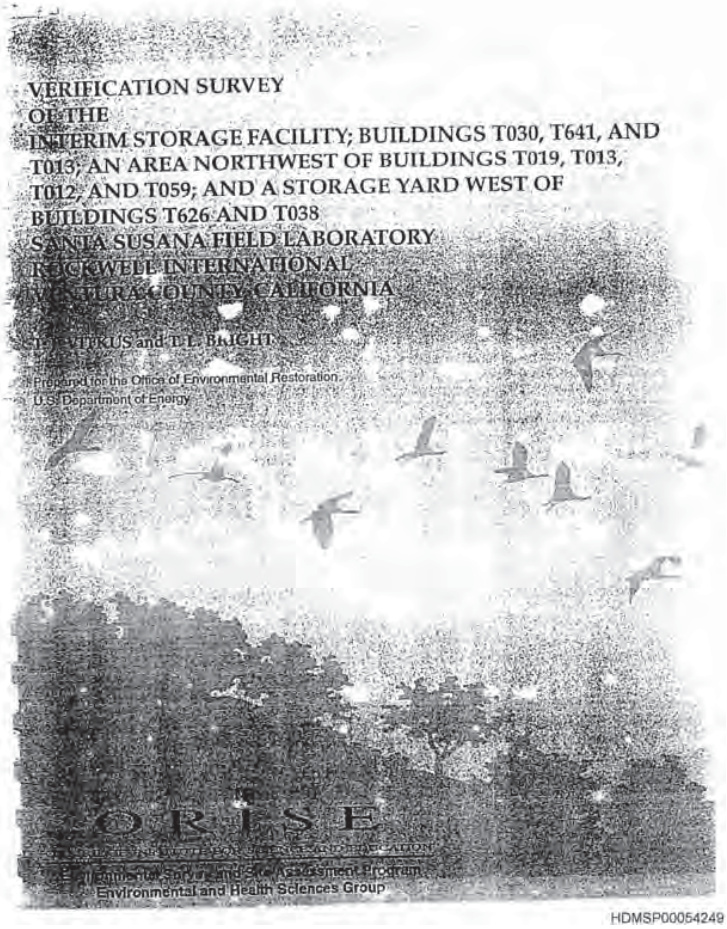

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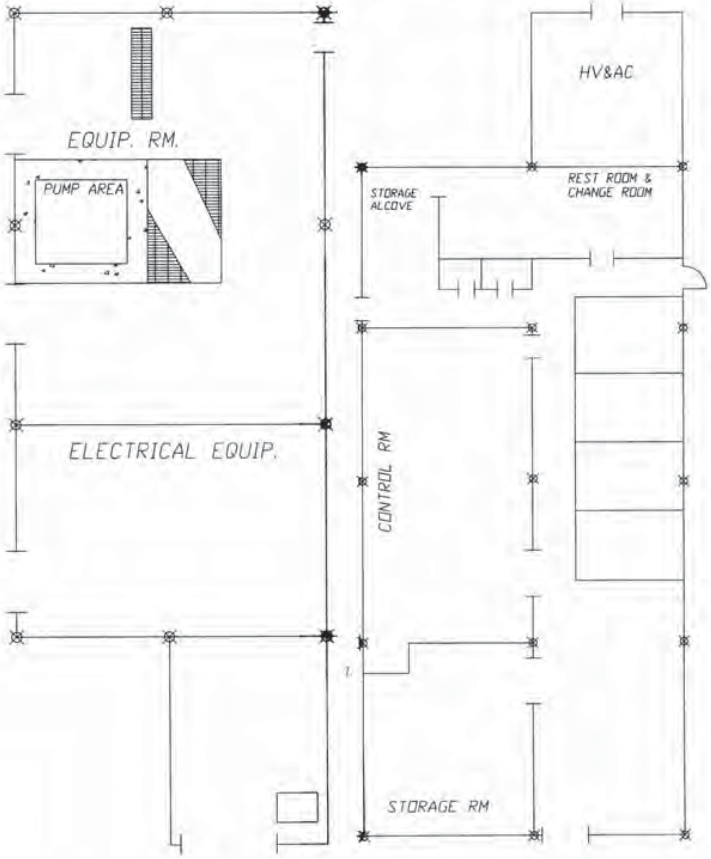

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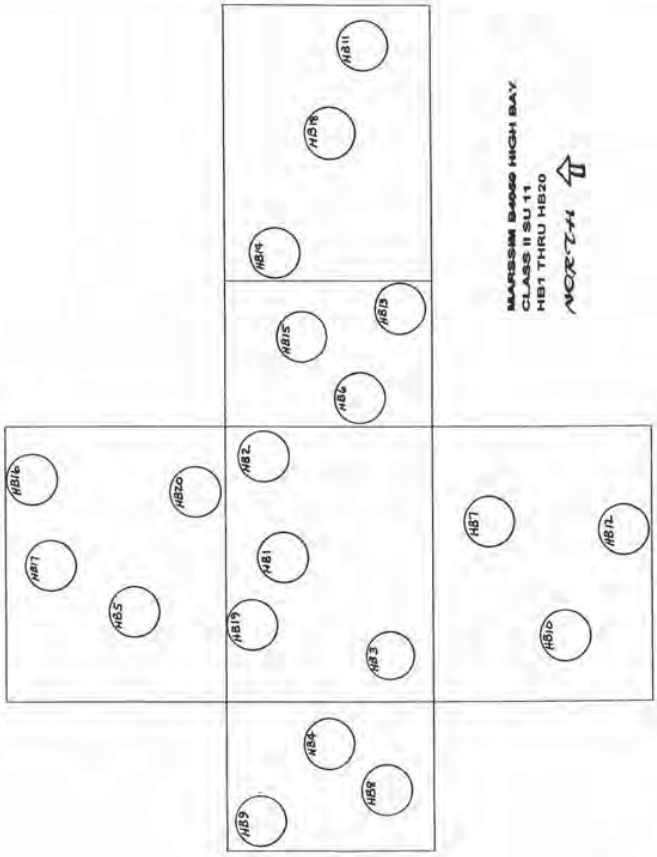

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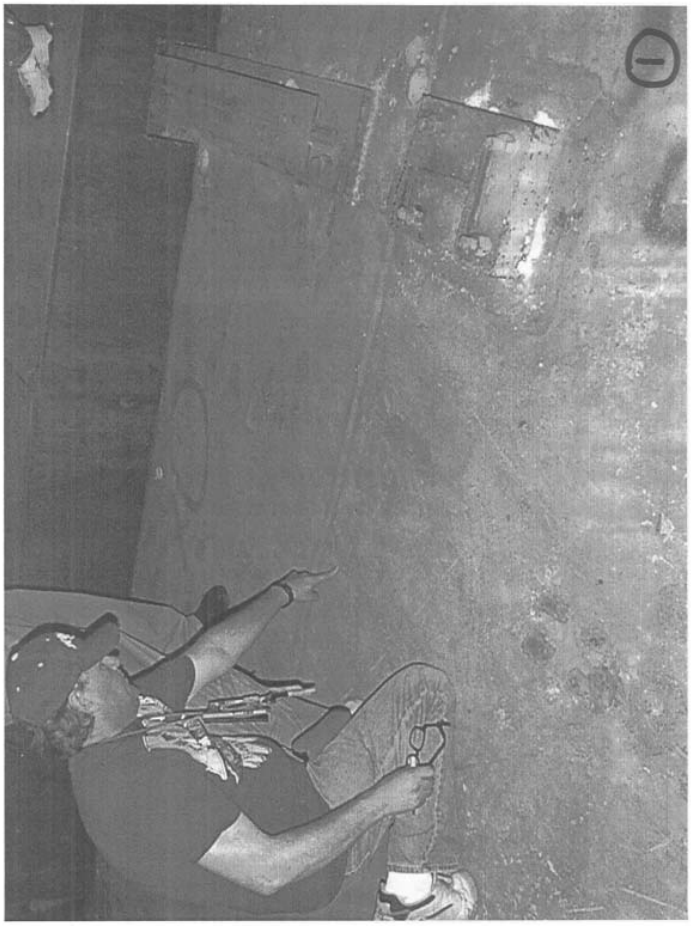
BUILDING 4059



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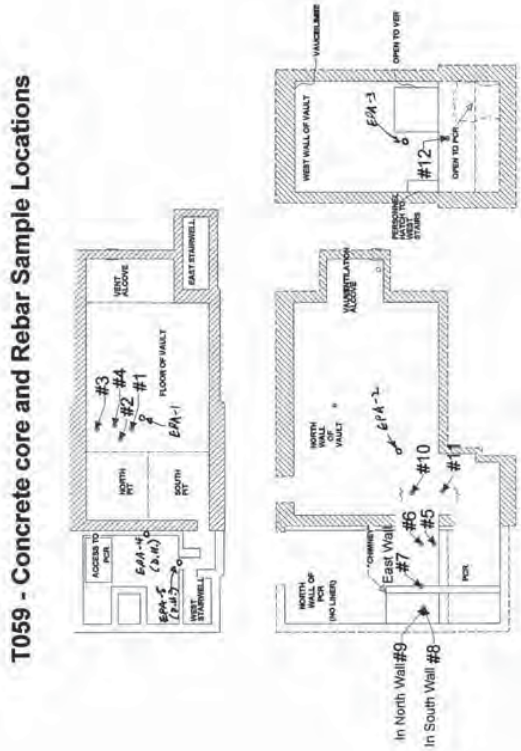

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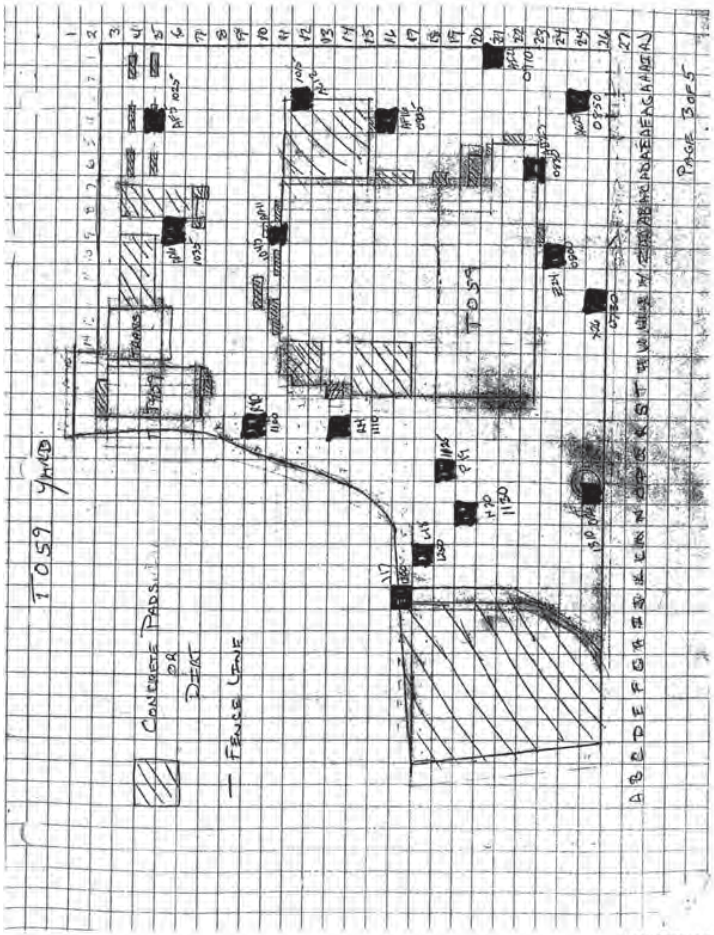

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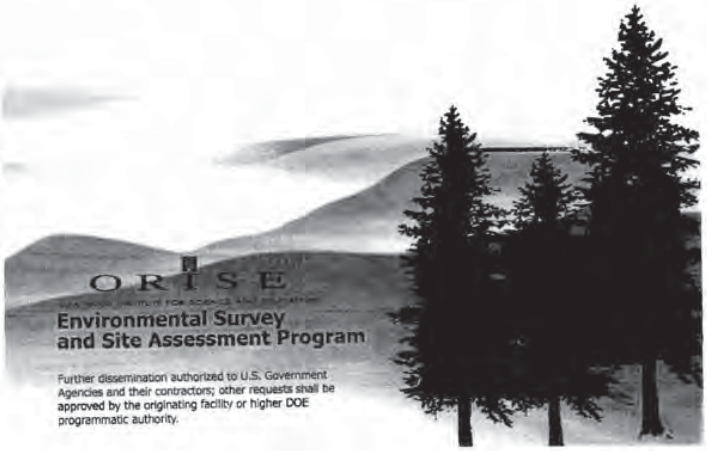
VERIFICATION SURVEY OF
THE BUILDING 4059 EXCAVATION
SANTA SUSANA FIELD LABORATORY
THE BOEING COMPANY
VENTURA COUNTY, CALIFORNIA

T. J. VITKUS

Prepared for the
Oakland Environmental Programs
U.S. Department of Energy



Further dissemination authorized to U.S. Government Agencies and their contractors; other requests shall be approved by the originating facility or higher DOE programmatic authority.

HDMSP00062864

BUILDING 4059

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HDMSP00110958

ATOMICS INTERNATIONAL
A DIVISION OF NORTH AMERICAN AVIATION, INC.

INTER-OFFICE LETTERS ONLY

TO: Reactor Safeguards Review Panel ADDRESS:
FROM: F. Anderson ADDRESS: 782-32 HQ2
PHONE: 487 HQ DATE: October 27, 1960
SUBJECT: Review of SNAP Safety Reports on Flight System

The following reports are available from the library for the Panel's review in respect to the flight safety of a SNAP unit. These reports include the results of both the analytical and experimental programs that have been completed for the SNAP safety program.

1. NAA-SR-4714 (Official Use Only)
2. NAA-SR-Memo-4390 (Secret-RD)
3. NAA-SR-Memo-5036 (Secret-RD)
4. NAA-SR-Memo-5159 (Secret-RD)
5. ~~NAA-5446~~ AI-PC-5 Test Report (Conf-RD)
6. AI-PC-5-Test Report (Conf-RD)
7. NA-60-787 (Company Off.)
8. NAA-SR-Memo-5663 (Official Use Only)

A number of reports are in the process of being released on the various aspects of flight safety for SNAP systems. These results will be released in the following reports:

1. NAA-SR-5432 (Conf-RD)
2. NAA-SR-Memo-5313 (Conf-RD)
3. NAA-SR-Memo-5804 (Official Use Only)

SP16 SNAP Safety Program taken issued

Since the work performed in the area of SNAP Flight Safety has been varied and a number of personnel have contributed to this program, each contributor will present his results to the committee upon request.

Due to the scheduling difficulties and the fact that this program has not had wide dissemination of information, the meeting to discuss

BNA00451082
HDMSP001802907

ATOMICS INTERNATIONAL
A DIVISION OF NORTH AMERICAN AVIATION, INC.

INTER-OFFICE LETTERS ONLY

TO: N. E. Reasley ADDRESS: 791-20
FROM: A. J. Saur ADDRESS: 791-22
PHONE: 387 DATE: April 18, 1960
SUBJECT: Status Report on SNAP Safeguards Review Committee Operations

Since 1 October 1959 the SNAP Safeguards Review Committee has held six meetings. These are listed below:

Date	Subject
2 October	SER - Locking one control drum
26 October	SER - Restricting motion of all control drums
10 November	SNAP X - First review of Hazards Summary Report
4 January	SER - Discussion of power run, safety elements, and heater failure
8 February	SNAP X - Second review of Hazards Summary Report
11 March	Bldg. 373 - Use of laboratory room next to critical assembly cell

The present Committee was formed in June, 1959. Before that time, all critical assemblies and all SNAP reactors were under the jurisdiction of a single committee. In June, this jurisdiction was divided between the present committee and the Critical Experiments Safeguards Review Committee. The present SNAP Safeguards Review Committee has jurisdiction over all SNAP reactors and SNAP critical assemblies.

At present, the committee is responsible for the SER, the SNAP II critical assembly, and the SNAP X critical assembly. The committee will also be responsible for reviewing all environmental tests on SNAP reactors.

The subjects that have been presented to the committee for review can be grouped into four categories:

1. Hazards Summary Reports - The committee has reviewed these reports from three points of view. First, is the report well written and well organized? Second, is the report technically sound? Do the calculations cover the right range of reactor excursions? Are the estimated radiation dose rates reasonable? Third, how will the report influence the AEC reviewer? Can we anticipate his questions and answer them now? Will this report increase or detract from his confidence in AI to operate reactors safely?

BNA00451086
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BUILDING 4059

INTERNAL LETTER
ATOMICS INTERNATIONAL
A Division of North American Aviation, Inc.

DATE May 27, 1965

TO Research Reactors Comm. (Reactor Safeguards Review Panel)

FROM June Fetterly
ADDRESS 779-20 HQ-2

PHONE 335

SUBJECT Meeting Notice

Reference: (1) IL, Research Reactors Committee from A. R. Moores, "Proposed Irradiation of Poison Coated SNAP 8 Cladding Tubes at the AE-6 Reactor Facility," dated April 26, 1965

A meeting has been scheduled for Wednesday, June 9, 1965 at 8:30 AM in the Small Executive Conference Room, Headquarters 2, 1st Floor, to review Ref. (1).

Charge number for preparation and attendance will be given at a later date.

Will any Committee members who are unable to attend this meeting, please contact this office.

June Fetterly
Administrative Secretary
Reactor Safeguards Review Panel

dc: A. R. Moores (4)
H. A. Morewitz
V. A. Swanson

BNA00451810
HDMSP001803011

DIST. FROM
DEPT. 748 AI
ATTENTION

REPLY

CLEARED

UNITED STATES
ATOMIC ENERGY COMMISSION
CANOGA PARK AREA OFFICE
P. O. Box 591
CANOGA PARK, CALIFORNIA

December 28, 1962

R. Balent, Associate Manager
Compact Systems Division
Atomics International
A Division of North American Aviation, Inc.
P. O. Box 309
Canoga Park, California

Subject: Water Immersion Critical Experiments (SCA-4B) on SNAP 8 Reactor Core

Reference: AI ltr 62AT6253, Balent to Malmstrom, dtd 11/17/62 do we have?

Dear Mr. Balent:

Atomics International is hereby authorized to operate the SCA-4B Critical Experiment in Building 012 using a SNAP 8 core as described in NAA-SR-MEMO-6877 (Addendum I) and the above referenced letter.

In order to have a clear understanding of the status of operations in Building 012, I wish to emphasize that the next proposed operation in this building will require a detailed hazards summary report.

Very truly yours,

Carl R. Malmstrom
SNAP Project Officer

6158AT

BNA00453864
HDMSP001803216

ATOMICS INTERNATIONAL
A DIVISION OF NORTH AMERICAN AVIATION, INC.

INTER-OFFICE LETTERS ONLY

TO: R. O. Williams, Jr. ADDRESS: 724-40 HQ 2

FROM: R. Balent ADDRESS: 720-10 HQ 2

PHONE: 656 DATE: December 28, 1962

SUBJECT: Water Immersion Critical Experiments (SCA-4B) on SNAP 8 Reactor Core

REF: (1) Letter R. Balent from C. Malmstrom dated, December 28, 1962. Same subject.

(2) AI Letter 62AT6253, C. Malmstrom from R. Balent dated, November 17, 1962. Subject: "Additional Information on Water Immersion Critical Experiments (SCA-4B) on the SNAP 8 Reactor."

Reference 1 letter authorizes continuation of the water immersion experiments using SNAP 8 reactor core in building 012 as described in NAA-SR-MEMO-6877, NAA-SR-MEMO-6877; Addendum 1, and in reference 2.

You are authorized to proceed with the subject experimental program.

R. Balent
Approval Authority
Compact Systems Division

RB:RRE:gb
dc: D. J. Cocherem 720-10 HQ 5
H. S. Denham 779-20 HQ 2
R. L. Detterman 727-71 HQ 5
R. E. Eggleston 724-42 HQ 2
A. J. Saur 744-41 HQ 4
A. W. Thiele 724-42 Sansu

BNA00453865
HDMSP001803217

SNAP 8 NAA-059
DEVELOPMENT SYSTEM

BNA00468039
HDMSP001805537

BUILDING 4059

INTERNAL LETTER
NORTH AMERICAN AVIATION, INC.

DATE: July 15, 1963

TO: Those Listed
ADDRESS:

FROM: K. B. Weiner
ADDRESS: 727-72 HQ-3

PHONE: 388

SUBJECT: Minutes of SNAP 8 Control Drive Scram Mechanism Design Review June 21, 1963.

Those in attendance were: W. Burke, R. Denham, C. Esslinger, J. Foltz, W. Haberer, D. Mason, F. Maesath, E. Matlin, T. Sakse, A. Piccot, K. Reinecker, G. Rivenbark, J. Roecker, M. Slater, R. Stenbridge, J. Watrous, E. Weiner, D. Zimmer, D. Zweng.

C. R. Meeks presented a description of the current SNAP 8 control system. A detailed report on the operation of the SNAP 8 Ground Prototype scram mechanism was the primary topic. A written description and drawings of the operation of the scram mechanism were distributed at the meeting to the attendees. The following is a summary of the salient points of the presentation and the discussion attending the presentation.

The SDRM-1 system has proved inadequate for the SDS requirements; hence the SDRM-1 components are being scaled up for SDS service.

Each of the six control drums will employ a scram mechanism. The ground prototype scram mechanism introduces no additional loads into the drum drive system and will closely simulate flight system control performance

The ground prototype scram mechanism is utilized to afford scram and restart capabilities while closely simulating flight control system performance. Review of the plug-in scram mechanisms for 1/2° stepper actuators and for 1/2° linear actuators was made. The modifications of the system and scram mechanisms required for use of these actuators were stated. It was advised, however, that at present the gear stepper motor is the one most likely to be used.

The scram mechanism of the gear stepper drive consists of a clock motor type torsion spring, an electromagnetic clutch, and a compression spring stop for the drums at the end of the scram travel. The control drum drive motor is used to preload the scram spring prior to reactor startup. The scram spring will remain loaded as long as the electric tooth clutch is energized. During normal operation the scram mechanism stores the scram spring energy. When scramming is required, current to the drive motor and scram clutch is interrupted. The drive motor brake locks, and the scram clutch releases the scram spring which drives the control drum out of the control cavity shutting down the reactor. The energy of the scrammed control drum is absorbed by the stop arm of the drive shaft assembly striking the snubber striker.

BNA00469722
HDMSP001806009

September 20, 1962

Mr. J. V. Levy
Canoga Park Area Office
U. S. Atomic Energy Commission
Post Office Box 591
Canoga Park, California

Subject: SNAP 8 Ground Prototype Test Facility, Building 059, Santa Susana, Reliability Criteria

Reference: AEC, C.P.O. letter to Atomics International, dated September 17, 1962, same subject (44-8A2)

Dear Mr. Levy:

The Ralph M. Parsons Company preliminary report on "Facility Systems Operating Criteria for the SNAP 8 System Test Facility, Building 059," was reviewed. The following are Atomics International comments on the report:

Page 5: Monitoring and Alarm System

The 24 hour limitation does not apply to the radiation and mercury monitoring systems. These systems can be out of service for repairs without causing a test shutdown. Repairs would be made as rapidly as possible.

Page 8: Electrical Power Supply

The provision for manual switchover from the M-G set to direct commercial power does not prevent a scram.

MDC:SC:lm

BNA00469741
HDMSP001806012

ATOMICS INTERNATIONAL
A DIVISION OF NORTH AMERICAN AVIATION, INC.

INTER-OFFICE LETTERS ONLY

TO: All A. I. Supervision
ADDRESS:

FROM: J. C. Cochran
ADDRESS: 745 Fairbrook

PHONE: 53
DATE: July 31, 1962

SUBJECT: SNAP 8 Ground Prototype Test Facility, Building 059, Santa Susana

The Commission (AEC) has informed A.I. that an increasing number of A.I. employees are entering Building 059 without authorization. These visits interfere with research and cause delays and can not be tolerated.

A.I. personnel who need to visit Buildings 056 or 059 must first contact the assigned Liaison Engineer from A.I. who will arrange for clearance from the AEC Field Office for the appropriate visit.

The assigned Liaison Engineer from A.I. for Building 059, Santa Susana is S. Cooke, who may be reached on Extension 6162. Building 056, Santa Susana, E. Perott, Extension 208, Building 005, Headquarters is Liaison Engineer for Building 056, Santa Susana.

J. C. Cochran
Plant Engineer

JCC:ao

BNA00469745
HDMSP001806015

UNITED STATES
ATOMIC ENERGY COMMISSION
CANOGA PARK AREA OFFICE
P. O. Box 591
CANOGA PARK, CALIFORNIA

RECEIVED
APR 27 1962
Correspondence Dept.

IN REPLY REFER TO:

APR 26 1962

Mr. J. C. Cochran
Plant Engineer
Atomics International
A Division of North American Aviation, Inc.
P. O. Box 309
Canoga Park, California

Subject: SNAP 8 FLIGHT CONFIGURATION TEST FACILITY, VAULT SAFEGUARDS

Dear Mr. Cochran:

The following correspondence from Bechtel Corporation is hereby transmitted for your information and action:

1. Hazards and Safety - April 9, 1962
2. Protection of Reactor Pit Floor from NaK Spillage - April 11, 1962

In connection with the April 9 letter concerning thyroid dose, the assumed 10% leakage appears ultra-conservative. Design is proceeding on the basis of obtaining 1% leakage, or less, at a differential of 0.01 atmosphere vacuum. While it is assumed the worst incident may occur at atmospheric pressure and exert an average overpressure of only 0.6 psi. It is requested that Atomics International's early evaluation and intended action regarding the thyroid dose question and safeguards be submitted to this office.

The NaK spillage calculations transmitted by the April 11 letter were requested previously by AI SNAP 8 project personnel. Atomics International's concurrence or recommendations concerning use of the proposed stainless steel pan is requested.

Sincerely yours,

W. D. Smith, Chief
Engineering and Construction Branch

Enclosures:
1. Cy Bechtel ltr dtd 4/9/62
2. Cy Bechtel ltr dtd 4/11/62

cc: C. Johnson, AI, w/encl.

2009AT

BNA00469747
HDMSP001806017

BUILDING 4059

SAFETY REVIEW OF THE SNAP CRITICAL FACILITY

Final Draft

February 2, 1961

INTRODUCTION

The SNAP Critical Facility is operated by Atomics International as a research and development tool in the design of compact power reactors. It has been in operation since October 1957. The powder critical core (SCA-1) and the SNAP Experimental Reactor core (SER) were the first two reactors studied in the facility. These are described in NAA-SR-MEMO-1946 "Special Purpose Power Plant - Critical Facility, Summary Hazards Report" and Addenda 1 and 2 of that report. The present SNAP 10 core, described in Addendum 3 of NAA-SR-MEMO-1946 was initially critical in July 1960. This facility is designed for zero power (less than 0.5 watt) critical experiments. The fuel and reflector materials are loaded in two sections - half on a stationary upper portion, half on the lower moveable base. The base can be remotely raised a distance of 22 inches to assemble the two halves.

The current SNAP 10 solid, homogeneous core is built up of 7" diameter 3/4" thick plates of U-Zr-H. Each plate contains an average of 265 grams of fully enriched U^{235} and 6.1×10^{22} atoms/cc of hydrogen. Various reflector materials including beryllium, nickel and plastic have been used. The minimum critical mass is about 2.3 kg.

Experiments with the reactor are all designed to learn more about the reactor characteristics. Flux distribution, reactivity coefficients of materials and temperature, and the effects of reflector variations are typical of the types of measurements made.

BNA00475549
HDMSP001806979

R. L. Ashley

ATOMICS INTERNATIONAL
A DIVISION OF NORTH AMERICAN AVIATION, INC.
INTER-OFFICE LETTERS ONLY

TO: A. W. Thiele — ADDRESS: 721-12 SS 36
FROM: R. Balent — ADDRESS: 720-10 HQ 2
PHONE: 656 — DATE: January 29, 1962
SUBJECT: Summary Hazards Report for SNAP 8 Critical Experiment

Reference: IOL Compact Reactors Committee to R. Balent, "Review of Summary Hazards Report for SNAP 8 Critical Experiment - Meeting of December 27, 1961 - Interim Recommendations" 12-28-61.

You are directed to comply with recommendations listed in the referenced IOL.

R. Balent
Associate Manager
Compact Systems Division

RB:tm

dc: Compact Reactors Committee
W. J. Roberts
J. R. Wetch
R. O. Williams

BNA00477957
HDMSP001807120

ATOMICS INTERNATIONAL
A DIVISION OF NORTH AMERICAN AVIATION, INC.
INTER-OFFICE LETTERS ONLY

TO: J. R. Wetch — ADDRESS: 782-80 HQ-2
FROM: R. Balent — ADDRESS: 782-80 HQ-2
PHONE: 656 — DATE: June 27, 1961
SUBJECT: Compact Reactors Committee Review of Preliminary Draft "SNAP 8 Development System (S8DS) Test Facility Safeguard Study" NAA-SR-6181

Reference: IOL, R. Balent from Compact Reactors Committee Reactor Safeguards Review Panel, "Review of Preliminary Draft of the SNAP 8 Development System (S8DS) Test Facility Safeguards Study (NAA-SR-6181), 6/8/61

The recommendations of the Compact Reactors Committee in the referenced letter are hereby approved.

In addition to the suggested changes in the report, it is understood that the project will resubmit the report as modified to the committee.

Ralph Balent
Associate Manager
Compact Systems Division

RB:rh
dc: R. L. Ashley
E. R. Cohen
E. D. Falk
R. B. Harty
M. F. Huntsinger
E. A. Morevitz
R. C. Noyes
M. E. Remley
J. C. Lang
W. P. Kunkel

BNA00478035
HDMSP001807168

ATOMICS INTERNATIONAL
A DIVISION OF NORTH AMERICAN AVIATION, INC.
INTER-OFFICE LETTERS ONLY

TO: R. B. Hinze — ADDRESS: 721-13 SanSu-36
FROM: R. Balent — ADDRESS: 720-10 HQ-2
PHONE: 656 — DATE: January 25, 1962
SUBJECT: IOL, Compact Reactors Committee, Reactor Safeguards Review Panel, to R. Balent, "Review of SNAP 8 Experimental Reactor Final Safeguards Summary Report - Minutes of Meetings of January 3 through January 9, 1962", dated January 11, 1962

You are hereby directed to comply with the recommendations listed in the subject IOL; however, two of these recommendations may be re-interpreted in order to meet the severe schedule requirements:

(1) Section I-C-16. Fission Product Release Fractions

Instead of changing the release fractions used, cite the fractions used for the SCA-4 reports as the best calculated values for non-melting release, show what degree of conservatism results when the release fractions are compared, quote the reasons for using the more conservative (present) release fractions, and indicate the experimental program (NAA-SR-MEMO-6969) underway to settle this issue.

Note: R. Hart is studying this problem and will make a recommendation as to consistent method to use in all future reports.

(2) Section II-I. Specification of Acceptable Dose Limits

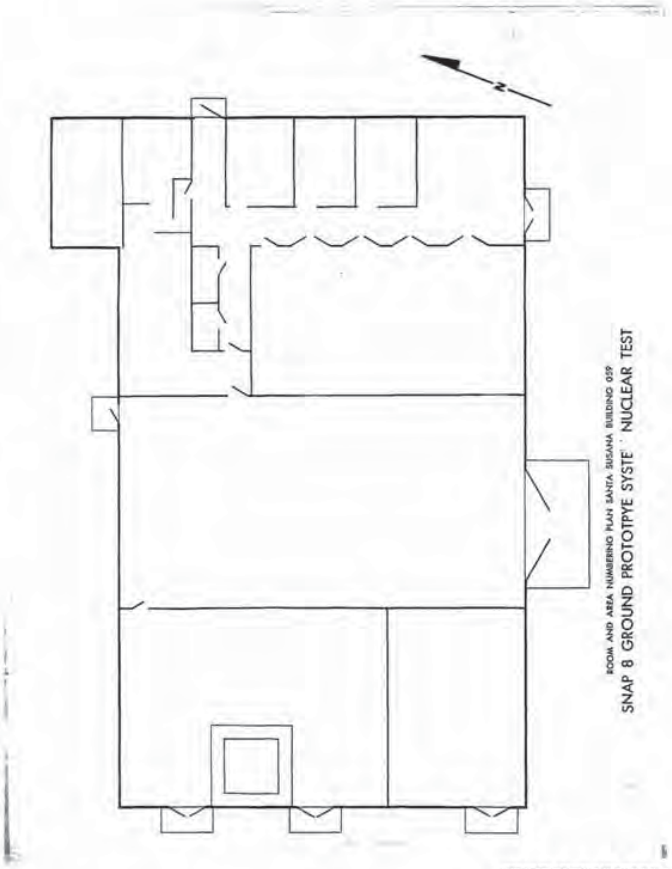
As recommended, do not characterize the 25 and 300 rem doses as "acceptable". Instead of deleting all reference to these numbers, however, show that undue hazard is prevented under the tacit assumption that these doses are not too large for the severe accident conditions assumed.

Ralph Balent
Associate Manager
Compact Systems Division

RB:rh
dc: Compact Reactors Committee
C. E. Johnson
A. Piccot
J. R. Wetch

BNA00478703
HDMSP001807231

BUILDING 4059



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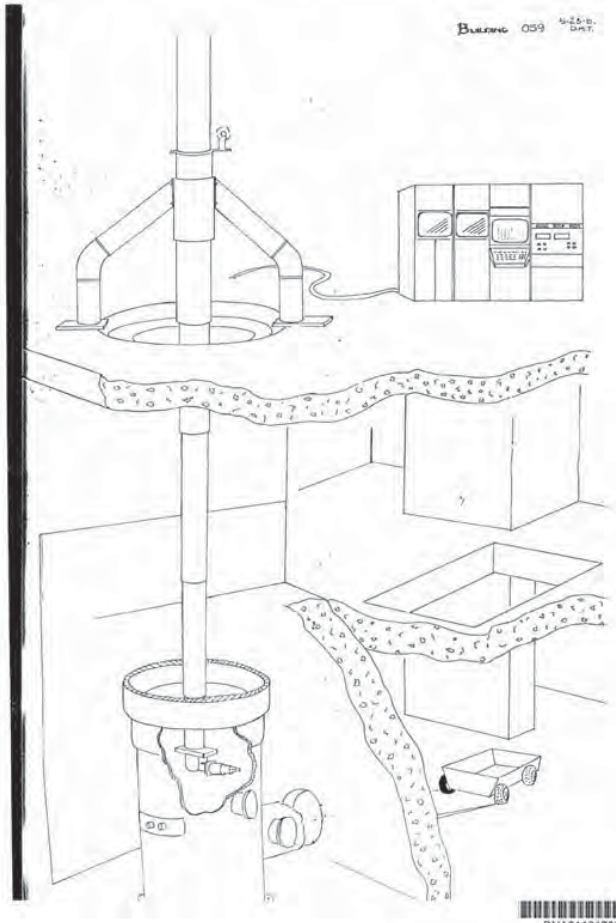
HDMSP001815895

BNA00999740
HDMSP001817566

BNA00999742
HDMSP001817568

BUILDING 4059



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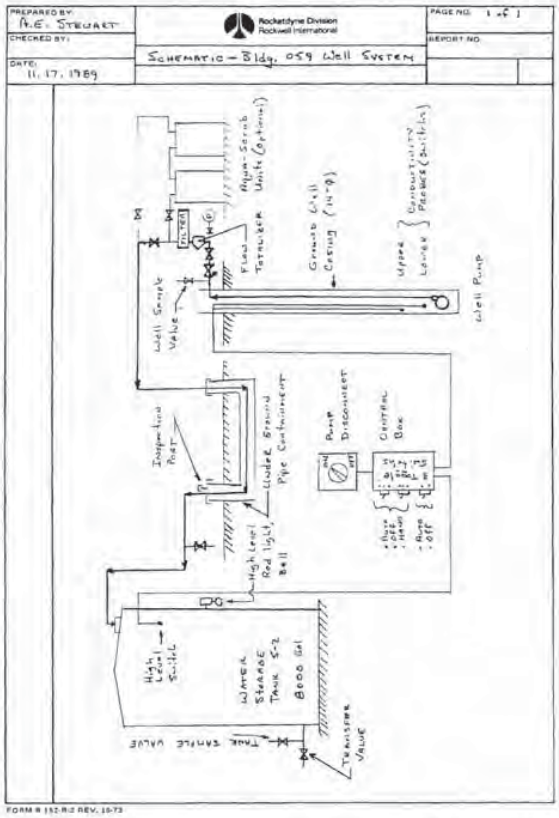

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HDMSP001820422

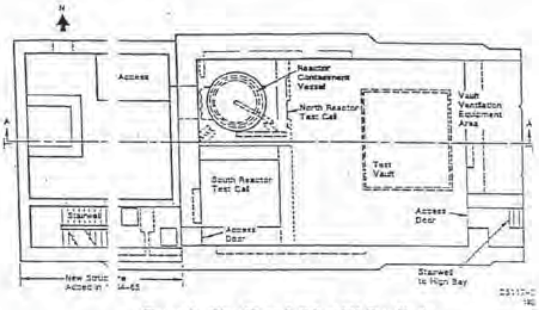


Figure 1. Plan View—Building 059 Test Vault

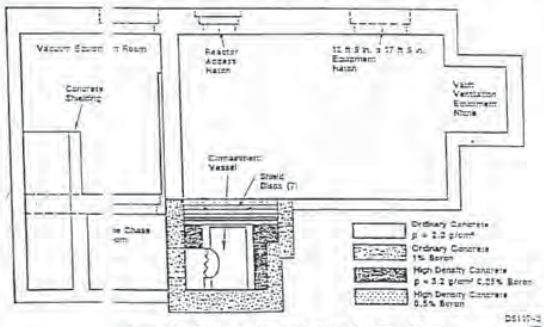


Figure 2. Elevation View—Building 059 Test Vault

BNA01113961

HDMSP001821328

Energy Technology Engineering Center

Operated for the U.S. Department of Energy
Rocketdyne Division, Rockwell International

No. 059-OI-724 Rev.
Page 1 of 6
Orig. Date 10-29-90
Rev. Date

OPERATING INSTRUCTION

TITLE: Building 059 Remediation – Storage and Control of RA Waste Containers

-APPROVALS-

Written by F. C. Schmidt
Quality Assurance
Nuclear Operations
Facility Manager
R.D. Meyer
Project

REV. LTR.	REVISION	APPROVAL/DATE

Form 735-A-6 Rev 6-88

BNA01114117

HDMSP001821450

BUILDING 4059

DOE F 5120.2
(4-80)

U.S. DEPARTMENT OF ENERGY
FIELD TASK PROPOSAL AGREEMENT

1. WORK PACKAGE NUMBER	2. TASK NO.	3. REV. NO	4. PROJECT NO	5. DATE PREPARED	6. CONTRACTOR NUMBER
None		0	WBS 4.8.2	01-26-83	

7. TASK TITLE: Decommissioning of Building 059 (SNAP 8)

8. WORK PACKAGE TITLE: Surplus Santa Susana Field Laboratory Facilities

9. BUDGET AND REPORTING CODE	10. TASK TERM Begin	End	11. CONTRACTOR NAME	12. CODE (See instructions)
AH 10-20-4	10-01-85	03-01-89	Rockwell International Energy Systems Group	

13. CONTRACTOR TASK MANAGER (Name, Last, First, MI) (FTS No.): Conners, Claud C. FTS No. 983-4164

14. PRINCIPAL INVESTIGATORS (Name, Last, First, MI): Carroll, Jerry W.

15. WORK LOCATION (See instructions) Name of facility, City, State, Zip Code

16. Is this case included in the Individual Plan? ☐ YES ☐ NO

17. Does this task involve any management services contract? ☐ YES ☒ NO

18. TASK DESCRIPTION (Approach, relation to work package, in 200 words or less)

The SNAP Ground Prototype Test Facility, Building 059, was operated until 1964. At that time the system was shut down for building modifications including a new reactor holding test cell and the addition of vacuum equipment. In January 1969, the SNAP Prototype Reactor operated at 600 KWT in the newly constructed north cell. Operation continued until December 1969 until the program was terminated. The reactor core and associated NaK systems were removed and disposed of. The reactor cell pit was sealed and associated vacuum systems were mothballed.

Decontamination of Building 059 was started in 1978. After removal of reactor supporting systems equipment and materials, the work was halted. The halt was caused by testing being conducted by the Energy Technology Engineering Center. Prior to the halt, the disposal of the contaminated liquid holdup tanks and piping located on the east side of the building was completed. Similar holdup tanks and piping for gas were located on the north side of the building. They were also removed and shipped to burial. The cooling water and chilled water systems, vacuum equipment and electrical controls were removed and dispositioned. Twenty five percent of the 60 inch vacuum line was removed. Sixty percent of the activated shielding sand in the pipe chase room was also removed and dispositioned.

The following radioactive materials and equipment remain to be removed and shipped to burial to complete the decontamination of the facility.

1. The reactor vacuum chamber
2. The reactor pit borated concrete shield.
3. The reactor pit coolant piping, conduits, and instrument thimbles.
4. The reactor pit steel liner
5. Activated concrete in the reactor pit walls
6. The remainder of the 60 inch vacuum line
7. Approximately 80 tons of contaminated shielding sand

Planned FY 1985 Accomplishments

None, the effort is not scheduled to begin until Fiscal Year 1985.

19. CONTRACTOR TASK MANAGER: C.C. Conners (Signature) 2/11/83 (Date)

20. DETAIL ATTACHMENTS (See instructions for list)

☐ a. Facility Requirements ☐ b. Publications ☐ c. Purpose ☐ d. Background ☐ e. Approach ☐ f. Technical progress ☐ g. Future accomplishments ☐ h. Relationships to other projects ☐ i. Environmental assessment ☐ j. Explanation of motivations ☐ k. ZBB Detail ☐ l. Other (Specify)

BNA01196157

HDMSP001825370

San Francisco

Rockwell International 02/14/86

SNAP 8 Ground Prototype Test Facility
(Building 059) Water Removal Rev. 1

0.5

0.1

0.6

80

41.1
22.8

10.0

8.3

38.7

30.0
8.1

0.8

BNA01197430

HDMSP001825393

San Francisco

Rockwell International 02/14/86

SNAP 8 Ground Prototype Test Facility
(Building 059) Water Removal

0.5

0.1

0.6

80

31
28

3

49

35

8
6

24.9

BNA01197482

HDMSP001825394

SNAP 8 GROUND PROTOTYPE TEST FACILITY - BUILDING 059

1. Type of Facility and Operational History

Building 059 was erected in 1961 to test ground prototype and flight system SNAP 8 reactors. In 1964-5, the building was modified to rebuild the north reactor test cell and add the vacuum equipment rooms. By January 1969, an unshielded SNAP 8 prototype reactor was operating at 600 kWt in the rebuilt north cell. It continued operating until December 1969 at 600 kWt with a short period at 1 MWt. In 1970, the reactor and associated equipment were removed and the facility became inactive. In 1973, Liquid Metal Engineering Center (LMEC) occupied the building, removed the installed shielding and remote handling equipment, and erected the Large Leak Test Rig (LLTR) in the test vault and high bay areas. As part of this modification, the original south reactor test cell was razed. Radioactive materials that were activated by neutron leakage from the north cell were removed, and a lead shield wall was erected on the outside of the newly exposed face of the north cell. The LLTR, which is a sodium-water reaction test facility, and the Large Leak Test Vessel (LLTV) are currently occupying the building.

2. Current Plans for Disposition Work and Schedule

The planned decontamination is to dismantle and dispose of all contaminated or radioactive materials to the extent necessary for unrestricted use of the facilities. Utilities, ventilation system, or other items that will have future general use will not be removed.

Planned Activities

FY 1981 - No activities planned.

FY 1982 - Decommissioning operations will be reinitiated. The shielding sand and 60-in. duct will be removed. Radioactive wastes will be disposed of and an interim report prepared.

BNA01213980

HDMSP001825737

BUILDING 4059

December 21, 1961

61AT9639

Mr. Joel Y. Levy, Manager
Canoga Park Area Office
U. S. Atomic Energy Commission
P. O. Box 591
Canoga Park, California

Subject: Addendum to SNAP 8 Feasibility Report NAA-SR-Memo 6345

Reference: Letter dated December 8, 1961 to J. Y. Levy from N. E. Remley, same subject

Dear Mr. Levy:

Discussion with your staff has resulted in a request for information on the subject addendum in addition to that given in the above referenced letter. This information is presented below.

In connection with the storage of extruded rods, criteria given in the approved SNAP 8 feasibility report have been used to determine the minimum spacing required between single extruded unhydrided rods placed in a single row. For such rods containing 10 percent highly enriched uranium (90 percent zirconium) the minimum center-to-center distance is 5.5 inches for fuel rods having a diameter of $\leq$ 1.5 inches. This is based on the maximum safe mass per unit area principle and the safe mass per unit area is 45 percent of calculated critical. This single row of rods should be placed at least six feet from a work station containing a single safe batch and at least 10 feet from a fuel storage area. A single batch inside a birdcage or a single extruded rod may safely pass this array independent of distance from it. Even though the storage rack spacing is based on an infinite array, the maximum limit for Room 1261 remains the same as before (16.00 Kg contained U^{235}).

The referenced letter proposed to divide Work Station Number 4 into two stations (separated by 18 inches), which will be called Stations 4A and 4B. It is desired to have 5.61 Kg contained U^{235} as the limit for each of these stations, while the room limit of 20.00 Kg will remain the same.

BNA01356901

HDMSP001830771

Internal Letter — Rockwell International

Date: September 23, 1983 — No.

TO: C. V. Di Pol, 716, 071-LA42

FROM: C. C. Conners, 716, 071-NB02

4164

File

Subject: Weekly Highlights on Building 059

The ground water level outside of Bldg. 059 is being maintained at a higher level than in the interior of the building. The differential level as of 9/23/83 is 2' 6-1/8". The decrease in differential level is averaging 0.4 inches/day. At this rate, 75 days will be required to reach equilibrium.

Leakage into the ETEC Reaction Products Tank pit has been stemmed by plugging two holes in the steel lining of the pit. Approximately 60 gallons of water are on the floor of the pit and no change in water level has been noted since plugging holes on September 13.

The water level in the excavation west of Bldg. 059 was re-measured. The level has dropped 10" in the period August 18 to September 20. It is still 19-1/2' above the level in the Bldg. 059 exterior standpipe.

A review of the Bldg. 059 plan of action and a brief analysis of the ground water system and geology surrounding Bldg. 059 was made by an EMSC specialist. He located a possible connection between the Bldg. 056 water-filled excavation and Bldg. 059. A shale bed is found in the Bldg. 056 excavation and is also evident at a lower elevation in construction photos of Bldg. 059. It could act as a conduit to transfer water from the excavation to the exterior of Bldg. 059. His review found the plan of action satisfactory. However, he stressed removing the contaminated water from the interior of the building as soon as possible and having backup equipment available.

W. D. Kittinger for
C. C. Conners
Program Manager
Decommissioning

cc:	J. W. Carroll	NB02
	F. W. Feiler	LA06
	W. D. Kittinger	NB02
	P. E. McCourt	LA02
	R. Meyer	TO39
	G. W. Meyers	LA10
	N. E. Remley	NB08
	W. J. Roberts	LA21
	F. Schrag	TO55

BNA01722778

HDMSP001838623

Compact 430.7

ATOMICS INTERNATIONAL
A DIVISION OF NORTH AMERICAN AVIATION, INC.

INTER-OFFICE LETTERS ONLY

TO: S. R. Cohen (Chairman), Reactor Safeguards Review Panel, Compact Reactors Committee — ADDRESS:

FROM: J. L. Shapiro - R. L. Tomlinson — ADDRESS: 782-81

PHONE: 1440 — DATE: January 26, 1961

SUBJECT: Review Final Hazards Summary for the SNAP Shield Test Experiment (NAA-SR-5896)

The revised draft of the Hazards Summary for the SNAP Shield Test Experiment is herein submitted for your review. It is requested that the committee meet to review this report as soon as possible. A review during the week of February 6th is therefore requested.

J. L. Shapiro, Supervisor
Nuclear Experimentation Unit
Compact Power Systems Department

R. L. Tomlinson
Responsible Engineer
Nuclear Experimentation Unit

JL3:RLT:pp

cc:	R. Balent	782
	G. D. Carpenter	779
	S. R. Cohen	791
	H. V. Davis	782
	H. M. Dieckamp	782
	S. Falk	794-42
	M. Huntzinger	782
	A. A. Jarrett	791
	J. C. Lang	779
	H. Morewitz	791
	R. Noyes	785
	J. J. Roberts	782
	J. S. Stewart	786

BNA02011827

HDMSP001841471

ATOMICS INTERNATIONAL
A DIVISION OF NORTH AMERICAN AVIATION, INC.

Compact

INTER-OFFICE LETTERS ONLY

TO: Members of the Compact Reactors Committee, Reactor Safeguards Review Panel — ADDRESS:

FROM: S. Richard Cohen — ADDRESS: 791-20 DS

PHONE: 253 DS — DATE: 11/2/60

SUBJECT:

In order to carry out the review of the SNAP Shield Test Experiment Hazards Summary most efficiently, we shall not discuss typographical or grammatical errors. Instead, please prepare correction sheets listing such errors so that they may merely be given to the report authors.

S. Richard Cohen, Chairman
Compact Reactors Review Committee

SRC/dj

DISTRIBUTION

R. Balent
H. M. Dieckamp
S. Falk
M. Huntzinger
H. Morewitz
A. A. Jarrett
J. S. Stewart

BNA02011833

HDMSP001841477

BUILDING 4059

ATOMICS INTERNATIONAL
A DIVISION OF NORTH AMERICAN AVIATION, INC.
INTER-OFFICE LETTERS ONLY

TO: R. L. Ashley — ADDRESS: 795-52 HQ-2
FROM: P. S. Drennan — ADDRESS: 793-35 HQ-1
PHONE: 1083 — DATE: May 24, 1961
SUBJECT: Feasibility Report for Fabrication of SNAP 8 Fuel Elements, NAA-SR-MEMO-6345

Anticipating the fabrication of fuel elements for the S-8-ER, a feasibility report has been prepared. Because of the classified aspects of this work, the report has been issued as secret restricted data; copies have been distributed to members of the Fuels Committee of the Reactor Safeguards Review Panel for their perusal. It is requested that this feasibility report be scheduled for review at the earliest possible date.

P. S. Drennan
Fuel Element Development Unit

PSDlark

dc: J. J. Dreher 794-41 SS-Bldg. 006
J. O. Henrie 795-50 HQ-2
M. W. Hulin 782-83 SS-Bldg. 036
E. Katzlach 793-31 HQ-1
E. L. Mattern 793-33 HQ-4
A. R. Piccot 795-52 HQ-2
C. E. Weber 793-30 HQ-4
C. C. Woolsey 793-35 HQ-1
R. R. Turk 793-35 HQ-1 R.R.T.

BNA02024215
HDMSP001841944

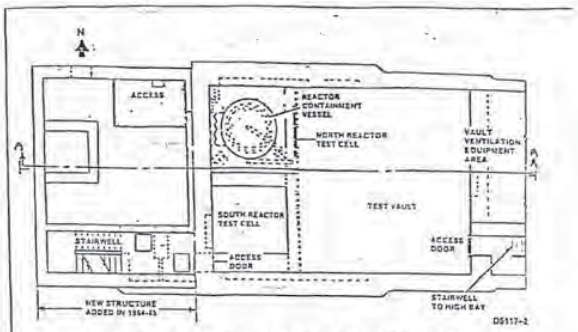


Figure 7-1. Plan View - Building 059 Test Vault

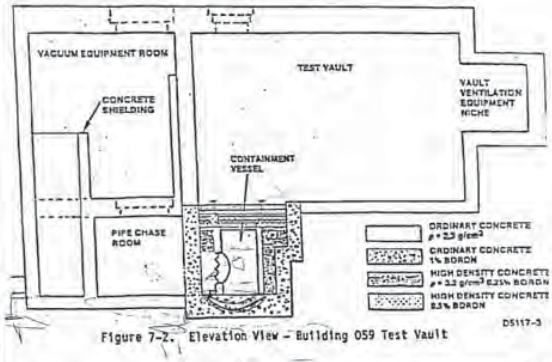


Figure 7-2. Elevation View - Building 059 Test Vault

& Phase I.

Hold for 4 ③

BNA02090114
HDMSP001842806

INTERNAL LETTER
ATOMICS INTERNATIONAL
A Division of North American Aviation, Inc.

DATE: August 13, 1964 — File

TO: H. F. Devenport, D/764, AI/Canoga-4
FROM: M. A. Neal, D/779-21, AI/Canoga-3
PHONE: 534

SUBJECT: SNAP 8 Assembly and Checkout Area, HQ 005
Drawing 305-005-S21

The subject drawing package was reviewed and a request placed to delete the stairways and replace with a vertical ladder.

Subsequent to the written review, a verbal discussion was held on the position taken by Industrial Hygiene and Safety with Industrial Engineering regarding the use of a stairway angled at 68 degrees.

J. G. Curry, D/727-73, the project engineer for the installation, was contacted and did not wish any changes made.

The California State General Industry Safety Orders are very specific in their recommendations for this type of ladder. Paragraph 3233 relates:

> "Stairways shall not have a slope in excess of fifty (50) degrees nor less than twenty (20) degrees. Where the slope is less than twenty (20) degrees, a ramp shall be used. Where the slope exceeds seventy-five (75) degrees, fixed or portable ladders may be used."

Figure 1 of the same paragraph, between the angles of 50 and 75 degrees, relates:

> "Step ladders and railed fixed ladders with treads preferred."

Our experience has shown that a vertical ladder is preferred for installations of this type. Men become careless ascending and descending a steep stairway; they tend to slide their hands on the rail, skipping steps as they descend. A stairway at this slope should be faced when ascending or descending as one would do with a ladder. Experience has shown man will descend facing away from the stairway, thereby placing themselves in an off-balance condition greatly increasing the possibility of a fall.

Based on the foregoing, we recommend removal of the stairway and installation of a vertical ladder.

M. A. Neal
Health and Safety Assistant
Industrial Hygiene and Safety Unit
Health and Safety Section

MAN:kay
dc: R. E. Alexander
J. G. Curry
J. C. Lang

AUG 14 1964

BNA02411048
HDMSP001852235

ETEC

NO. 059-AN-0002 REV.
PAGE 27 OF 83
DATE April 18, 1989
REV. DATE

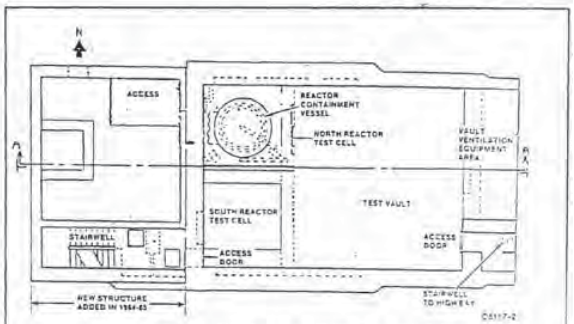


Figure 7-1. Plan View - Building 059 Test Vault

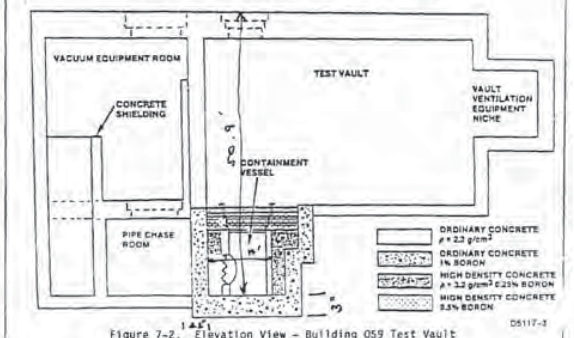


Figure 7-2. Elevation View - Building 059 Test Vault

BNA02902835
HDMSP001881656

BUILDING 4059

ETEC

NO. 059-XT-0003 REV.
PAGE 11 OF 118
DATE April 25, 1988
REV. DATE

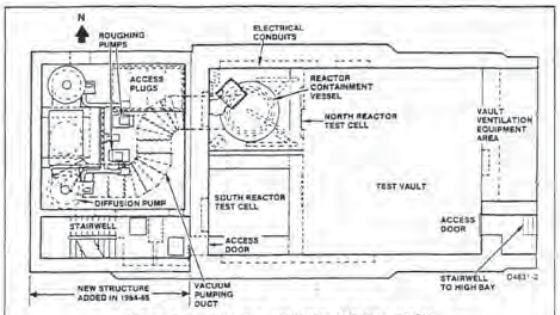


Figure 1-2. Plan View--Building 059 Test Vaults

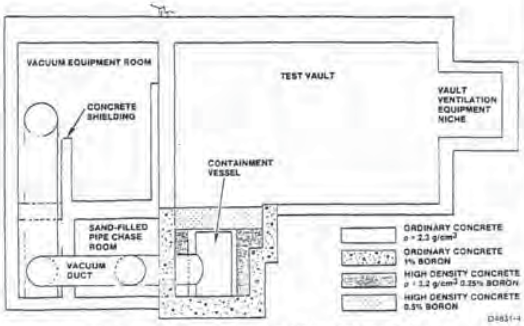


Figure 1-3. Elevation View--Building 059 Test Vaults

BNA02904808
HDMSP001861812

ATOMICS INTERNATIONAL
A DIVISION OF NORTH AMERICAN AVIATION, INC.

INTER-OFFICE LETTERS ONLY

TO: W. W. Houk — ADDRESS: 741-14
A. R. Moores — ADDRESS: 735-51
FROM: D. N. Glass — ADDRESS: 730-10
PHONE: 1510 — DATE: May 10, 1963
SUBJECT: Comparison of Uranium Determinations by Autoradiometric Counting and X-Ray Fluorescence

References: (1) IOL, Houk to Glass, "Results of Analysis - SNAP 8 Fuel Rods," 3/29/63
(2) IOL, Moores to Glass, "Completion of Autoradiometric Counting of SNAP 8 Fuel Rods for Comparative Analysis," 2/6/63
(3) IOL, Glass to Those Listed, "Sampling Plan for Determining the Degree of Correlation Between Two Methods of Determining Uranium," 1/22/63
(4) IOL, Glass to Hubbell, "Regression and Correlation Study Between Methods of Determining Uranium in SNAP 8 Fuel Rods," 12/7/62

The purpose of this IOL is to summarize the results of the comparison studies performed on three methods of determining the amount of uranium in SNAP 8 fuel rods. A correlation study of particular interest shows that there is a strong correlation between the amount of uranium determined by autoradiometric counting and by X-ray fluorescence.

The comparison studies, summarized in this IOL, were performed as a result of the statistical analysis reported in the IOL listed in Ref. (4). This analysis showed a correlation coefficient of 0.307 between uranium determinations by the autoradiometric and X-ray fluorescence methods. It was felt by the people cognizant with the two methods that the degree of relationship between uranium determinations by these two methods should be much greater than was indicated by this correlation. Further investigation, by J. G. Spraul, raised this correlation coefficient slightly, but not enough to reflect what was felt to be the actual degree of relationship between the two methods of uranium determinations.

The IOL listed in Ref. (3) outlines the experimental procedure used for evaluating the relationship between the two methods of determining uranium. This experiment was designed to hold all the foreseeable variables constant. The data from the experiment was reported in Refs. (1) and (2).

The details of the statistical evaluation are as follows:

BNA03411918
HDMSP001868680

DAMES & MOORE
CONSULTANTS IN APPLIED EARTH SCIENCES

1555 WEST THIRD STREET - LOS ANGELES 57, CALIFORNIA - DUNKIRK 8-0271
PARTNER: VERNON A. SMOOTS
ASSOCIATE: DON V. ROBERTS

April 21, 1961

BLDGS 056 & 059

The Ralph M. Parsons Company
617 West Seventh Street
Los Angeles 17, California

Attention: Mr. W. C. A. Woods

Gentlemen:

Transmitted herewith are ten copies of our "Report of Foundation Investigation, Proposed SNAP 8 SystemsTest Facility and A.E.C. Expanded Area Soils Survey, Santa Susana, California".

This investigation was planned with Mr. Woods and Mr. Neff of The Ralph M. Parsons Company and also with Mr. Smith of the Atomic Energy Commission at Canoga Park.

To expedite design, preliminary reports were submitted to you on April 7, 1961, and April 17, 1961.

After you have reviewed our report, please contact us so that we can review any possible questions you may have.

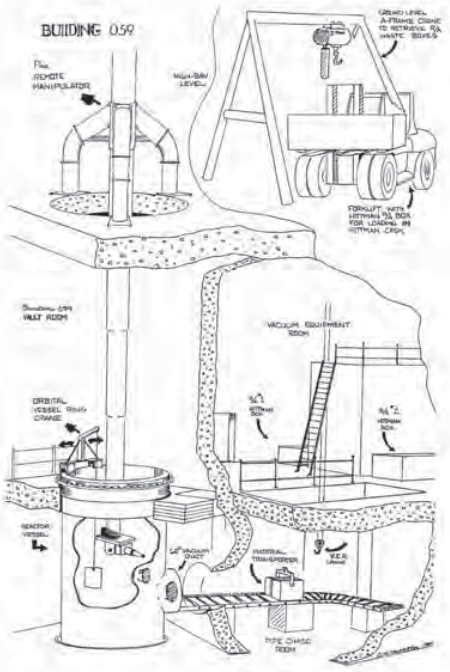
Very truly yours,

DAMES & MOORE

Vernon A. Smoots

VAS bvi

BNA04043302
HDMSP001879547



BNA04156690
HDMSP001882112

BUILDING 4059

ETEC

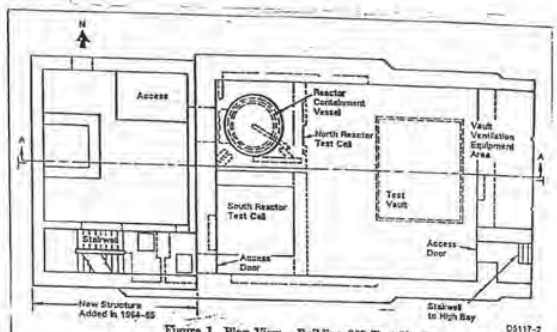


Figure 1. Plan View – Building 059 Test Vault

D5117-2

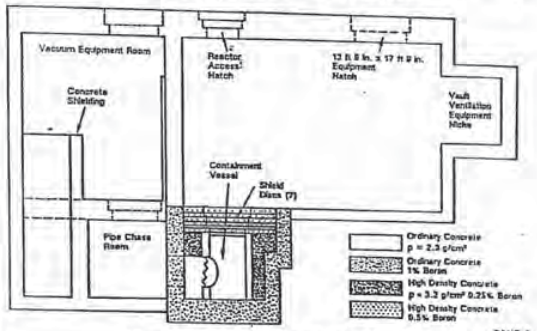
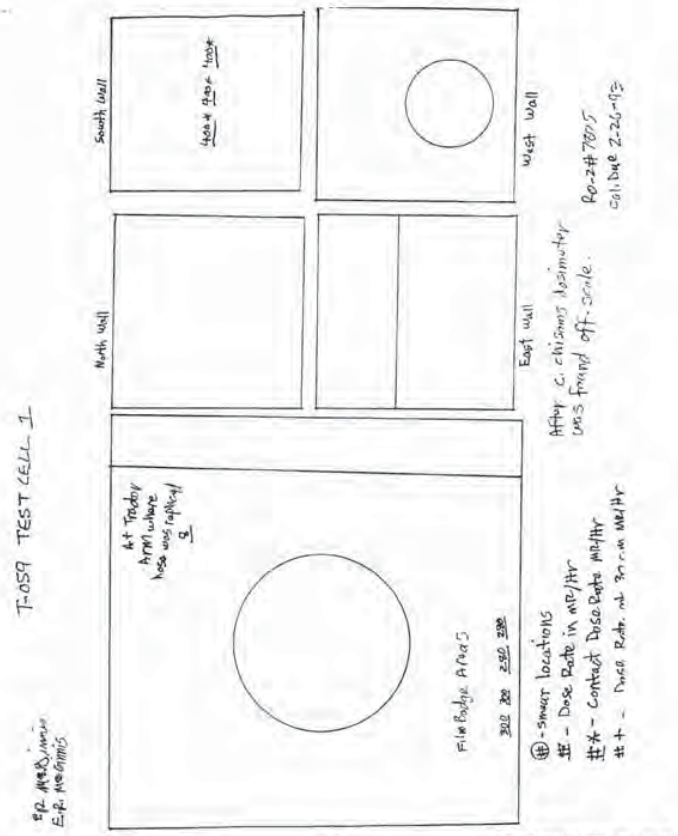


Figure 2. Elevation View – Building 059 Test Vault

D5117-3

BNA04233126

HDMSP001885730



BNA04233481

HDMSP001885758

ATOMICS INTERNATIONAL
A Division of North American Rockwell Corporation

SUPPORTING DOCUMENT

NUMBER	21-068-4-005
REV LTR	
DOCUMENT TYPE	Technical Information
PROGRAM TITLE	SNAP 8 Reactor Development Program
KEY NOUNS	S8DR, AIHL Screening Exam
DOCUMENT TITLE	S8DR Screening Examination Weekly Status Report #4 for Week Ending April 10, 1970
ORIGINAL ISSUE DATE	April 14, 1970
GO NO.	7759
S/A NO.	72160
PAGE 1 OF TOTAL PAGES	13
REL. DATE	12-15-70

ABSTRACT

The S8DR screening examination activities for the week ending April 10, 1970, are described.

PREPARED BY	DATE	DEPT/GRP NO.
A.F. Lillie	4-14-70	737-72 1845
A.V. Miller		2020

APPROVALS — DATE

4/14 70

WRMcCumin/AFL 4/14/70

SECURITY CLASSIFICATION

(CHECK ONE BOX ONLY)	AEC	DOD	(CHECK ONE BOX ONLY)	
UNCL.	☒	☐	RESTRICTED DATA	☐
CONF.	☐	☐	DEFENSE INFO.	☐
SECRET	☐	☐		

AUTHORIZED CLASSIFIER — DATE 4/14/70

DISTRIBUTION NAME	LOC	REV	SUMMARY OF CHANGE	APPROVALS AND DATE
G.G. Asquith	1202			
W.V. Botts	1805			
J.Z. Brunings	1241			
N.F. Davies	1345			
R.L. Detterman	1203			
E.W. Dusenberry	1404			
E.J. Donovan	1825			
R.E. Forrester	2020			
B.E. Gillies	1823			
J.D. Gylfe	1801			
R.E. Harris	Wash			
M.F. Heisler	1821			
O.R. Billig	7009			
J.E. Kinner	1225			
J.G. LeBlanc	1845			
A.E. Martin	1412		H. Strahl 1519	
J.G. Mason	1207		W.O. Sturtevant 2009	
W.R. McCumin	2020		L.D. Swenson 1825	
G.W. Meyers	8511		H.J. Tribfelner 1345	
J.R. Miller	1845		J.E. Van Osdol 1303	
R.E. Moore	1845		J.H. Walter 1325	
J.A. Moss	1802		R.O. Williams, Jr. 1223	
J.G. Parker, Jr.	1345		A.F. Wilson 1202	
W.E. Perkins	1411			
S. Pearlman	1344			
W.J. Roberts	1836			
J.H. Roecker	1219			
S. Siegel	1405			
R.H. Stump (26)	1439			

TITLE PAGE ONLY

FORM 764-C REV. 2-69

BNA04278484

HDMSP001888642

No.: 059-XT-0015, New
Date: April 8, 1992
Page: B-1

APPENDIX B

DRAWING 059-MI-0008, BUILDING 059 HEPA EXHAUST STACKS

BNA04390864

HDMSP001892679

BUILDING 4059

No.: 059-XT-0015, New
Date: April 8, 1992
Page: E-1

APPENDIX E

BUILDING 059 - HEPA UNIT 1 STACK AIR FLOW STABILIZER SKETCH

BNA04397926

HDMSP001892928

~~B. B. Gillies~~
~~737-93~~
~~Sec~~
File
ORR 5-2

INTERNAL LETTER
ATOMICS INTERNATIONAL
A Division of North American Aviation, Inc.

		DATE	November 16, 1966
TO	R.C. Petersen	FROM	G.W. Meyers
ADDRESS	799 Cano-2	ADDRESS	737-70 Cano-1
		PHONE	2166

SUBJECT: Subaccount 7695-35350, "Fatigue Testing Equipment"

REFERENCE: 1) Martin to Levy, "SNAP 8 Cladding Materials Program Recommendations," 66AT-5062, dtd Sept. 12, 1962

The subject account provides funding for four Rotating Beam Machines and six Fatigue Strip Machines. Although this subaccount has been opened, no charges can be made until the AEC approves the detail distribution between manpower and equipment. I hope this letter provides you with adequate information to obtain this approval.

I. Rotating Beam Test Machines

Eleven prospective suppliers were contacted and apprised of our specific requirements. Some of these suppliers can supply a standard testing machine which will meet our requirements. Typical deviations between the standard machines and our requirements are:

A. Cycle Rate. Most of the standard machines cycle at the rate of several hundred to thousands of cycles per minute. We are interested in cycle rates of 1 or 3 cycles per minute.

B. Specimen Configuration. All standard machines are based on testing bar material with a reduced test section so that the failure zone can be predetermined because the maximum bending moment location is known. We have a constant section thin wall tube which is sensitive to the method of loading.

C. Temperature-Atmosphere. Most standard machines are made for room temperature testing in air. We require elevated temperature, 1400°F, capability with an inert atmosphere purge.

However, four concerns, The Budd Company; Ormond Inc.; Riehle Testing Machine Division of Amsler, Inc.; and Aerpro & Bussey Company, Wiedemann Division, have shown interest in building a machine to meet our specifications. A specification to meet the requirements for testing unirradiated tubes described in reference (1) has been prepared and issued with a formal request for quotation for four of these machines. A copy of the specification is attached. The informal response we have had so far indicated the costs per machine will be in the range of $5000 to $6000, which is slightly higher than the estimate of $4500 given in reference (1).

BNA04689558

HDMSP001897923

D. E. Krupp

INTERNAL LETTER
ATOMICS INTERNATIONAL
A Division of North American Aviation, Inc.

		Date	September 23, 1966
TO Address	H. M. Dieckamp 797 C002	FROM Address	R. F. Wilson 715-51 C002
		Phone	1152

Subject: Schedule of SNAP 8 Fatigue Testing Samples of The AIHL

Reference: IL, W. E. Krupp/B. B. Gillies to G. W. Meyers, Same Subject, dated September 12, 1966

With the existing schedule of work at the AIHL, a testing of the SNAP 8 fatigue samples cannot be accommodated until about eight weeks after the desired start date of February 1, 1967. By rearranging the priorities for SNAP work at AIHL, i.e., first priority NAA-117-1, second priority SNAP 8 clad and fatigue, third priority SBER components, and fourth priority 10MW-3, the delay in start of work on the fatigue samples can be reduced from eight weeks to four weeks. In a brief discussion with B. Gillies, he indicated that the bulk of the interference in the November, December, January time period probably derives from Piqua work. In view of the Commission's interest and concern with the SNAP 8 fuel, I think a delay in obtaining data could be highly undesirable. I'd like to request that the AIHL properties be revised or modified so that the initial SNAP 8 fuels and fuel cladding work, including the testing work, can proceed on schedule, compatible both with our recommendations to the AEC (Ltr. 66AT-5062) and the Oak Ridge irradiation schedule.

H. F. Wilson
Program Manager
SNAP Reactor Programs

kjc

Attachment

cc: J. G. Asquith
B. B. Gillies
W. E. Krupp
D. G. Mason
G. W. Meyers
L. S. Mims

BNA04689579

HDMSP001897932

Internal Letter
Rockwell International

1-5-87
TO Those Listed

FROM K.T. Stafford
622-055-T038
X5332 (ETEC)

Authorization to Charge
L/A 29841 G.O. 95766 S/A 66200
Title: SNAP 8 Ground Prototype
Engineering + Test Support

Department 640 635 personnel are authorized to charge to the above referenced account for the month of January, 1987.

Dept.	Authorized Hrs.
640	16 hrs.
635	96 hrs.

0/635-103
Fuel Action - 95766
95767

KT Stafford
Program Manager
FACILITY Programs

cc: Program Administrator J. E. Brown T036
M. L. Schultz T038
J. E. Brown T036
J. H. Walter T006

BNA04794272

HDMSP001900799

BUILDING 4059

PLAN OF ACTION TO CORRECT E, H, & S PROBLEM

DATE PREPARED: 12-27-90 APPROVED: _____

FACILITY: 4059 Large Leak Test Rig POA No.: 059-2 PAGE 1 OF 7

PROBLEM DESCRIPTION

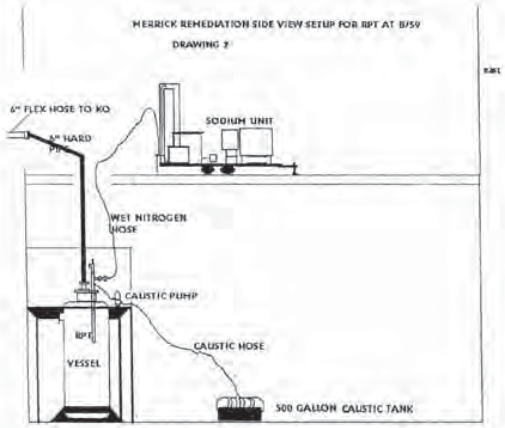
A FREON COOLING SYSTEM USED TO COOL KEROSENE IN SUPPORT OF THE SNAP REACTOR TEST PROGRAM REMAINS IN PLACE. THIS SYSTEM PRESENTS A POTENTIAL ENVIRONMENTAL HAZARD IF A LEAK SHOULD OCCUR. NO USE FOR THIS SYSTEM HAS BEEN IDENTIFIED IN THE NEAR OR FAR TERM PLANNING FOR THIS FACILITY. THIS THE DOOR SYSTEM (ALONG WITH HAZARDOUS SYSTEMS DESCRIBED IN POA-059-1) SHOULD BE REMOVED AND DISPOSED OF TO ELIMINATE THE POTENTIAL SPILL HAZARD.

CORRECTIVE ACTION TO BE TAKEN

VALVING IN THE SYSTEM SHALL BE ALIGNED TO COLLECT ALL FREON IN THE RECEIVER. THE SYSTEM SHALL BE STARTED AND FREON SHALL BE PUMPED TO THE RECEIVER. FREON THEN SHALL BE TRANSFERRED TO 55 GALLON DRUMS FOR DISPOSAL AS HAZARDOUS WASTE. THERMAL INSULATION HAS BEEN TESTED AND IT CONTAINS NO ASBESTOS (SEE ATTACHED LAB REPORT NO. 6461). THIS IT WILL BE DISPOSED OF AS NORMAL WASTE. TAGGED DOE EQUIPMENT AND INSTRUMENTATION WILL BE REMOVED AND SURVEYED. WATER TO THE WATER-COOLED CONDENSER WILL BE DISCONNECTED, PIPE UNIONS WILL BE REMOVED BACK TO THE SHUTOFF VALVES AND CAPPED, AND VALVES WILL BE DISABLED/CAPPED. THE CONDENSER, RECEIVER, AND COLLECTION TANK WILL BE REMOVED AND DISPOSED OF, AND CONNECTING PIPING WILL ALSO BE REMOVED AND DISPOSED OF. STRUCTURAL TUBULAR, HARDWARE, FIXTURES, AND PARTS WILL BE REMOVED AND DISPOSED.

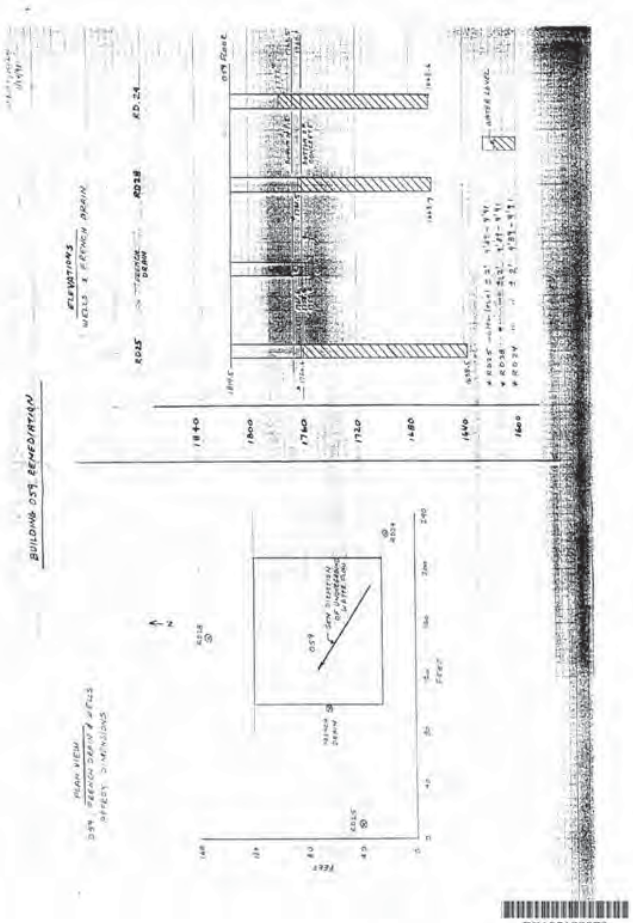
BNA05031373

HDMSP001902727



BNA05085304

HDMSP001903950



BNA05103878

HDMSP001904241

INTERNAL LETTER

ATOMICS INTERNATIONAL
A Division of North American Aviation, Inc.

DATE June 28, 1965

TO Those Listed
ADDRESS

FROM S. A. Marrone
ADDRESS 727-76
Canoga-5

PHONE 1685

SUBJECT NAA-SR-11492, SNAP 8 Quarterly Progress Report, May 1965 through July 1965

The next SNAP 8 Quarterly Progress Report will cover the actual period of April 13, 1965 to July 10, 1965. Please submit your contribution to the report to your reviewer on the date he specifies. The overall schedule is as follows:

Report period cut off	7/10/65	
Contribution to reviewer	7/15/65	
Sections to technical coordinator	7/20/65	(4 p.m. deadline)
To management review	7/26/65	
Report to technical writer	8/1/65	
To final approval	8/20/65	
To final layout	8/25/65	
To print shop	9/1/65	
Report to AEC	9/15/65	

Reviewers are responsible to assure delivery of all sections to me no later than 4:00 p.m. Tuesday, July 20, to permit sufficient time for processing the report. More time is being allowed for necessary technical writing processing. Sections reviewed earlier than July 20 should be forwarded as completed rather than be delayed for an accumulation. Contributions are to be neatly and clearly typed to permit rapid review by all concerned. "Paste up" copy and ditto masters are not acceptable.

The suggested outline noting contributors and reviewers is attached. Typical style and content suggestions are noted in Appendices B and C.

Your consistently excellent and timely report submittals deserve high commendation and have permitted early delivery of the draft to technical writing and issuance of the final report on schedule. Your continued cooperation is fundamental to achieving the noted schedules.

S. A. Marrone
S. A. Marrone
Senior Project Staff Engineer
Reactor Programs

dvw

Encl: Appendices A, B, C

cc: Attached

BNA05147760

HDMSP001905276

BUILDING 4059

T. H. LaVelle
727-73
Sen Su 038

INTERNAL LETTER
ATOMICS INTERNATIONAL
A Division of North American Aviation, Inc.

DATE: June 18, 1965

TO ADDRESS: Those Listed

FROM ADDRESS: D. G. Mason
727-76
AI/Canoga-5

PHONE: 531

SUBJECT: FY 1966 SNAP 8 Subaccounts

Enclosure (1) lists the FY 1966 SNAP 8 subaccounts together with anticipated operating budgets, anticipated equipment budgets, Project Engineer assignments, and assignment of subaccounts to Group Leaders where appropriate. Enclosures(2) through (4) list the FY 1965 SNAP 8 subaccounts which are being transferred to other programs. Carry-over costs on these subaccounts will be borne by the SNAP Reactor Improvement Program, Aerospace Safety Program and General Supporting Technology as indicated in Enclosures (2) through (4). Enclosure (5) lists FY 1965 SNAP 8 subaccounts which were closed during this fiscal year.

Group Leaders, as assigned in Enclosure (1), are responsible to the Project Engineer for the technical direction, budgetary control, and schedule of those assigned subaccounts. In order to carry out these responsibilities, Group Leaders are responsible for the preparation of work releases and PERT networks for the approval of the cognizant Project Engineer. The work releases and the PERT networks must be integrated for each subaccount. Where no current PERT network is available, a work release, limited in scope and covering only continuation of work underway, shall be prepared as a temporary stop-gap until a PERT network is formulated. Assigned Group Leaders may authorize out-of-plant expenditures up to the limit of EDACTE as specified in Management Bulletin No. 26, without prior project approval.

For those subaccounts with no assigned Group Leader, the Project Engineer is responsible for the preparation of the work releases and the PERT networks where applicable.

Formal AI technical documentation, i.e., documents having an assigned number, require the approval of the Project Engineer prior to release. Reactor (SBRN, SBDRM-1, SBDS) test program specifications require the approval of the Chief Project Engineer.

D. G. Mason
Senior Project Engineer
SNAP 8

DGM:fl

Enc. 1 through 5

BNA05147768
HDMSP001905283

INTERNAL LETTER
ATOMICS INTERNATIONAL
A Division of North American Aviation, Inc.

DATE: March 29, 1965

TO ADDRESS: M. A. Harten
727-72
AI/Cano-5

FROM ADDRESS: T. H. LaVelle
723-34
AI/SanSu-038

PHONE: 6231

SUBJECT: NAA-SR-11092, SNAP 8 Quarterly Progress Report, February 1965 through April 1965

Attached is the SBDRM-1 Testing Section of the SNAP 8 Quarterly Progress Report for the period of February through April, 1965.

T. H. LaVelle
Reactor-Shield Nonnuclear Test Unit
Reactor-Shield and Component
Qualification Group
Reactor Development Department

THLinan

Approved: R. A. Dutton
R. A. Dutton

cc: A. Caruvana 727-73 AI/Cano-5
W. C. Sturtevant 723-34 AI/Cano-5
C. E. Johnson 727-73 AI/Cano-5
M. H. Slater 727-72 AI/Cano-5

Encl. NAA-SR-11092 SNAP 8 Quarterly Progress Report, Testing Section, February through April, 1965

BNA05147811
HDMSP001905313

INTERNAL LETTER
ATOMICS INTERNATIONAL
A Division of North American Aviation, Inc.

DATE: January 18, 1965

TO ADDRESS: M. A. Harten
727-72
Canoga-5

FROM ADDRESS: A. Caruvana
727-73
Canoga-5

PHONE: 622

SUBJECT: NAA-SR-10792, SNAP 8 QUARTERLY PROGRESS REPORT, NOVEMBER 1964 TO JANUARY 1965

Enclosure (1) is the SBDRM-1 Testing Section of the subject report. This report covers work accomplished on G.O. 7368 S/A's 32292 and 32293 from November 1964 to January 1965.

A. Caruvana, Supervisor
Assembly and Non-Nuclear Acceptance Test Unit
SNAP 8 System Development Group

/ge

Enclosure

DISTRIBUTION

	J. E. Bird	727-73	Canoga-5
	G. W. Buhler	727-73	Canoga-5
	J. G. Curry	727-73	Canoga-5
	R. A. Dutton	723-34	SanSu-38
This Copy For →	T. H. LaVelle	723-34	SanSu-38
	E. C. Lee	727-73	Canoga-5
	C. E. Johnson	727-72	Canoga-5
	M. H. Slater	727-73	Canoga-5
	J. S. Sprouse	727-73	Canoga-5
	W. C. Sturtevant	723-34	Canoga-5

BNA05147847
HDMSP001905320

INTERNAL LETTER
ATOMICS INTERNATIONAL
A Division of North American Aviation, Inc.

DATE: September 28, 1964

TO ADDRESS: J. Ramsey
798
Canoga-2

FROM ADDRESS: A. Caruvana
727-73
Canoga-5

PHONE: 2404

SUBJECT: Shift Assignments for SNAP 8 Assembly and Qualification Unit

The SNAP 8 Assembly and Qualification Unit commenced a three-shift, five day a week, eight and one-half hour shift schedule effective midnight (2400), August 9, 1964:

Mr. Hogan and Mr. Hamberlin are new transferees to the SNAP 8 Assembly and Qualification Unit. They will be assigned to the following shift: (Effective: 10-4-64)

First Shift - 0800 to 1650

L. E. Hamberlin

T. D. Hogan

A. Caruvana, Supervisor
Assembly and Qualification Unit
SNAP 8 System Development Group

/ge

dc:	C. J. Baker	727-73	Cano-5
	R. A. Dutton	723-34	SanSu-38
	M. A. Harten	727-73	Cano-5
	J. M. Hess	751	Cano-5
	E. C. Lee	727-73	Cano-5
This Copy For →	T. H. LaVelle	727-73	SanSu-38
	H. D. Mjellem	760	Cano-5
	M. H. Slater	727-73	Cano-5

BNA05147904
HDMSP001905333

BUILDING 4059

INTERNAL LETTER
ATOMICS INTERNATIONAL
A Division of North American Aviation, Inc.

DATE: September 15, 1964

TO ADDRESS: R. Holland, 798, Canoga-2

FROM ADDRESS: A. Caruvana, 727-73, Canoga-5

PHONE: 2404

SUBJECT: SHIFT ASSIGNMENTS: SNAP 8 ASSEMBLY & QUALIFICATION UNIT

The SNAP 8 Assembly and Qualification Unit commenced a three-shift, five days a week, eight and one-half hour shift schedule effective at midnight (2400) on August 9, 1964.

Shift assignments are as follows:

First Shift (0800-1650)	Second Shift (1600 - 2450)	Third Shift (2400-0850)
W. C. Fleishman Clock 1706	N. W. Heath Clock 2701	R. L. Schumacher Clock 3701
D. W. Armstrong Clock 0054	M. G. Richardson Clock 2001	M. L. Mead Clock 3001

In order to allow personnel to attend night school sessions, the following shift changes will be effective Sunday, September 20, 1964:

First Shift	Second Shift	Third Shift
W. C. Fleishman	R. L. Schumacher	N. W. Heath
D. W. Armstrong	M. L. Mead	M. G. Richardson

Personnel are expected to work eight and one-half hours with no scheduled lunch period. Time will be allotted for lunch as test operations allow.

A. Caruvana, Supervisor
Assembly & Qualification Unit
SNAP 8 System Development Group

AC:gc

dc:

C. J. Baker	727-73	Cano-5	T. H. LaVelle	727-73	SanSu-38
R. A. Dutton	723-34	SanSu-38	H. D. Mjellem	760	Cano-5
M. A. Harten	727-72	Cano-5	J. Ramsey	798	Cano-2
J. M. Hess	751	Cano-3	M. H. Slater	727-73	Cano-5
E. C. Lee	727-73	SanSu-38			

BNA05147905
HDMSP001905334

INTERNAL LETTER
ATOMICS INTERNATIONAL
A Division of North American Aviation, Inc.

DATE: August 24, 1964

TO ADDRESS: J. Ramsey, 798, Cano-2

FROM ADDRESS: A. Caruvana, 727-73, Cano-5A

PHONE: 2404

SUBJECT: OVERTIME AUTHORIZATION

REFERENCE: 1) IL from A. Caruvana to R. Holland dated 8-17-64, "Shift Assignments for SNAP 8 Assembly and Qualification Unit"

The SNAP 8 Assembly and Qualification Unit is presently on a three-shift, five-day-week work schedule (Reference 1). An ATP is assigned as the lead technician responsible for each of the three shifts. During the week of August 23, 1964 to August 30, 1964 one of the ATP's (N. W. Heath) was scheduled for vacation. In order to provide continuous shift coverage, it was necessary to assign the remaining two ATP's to a twelve and one-half (12.5) hour shift. The nature of the testing program dictates that the personnel involved eat lunch as time permits. Consequently, it is requested that the following be paid for the full twelve and one-half (12.5) hour shift:

NAME	CLOCK NO.	SHIFT (AI Clock Time)
R. L. Schumacher	727-3701	2400 - 1250
W. C. Fleishman	727-1706	1200 - 2450

The above schedule results in each of the two individuals having to work a sixty-two and one-half (62.5) hour week. However, due to the lack of qualified personnel, we could not limit the subject personnel to a sixty (60.0) hour week.

A. Caruvana, Supervisor
Assembly and Qualification Unit
SNAP 8 System Development Group

/gc

dc:

W. C. Fleishman	727-73	SanSu-062
M. A. Harten	727-72	Cano-5
R. Holland	798	Cano-2
C. E. Johnson	727-72	Cano-5
T. H. LaVelle	727-73	SanSu-038
R. L. Schumacher	727-73	SanSu-062
M. H. Slater	727-73	Cano-5
E. R. White	751	SanSu-011

BNA05147911
HDMSP001905336

La Velle

INTERNAL LETTER
ATOMICS INTERNATIONAL
A Division of North American Aviation, Inc.

DATE: June 2, 1964

TO ADDRESS: Those Listed

FROM ADDRESS: H. G. Meyer, 727-74, AI/Canoga-5

PHONE: 1362

SUBJECT: SNAP 8 Structural Design Criteria

Since there has been a certain amount of confusion concerning the use of the terms "Factor of Safety" and "Margin of Safety" in structural analysis of the SNAP 8, these terms are herein explained.

A "Factor of Safety" is a number that is used to take into consideration variation of material properties, lack of experimental data on environmental effects, analysis limitations, etc. Even when static loads and Hooke's law can be assumed, the theory of elasticity has its limitations, and only approximate stress values are determined in some instances. The designer must keep in mind the above effects and limitations and choose his Factor of Safety accordingly. A Factor of Safety can correctly be called a "factor of ignorance."

In the case of the SNAP 8, we are using two factors of safety; one is 1.4 based on the ultimate or creep strength of the material in question and 1.15 based on the yield strength of the material. The operating load when multiplied by these numbers equals the design load based on ultimate strength and yield strength, respectively. For example, the operating pressure of the SNAP 8 core vessel is 50 psia and the design pressure on ultimate is 70 psia and on yield is 57.5 psia.

The "Margin of Safety" is the percentage by which the ultimate strength or yield strength of a member exceeds the design load. The Margin of Safety (M.S.) is calculated as follows:

$$M.S._{ultimate} = \frac{F_u - f_u}{f_u} = \frac{F_u}{f_u} - 1$$

$$M.S._{yield} = \frac{F_y - f_y}{f_y} = \frac{F_y}{f_y} - 1$$

BNA05147939
HDMSP001905349

La Velle

INTERNAL LETTER
NORTH AMERICAN AVIATION, INC.

DATE: May 20, 1964

TO ADDRESS: SNAP 8 Assembly & Qualification Unit

FROM ADDRESS: A. Caruvana, 727-73 Canoga 5

PHONE: 1646

SUBJECT: SNAP 8 Component Malfunction Reports

This IL confirms the requirements for a component malfunction report. It is essential that pertinent information regarding component malfunctions that occur during acceptance testing or qualification testing be disseminated to the SNAP 8 project in an expeditious manner. This information is essential to the SNAP 8 Designers and Component Development Personnel so that they may evaluate the cause of the malfunction and correct for it in the design and development of subsequent components and systems.

Form 707-B, Data Report, is to be used for reporting malfunctions (see attached copy). All reports are to be submitted to the unit supervisor not later than seventy two (72) hours after the malfunction has occurred. All reports will be prepared in accordance with Appendix "A" of NR 7550-05, Rev. A, dated September 19, 1962.

A. Caruvana, Supervisor
Assembly & Qualification Unit
SNAP 8 System Development Group

AC/clu

dc:

L. F. Baumeister	727-74	Canoga 5
D. J. Cockeram	720-10	Canoga 5
C. A. Goots	727-74	Canoga 5
M. A. Harten	727-72	Canoga 5
C. E. Johnson	727-72	Canoga 5
L. M. Maki	727-74	Canoga 5
D. G. Mason	727-72	Canoga 5
T. S. Nakae	723-30	Canoga 5
H. F. Newman	720-10	Canoga 5
G. W. Rivenbark	727-72	Canoga 5
M. H. Slater	727-73	Canoga 5

SNAP 8 Design Integration Unit

BNA05147942
HDMSP001905352

BUILDING 4059

INTERNAL LETTER
NORTH AMERICAN AVIATION, INC.

DATE: April 5, 1964

TO: R. Barney
ADDRESS: 782-22
AI/FB-L8

FROM: A. Caruvana
ADDRESS: 727-73
AI/Canoga-5

PHONE: 1646

SUBJECT: Special Tools Required for the SNAP 8 Assembly and Qualification Unit.

Reference: IL, R. A. Edman from A. Caruvana, same subject, dated 3-5-64.

Per our discussion on 4-1-64 concerning the special tools that will be required by my unit I have investigated the availability of the remaining tools that were not purchased. A list of those tools follows:

SEQ	ITEM	QUANTITY ORDERED	UNIT	CATALOG NUMBER	DESCRIPTION
4	[illegible]	1	ea.	TR 1	Torque Wrench, 0-15 in-lb-SNAPON
5	2	1	ea.	S-57	Torque Wrench, 20-200 ft-lb-WILTAMS
[illegible]	1	1	ea.	254	Height Gauge, 24 inch-STARRETT
5	4	1	ea.	TQ-12-XL	Torque Wrench, 0-150 inch-lb-SNAPON
6	5	1	ea.	T-436-BL	Micrometer, 1-2 inch, w/case-STARRETT
[illegible]	6	1	ea.	T 436-BL	Micrometer, 2-3 inch, w/case-STARRETT
[illegible]	7	1	ea.	123	Vernier Caliper, 12 in-STARRETT
8	8	4	ea.	9150	Parallels, 2 x 1 x 12 inch
[illegible]	9	1	pair	9133	5 inch V-blocks-TAFT PEIRCE

The availability of these tools is as follows:

Items 1 and 4 are available for use in building 062 (SS) or on a day to day basis when not in use by Dept. 723.

Items 2,3 and 8 are not available in this area (Bldgs. 062,057 or 011 tool crib).

Items 5 and 6 are available from Bldg. 011 tool crib for a maximum period of 5 days with special permission.

Items 7 and 9 are available from Bldg. 011 tool crib on a day to day basis only. They are subject to recall for use by the machine shop.

BNA05147959
HDMSP001905361

INTERNAL LETTER
NORTH AMERICAN AVIATION, INC.

DATE: March 6, 1964

TO: E. W. King
ADDRESS: 763
AI/SanSu-038

FROM: A. Caruvana
ADDRESS: 727-73
AI/Canoga-5

PHONE: 1646

SUBJECT: Equipment Required for the SNAP 8 Assembly and Qualification Unit - D/727-73

Storage facilities for our unit are extremely poor. At the present time most of our spare parts, special vacuum equipment, chart paper, special instruments, etc., are stored in cardboard boxes which are piled in various areas in Bldg. 062. Several items have already been "lost" because of the cardboard box storage method. Because of the present means of storage, the attached PEWR lists 4 storage cabinets which shall be sufficient for present and projected needs. Also on the PEWR is a roll-a-way and tool box for our unit. Due to the fact that the SSDRM-1 is not permanently located in one building, this equipment is urgently needed to store and handle the special tools and equipment for work in areas other than Bldg. 062. If the special tools (micrometers, vernier calipers, jo-blocks, etc.,) were just put in standard tool boxes along with the rest of the normal hand tools (wrenches, hammers, etc.) the accuracy of the special tools would soon be lost for they cannot tolerate any abuse. The roll-a-way and tool box that are requested are deemed adequate to preserve the integrity and accuracy of the special tools for our unit.

To maintain existing work schedules and properly store fragile equipment, it is necessary that the attached request form be processed immediately.

A. Caruvana, Supervisor
Assembly & Qualification Unit
SNAP 8 System Development Group

AC:TEL:jp
Attachment: PEWR

cc: M. H. Slater
Assembly & Qualification Unit

BNA05147975
HDMSP001905365

INTERNAL LETTER
NORTH AMERICAN AVIATION, INC.

DATE: March 5, 1964

TO: R. A. Edman
ADDRESS: 774-40
AI/Canoga-1

FROM: A. Caruvana
ADDRESS: 727-73
AI/Canoga-5

PHONE: 1646

SUBJECT: Special Tools Required for the SNAP 8 Assembly and Qualification Unit

Reference: IL from A. Caruvana to R. A. Edman, "Hand Tools for the SNAP 8 Assembly and Qualification Unit", 1-9-64.

Since the July, 1963 reorganization of the Reactor Development Department, the SNAP 8 Assembly and Qualification Unit has been totally dependent upon the SNAP 10A/2 Reactor Qualification Unit for storage facilities and special tools. Just a short while ago, our unit received its own supply of hand tools (see reference), as we were dependent upon the 10A/2 group for those also. The attached 11-V lists the special tools that are required for the assembly and testing of the SSDRM-1 by our unit. Since there is no group at the Santa Susana facility that has these tools, it is imperative that the tools listed on the 11-V be purchased for our unit.

A. Caruvana, Supervisor
Assembly & Qualification Unit
SNAP 8 System Development Group

AC:TEL:jp

cc: M. H. Slater
Assembly & Qualification Unit

BNA05147976
HDMSP001905366

INTERNAL LETTER
NORTH AMERICAN AVIATION, INC.

DATE: January 9, 1964

TO: R. A. Edman
ADDRESS: 774
AI/Canoga-1

FROM: A. Caruvana
ADDRESS: 727-73
AI/Canoga-5

PHONE: 1646

SUBJECT: Hand Tools for the SNAP 8 Assembly and Qualification Unit

Since the July, 1963 reorganization of the Reactor Development Department, the SNAP 8 Assembly and Qualification Unit has been totally dependent upon the SNAP 10A/2 Reactor Qualification Unit for the supply of hand tools required for qualification testing of SNAP 8 reactors. This situation has caused delays in work schedules to both units, in addition to minor inconveniences.

During the interim period, both unit's work loads have increased significantly enough to compound the problem. The tools requested on the attached 11-V's will help eliminate past work delays and expedite qualification testing of SNAP 8 and SNAP 10A/2 reactors.

A. Caruvana, Supervisor
Assembly & Qualification Unit
SNAP 8 System Development Group

AC/dww
Encls: 7 11-V-1's
cc: C. J. Baker 727-73 Canoga-5
R. A. Dutton 723-34 SanSu-038
N. W. Heath 727-73 SanSu-062
T. H. LaVelle 727-73 SanSu-059
D. G. Mason 727-72 Canoga-5
M. H. Slater 727-73 Canoga-5

BNA05148010
HDMSP001905381

BUILDING 4059

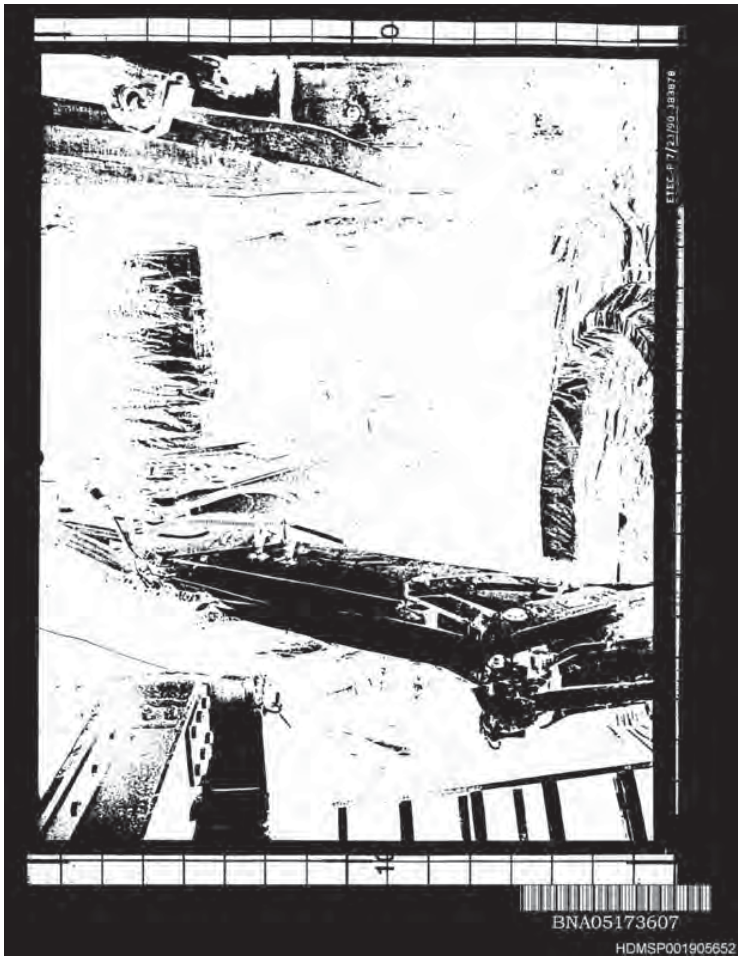
TO: M. H. Slater
FROM: A. Caruvana
DATE: September 5, 1965
SUBJECT: Disposition of SNAP 3 Assembly and Qualification Equipment and Materials

DISTRIBUTION

C. J. Baker	727-73 SS-038
F. W. Dudley	723-63 EQ-2
C. A. Dwyer	723-53 SS-038
J. B. Foltz	723-55 EQ-5
B. J. Gilmore	727-70 EQ-5
N. H. Hersh	727-73 SS-052
C. T. Johnson	727-72 EQ-5
M. A. Lallinger	727-73 SS-038
D. G. Mason	727-72 EQ-5
D. A. McGee	723-85 SS-2
G. W. Rivenbark	727-72 EQ-5
W.C. Sturtevant	723-54 EQ-5
T. D. McCalla	720-10 EQ 5
L. N. Maki	727-74 EQ 5

BNA05148019
HDMSP001905382

BNA05173606
HDMSP001905651



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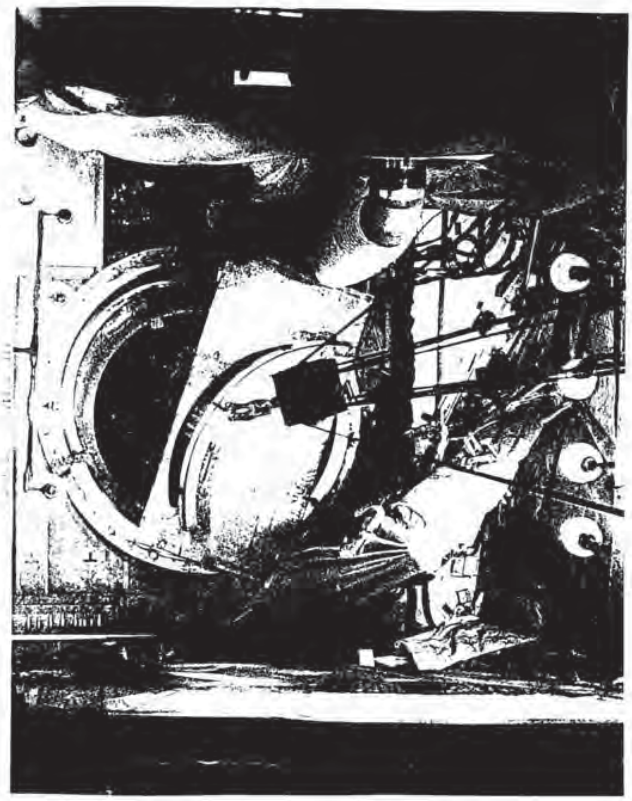
HDMSP001905652

BNA05173608
HDMSP001905653

BUILDING 4059



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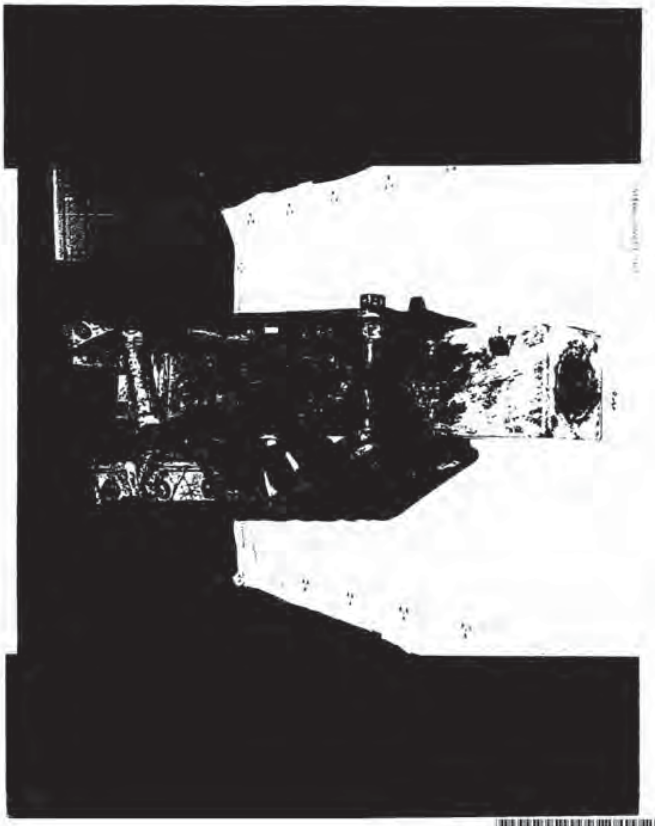

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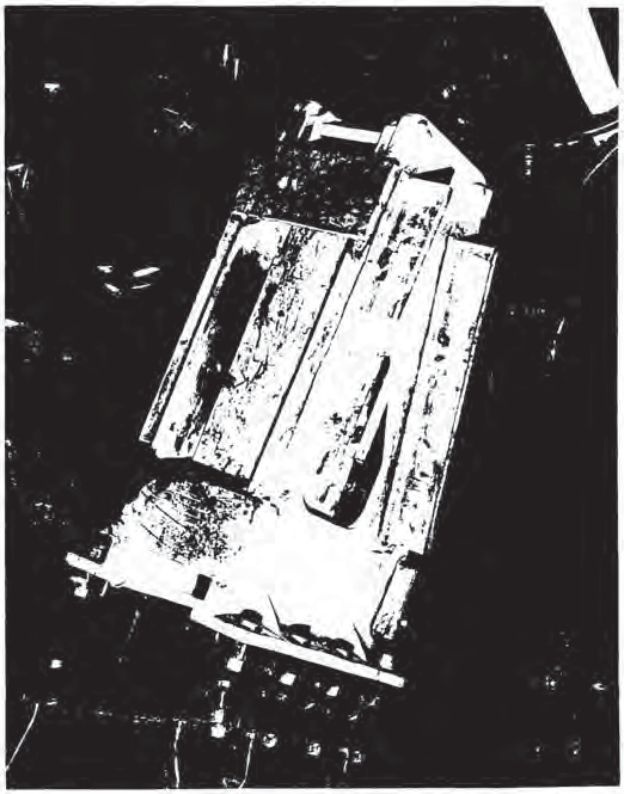
BNA05173614

HDMSP001905659

BNA05173615

HDMSP001905660

BUILDING 4059



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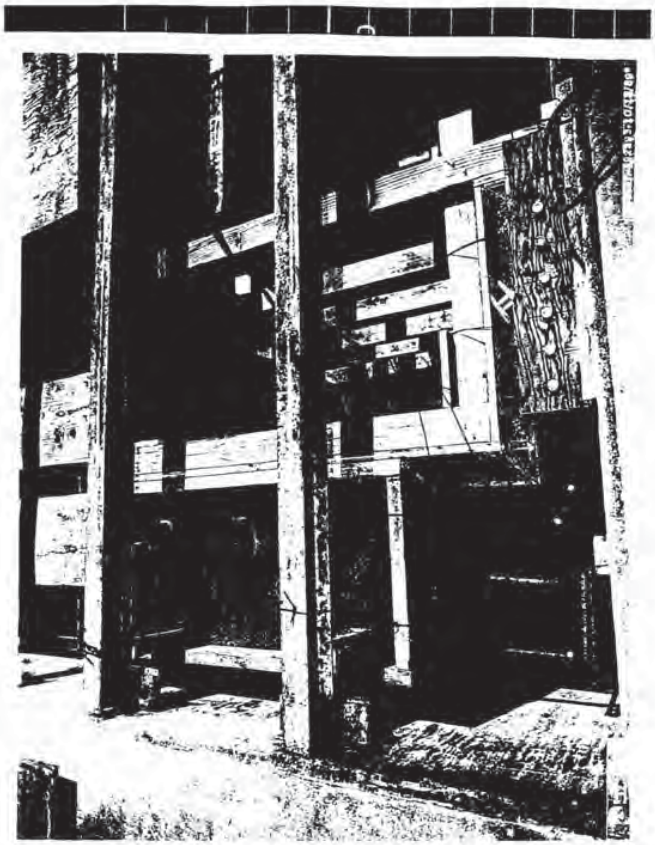
BNA05173617

HDMSP001905662

BNA05173619

HDMSP001905664



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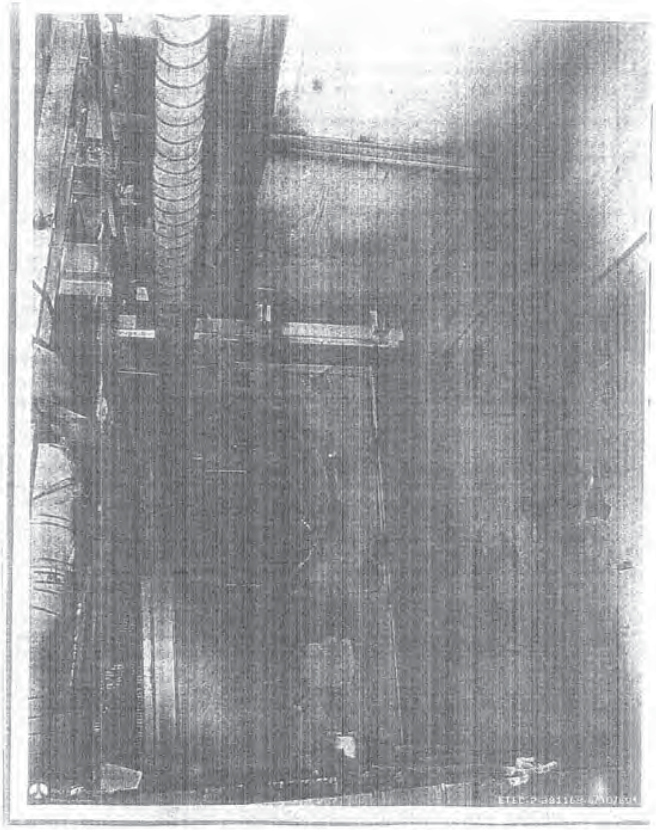
HDMSP001905666

BUILDING 4059



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BNA05173625

HDMSP001905668

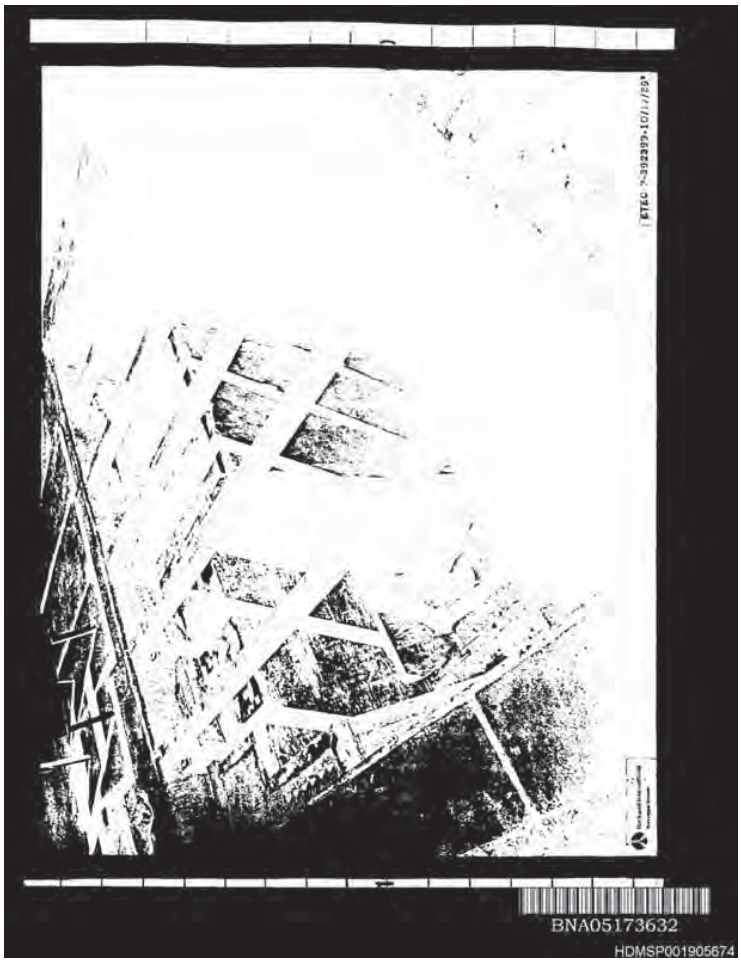
BNA05173628

HDMSP001905671

BNA05173631

HDMSP001905673

BUILDING 4059



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HDMSP001905674

BNA05173635

HDMSP001905677

BNA05173638

HDMSP001905680

BNA05173644

HDMSP001905686

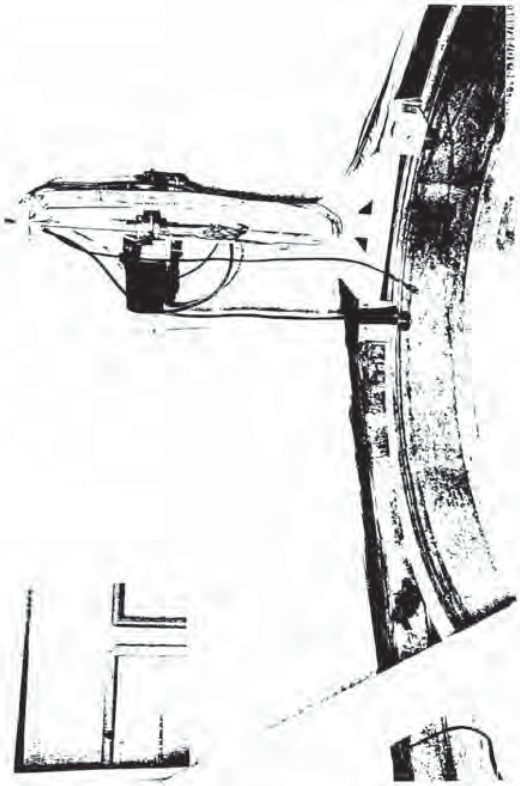
BUILDING 4059

BNA05173646

HDMSP001905687

BNA05173658

HDMSP001905695



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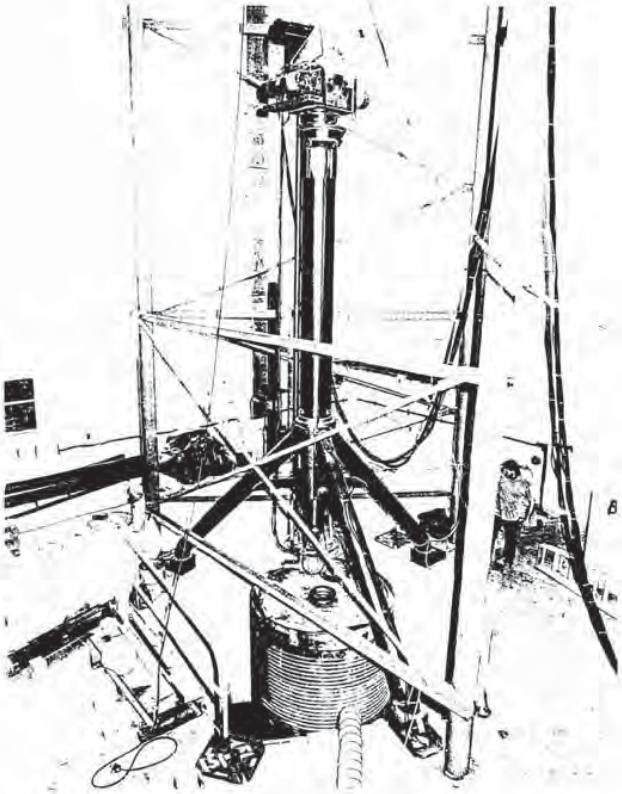

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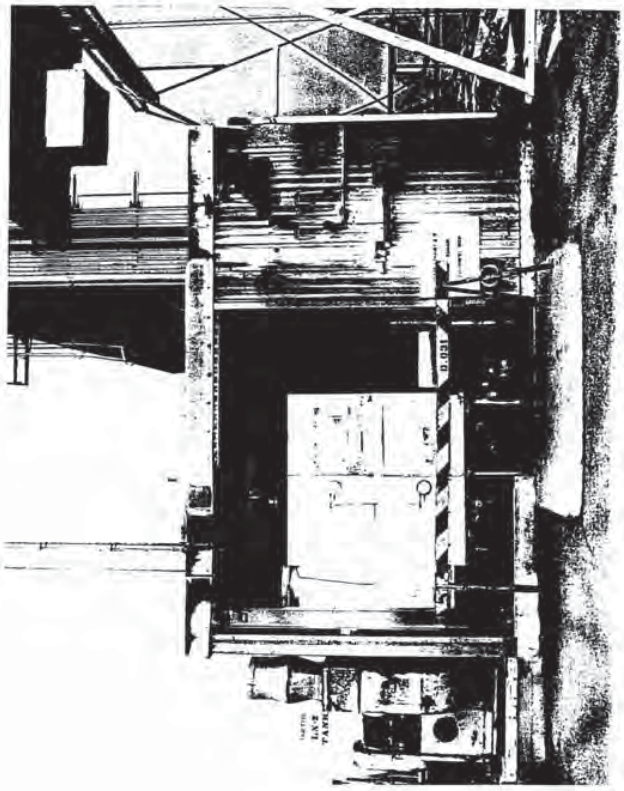
HDMSP001905703

BUILDING 4059



BNA05227361

HDMSP001906664

~~Government [illegible] to [illegible]~~
~~[illegible]~~

SNAP 8 Test
Building TU59
Probably Gen 8, DOE
Defense Programs

Grand Hog
Mitchum Canyon

How wet or wet, or how dry or dry
Pump out of sand pit using slurry pump or similar device

Sand - wet, to be dried - how dry
Ship holds around 100 cubic yards = assume 8 dumpers
= @ 20 ft³ per load
= 160 ft³

Steel - Conduit, duct, 5" diameter x 3/16" wall (ie Vacuum duct & supports)
(~~[illegible]~~) to simulate spent) 30'x40' x 50' deep
Sewer ~~[illegible]~~ at outset = assume 2 325 lots plus 10 drums
= 325 ft³ of steel

Per Sample data / John Moore

DRY SAND 100% Co 60
3.7 μCi / 768 grams (off top) (4.8×10^{-3})

WET SAND 90% Co^{60} 0.8 μCi
10% Eu 1.4 μCi
} 769 grams (1×10^{-3})

BNA05264719

HDMSP001907113

REPORT OF FOUNDATION INVESTIGATION
PROPOSED SNAP 8 SYSTEMS TEST FACILITY
AND
A.E.C. EXPANDED AREA SOILS SURVEY
SANTA SUSANA, CALIFORNIA

SCOPE

This report presents the results of our foundation investigation for the proposed SNAP 8 Systems Test Facility and of the A.E.C. Expanded Area. A Plot Plan of the site is shown on Plate 1. The shaded areas shown on the Plot Plan indicate the areas where the proposed buildings are to be constructed. The boxed numbers shown in the shaded portions of the Plot Plan will be used throughout this report to designate the various areas. The location of Area 059 was obtained from Atomics International Drawing No. 8C1-91001-REV.1. The tentative locations of the other Areas (056, X015, X016, X017, X057, X038) were supplied by Mr. Ben Neff of The Ralph M. Parsons Company.

The purpose of our investigation was to perform the field explorations and laboratory testing necessary to develop the following information:

1. The subsurface conditions at the site, including the depth to ground water, if any.
2. The recommended foundation type.
3. Design data for the foundation type selected, including bearing values to be used for footings on compacted fills, natural soils, and bedrock.
4. The estimated settlements of the foundations.

DAMES & MOORE
APPLIED EARTH SCIENCES

BNA05393814

HDMSP001910697

REPORT OF FOUNDATION INVESTIGATION
PROPOSED SNAP 8 SYSTEMS TEST FACILITY
AND
A.E.C. EXPANDED AREA SOILS SURVEY
SANTA SUSANA, CALIFORNIA

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4. The estimated settlements of the foundations.

DAMES & MOORE
APPLIED EARTH SCIENCES

BNA05393829

HDMSP001910711

BUILDING 4059

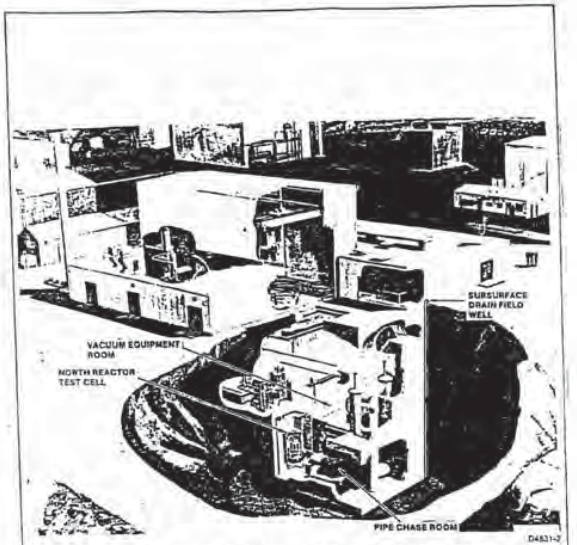

Figure 1. Artist's Conceptual Drawing of Building 059

BNA05475695

HDMSP001911355

LORD ELECTRIC COMPANY, INC.
6515 SUNSET BOULEVARD
LOS ANGELES 28, CALIFORNIA

SNAP - 8

Division E-3

Process Electrical Work

FINAL SUBMITTAL

BNA05478270

HDMSP001911804

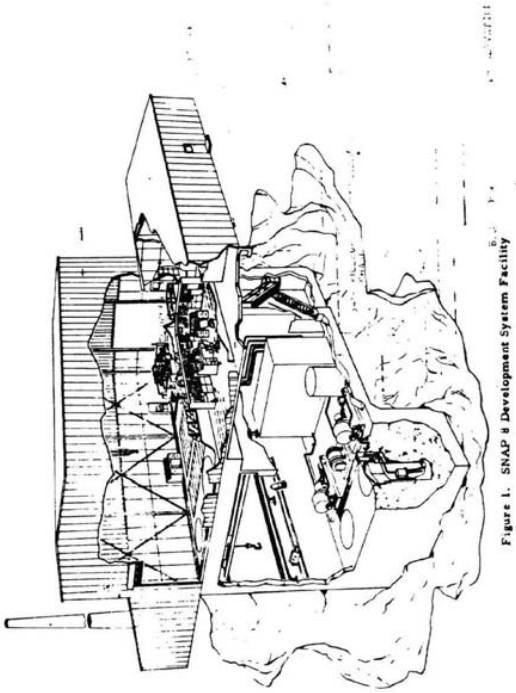

Figure 1. SNAP 8 Development System Facility

BNA05515426

HDMSP001912835

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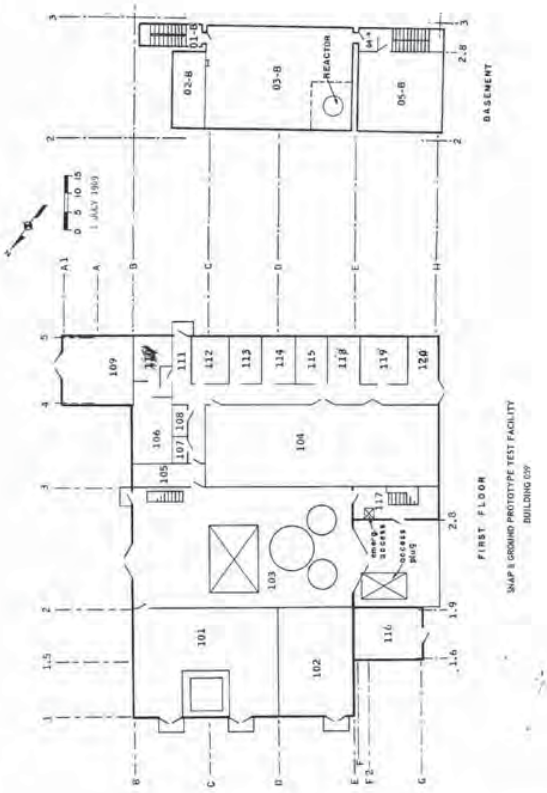
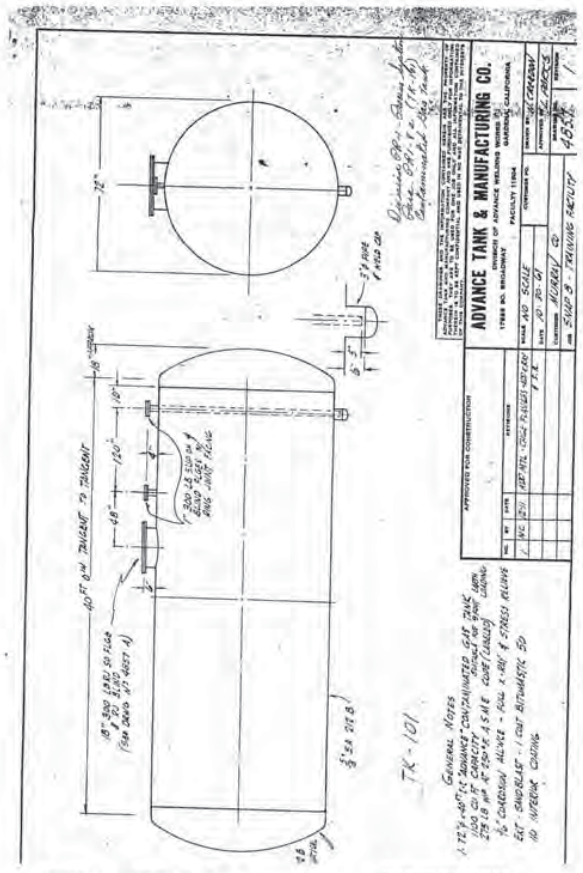


BNA05897754

HDMSP001919883

BUILDING 4059



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United States District Court for the
Central District of California, No. CV 971554

BNA06143754

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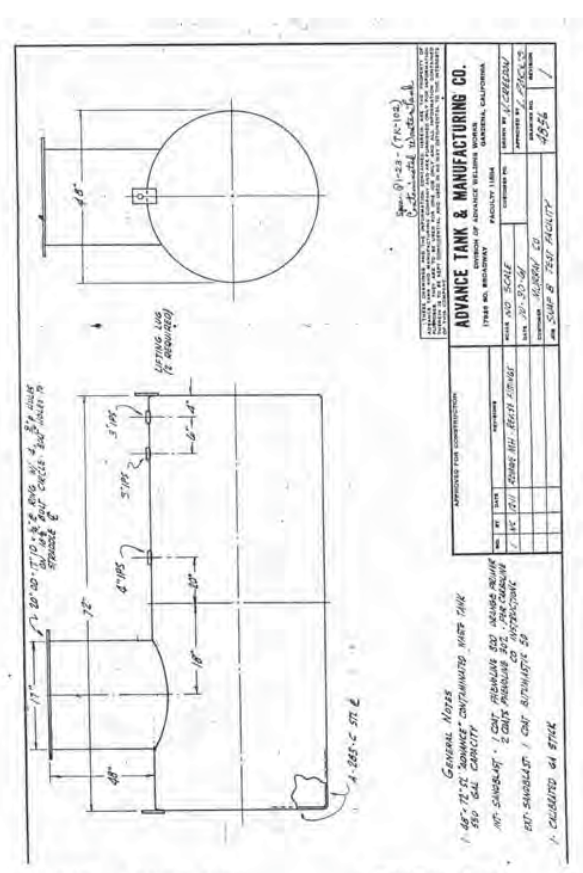

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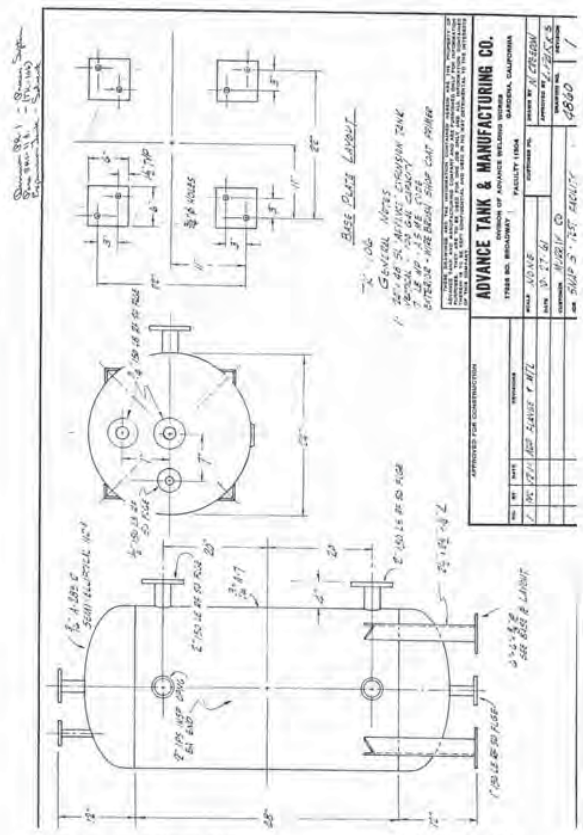

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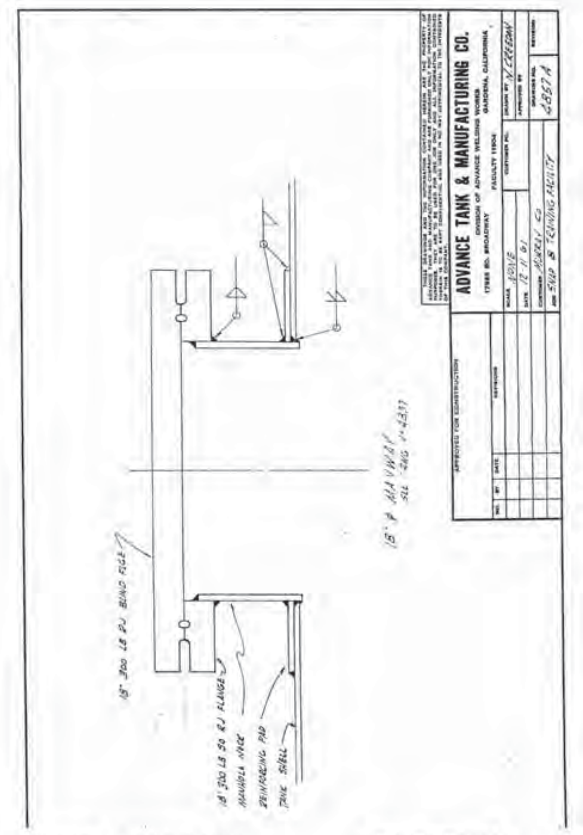

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United States District Court for the
Central District of California, No. CV 971554

BNA06143757

HDMSP001927186

BUILDING 4059

LaVelle

NAA-SR-MEMO_____

PAGE_____ OF_____

HIGHLIGHTS FOR SNAP 8 ASSEMBLY & QUALIFICATION UNIT

FOR THE WEEK ENDING MARCH 20, 1964

The commencement of the "Initial Survey for Shock and Vibration Testing of the S8DRM-1" test is still contingent upon delivery of the following items:

1. Re-entry Band (8DRM-1-11111)
2. Destruct mechanism and associated hardware.
3. Receipt of an E.O. for the modification of the 2-position sensor connectors.

Fabrication of the destruct mechanism was completed. The item must be inspected prior to assembly into the system.

An E.O. was received for the modification of the core vessel head upper clamping fixture. This modification will be performed next week.

Work was initiated to verify that the neutron shield pressure transducer installation is leak tight. The transducer will read-out the internal pressure of the neutron shield during environmental testing of the S8DRM-1. An amplifier was obtained for the purpose of amplifying the read-out of the pressure transducer in the low range. A checkout of the integrated system is being performed.

National Research Corporation (NRC) is still reviewing their plating methods. Any further action concerning delivery of the 16" diffusion pump is dependent upon this review.

A Brush Instrument Company representative modified the events recorder and a final checkout of this instrument will be made during operational checks of all of the instrumentation. The brass fittings on the neutron shield and position sensor thermocouple feed-throughs were replaced with stainless steel fittings. This was done to prevent the possibility of zinc outgassing during vacuum testing.

Work was started on the cutting of cams for the temperature programmers to be used during the "hot" performance record test.

Layout drawings for the new core vessel heat simulator have been started.

CONFIDENTIAL LEVEL II – UNDER PROTECTIVE ORDER
United States District Court for the
Central District of California, No. CV 971554

BNA06648257

HDMSP001930278

LaVelle

NAA-SR-MEMO_____

PAGE_____ OF_____

HIGHLIGHTS FOR THE SNAP 8 ASSEMBLY AND QUALIFICATION UNIT

FOR THE WEEK ENDING March 13, 1964

The cathotometer mounts have been installed on the S8DRM-1 vacuum chamber view ports. The commencement of the "Initial Survey for Shock and Vibration Testing of the S8DRM-1" test procedure is still contingent upon delivery of the following items:

1. Re-entry Band (8DRM1-11111)
2. Destruct mechanism and associated hardware.
3. Roll pins for ejection spring bosses.
4. Receipt of an E.O. for the modification of the 2-position sensor connectors.
5. Receipt of an E.O. for the modification of the core vessel head lower clamping fixture.

The stand-off shims (8DRM1-11208) were received and installed.

Brackery was designed, fabricated and installed on the neutron shield load ring for the attachment of the shield pressure transducer. The transducer will read-out the internal pressure of the neutron shield during shock and vibration testing. The internal wiring for the neutron shield transducer read-out circuit is 75% complete.

The position sensors have been re-calibrated. Final installation of the neutron shield wiring harness will be completed upon correction of a few discrepancies noted during the inspection phase.

A sketch of the proposed modification to the S8DRM-1 lower heat simulator terminal chamber was completed and is being technically evaluated. The modification is to allow for pump-out and back-filling of the terminal chamber with argon after the heat-up and vacuum cycles of the S8DRM-1 tests. This will eliminate the problem of moisture entrainment in the heater elements.

A preliminary operational checkout was performed on the startup programmer. All tests were satisfactory.

For the third time National Research Corporation (NRC) delivered a 16" diffusion pump which was rejected because of the sub-standard internal nickel plating. NRC is reviewing their plating methods and further action is dependent upon this review.

CONFIDENTIAL LEVEL II – UNDER PROTECTIVE ORDER
United States District Court for the
Central District of California, No. CV 971554

BNA06648260

HDMSP001930281

ATOMICS INTERNATIONAL
A Division of North American Aviation, Inc.

TO: R. J. Adam DEPT. 723-33 Canc 5 DATE 6-23-65

ENVIRONMENTAL EVALUATION COMPONENT TEST REPORT # 554

Component Identification: Two SNAP 8 Electrical Release Actuators

Responsible Engineer and/or Unit supplying component: R. J. Adam date rec'd: 6-16-65

Applicable environmental specifications: TL: R. J. Adam to B. M. Oliva, "Electrical Release Actuator Shock and Vibration Tests," 6-7-65.

Tests requested: Shock & Vibration, Qualif.

TEST PLAN OF ACTION

Test assigned to: J. Gotoni ext. 6484 date 6-17-65, scheduled test start 6-17-65

Test equipment to be utilized: 16kw 7500# shaker system

Instrumentation required: Two monitoring accelerometers, associated amplifying, and recording equipment.

Measurements required: Resonant frequencies of specimen response

Specimen support fixture: Rigid support fixture

Test inputs: VIBRATION (continuous sweep rate requiring 10 minutes)

Lateral and Normal axes	16 to 100 cps @ 6.0 g 100 to 180 cps @ .0118 DA 180 to 2000 cps @ 19 g to cps @ g	Longitudinal	16 to 100 cps @ 6.0 g 100 to 180 cps @ .0118 DA 180 to 2000 cps @ 19 g to cps @ g

Waveform (Chart): See attached page

SHOCK:

Lateral and Normal axes	33 g, 1/2 sine, 10 millisec pulse 3 shocks in each direction of each axis	Longitudinal	25 g, 1/2 sine, 10 millisec pulse 3 shocks in each direction

ACCELERATION

Lateral and Normal axes	g, for a total of minutes.	Longitudinal	g, aft direction, for a total of minutes. g, forward direction, for a total of minutes.

TEST RESULTS

Test conducted by: Gotoni, Gerber ext. 6463 date 6-23-65 IN page No. B201629

Results: See attached page

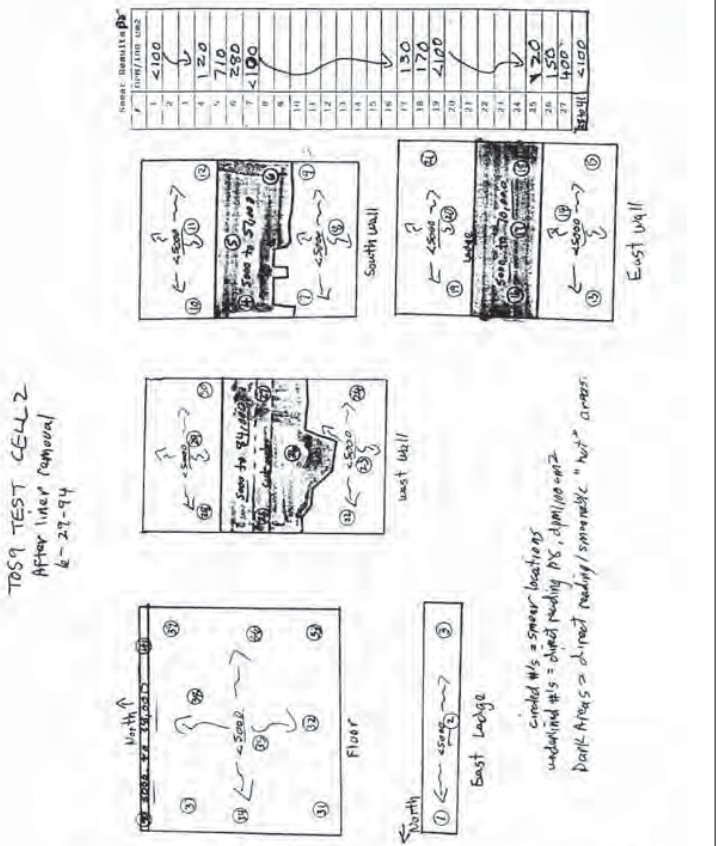
Specimen disposal: Returned to the Component Development Unit

Report prepared by: J. Gotoni date 6-23-65 ; Approved: RMO date 6-24-65

CONFIDENTIAL LEVEL II – UNDER PROTECTIVE ORDER
United States District Court for the
Central District of California, No. CV 971554

BNA06712695

HDMSP001930796



BNA07073897

HDMSP001933843

BUILDING 4059

BUILDING 059, SNAP 8 GPTF (GROUND PROTOTYPE TEST FACILITY)
RESPONSIBILITY: PRIMARILY HS&E

- O PROBLEM
  - O BASEMENT HOLDS INFILTRATED WATER WITH SECONDARY RADIATION
  - O OUTSIDE SUMP CONTAINS UP TO 90 PPB PERCHLOROETHYLENE
  - O WELL 300 FT WEST CONTAINS 6 PPB TCE, 13 PPB TOLUENE
- O BACKGROUND
  - O DOE RESPONSIBILITY UNDER SURPLUS FACILITIES MANAGEMENT PROGRAM (SFMP)
    - O PROVIDES ON MAINTENANCE CONTRACT
      - O DIFFERENTIAL HEAD PRESSURE PREVENTS OUTFLOW OF WATER
      - O HS&E ROUTINELY SAMPLES EXTERIOR SUMP FOR CO-60
      - O SCHEDULED FOR DECOMMISSIONING BETWEEN 1987 AND 1989
      - O ESTIMATE TO COMPLETE
- O CONCERNS
  - O ROCKWELL IMAGE OF HOLDING POTENTIALLY MIGRATABLE RADIOACTIVE WASTE
  - O TIMING OF DOE/ETEC FUNDING FOR DECOMMISSIONING/EQUIPMENT REMOVAL
  - O PRESENCE OF IRRADIATED WATER COMPLICATES GROUNDWATER ASSESSMENT AND CLEANUP ADJACENT TO BUILDING 059

0055E

BNA07293167

HDMSP001935298

ENVIRONMENTAL AGENDA

- ENVIRONMENTAL TRENDS
- REGULATORY STATUS
- ENVIRONMENTAL LIABILITY
  - ROCKWELL FACILITIES
  - SUPERFUND SITES
- CANOGA GROUND WATER
- SSFL GROUND WATER
- FUNDING
- CORPORATE DIRECTION
- CLEAN AIR ACT
  - OZONE STANDARD
  - AIR TOXICS
  - COMMON INDUSTRIAL CHEMICALS
- GOCO LIABILITY

0509H - 12/14/88 - 5

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TYPE OF MATERIAL: [X] REPORT [ ] CHART [ ] SPECIFICATION [ ] MANUAL [ ] SLIDES [ ] FILM [ ] DRAWING [ ] PROPOSAL [ ] LETTER [ ] TWX [ ] PRINTS [ ] OTHER

NAME OR TITLE OF MATERIAL (UNCLASSIFIED ONLY): FUSAK, A Computer Code for Eval. of SNAP 8 and SNAP 2 Fuel Element Performance

AUTHOR/ORIGINATOR: M.E. Nathan

DATE: 11/66

PRESENT CLASSIFICATION: [X] CONFIDENTIAL [ ] SECRET [X] RESTRICTED DATA [ ] NAT'L SEC. INFO [ ] NONE

ACTION TO BE TAKEN: [ ] REGRADE TO: [ ] CONFIDENTIAL [ ] SECRET [ ] RESTRICTED DATA [ ] NAT'L SEC. INFO [X] DECLASSIFY TO: [X] UNCLASSIFIED [X] FOR OFFICIAL USE ONLY [ ] RETAIN PRESENT CLASSIFICATION

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REMARKS: (AUTHORITY FOR ACTION TAKEN): RS-5, Revised (4/25/72)

REVIEW REQUESTED BY: A.B. Martin — DATE: 6/6/73 — DEPT./SEC. 713-3

AUTH. CLASSIFIER'S SIGNATURE (REGRADING ONLY) — DATE: — DEPT./SEC.

PATENT OFFICE SIGNATURE: F. Bolte — DATE: 6/8/73

CLASS. COORDINATOR'S SIGNATURE: Norman R. Klub — DATE: 6/5/73 — DEPT./SEC. 779

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NAME OR TITLE OF MATERIAL (UNCLASSIFIED ONLY): SNAP 8 Bi-Monthly Progress Report Feb - May 1960

AUTHOR/ORIGINATOR: — DATE:

PRESENT CLASSIFICATION: [X] CONFIDENTIAL [ ] SECRET [X] RESTRICTED DATA [ ] NAT'L SEC. INFO [ ] NONE

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REVIEW REQUESTED BY: A.B. Martin — DATE: — DEPT./SEC. 713

AUTH. CLASSIFIER'S SIGNATURE (REGRADING ONLY) — DATE: 5/16/73 — DEPT./SEC. 731-15

PATENT OFFICE SIGNATURE: F. Bolte — DATE: 6/1/73

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HDMSP001962853

BUILDING 4059

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NAME OR TITLE OF MATERIAL (UNCLASSIFIED ONLY): SNAP 8 Progress Report May - July 66

AUTHOR/ORIGINATOR: D.G. Mason | DATE: 11-1-66

PRESENT CLASSIFICATION: ☒ CONFIDENTIAL ☐ SECRET ☒ RESTRICTED DATA ☐ NAT'L SEC. INFO ☐ NONE

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REVIEW REQUESTED BY: A E Moody | DATE: | DEPT./CODE:

AUTH. CLASSIFIER'S SIGNATURE (REGRADING ONLY): | DATE: 8/11/73 | DEPT./CODE: 72-15

PATENT OFFICE SIGNATURE: F. Botte | DATE: 8/11/73

CLASS. COORDINATOR'S SIGNATURE: | DATE: 8/10/73 | DEPT./CODE: 779

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NAME OR TITLE OF MATERIAL (UNCLASSIFIED ONLY): SNAP (Systems for Nuclear Auxiliary Power) Technical Briefs. Part 4, SNAP 8

AUTHOR/ORIGINATOR: | DATE: 3/63

PRESENT CLASSIFICATION: ☒ CONFIDENTIAL ☐ SECRET ☒ RESTRICTED DATA ☐ DEFENSE INFO. ☐ NONE

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HDMSP001979223

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NAME OR TITLE OF MATERIAL (UNCLASSIFIED ONLY): Performance testing SNAP 8 experimental reactor fuel elements. Interim report. /U/

AUTHOR/ORIGINATOR: T. G. Parker, Jr, S. J. Veeck | DATE: 8/13/64

PRESENT CLASSIFICATION: ☐ CONFIDENTIAL ☒ SECRET ☒ RESTRICTED DATA ☐ DEFENSE INFO. ☐ NONE

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AUTH. CLASSIFIER'S SIGNATURE (REGRADING ONLY): IL to Library from J. G. Spraul | DATE: 11/3/64 | DEPT./CODE: 735

CLASS. COORDINATOR'S SIGNATURE: | DATE: | DEPT./CODE:

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BNA07820879

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00		FINAL P = 0.1948456E-00		FINAL PHI = 0.3145864E-00	
1007850E 01		TIME = 0.8000000E 04			
1435743E 01		TMAX = 0.1841000E 04	NH = 0.5336690E 01	HZR = 0.1595360E 01	
		TOND = 0.1930722E 04	NH = 0.4963297E 01	HZR = 0.1429676E 01	
		RESULT = 0.5788191E 01			
00		FINAL P = 0.1043902E-00		FINAL PHI = 0.3059165E-00	
1602120E 01		TIME = 0.8500000E 04			
1438194E 01		TMAX = 0.1841000E 04	NH = 0.5376641E 01	HZR = 0.1549546E 01	
		TOND = 0.1934409E 04	NH = 0.4959923E 01	HZR = 0.1426698E 01	
		RESULT = 0.6036125E 01			
00		FINAL P = 0.1748717E-00		FINAL PHI = 0.2978146E-00	
		TIME = 0.9000000E 04			
1594684E 01		TMAX = 0.1841000E 04	NH = 0.5357214E 01	HZR = 0.1549912E 01	
1436754E 01		TOND = 0.1930273E 04	NH = 0.4956700E 01	HZR = 0.1427766E 01	
		RESULT = 0.6280645E 01			
		FINAL P = 0.1661767E-00		FINAL PHI = 0.2902240E-00	
00		TIME = 0.9500000E 04			
1587530E 01		TMAX = 0.1841000E 04	NH = 0.5338375E 01	HZR = 0.1538449E 01	
1435401E 01		TOND = 0.1926318E 04	NH = 0.4953637E 01	HZR = 0.1426875E 01	
		RESULT = 0.6516384E 01			
		FINAL P = 0.1582087E-00		FINAL PHI = 0.2830964E-00	
00		TIME = 0.1000000E 05			
1580638E 01		TMAX = 0.1841000E 04	NH = 0.5320094E 01	HZR = 0.1533147E 01	
1434126E 01		TOND = 0.1922520E 04	NH = 0.4950698E 01	HZR = 0.1426022E 01	
		RESULT = 0.6745626E 01			
		FINAL P = 0.1508854E-00		FINAL PHI = 0.2763896E-00	
00		TIME = 0.1050000E 05			
1573990E 01		TMAX = 0.1841000E 04	NH = 0.5302344E 01	HZR = 0.1528000E 01	
1432923E 01		TOND = 0.1918871E 04	NH = 0.4947879E 01	HZR = 0.1425205E 01	
		RESULT = 0.6968814E 01			
		FINAL P = 0.1441361E-00		FINAL PHI = 0.2700663E-00	
00		TIME = 0.1100000E 05			
1567520E 01		TMAX = 0.1841000E 04	NH = 0.5285100E 01	HZR = 0.1522999E 01	
1431783E 01		TOND = 0.1915361E 04	NH = 0.4945177E 01	HZR = 0.1424421E 01	
		RESULT = 0.7186307E 01			
00					
1561364E 01					
1430703E 01					

Table 37. Checkout of New HYPAT With Variable K_{BLD}

BNA07821784

HDMSP001999624

BUILDING 4059

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NAME OR TITLE OF MATERIAL (UNCLASSIFIED ONLY): SNAP 8 Briefing, Washington, D.C. May 17, 1966

AUTHOR/ORIGINATOR: | DATE:

PRESENT CLASSIFICATION: ☒ CONFIDENTIAL ☐ SECRET ☒ RESTRICTED DATA ☐ DEFENSE INFO. ☐ NONE

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REMARKS: (AUTHORITY FOR ACTION TAKEN): RS-5, Revised 4/25/72

REVIEW REQUESTED BY: Sharlman | DATE: 8-31-72 | DEPT/SUB: 737-73

AUTH. CLASIFIER'S SIGNATURE (REGRADING ONLY): | DATE: | DEPT/SUB:

PATENT OFFICE SIGNATURE: | DATE:

CLASS. COORDINATOR'S SIGNATURE: Marian Bell | DATE: 8/31/72 | DEPT/SUB: 774

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PRESENT AI NUMERICAL IDENTIFICATION (IF ANY): NAA-SR-Memo-10686 Parts I and II | REV. | CONTROL STA.

TYPE OF MATERIAL: ☐ REPORT ☐ CHART ☐ SPECIFICATION ☐ MANUAL ☐ SLIDES ☐ FILM ☐ DRAWING ☐ PROPOSAL ☐ LETTER ☐ TWX ☐ PRINTS ☐ OTHER

NAME OR TITLE OF MATERIAL (UNCLASSIFIED ONLY): SNAP 8 Fuel Element Qualification Program Status Report, September-October, 1964

AUTHOR/ORIGINATOR: F.A. LaGuala | DATE: 11-4-64

PRESENT CLASSIFICATION: ☒ CONFIDENTIAL ☐ SECRET ☒ RESTRICTED DATA ☐ DEFENSE INFO. ☐ NONE

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REMARKS: (AUTHORITY FOR ACTION TAKEN): RS-5 Revised, 4-25-72

REVIEW REQUESTED BY: R. F. Wilson | DATE: 10-17-66 | DEPT/SUB: 715

AUTH. CLASIFIER'S SIGNATURE (REGRADING ONLY): | DATE: | DEPT/SUB:

PATENT OFFICE SIGNATURE: | DATE: FEB 6 1973 | CLASS. COORDINATOR'S SIGNATURE: Marian Bell | DATE: 8/31/72 | DEPT/SUB: 774

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P31818

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HDMSP002015433

R/RD92-186

Tritium Production and Release to Groundwater at SSFL

Safety Review Report

Rockwell International
Rocketdyne Division
6633 Canoga Avenue
P.O. Box 7922
Canoga Park, California 91309-7922

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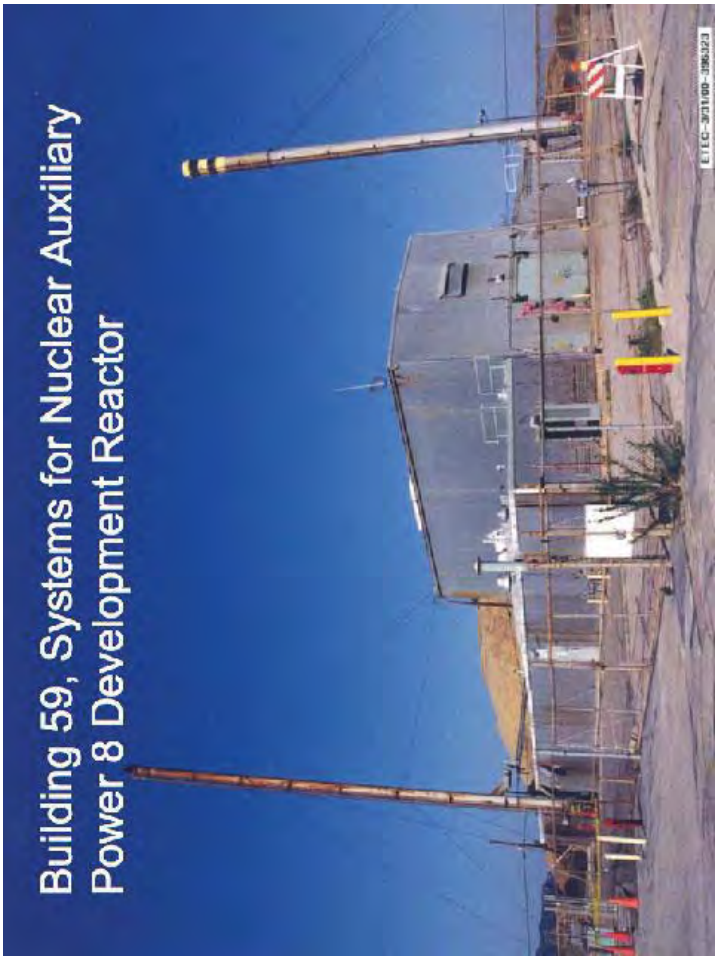
HDMSp01694557



BUILDING 4059

F-31-B

10. AE-6 Reactor Building, Building 093

a. Location

Figure III-3 shows the location of the AE-6 Reactor, Building 093, within the AI-NDFL and its relation to other installations in the local area. The facility is located slightly east of the central portion of the AI-NDFL and east of the SNAP complex. The minimum distance from the facility to the AI-NDFL boundary (AI-exclusion area boundary) is approximately 750 feet. This boundary lies in a northwesterly direction (Simi Valley direction). The nearest Rocketdyne area boundary is approximately 1050 feet to the southeast. The nearest occupied structure is the Kinetic Experiment Water Boiler Control Building (Building 083), which is approximately 50 feet north of the reactor

b. Description of Building and Equipment*

The AE-6 and its associated experimental facilities are specifically designed to provide a thermal neutron source for evaluating neutron behavior in subcritical exponential-type assemblies, and for irradiating foils and other materials. Figure V-11 shows the site and general building structure. The installation consists of a reactor building, housing the reactor and control room, and a separate building used for fuel handling and storage.

The reactor building contains a high-bay area and a control room. The high-bay area is a steel framed superstructure covered with sheet metal siding and roofing. The area has lateral dimensions of 30 by 40 feet, with a maximum floor-to-ceiling height of 29 feet, and is serviced by a 1/2-ton overhead crane. The floor consists of 6 inches of concrete, except under the reactor and concrete shield enclosure, where 30 inches of reinforced concrete has been provided.

The reactor is situated in the center of the high-bay area and consists of a sperhical core, a graphite reflector and thermal column, a mild steel reflector enclosure, the gas handling systems, the control and safety rod systems, the cooling systems, and the concrete shield enclosure. The reactor is a homogeneous, solution-type reactor, designed to operate at 2.5 kw of thermal power. The core and gas handling system are contained in a stainless-steel

* G. L. Blackshaw and C. H. Skeen, "Safeguards Summary for the AE-6 Reactor," NAA-SR-Memo-5304, July 7, 1960.

BUILDING 4059

BUILDING 4059

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SUPPORTING DOCUMENT

GO NO.	S/A NO.	PAGE 1 OF	TOTAL PAGES	REV LTR/CHG NO (SEE SUMMARY OF CHG)	NUMBER
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PROGRAM TITLE

DOCUMENT TITLE
Nuclear Operations at Rockwell's Santa Susana Field Laboratory - A Factual Perspective

DOCUMENT TYPE
Facility Report

KEY NOUNS
Nuclear operations, nuclear power, nuclear reactor, Santa Susana Field Laboratory

ORIGINAL ISSUE DATE
December 20, 1989

REL. DATE
10-2-90

PREPARED BY/DATE	DEPT	MAIL ADDR
R. D. Oldenkamp 1/16/90	638	T006
J. C. Mills 1/16/90	638	HB19

IR&D PROGRAM? YES ☐ NO ☒
IF YES, ENTER TPA NO.

APPROVALS	DATE
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G. G. Gaylord	1/16/90
D. C. Gibbs	1/16/90
R. T. Lancet	1/16/90
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*	J. R. Stocker	001-B27
*	G. Subbaraman	NA 02

FR-Sansu

* COMPLETE DOCUMENT
NO ASTERISK: TITLE PAGE/SUMMARY OF CHANGE PAGE ONLY

ABSTRACT

This report describes the radioactivity at Rocketdyne's Santa Susana Field Laboratory (SSFL), and puts the information into perspective to permit readers to make an informed evaluation of the SSFL situation for themselves. Emphasis has been placed on the presentation of facts which clarify and/or quantify: (1) the history of nuclear operations at the SSFL; (2) the regulation of those operations; (3) the amount of radioactivity that has been removed from the site; (4) the amount of radioactivity remaining; and (5) Rocketdyne's plans for both ongoing cleanup and operations.

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FORM 034-C REV 12-84

BUILDING 4059

Rocketdyne Division
Rockwell International Corporation
6633 Canoga Avenue
Canoga Park, California 91303
Telex. 698478
ROCKETDYN CNPK

Rockwell International

June 1, 1992 In reply refer to 92RC-03980

Mr. R. R. LeChevalier
U. S. Department of Energy
San Francisco Field Office
ETEC Site Office
P O Box 1449
Canoga Park, California 91304

Subject: Final NESHAPS Report for 1991

Dear Mr. LeChevalier:

Enclosed with this letter is our final report showing compliance with the NESHAPS dose standard for airborne radioactivity released from DOE facilities. DOE/HQ comments on the draft NESHAPS report have been addressed in this final report.

This report is based on the EPA-approved computer program. AIRDOS-PC (Version 3.0), and shows that the estimated maximum dose to a nearby resident is less than 0.000003 mrem, 1991. This is far below the standard of 10 mrem established in 40CFR61.

Special information requested by DOE, beyond that required by EPA, is contained in Appendix D of the report.

If you have any questions regarding this report, please call me at (818) 586-6140.

Very truly yours,

P. D. Rutherford, Manager
Radiation Protection and
Health Physics Services

Enclosure: Air Emissions Annual Report, including AIRDOS-PC report

cc: E. Ballard, DOE-SF/ESS

Energy Technology Engineering Center
Rocketdyne Division
Rockwell International Corporation
P.O. Box 7930
Canoga Park, California 91309-7930
(818) 586-5326
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MAY 25 1993
93 DRF 0837

May 21, 1993 In reply refer to 93ETEC-DRF-0837

R. Le Chevalier
Mail Stop T038
DOE-ETEC Site Manager
U. S. Department of Energy
Energy Technology Engineering Center
P. O. Box 7929
Canoga Park, CA 91309-7929

Subject: Final 1992 NESHAPS Report

References: 1) DOE Letter, "National Emission Standards for Hazardous Air Pollutants (NESHAPS)", R. Le Chevalier to D. C. Gibbs, dated 23 April 1993 (DRF-0730)

2) DOE Letter, "DOE Comments to the Draft 1992 NESHAPS Report", R. Le Chevalier to D. C. Gibbs, dated 6 May 1993.

Dear Mr. Le Chevalier:

Enclosed is the Final 1992 NESHAPS Report for 1992 for the ETEC portion of the Santa Susana Field Laboratory. This report addresses DOE comments made on the draft NESHAPS Report (Reference 2). If you have any questions concerning this transmittal contact Mr. Phil Rutherford at (818) 586-6140.

Very truly yours,

G. G. Gaylord
Program Manager
Facility Programs

Distribution

J. Juetten
G. Butner (2)

w/o encl

J. Pagliaro
R. Liddle

82-27

93 DRF 0837

Energy Technology Engineering Center
Rocketdyne Division
Rockwell International Corporation
P.O. Box 7930
Canoga Park, California 91309-7930
(818) 586-5326
Operator for
U.S. Department of Energy

Rockwell International

June 7, 1994 In reply refer to ETEC DRF-0824

R. Le Chevalier
Mail Stop T038
DOE-ETEC Site Manager
U. S. Department of Energy
Energy Technology Engineering Center
P. O. Box 7929
Canoga Park, CA 91309-7929

Subject: Final NESHAPs Report for 1993

Reference: Letter, R. Le Chevelier (DOE) to G. Gaylord (ETEC), "DOE Comments to the Draft 1993 Radioactive Emissions (NESHAPs) Report," May 31, 1994, ETEC DRF-0804.

Dear Mr. Le Chevalier:

Enclosed is the final NESHAPs Report for 1993 for the DOE facilities at SSFL. This report reflects the results of detailed analyses of effluent samples and incorporates the comments provided in your letter of May 31 (Reference).

This report includes the required Certification Statement signed by D. C. Gibbs for ETEC and yourself for the ETEC Site Office.

If you have any further questions or comments on this report, please contact Phil Rutherford, at 818/586-6140.

Very truly yours,

G. G. Gaylord

Enclosure: Radionuclide Air Emissions Annual Report
(Individual Dose from Point Sources)

BUILDING 4059

Energy Technology Engineering Center
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Rockwell International Corporation
P.O. Box 7930
Canoga Park, California 91309-7930

(818) 586-5325

Operator for
U.S. Department of Energy

Rockwell International

June 16, 1995 In reply refer to 95ETEC DRF-0556

R. Le Chevalier
Mail Stop T038
DOE-ETEC Site Manager
U. S. Department of Energy
Energy Technology Engineering Center
P. O. Box 7929
Canoga Park, CA 91309-7929

Subject: Final NESHAPs Report for 1994

Dear Mr. Le Chevalier:

Enclosed is the final NESHAPs Report for 1994 for the DOE facilities at SSFL. It is our understanding that your staff and DOE/OAK had no comments for revision. This report reflects the results of detailed analyses of effluent samples for the single radiological exhaust stack in operation at a DOE facility during 1994, and estimates of emissions from two diffuse area sources.

This report includes the Certification Statement signed by D. C. Gibbs for ETEC and yourself for the ETEC Site Office, required for the final report.

If you have any questions or comments on this report, please contact Phil Rutherford, at 818/586-6140.

Very truly yours,

M. E. Jensen, Program Manager
Environmental Programs
Energy Technology Engineering Center

Enclosure: Radionuclide Air Emissions Annual Report
(Individual Dose from Point Sources)

Energy Technology Engineering Center
Rocketdyne Division
Rockwell International Corporation
PO Box 7930
Canoga Park, CA 91309-7930
818.586.5326
Operator for U.S. Department of Energy

Rockwell Aerospace
Rocketdyne

2481

May 30, 1996 In reply refer to 96ETEC DRF-0294

R. Le Chevalier
Mail Stop T038
DOE-ETEC Site Manager
U. S. Department of Energy
Energy Technology Engineering Center
P. O. Box 7929
Canoga Park, CA 91309-7929

Subject: NESHAPs Report for 1995

Dear Mr. Le Chevalier:

Enclosed is the NESHAPs Report for 1995 for the DOE facilities at SSFL. This report reflects the results of detailed analyses of effluent samples for the single radiological exhaust stack in operation at a DOE facility during 1995, and estimates of emissions from one diffuse area source. Corrected analytical results for Pu-241 have been used for this revised submittal.

This report includes the Certification Statement to be signed by M. J. Gabler for ETEC and yourself for the ETEC Site Office, required for the final report.

If you have any questions or comments on this report, please contact Bob Tuttle, at 818/586-6135.

Very truly yours,

M. E. Lee, Program Manager
Environmental Programs
Energy Technology Engineering Center

Enclosure: Radionuclide Air Emissions Annual Report
(Individual Dose from Point Sources)

cc: S. Lasell, DOE/OAK

Boeing North American, Inc.
Rocketdyne Division
Energy Technology Engineering Center
Boeing Defense & Space Group
P.O. Box 7930
Canoga Park, CA 91309-7930

2479

BOEING

June 4, 1997
In reply refer to 97ETEC DRF-0151

H. Joma
Mail Stop T038
DOE-ETEC Site Manager
U. S. Department of Energy
Energy Technology Engineering Center
P. O. Box 7929
Canoga Park, CA 91309-7929

Subject: NESHAPs Report for 1996

Dear Mr. Joma:

Enclosed is the NESHAPs (National Emission Standards for Hazardous Air Pollutants - Radionuclides) Report for 1996 for the DOE facilities at SSFL. This report reflects the results of detailed analyses of effluent samples from the radiological exhaust stacks in operation at a DOE facility during 1996, and estimates of emissions from the diffuse area sources. This submittal consists of the Radionuclide Air Emissions Annual Report with attached computer printouts from the CAP88PC calculations for two regulated point sources, RMHF and RIHL, treated separately, and for two unregulated area sources, treated in combination. The point sources, single ventilation exhaust stacks at the two facilities, were treated separately because the distance between them, 674 meters, is comparable to the distances to the maximally exposed individual location, 2867 and 2987 meters. The area sources are nearly as far apart, but as ground-level and below-ground-level diffuse sources, the airborne exposures are not expected to be as sensitive to distance as the elevated point sources.

The RIHL is a facility that was previously licensed by the NRC and the State of California, but DOE assumed operational responsibility on September 27, 1996, following the negotiated termination of the NRC license. Airborne releases from the RIHL were apportioned between NRC jurisdiction and DOE jurisdiction in proportion to the fraction of the year controlled by each agency. Emissions under NRC jurisdiction have been monitored, analyzed, and interpreted according to the NESHAPs regulations for licensed facilities.

The area sources show much higher estimated doses than the point sources in part because the point sources, with HEPA filtration, release so little radioactivity, and in part because the soil resuspension model of RESRAD, used to calculate the potential airborne releases, provides a conservative overestimate of the releases.

Information, Space & Defense Systems
Rocketdyne Propulsion & Power
Energy Technology Engineering Center
P.O. Box 7930
Canoga Park, CA 91309-7930

BOEING

June 12, 1998
In reply refer to 98ETEC DRF-0174

H. Joma
Manager, ETEC Site Office
U. S. Department of Energy
ETEC Site Office (SSFL, Mail Stop T038)
P. O. Box 7929
Canoga Park, CA 91309-7929

Subject: NESHAPs Report for 1997

Dear Mr. Joma:

Enclosed is the NESHAPs (National Emission Standards for Hazardous Air Pollutants - Radionuclides) Report for 1997 for the DOE facilities at SSFL. This report reflects the results of detailed analyses of effluent samples from the radiological exhaust stacks in operation at a DOE facility during 1997, and estimates of emissions from the diffuse area sources. This submittal consists of the Radionuclide Air Emissions Annual Report with attached computer printouts from the CAP88PC calculations for two point sources, RMHF and T024, treated in combination, and includes exposure for three area sources, also treated in combination. The point sources, single ventilation exhaust stacks at the two facilities, were treated in combination because of their close proximity, 70 meters. The area sources were treated in combination even though the distance between them is comparable to the distance to the maximally exposed individual because as ground-level and below-ground-level diffuse sources, the airborne exposures are not expected to be sensitive to the separation distance.

The building at T020, included in previous years reports, was demolished in 1997. The need for facility ventilation ended and the unit was shut down the first week of May of 1997. Detailed analysis of the stack monitoring filters showed no manmade isotopes, so there was no exposure to calculate. Remediation of one of the area sources was also completed in 1997 and is awaiting final survey, sampling and release.

The area sources show much higher estimated doses than the point sources in part because the point sources, with HEPA filtration, release so little radioactivity, and in part because the soil resuspension model of RESRAD, used to calculate the potential airborne releases of area sources, provides a conservative overestimate of the releases.

BUILDING 4059

The Boeing Company
Rocketdyne Propulsion & Power
6633 Canoga Avenue
P.O. Box 7922
Canoga Park, CA 91309-7922

May 27, 1999
In reply refer to: 99RC-2444

H. Joma
Manager, DOE Site Closure Office
U. S. Department of Energy
DOE Site Closure Office (SSFL, Mail Stop 4038)
P. O. Box 7929
Canoga Park, CA 91309-7929

Subject: NESHAPs Report for 1998

Dear Mr. Joma:

Enclosed is the NESHAPs (National Emission Standards for Hazardous Air Pollutants - Radionuclides) Report for 1998 for the DOE facilities at SSFL. This report reflects the results of detailed analyses of effluent samples from the radiological exhaust stacks in operation at a DOE facility during 1998, and estimates of emissions from the diffuse area sources. This submittal consists of the Radionuclide Air Emissions Annual Report with attached computer printouts from the CAP88PC calculations for one point source, RMHF, and includes exposure for three area sources, treated in combination and one area source treated separately and then summed into the combination sources. The area sources were treated in combination even though the distance between them is comparable to the distance to the maximally exposed individual because as ground level and below-ground-level diffuse sources, the airborne exposures are not expected to be sensitive to the separation distance. One area source had to be treated separately, with the results summed into the others, because CAP88PC did not have enough inputs for all of the areas to be done in combination this year.

The building at the hot lab, included in previous year's reports, was demolished in 1997. The need for facility ventilation ended and the unit was shut down the first week of May of 1997. Remediation of three of the area sources, the 4064 Sideyard and the 17th Street Drainage Area and the Hot Lab 4468 Excavation area, were also completed in 1998 and they are awaiting final survey and regulatory agency release. The 4024 portable exhauster, included in last year's report, was operated in 1998. Detailed analysis of the filters indicated no presence of man-made radioactive isotopes and the dose is assumed to be zero.

Because the point source, with HEPA filtration, releases so little radioactivity, and because the soil resuspension model of RESRAD, used to calculate the potential

The Boeing Company
Rocketdyne Propulsion & Power
6633 Canoga Avenue
P.O. Box 7922
Canoga Park, CA 91309-7922

June 9, 2000
In reply refer to: 2000RC-2419

D. Sutherland
DOE Site Manager
U.S. Department of Energy
Oakland Operations Office
1301 Clay Street
Oakland, CA 94612-5208

Subject: NESHAPs Report for 1999

Dear Ms. Sutherland:

Enclosed is the NESHAPs (National Emission Standards for Hazardous Air Pollutants - Radionuclides) Report for 1999 for the Department of Energy's (DOE) facility at Santa Susana Field Laboratory (SSFL). This report includes the analysis results of the effluent samples from a radiological exhaust stack in operation at a DOE facility during 1999, and estimates of emissions from a diffuse area source. This submittal consists of the Radionuclide Air Emissions Annual Report with attached computer printouts from the CAP88PC calculations for one point source, RMHF stack, and one area source, RMHF pond.

Three area sources, the 4064 Sideyard, the 17th Street Drainage Area, and the Hot Lab 4468 Excavation Area, were included in previous year's reports. These areas were remediated in 1998 and underwent surveys by Rocketdyne, ORISE and the California Department of Health Services (DHS) in 1998 and 1999. All surveys confirmed that these areas are suitable for unrestricted use. Therefore, they are no longer considered radiological sources and are not included in this report. The 4024 portable exhauster, which was included in last year's report, was operated in 1999. However, detailed analysis of the filters indicated no presence of man-made radioactive isotopes, and, therefore, it is not included as a release source for dose assessment.

Because the point source, with HEPA filtration, releases so little radioactivity, and because the soil resuspension model in RESRAD, which is used to calculate the potential airborne releases of the area source, provides a very conservative overestimate of the releases, the area source shows higher estimated doses than the point source.

The Boeing Company
Rocketdyne Propulsion & Power
6633 Canoga Avenue
P.O. Box 7922
Canoga Park, CA 91309-7922

June 7, 2001
In reply refer to: 2001RC-2051

D. Sutherland
DOE Site Manager
U. S. Department of Energy
Oakland Operations Office
1301 Clay Street
Oakland, CA 94612-5208

Subject: NESHAPs Report for 2000

Dear Ms. Sutherland:

Enclosed is the National Emission Standards for Hazardous Air Pollutants (NESHAPs) Report for 2000 for the Department of Energy's (DOE) facility at the Santa Susana Field Laboratory (SSFL). The U.S. Environment Protection Agency (EPA) regulates airborne releases of radioactivity from DOE facilities under 40 CFR 61, Subpart H. This document reports the radiochemical analysis results of the effluent samples from all applicable emission sources. It also includes the off-site dose assessment results, which are compared against the EPA standards for compliance demonstration.

During 2000, the only applicable emission source at the DOE facility at SSFL was the operating exhaust stack at the Radioactive Materials Handling Facility (RMHF). Another potential point source mentioned in previous year's report, the 4024 portable ventilation system, was not in operation in 2000. The RMHF Pond, usually considered an area source when it is dry, contained water all year long, and, therefore, the sediment in the pond was not resuspended by wind for airborne releases.

Only trace amounts of radionuclides were released from the RMHF stack into the atmosphere in 2000. The calculated radiation exposure dose to the Maximally Exposed Individual (MEI) was performed using the EPA's CAP88PC computer model. The Effective Dose Equivalent from the RMHF exhaust during 2000 was 7.7×10^{-7} mrem (7.7×10^{-9} mSv) per year. The EPA limit for a DOE site is 10 mrem/yr, as specified in 40 CFR 61, Subpart H. This result indicates that the release from the RMHF is about 10 million times less than the regulatory limit.

The Boeing Company
Rocketdyne Propulsion & Power
6633 Canoga Avenue
P.O. Box 7922
Canoga Park, CA 91309-7922

May 22, 2002
In reply refer to: 2002RC-1929

Mr. Mike Lopez
U. S. Department of Energy
Oakland Operations Office
1301 Clay Street Suite 700N
Oakland, CA 94612-5208

Subject: NESHAPs Report for 2001

Dear Mr. Lopez:

Enclosed is the National Emission Standards for Hazardous Air Pollutants (NESHAPs) Report for 2001 for the Department of Energy's (DOE) facility at the Santa Susana Field Laboratory (SSFL). The U.S. Environment Protection Agency (EPA) regulates airborne releases of radioactivity from DOE facilities under 40 CFR 61, Subpart H. This document reports the radiochemical analysis results of the effluent samples from all applicable emission sources. It also includes the off-site dose assessment results, which are compared against the EPA standards for compliance demonstration.

During 2001, the only applicable emission source at the DOE facility at SSFL was the operating exhaust stack at the Radioactive Materials Handling Facility (RMHF). The RMHF Pond, usually considered an area source when it is dry, contained water all year long except for one day, and the sediment in the pond was not resuspended by wind for airborne releases.

The EPA limit for a DOE site is 10 mrem/yr, as specified in 40 CFR 61, Subpart H. The regulation also specifies that radiation exposure dose to the Maximally Exposed Individual (MEI) be calculated using the EPA's CAP88PC computer model. Using the EPA's methodology, the Effective Dose Equivalent to the MEI from the RMHF exhaust during 2001 was calculated to be 3.1×10^{-6} mrem (3.1×10^{-8} mSv) per year. This result indicated that the release from the RMHF was about 3 million times less than the regulatory limit.

This report includes the Certification Statement to be signed by M. E. Lee (or designee) for The Boeing Company, Rocketdyne Propulsion & Power and by you for the DOE Site Closure Office. The Certification Statements are required for the final report.

BUILDING 4059

The Boeing Company
Rocketdyne Propulsion & Power
6633 Canoga Avenue
P.O. Box 7922
Canoga Park, CA 91309-7922

June 2, 2003
In reply refer to 2003RC02057

BOEING

Mr. Michael Lopez
U. S. Department of Energy
National Nuclear Security Administration
(NNSA) Service Center
1301 Clay Street, Suite 700 N
Oakland, CA 94612-5208

Subject: NESHAPs Report for 2002

Dear Mr. Lopez:

Enclosed is the National Emission Standards for Hazardous Air Pollutants (NESHAPs) Report for 2002 for the Department of Energy's (DOE) facility at the Santa Susana Field Laboratory (SSFL). The U.S. Environment Protection Agency (EPA) regulates airborne releases of radioactivity from DOE facilities under 40 CFR 61, Subpart H. This document reports the radiochemical analysis results of the effluent samples from all applicable emission sources. It also includes the off-site dose assessment results, which are compared against the EPA standards for compliance demonstration.

During 2002, the only applicable emission source at the DOE facility at SSFL was the operating exhaust stack at the Radioactive Materials Handling Facility (RMHF). The RMHF Pond, usually considered an area source when it is dry, contained water all year long except for a few days, and, therefore, the sediment in the pond was not considered a potential source for airborne releases.

The EPA limit for a DOE site is 10 mrem/yr, as specified in 40 CFR 61, Subpart H. The regulation also specifies that radiation exposure dose to the Maximally Exposed Individual (MEI) be calculated using the EPA's CAP88PC computer model. Using the EPA's methodology, the Effective Dose Equivalent to the MEI from the RMHF exhaust during 2002 was calculated to be 1.5×10^{-6} mrem (1.5×10^{-8} mSv) per year. This result indicated that the release from the RMHF was about 6 million times less than the regulatory limit.

This report includes the Certification Statement to be signed by M. E. Lee (or designee) for The Boeing Company, Rocketdyne Propulsion & Power and by you for

The Boeing Company
Rocketdyne Propulsion & Power
6633 Canoga Avenue
P.O. Box 7922
Canoga Park, CA 91309-7922

May 11, 2004
In reply refer to 2004RC01394

BOEING

Mr. Michael Lopez
U. S. Department of Energy
National Nuclear Security Administration
(NNSA) Service Center
1301 Clay Street, Suite 700 N
Oakland, CA 94612-5208

Subject: NESHAPs Report for 2003

Dear Mr. Lopez:

Enclosed is the National Emission Standards for Hazardous Air Pollutants (NESHAPs) Report for 2003 for the Department of Energy's (DOE) facility at the Santa Susana Field Laboratory (SSFL). The U.S. Environment Protection Agency (EPA) regulates airborne releases of radioactivity from DOE facilities under 40 CFR 61, Subpart H. This document reports the radiochemical analysis results of the effluent samples from all applicable emission sources. It also includes the off-site dose assessment results, which are compared against the EPA standards for compliance demonstration.

During 2003, the only applicable emission source at the DOE facility at SSFL was the operating exhaust stack at the Radioactive Materials Handling Facility (RMHF). The RMHF Pond, occasionally considered an area source when it is dry, contained water all year long, and, therefore, the sediment in the pond was not considered a potential source for airborne releases.

The EPA limit for a DOE site is 10 mrem/yr, as specified in 40 CFR 61, Subpart H. The regulation also specifies that radiation exposure dose to the Maximally Exposed Individual (MEI) be calculated using the EPA's CAP88PC computer model. Using the EPA's methodology, the Effective Dose Equivalent to the MEI from the RMHF exhaust during 2003 was calculated to be 1.9×10^{-7} mrem (1.9×10^{-9} mSv) per year. This result indicated that the release from the RMHF was less than 0.000002% of the regulatory limit.

This report includes the Certification Statement to be signed by M. E. Lee (or designee) for The Boeing Company, Rocketdyne Propulsion & Power and by you for

June 14, 2005
In reply refer to 2005RC01708

BOEING

Mr. Michael Lopez
U. S. Department of Energy
National Nuclear Security Administration
(NNSA) Service Center
1301 Clay Street, Suite 700 N
Oakland, CA 94612-5208

Subject: NESHAPs Report for 2004

Dear Mr. Lopez:

Enclosed is the National Emission Standards for Hazardous Air Pollutants (NESHAPs) Report for 2004 for the Department of Energy's (DOE) facility at the Santa Susana Field Laboratory (SSFL). The U.S. Environment Protection Agency (EPA) regulates airborne releases of radioactivity from DOE facilities under 40 CFR 61, Subpart H. This document reports the radiochemical analysis results of the effluent samples from all applicable emission sources. It also includes the off-site dose assessment results, which are compared against the EPA standards for compliance demonstration.

During 2004, the only applicable emission source at the DOE facility at SSFL was the operating exhaust stack at the Radioactive Materials Handling Facility (RMHF). The RMHF Pond, occasionally considered an area source when it is dry, contained water all year long, and, therefore, the sediment in the pond was not considered a potential source for airborne releases.

The EPA limit for a DOE site is 10 mrem/yr, as specified in 40 CFR 61, Subpart H. The regulation also specifies that radiation exposure dose to the Maximally Exposed Individual (MEI) be calculated using the EPA's CAP88PC computer model. Using the EPA's methodology, the Effective Dose Equivalent to the MEI from the RMHF exhaust during 2004 was calculated to be 2.5×10^{-6} mrem (2.5×10^{-8} mSv) per year. Compared to the 10 mrem/yr regulatory limit, the potential dose due to this release was negligible.

This report includes the Certification Statement to be signed by M. E. Lee (or designee) for The Boeing Company, Rocketdyne Propulsion & Power and by you for

The Boeing Company
Santa Susana Field Laboratory
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148

June 8, 2006

BOEING

Mr. Michael Lopez
U. S. Department of Energy
Headquarters/Oakland Project Office
1301 Clay Street, Suite 700 N
Oakland, CA 94612-5208

Subject: NESHAPs Report for 2005

Dear Mr. Lopez:

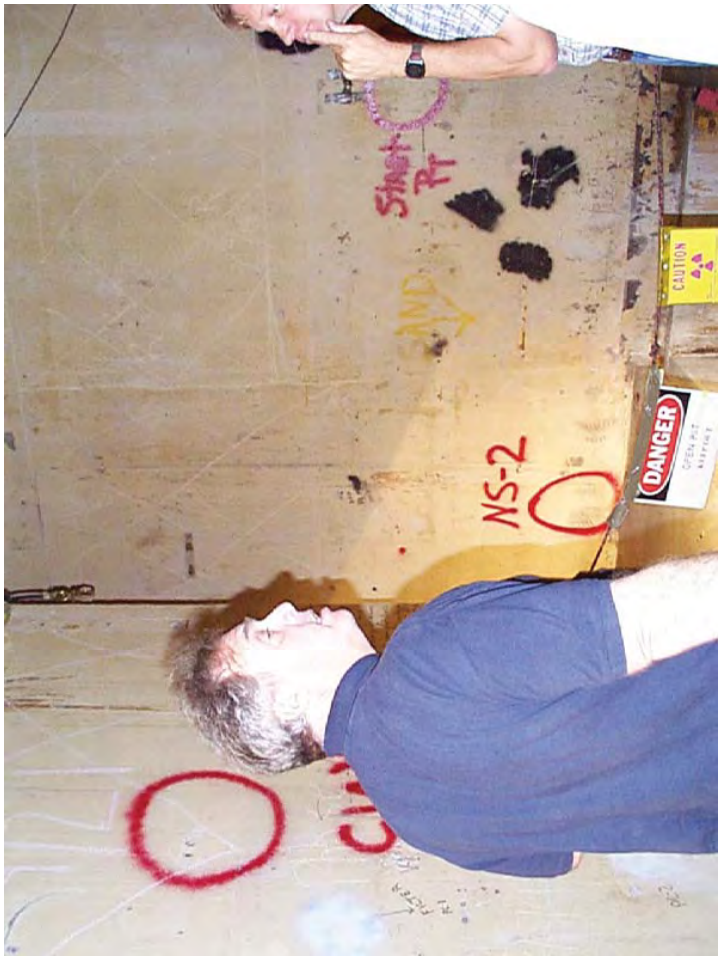
Enclosed is the National Emission Standards for Hazardous Air Pollutants (NESHAPs) Report for 2005 for the Department of Energy's (DOE) facility at the Santa Susana Field Laboratory (SSFL). The U.S. Environment Protection Agency (EPA) regulates airborne releases of radioactivity from DOE facilities under 40 CFR 61, Subpart H. This document reports the radiochemical analysis results of the effluent samples from all applicable emission sources. It also includes the off-site dose assessment results, which are compared against the EPA standards for compliance demonstration.

During 2005, the only applicable emission source at the DOE facility at SSFL was the operating exhaust stack at the Radioactive Materials Handling Facility (RMHF). The RMHF Pond, occasionally considered an area source when it is dry, contained water all year long, and, therefore, the sediment in the pond was not considered a potential source for airborne releases.

The EPA limit for a DOE site is 10 mrem/yr, as specified in 40 CFR 61, Subpart H. The regulation also specifies that radiation exposure dose to the Maximally Exposed Individual (MEI) be calculated using the EPA's CAP88PC computer model. Using the EPA's methodology, the Effective Dose Equivalent to the MEI from the RMHF exhaust during 2005 was calculated to be 2.6×10^{-6} mrem (2.6×10^{-8} mSv) per year. Compared to the 10 mrem/yr regulatory limit, the potential dose due to this release was negligible.

This report includes the Certification Statement to be signed by R. Amar (or designee) for The Boeing Company, Santa Susana Field Laboratory and by you for the DOE Site Closure Office. The Certification Statements are required for the final report.

BUILDING 4059



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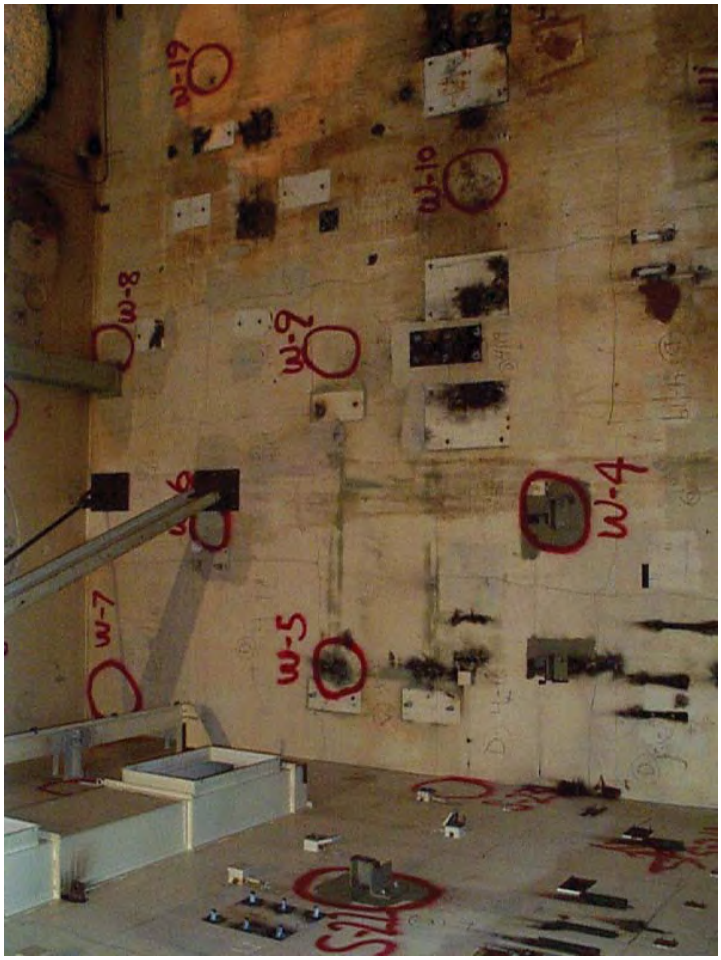

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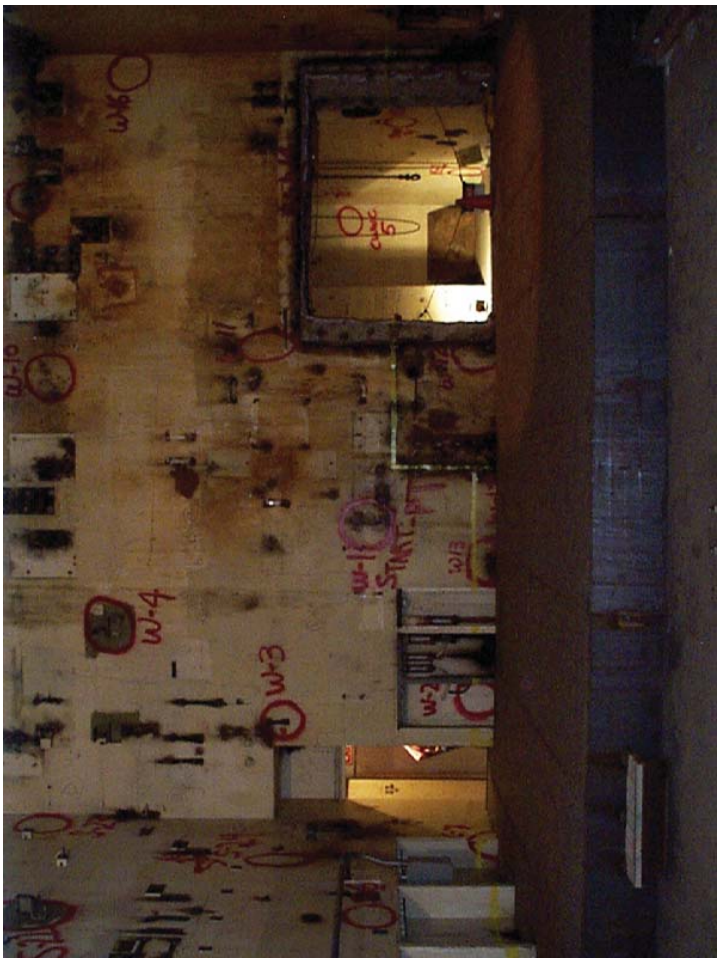

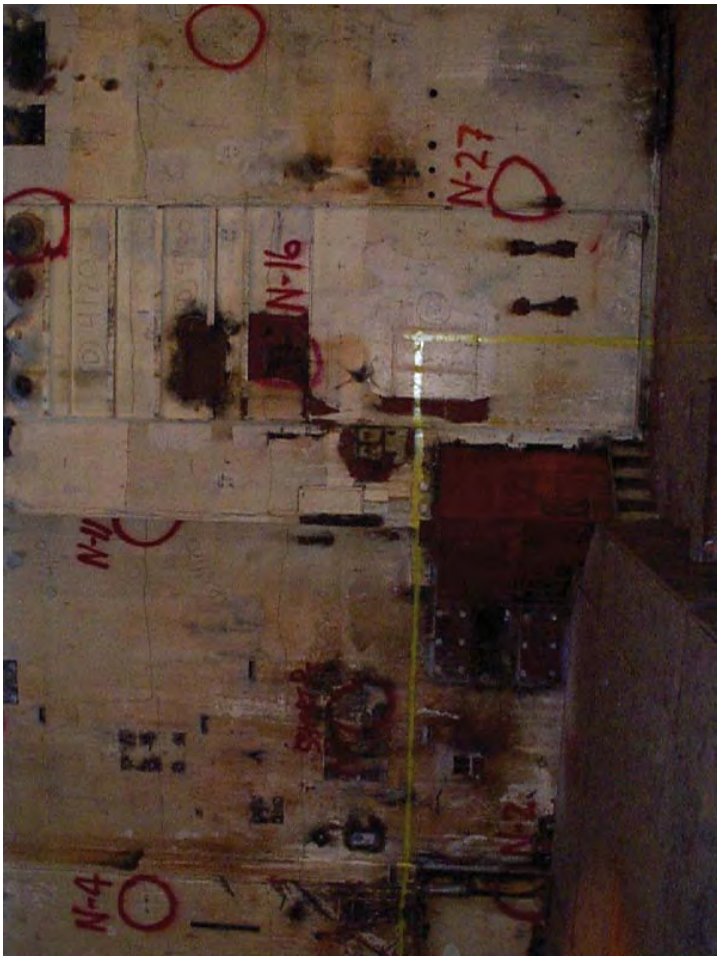

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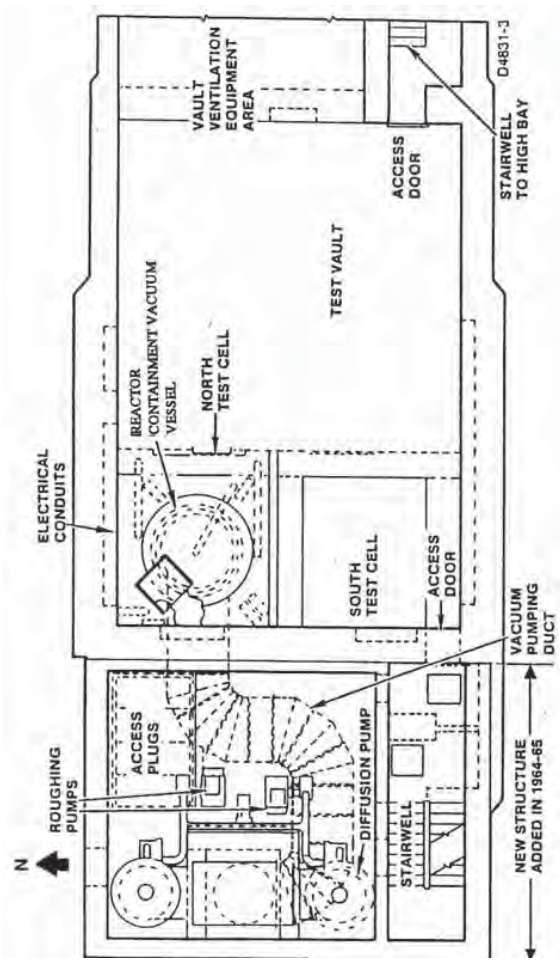

RI/RD92-186

Tritium Production and Release to Groundwater at SSFL

Safety Review Report

1 December 1992

PREPARED BY

R. J. Tuttle, CHP
Radiation Protection and
Health Physics Services

Rockwell International
Rocketdyne Division
6633 Canoga Avenue
P.O. Box 7922
Canoga Park, California 91309-7922

ZONE III
EPA REGION 9

RCRA ENFORCEMENT, PERMITTING, AND ASSISTANCE CONTRACT

FINAL
OVERSIGHT VERIFICATION AND CONFIRMATION
RADIOLOGICAL SURVEY REPORT
FOR
BUILDING 4059

DECEMBER 20, 2002

Prepared for:

U.S. Environmental Protection Agency
Office of Compliance
Washington, DC 20460

Prepared by:

Tetra Tech EM Inc.
135 Main Street, Suite 1800
San Francisco, California 94105

EPA Contract No. 68-W-02-021
Work Assignment No. R09107

Marcie Rash
Project Manager

BUILDING 4059

ZONE III
EPA REGION 9

RCRA ENFORCEMENT, PERMITTING, AND ASSISTANCE CONTRACT

FINAL
ROCKETDYNE TECHNICAL SUPPORT
AND FIELD OVERSIGHT
DOCUMENT REVIEW FOR
BUILDING 4059

DECEMBER 20, 2002

Prepared for:

U.S. Environmental Protection Agency
Office of Compliance
Washington, DC 20460

Prepared by:

Tetra Tech EM Inc.
135 Main Street, Suite 1800
San Francisco, California 94105

EPA Contract No. 68-W-02-021
Work Assignment No. R09107

Marcie Rash
Project Manager

BOEING

Engineering Product Document

GO Number	S/A Number	Page 1 of	Total Pages	Rev. Ltr/Chg. No. See Summary of Chg.	Number
97055	32620	42	42	NEW	RS-00001

Program Title
Closure of ETEC (R21-RF)

Document Title
Building 4059, Phase I Final Status Survey Procedure

Document Type
Procedure

Related Documents

Original Issue Date 3/10/99 — Release Date 4-29-99 RELEASE

Approvals — Date
P. Rutherford — 4/13/99
S. Reeder — 4/19/99
M. Lee — 4/23/99

Prepared By/Date
P. Liddy — 4/7/99

Dept.	Mail/Addr
641	T487

IR&D Program? Yes ☐ No ☒
If Yes, Enter Authorization No.

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*	P. Liddy	T487
*	F. Dahl	T100
*	R. McGinnis	T487
*	R. Garrett (2)	T487
*	D. Trippeda	T038
*	Rad Safety Files	T487
*	Engineering Data Mgmt	AB18
*	Facility Release Files	T487
*	R. Meyer	T038

Abstract
This document provides procedural instructions for the Phase I Final Status Survey of Building 4059 at the Santa Susana Field Laboratory. This procedure complies with the Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM).

* Complete Document
No Asterisk, Title Page/Summary
or Change Page Only.

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Rocketdyne Form 651-F REV. 2-97

BOEING

Engineering Product Document

GO Number	S/A Number	Page 1 of	Total Pages	Rev. Ltr/Chg. No. See Summary of Chg.	Number
97055	37620	127	127	NEW	RS-00008

Program Title
Closure of ETEC (R21-RF)

Document Title
Building 4059, Final Status Survey Report (Phase I)

Document Type
Report

Related Documents

Original Issue Date 7-11-99 — Release Date 9-11-99 RELEASE

Approvals — Date
P. Rutherford — 8/31/99
S. Reeder — 8/31/99
M. Lee — 9-10-99

Prepared By/Date
P. Liddy — 8/15/99

Dept.	Mail/Addr
641	T487

IR&D Program? Yes ☐ No ☒
If Yes, Enter Authorization No.

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*	P. Horton	T038
*	P. Rutherford (5)	T038
*	M. Lee	T038
*	P. Waite	T038
*	P. Liddy	T038
*	F. Dahl	T100
*	R. McGinnis	T038
*	R. Meyer	T038
*	D. Trippeda	T038
*	Rad Safety Files	T057
*	Engineering Data Mgmt	AB18
*	Facility Release Files	T057

Abstract
This document provides the results of the Phase I Final Status Survey of Building 4059 at the Santa Susana Field Laboratory. All measurements confirm that the facility meets the release limits approved by the Department of Energy and the State of California Department of Health Services. Accordingly, the Phase I portion of the facility is suitable for release for unrestricted use.

* Complete Document
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Engineering Product Document

GO Number	S/A Number	Page 1 of	Total Pages	Rev. Ltr/Chg. No. See Summary of Chg.	Number
97055	37620	127	127	NEW	RS-00008

Program Title
Closure of ETEC (R21-RF)

Document Title
Building 4059, Final Status Survey Report (Phase I)

Document Type
Report

Related Documents

Original Issue Date 7-11-99 — Release Date 9-11-99 RELEASE

Approvals — Date
P. Rutherford — 8/31/99
S. Reeder — 8/31/99
M. Lee — 9-10-99

Prepared By/Date
P. Liddy — 8/15/99

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Abstract
This document provides the results of the Phase I Final Status Survey of Building 4059 at the Santa Susana Field Laboratory. All measurements confirm that the facility meets the release limits approved by the Department of Energy and the State of California Department of Health Services. Accordingly, the Phase I portion of the facility is suitable for release for unrestricted use.

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BUILDING 4059

BOEING

Team Product Document

GO Number	S/A Number	Page 1 of	Total Pages	Rev. Ltr/Chg. No. See Summary of Chg.	Number
97055	32620	63	63	NEW	RS-00023

Program Title
Closure of ETEC (R21-RS)

Document Title
Building 4059 Final Status Survey Procedure

Document Type
Procedure

Related Documents

Original Issue Date 09/17/2004 — Release Date RELEASE 09-17-04 CV

Approvals — Date
P. D. Rutherford
D. L. Koncel
B. D. Sujata

See metaphase for approvals

Prepared By/Date
E. R. McGinnis 9/10/2004

Dept.	Mail/Addr
641	T038

IR&D Program? Yes ☐ No ☐
If Yes, Enter Authorization No.

*	Distribution Name	Mail Addr.
*	J. G. Barnes	T038
*	D. B. Pritchett	T034
*	B. Bass	T038
*	E. R. McGinnis	T038
*	D. L. Koncel	T038
*	P. D. Rutherford	T038
*	B. D. Sujata	T038
*	Radiation Safety File	T057
*	Facility Release Files	T057

Abstract

This document provides procedural instructions for the Final Status Survey of Building 4059 (SNAP Ground Prototype Facility) at the Santa Susana Field Laboratory. This procedure follows the protocols recommended by the Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM).

* Complete Document
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Rocketdyne Form 651-F REV. 6-99

BOEING

GO Number	S/A Number	Page 1 of	Total Pages	Rev. Ltr/Chg. No. See Summary of Chg.	Number
97055	32620	150	150	0	RS-00036

Program Title
Closure of ETEC

Document Title
Building 4059 Site Final Status Survey Report (Phase A and Phase B)

Document Type
Supporting Document

Related Documents

Original Issue Date 07/01/2005 — Release Date 4/21/2006

Approvals — Date
P. D. Rutherford 4/19/06
J. R. Vargo 4-20-06
B. D. Sujata 21 April 2006

Prepared By/Date
E. R. McGinnis
Ning Liu 02/28/2006 4/19/06

Dept.	Mail/Addr
C55W	T038

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*	B. D. Sujata	T038
*	J. R. Vargo	T038
*	Radiation Safety File	T057
*	Facility Release Files	T057

Abstract

This document provides the results of the Phase A and Phase B Final Status Survey of Building 4059 (SNAP Ground Prototype Facility) at the Santa Susana Field Laboratory. The data analysis follows the protocols recommended by the Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM). The survey results demonstrate that the Building 4059 site meets the Department of Energy (DOE) and the State of California, Department of Health Services (DHS) approved release criteria, and the site is therefore suitable for release for unrestricted use.

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Rocketdyne Form 651-F REV. 6-99

BOEING

Team Product Document

GO Number	S/A Number	Page 1 of	Total Pages	Rev. Ltr/Chg. No. See Summary of Chg.	Number
97055	32620	152	153	A	RS-00036

Program Title
Closure of ETEC

Document Title
Building 4059 Site Final Status Survey Report (Phase A and Phase B)

Document Type
Supporting Document

Related Documents

Original Issue Date 07/01/2005 — Release Date 02/15/2008

Approvals — Date
P. D. Rutherford 4/19/06
J. R. Vargo 4/20/06
B. D. Sujata 4/21/06

Prepared By/Date
E. R. McGinnis
Ning Liu, 02/28/2006

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EHS	T487

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*	N. Liu	T487
*	P. D. Rutherford	T487
*	J. R. Vargo	T487
*	Radiation Safety File	T487
*	Facility Release File	T487

Abstract

This document provides the results of the Phase A and Phase B Final Status Survey of Building 4059 (SNAP Ground Prototype Facility) at the Santa Susana Field Laboratory. The data analysis follows the protocols recommended by the Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM). The survey results demonstrate that the Building 4059 site meets the Department of Energy (DOE) and the State of California, Department of Health Services (DHS) approved release criteria, and the site is therefore suitable for release for unrestricted use.

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or Change Page Only.

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Form 651-F REV 11/29/02

The Boeing Company
Santa Susana Field Laboratory

Shipments of Decommissioned Material to Kettleman Hills

Statement

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

Background

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

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

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

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

Building 4059 SNAP Facility

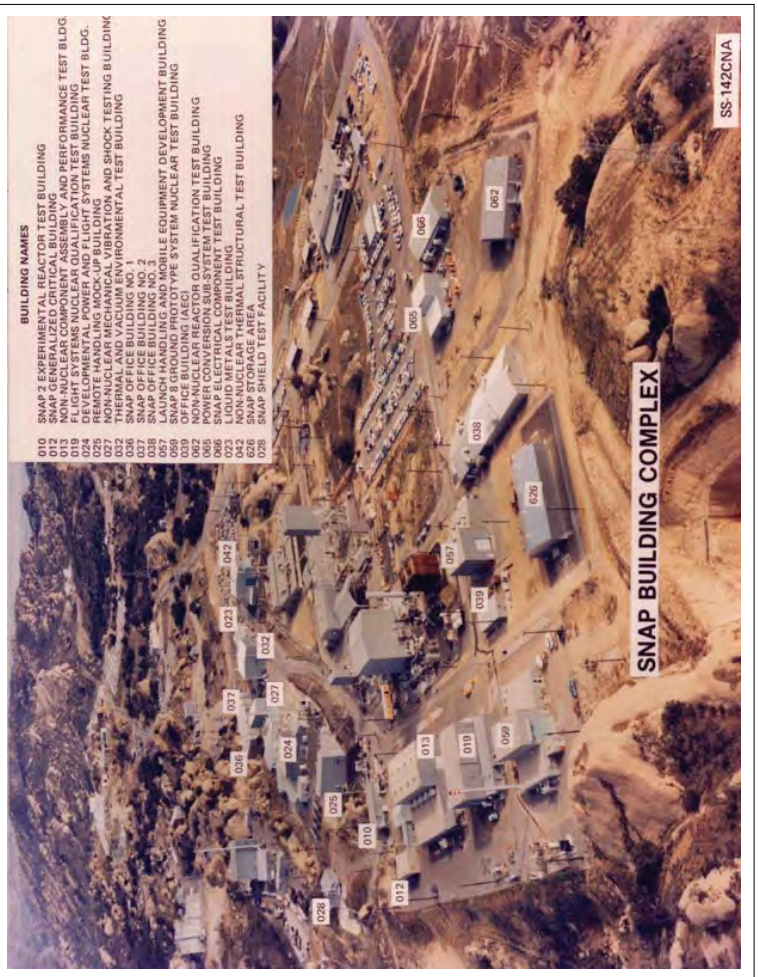
The remediation/demolition of Building 4059 was split into two phases – Phase I included portions of the building that would be surveyed to demonstrate compliance with federal and state cleanup standards and be "released for unrestricted use." Material from this Phase I would be subsequently classified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

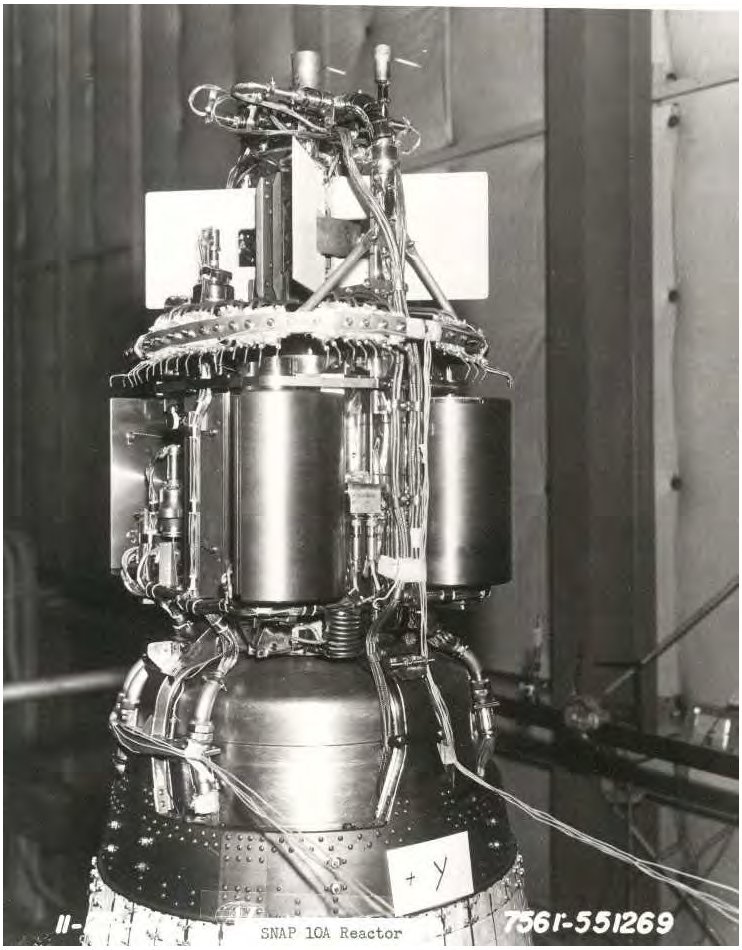
In September 1999, Boeing completed a radiological survey of Phase I[2] of 4059 using MARSSIM protocols[3].

---

[1] Letter from Celeste Cantu, Executive Director of the State Water Resources Control Board to Radioactive Materials Licensees – Facility Owners and Operators, October 11, 2002
[2] RS-0008, "Building 4059 Final Status Survey Report (Phase I)", September 11, 1999
[3] MARSSIM - Nuclear Regulatory Commission NUREG-1575, Environmental Protection Agency EPA 402-R97-016, "Multi-Agency Radiation Survey and Site Investigation Manual", Rev. 1, August 2000

BUILDING 4059





BUILDING 4059

31-A

ATOMICS INTERNATIONAL
A Division of North American Aviation, Inc.

TECHNICAL DATA RECORD

AI-ABC-TDR NO. 12683	APPROVALS
PAGE 1 OF 385	
DATE 5/1/68	
GO NO 7695	
S.A. NO 63140	TWR

AUTHOR: E. M. Larson
DEPT & GROUP NO: 736-61

TITLE: S8DR Operations Manual

PROGRAM:

SUBACCOUNT TITLE: S8DR Pre-operations

SECURITY CLASSIFICATION

(CHECK ONE BOX ONLY)	AEC	DOD	(CHECK ONE BOX ONLY)	
UNCL.	☒	☐	RESTRICTED DATA	☐
CONF.	☐	☐	DEFENSE INFO.	☐
SECRET	☐	☐		

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C4	B. H. Verna
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C2	H. F. Wilson
C2	H. E. Wimmer

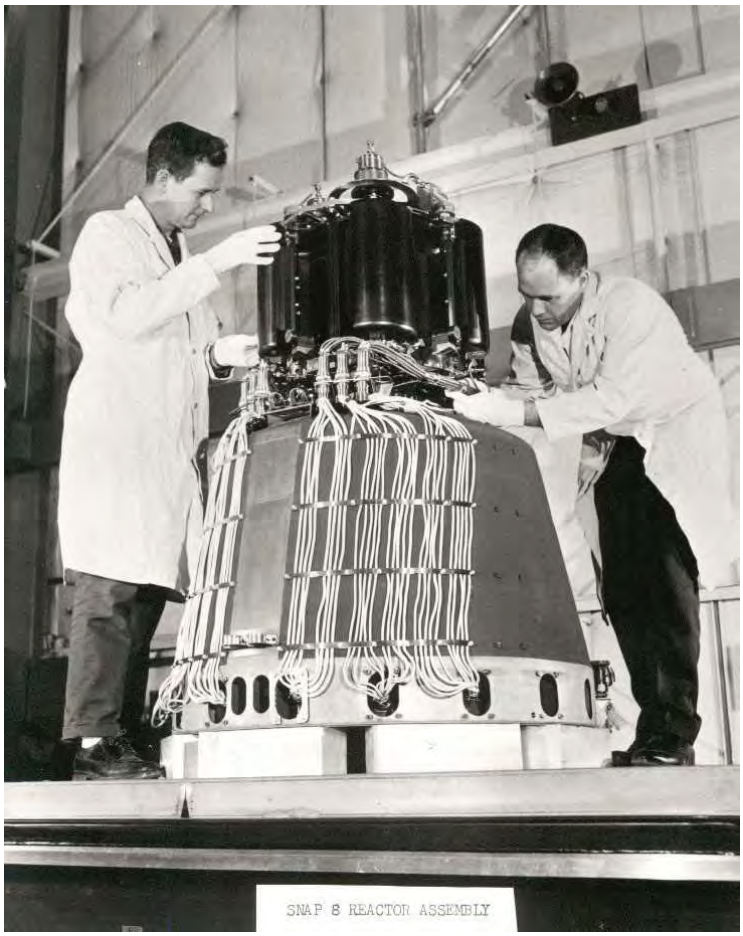
Hollman CPAG (6)
(attn: Reardon)

STATEMENT OF PROBLEM

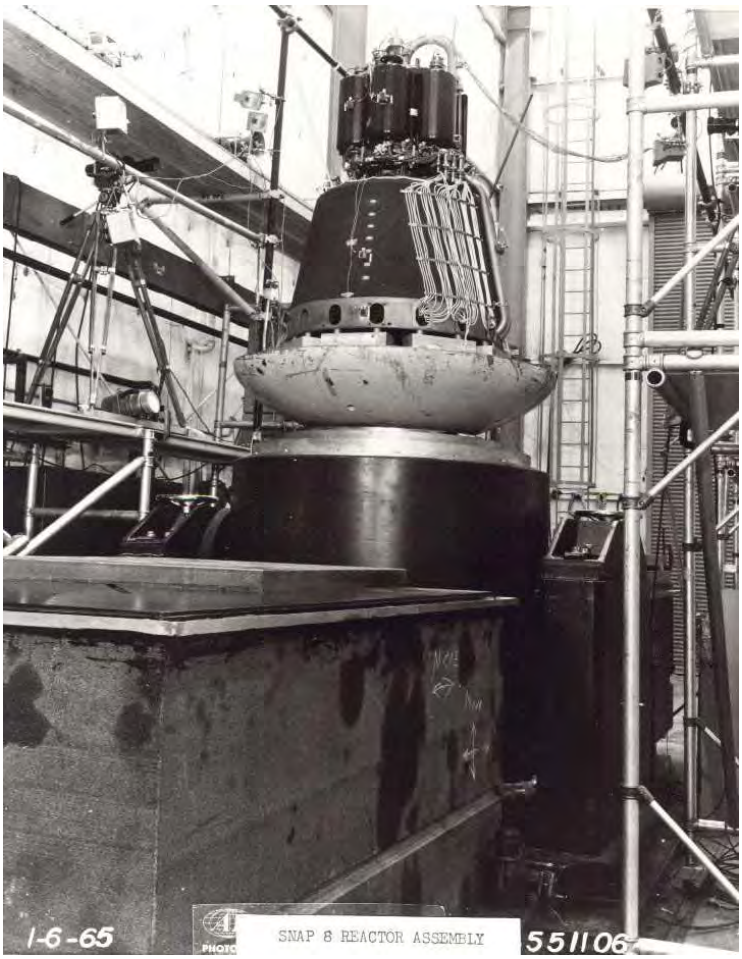
ABSTRACT

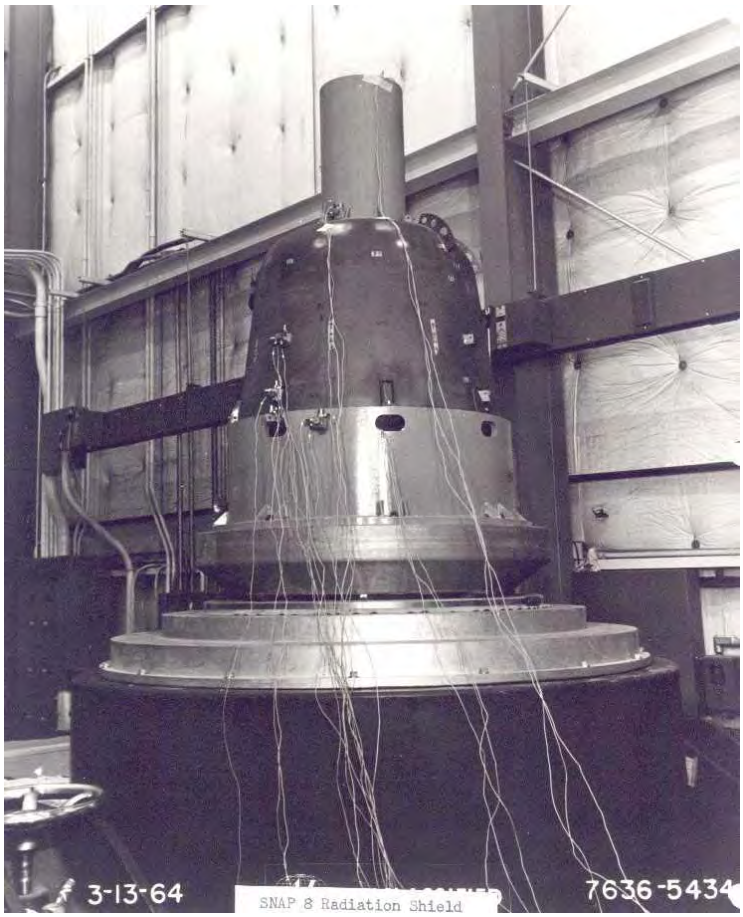
The S8DR Operations Manual contains a brief description of the SNAP 8 Developmental Reactor and associated heat transfer systems. Detailed operating procedures for reactor and heat transfer system are also included as part of this manual.

FORM 751-C REV. 10-62

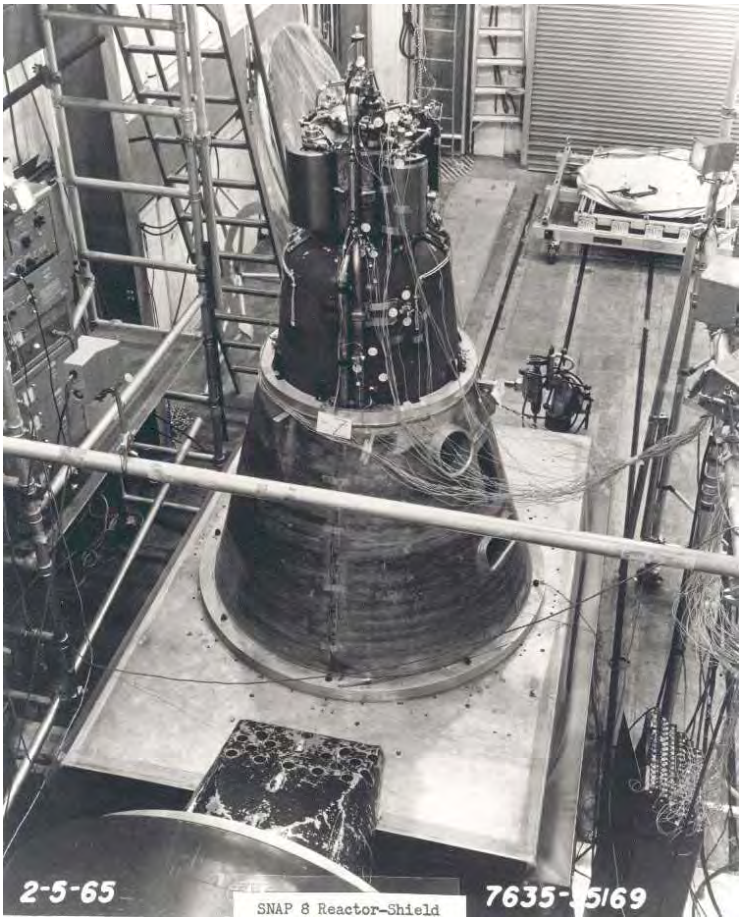


SNAP 8 REACTOR ASSEMBLY





BUILDING 4059



SNAP 8 Reactor-Shield

31-A

ATOMICS INTERNATIONAL
A Division of North American Aviation, Inc.

TECHNICAL DATA RECORD

AI-AEC-TDR NO	12684
PAGE	1 OF 283
DATE	4/29/68
GO NO	7695
S.A NO	63140
TWR	

APPROVALS: J P Beall

AUTHOR: R. M. Micklich/E. M. Larson
DEPT & GROUP NO: 736-61

TITLE: SNAP Ground Prototype Test Facility (Bldg. 059) Operations Manual

PROGRAM:

SUBACCOUNT TITLE: S8DR-Pre-Operations

SECURITY CLASSIFICATION

(CHECK ONE BOX ONLY)	AEC	DOD	(CHECK ONE BOX ONLY)	
UNCL.	☒	☐	RESTRICTED DATA	☐
CONF.	☐	☐	DEFENSE INFO.	☐
SECRET	☐	☐		

AUTHORIZED CLASSIFIER SIGNATURE: J P Beall — DATE: 3-1-1963

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C2	H. O. Williams, Jr
C2	R. F. Wilson
C3	R. E. Wimmer
C4	W. B. Sayer

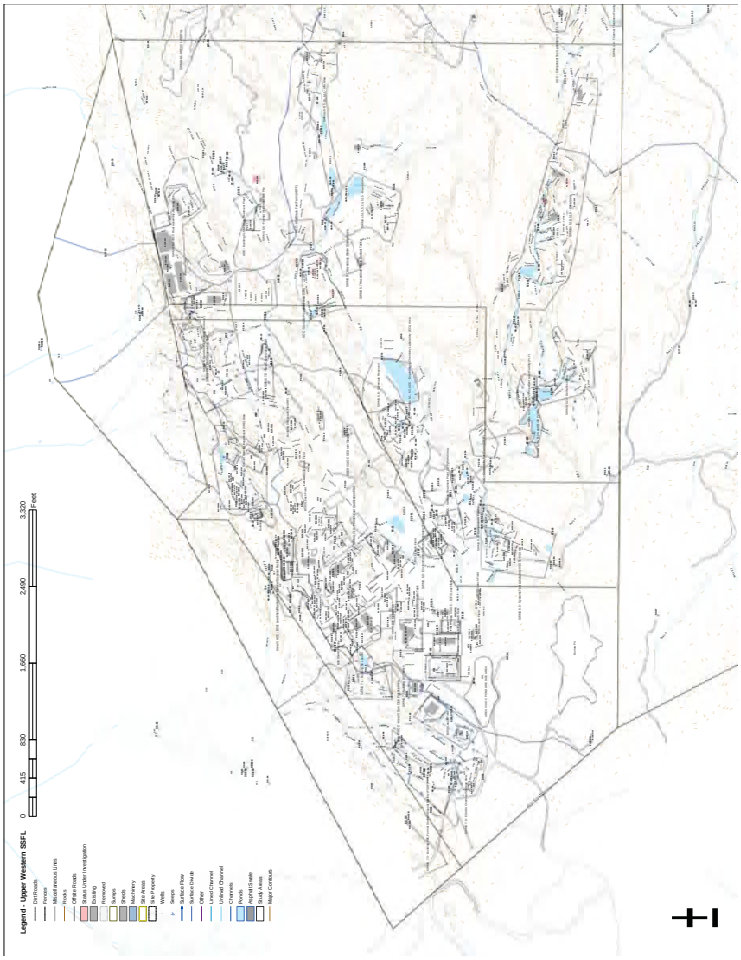
STATEMENT OF PROBLEM

ABSTRACT

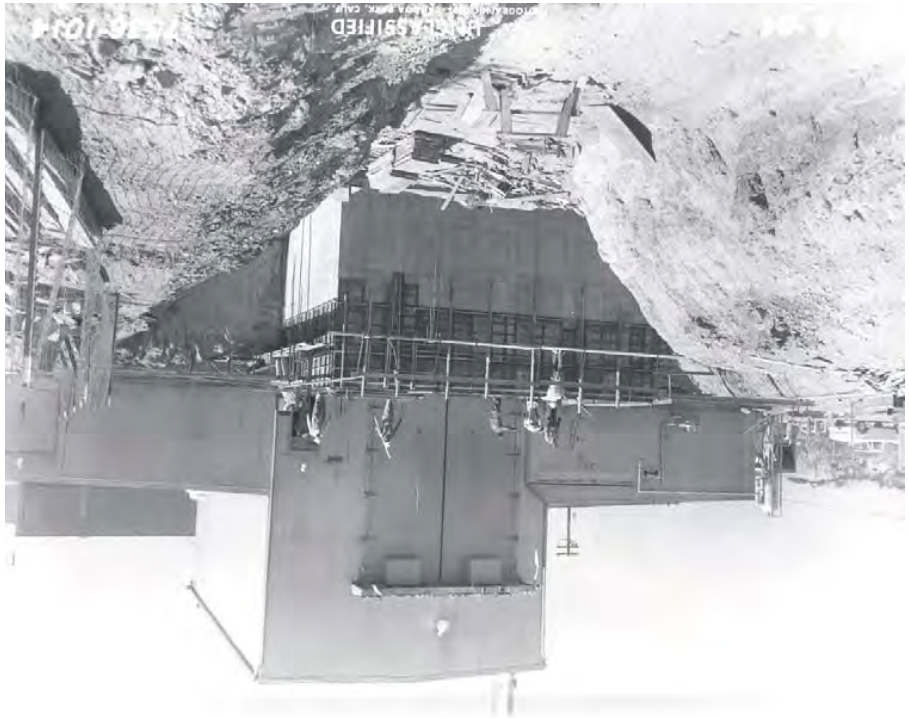
The SNAP Ground Prototype Test Facility (Bldg. 059) Operations Manual contains a brief description of the facility and facility systems, and detailed operating procedures for the facility systems.

Pollman CPAO (4)
(attn: Reardon)

FORM 791-C REV. 1962



BUILDING 4059



HEALTH PHYSICS

Laboratory Status Report

Room No. or Designation	Nature of Operations	Hazardous Materials	Probable Hazard	Personnel Responsible
508	Heating in furnace	uranium, about .5 kg	contamination	[redacted]
511	Cintering Beo, mixtures Thermoconductivity measurements	BeO, usually cintered BeO, usually cintered in furnace	possible airborne contamination	
512	Transpiration experiments heating in furnace, some cutting	BeO-aluminum mixtures some uranium	possible airborne contamination	
513	Cintering in furnaces, hot pressing, mixing, cold pressing	BeO, metal, mixtures occasionally small amounts uranium	contamination, airborne contamination	
514	Mixing, storage	Beo powder	airborne contamination, contamination	
515	Cutting, grinding	Beo, metal, various mixtures	airborne contamination, contamination	
521	Cintered BeO under various stresses	BeO	possible contamination	
528	Spectograph, X-ray defraction	small samples of nearly everything	contamination	
530	Electronmicroscope	Beo, irradiated and non-irradiated samples	contamination, irradiation	
531	Cintering, grinding, diffusion measurements	cintered BeO	possible airborne contamination	

HP 43
2/27/59

BUILDING 4059

BUILDING 4059

BUILDING 4062

BUILDING 4062

DOE AREA IV BUILDINGS

BUILDING NO.	NAME	MANAGER	STATUS
012E	ETEC X-RAY FACILITY	GAYLORD	INACTIVE
013E	THERMAL TRANSIENT FACILITY	GERRITSEN	ACTIVE
014E	SODIUM STORAGE	GERRITSEN	INACTIVE STANDBY
019E	ETEC COMPUTER CENTER/CONSTRUCTION STAGING	JETTER/ZWENG	ACTIVE
021	R/A WASTE DECONTAMINATION	HORTON	INACTIVE STANDBY
022	R/A VAULT STORAGE	HORTON	INACTIVE STANDBY
023	LIQUID METALS CHEMISTRY	GAY	ACTIVE
024	DEVELOPMENT TEST BLDG.	GERRITSEN	INACTIVE STANDBY
025E	SCTI MAIN. SHOP & STORAGE	MOORE	ACTIVE
026E	SCTL CONTROL CENTER	DEBEAR	INACTIVE STANDBY
027E	LEASED TO RKD FOR WELD SHOP	GAYLORD	ACTIVE
029E	HAZARDOUS WASTE STORAGE	GERRITSEN	ACTIVE
030E	TRAFFIC & WAREHOUSING-LEASED TO ROCKETDYNE	GAYLORD	ACTIVE
032E	LMDL-1	DEBEAR	INACTIVE STANDBY
034	RMDF ENGINEERING OFFICE	HORTON	ACTIVE
036E	OFFICE BLDG. LEASED TO RKD	GAYLORD	ACTIVE
038E	ETEC HEADQUARTERS/DOE SITE OFFICE	GAYLORD	ACTIVE
039E	OFFICE BLDG.	GAYLORD	INACTIVE
041	EQUIPMENT STORAGE	GERRITSEN	ACTIVE
042	LMFBR DEV. TESTING	GAY	INACTIVE STANDBY
044	RMDF AP OFFICE	HORTON	ACTIVE
049E	POU CONTROL CENTER	GAY	INACTIVE
057E	ETEC GENERAL TEST	GERRITSEN	INACTIVE
059E	LARGE LEAK TEST RIG	GERRITSEN	ACTIVE
062E	INSTRUMENTATION LAB.	WARGO	ACTIVE
064	NUCLEAR MATERIAL STORAGE	HORTON	INACTIVE STANDBY
065E	ETEC CHEMISTRY LAB.	JETTER	ACTIVE
066E	INSTRUMENTATION LAB.	WARGO	ACTIVE
075	CONTAMINATED EQUIPMENT STORAGE	HORTON	ACTIVE
133E	SODIUM BURN FACILITY	GERRITSEN	ACTIVE
228E	POWER PAK	MOORE	ACTIVE STANDBY
226E	SCTL MG BLDG.	DEBEAR	INACTIVE STANDBY
320E	FUEL OIL PUMP BLDG.	MOORE	INACTIVE
355E	SCTI CONTROL CENTER	MOORE	ACTIVE
356E	SODIUM COMPONENT TEST INSTALLATION	MOORE	ACTIVE STANDBY
357E	SCTI SUPPLY STORAGE	MOORE	INACTIVE STANDBY
358E	SCTL SUPPORT BLDG.	DEBEAR	INACTIVE
360E	CHEMICAL STORAGE BLDG.	MOORE	ACTIVE
361E	HAS MAT'L STORAGE	MOORE	ACTIVE STANDBY
392E	SCTI ELECTRICAL EQUIPMENT	MOORE	INACTIVE
459E	UNINTERRUPTIBLE POWER SUPPLY	GERRITSEN	INACTIVE
461E	MOTOR GENERATOR BLDG.	DEBEAR	INACTIVE STANDBY
462E	SODIUM PUMP TEST FACILITY	DEBEAR	INACTIVE STANDBY
463E	COMPONENTS HANDLING & CLEANING	GERRITSEN	ACTIVE STANDBY
473E	HYDRAULIC TEST INSTRUMENTATION	GERRITSEN	INACTIVE
482E	ENGINEERING OFFICE LEASED TO ROCKETDYNE	GAYLORD	PARTIAL ACTIVE
483E	ENGINEERING OFFICE	GAYLORD	INACTIVE
484E	RESTROOM FACILITY	GAYLORD	ACTIVE
485E	ENGINEERING OFFICE,	GAYLORD	INACTIVE
486E	ENGINEERING OFFICE	GAYLORD	ACTIVE
487E	ENGINEERING OFFICE	JETTER	ACTIVE

G. D. HEIL, INC DEMOLITION CONTRACTORS

837 S. East St., Anaheim, California 92805 714-687-9100 Fax 714-687-9108
Contractors State License # 659496

June 8, 1999

Mr. Mel Mitchell
Mail Stop CA08
Boeing Company
6633 Canoga Ave., PO Box 7922
Canoga Park, CA 91309-7922

Re: ITB No. 503818, Demolition of 8 Buildings, Rocketdyne SSFL

Dear Mel,

We propose to furnish material and labor and equipment necessary to perform all work as outlined below, for the sum of : $92,060.00 (Ninety two thousand sixty dollars)

Site clearing to include demolition and removal of ;

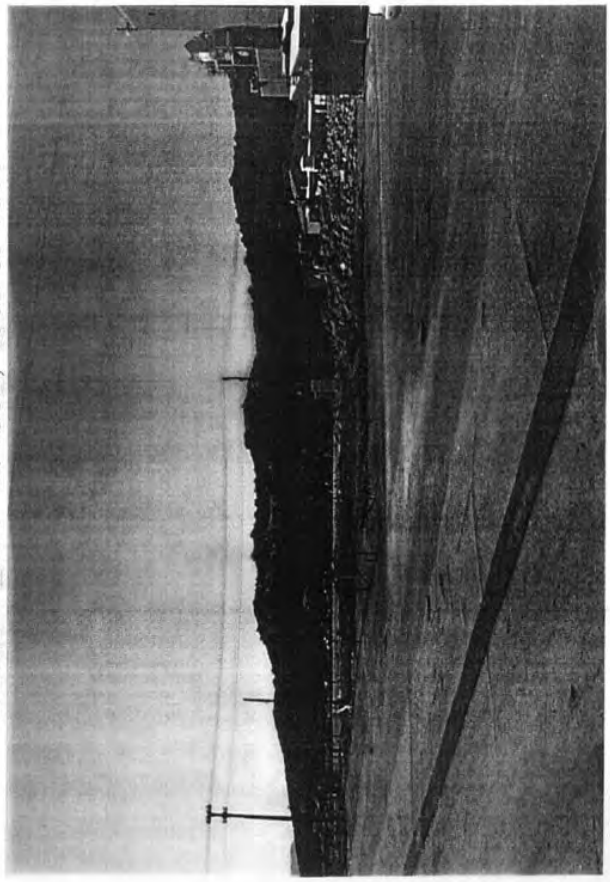
One story metal building (B4023)	6,500 sf
One story metal building (B4025)	5,600 sf
One story metal building (B430)	2,500 sf
One story metal building (B4036)	4,550 sf
One story CMU building (B4049)	900 sf
One story metal building (B4062) with ½ basement	2,400 sf
One story metal building (B4065)	2,700 sf
One story metal building (B4066)	4,600 sf
Excavate pits that are backfilled at B4025	65 cy
Backfill and compact to 90% pits at B4025	
Backfill and compact to 90% basement at B4062	450 cy
Backfill and compact to 90% miscellaneous foundation excavations	
Miscellaneous concrete pads around the perimeter of buildings	
Sawcut, break and remove approximately 10 ft of AC at perimeter of demo	
Provide 6 ft high temporary chain link fence at the perimeter of the demo area	
Provide work plan for lead abatement as required	

ADDITIVE ALTERNATES

1. Dismantle and save on building site 2 ton crane owned by the government. Loading or relocating crane is not included. Add $4,160.
2. Import fill dirt for backfill. Add $13.80 per ton. Note that approximately 950 tons of fill (at a cost of $13,100) would be need for basement backfill, all other areas should not need any fill material.
3. Provide performance and payment bond. Add 2-½ % to contract price.

HDMSP00036894

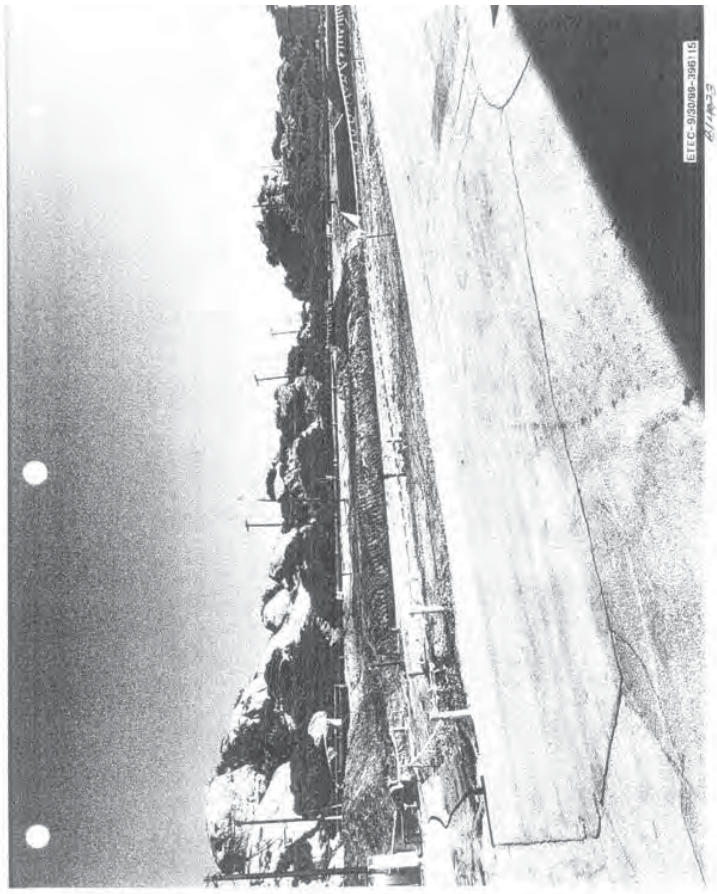
Demo Pak A - B/4062, 4065 & 4066



HDMSP00037301

HDMSP00037303

BUILDING 4062



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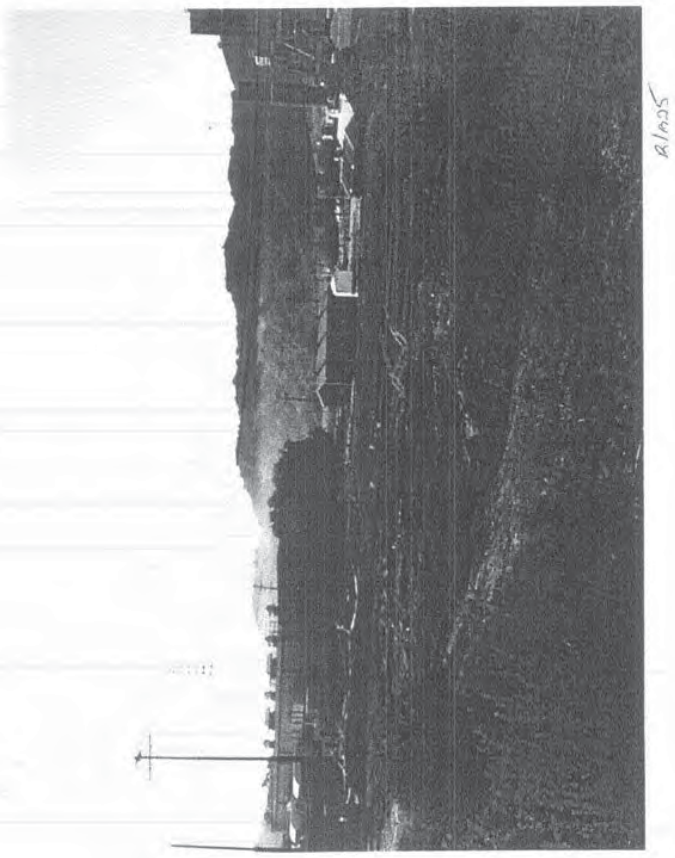

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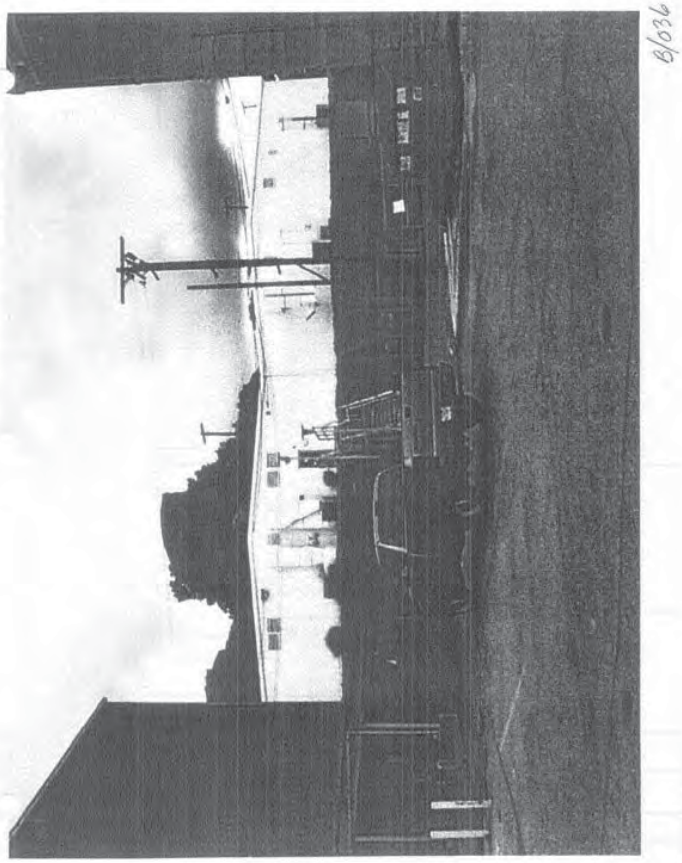

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BUILDING 4062

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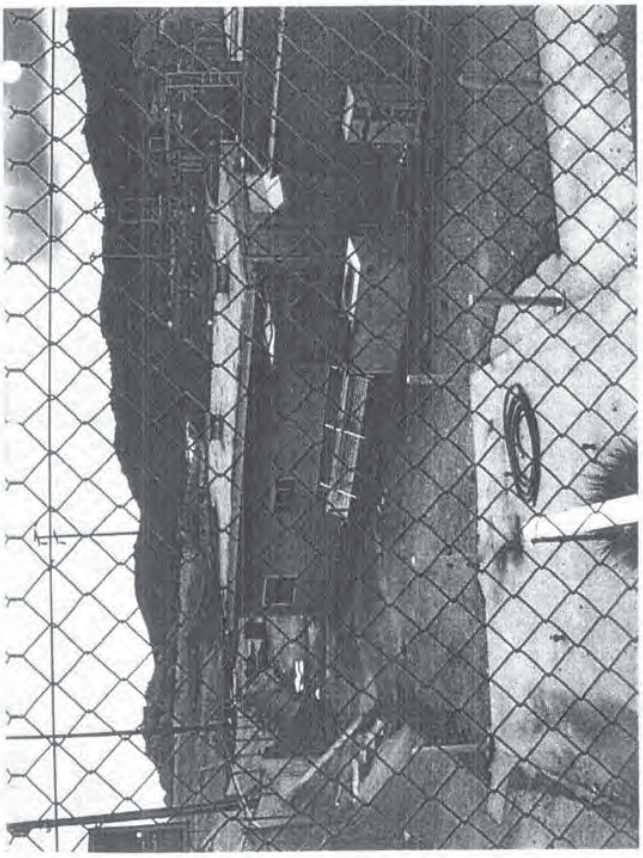

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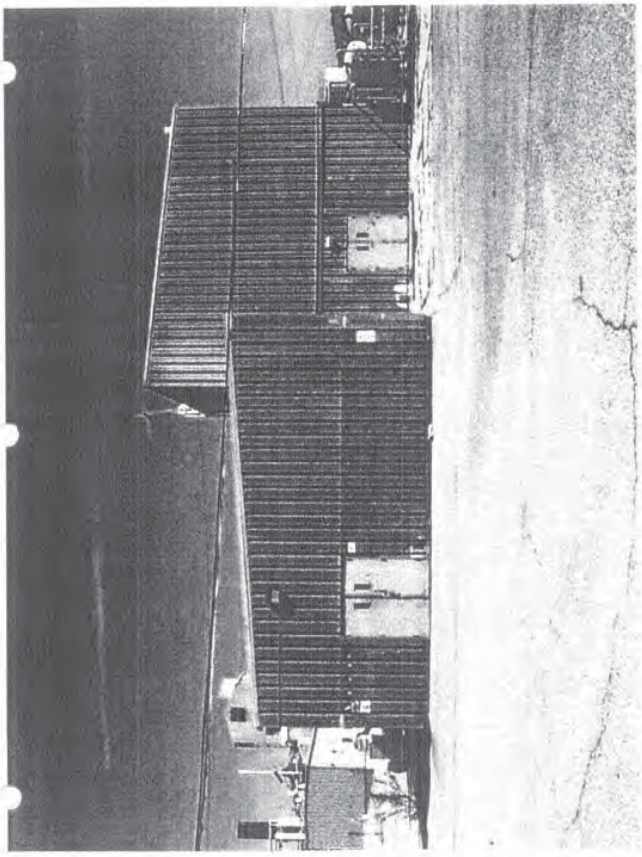

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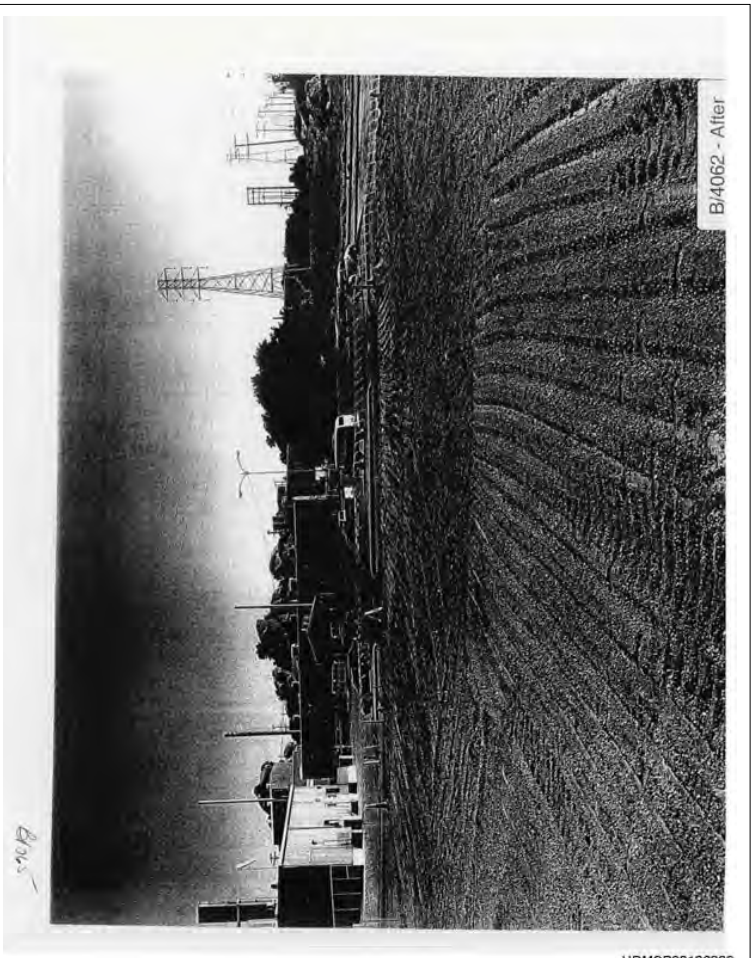
HDMSP00037314

BUILDING 4062

HDMSP00136208



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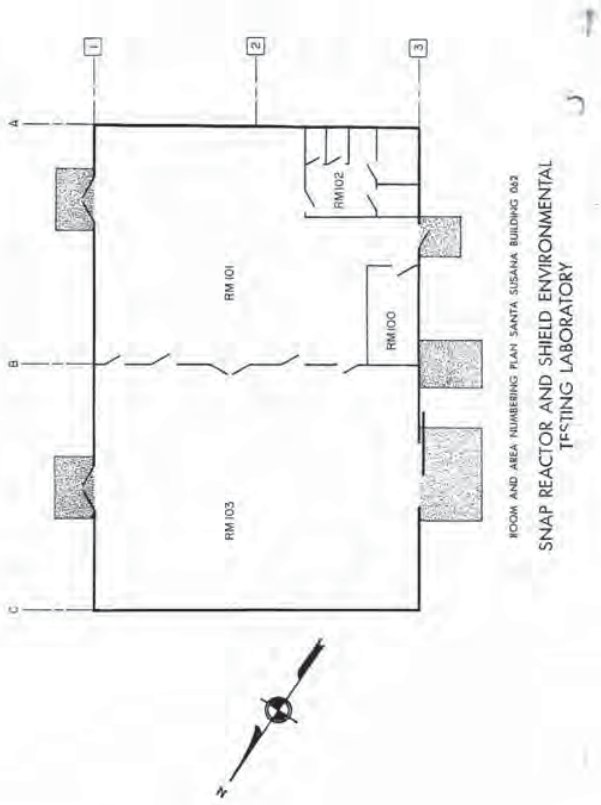

BNA00668325

HDMSP001812427

INTERNAL LETTER
ROCKETDYNE INTERNATIONAL
Division of North American Aviation, Inc.

DATE August 21, 1964

TO T. H. Lavelle
Mail Code 727-73 SanSu 038

FROM R. B. Cross
ADDRESS 752 AI/Can 3

PHONE 561

SUBJECT SECURITY OF SNAP 8 CLASSIFIED FUEL ELEMENTS, BUILDING 062, SANTA SUSANA

This will confirm the information verbally furnished you by Mr. P. E. Stephens, Security Representative, Santa Susana, concerning the Subject.

When the elements are not personally attended by personnel of your group, who are designated responsibility for controlling and safeguarding them, they must be locked within the bird cages and/or the vacuum chamber. It is understood that you have acquired two S & G combination padlocks for this purpose. This arrangement is satisfactory for periods such as the weekends, when, it is assumed, your employees would not be working.

The foregoing implies that responsible employees must be aware of their responsibility for controlling this material, when it is not secured as described above, and must be physically present to prevent unauthorized handling or removal.

Please see that the names, home addresses and telephone numbers of employees responsible for the security of the fuel are posted on the exterior side of the vacuum chamber, so that appropriate contact may be made in the event of an emergency.

R. B. Cross
R. B. Cross
Security Supervisor

RC:PES:bs
Distribution:
A. Caruvana, 727-73 HQ-5
R. F. Weed, 752 SanSu 040
P. E. Stephens, 752 SanSu 040

BNA05147910

HDMSP001905335

BUILDING 4062

4.5 SWMU 7.5 - BUILDING 100 TRENCH

4.5.1 Unit Description and Operational History

The Building 100 Trench (SWMU 7.5) is located in the west-central portion of Area IV near the intersection of 23rd and "F" Streets (Figure 2-3). The trench was approximately 75 feet long and 25 feet wide at its widest point. The depth of the trench was limited by the 5-foot depth of sandy silt alluvium above the bedrock. According to Rocketdyne, from 1960 through 1966, the trench was used for the burning and disposal of construction debris. The trench site was filled in and partially paved over in 1971, and Buildings 462 and 463 were constructed adjacent to the location of the former trench. A photograph of the former trench area is shown on Figure 4-10

4.5.2 Materials and Wastes Handled

The trench was used for the burning and disposal of construction debris; however, there are no records of the wastes burned and/or disposed in the trench (DOE, 1988). Aerial photographs taken in the period 1961 to 1967 indicate portions of the soil within this site were darkly stained.

4.5.3 Previous Sampling and Analysis

Soil Sampling

There has been one investigation at the Building 100 trench to address the potential presence of hazardous constituents in the soils (GWRC, May 1989). In August 1988, two soil samples were collected from each of two sampling trenches, at depths ranging from 2.0 feet to 4.0 feet (depth to Chatsworth Formation was 5.0 feet). The sampling locations are shown on Figure 4-11. The soil samples were analyzed for VOCs (Method 8240), BNAs (Method 8270), pH (Method 9045), and hydrocarbons (Method 8015). The sampling results are summarized in Table 4-6.

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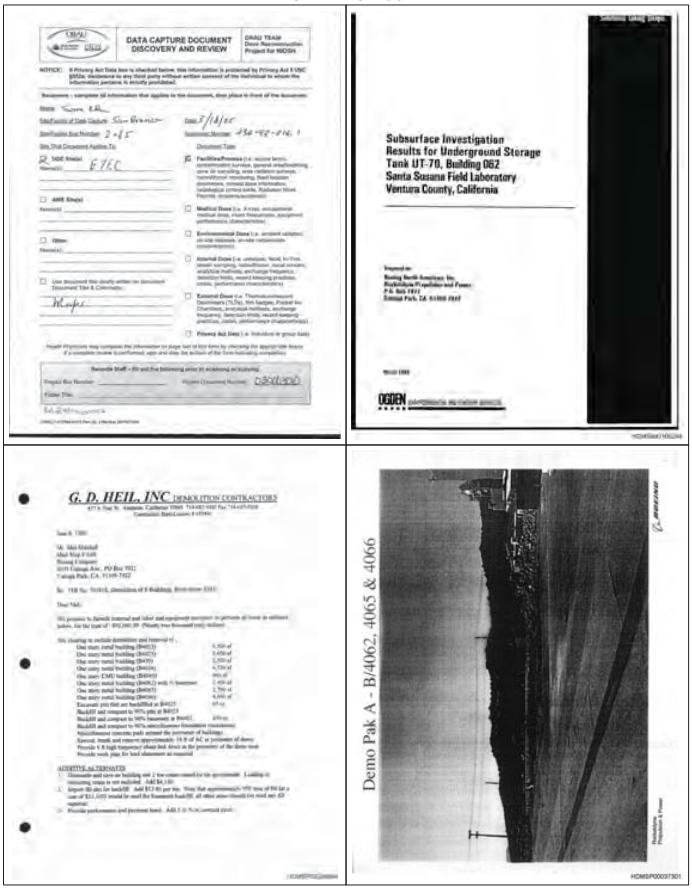
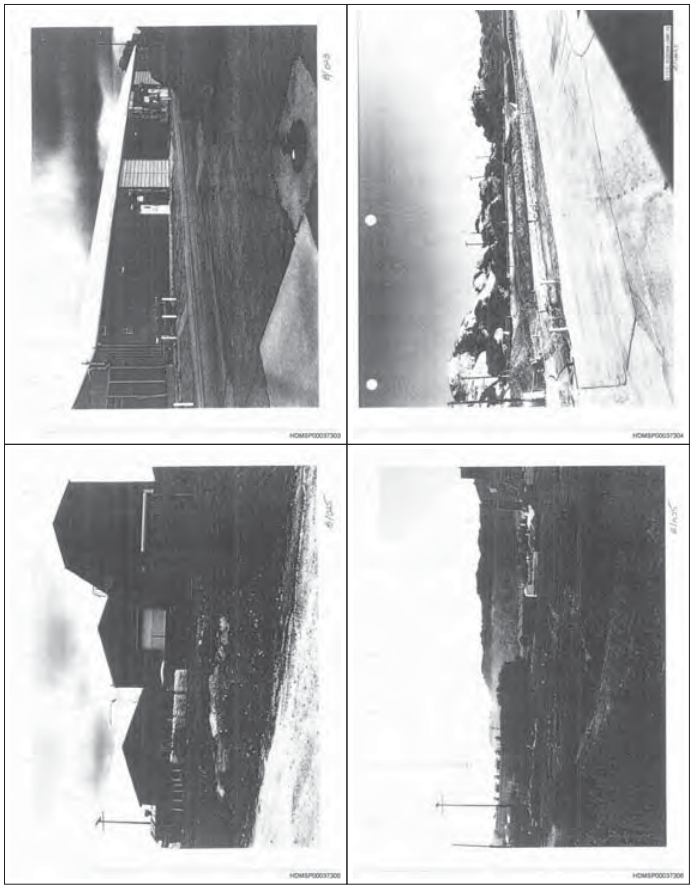
BNA00806007

HDMSp01714822

BUILDING 4062



BUILDING 4062



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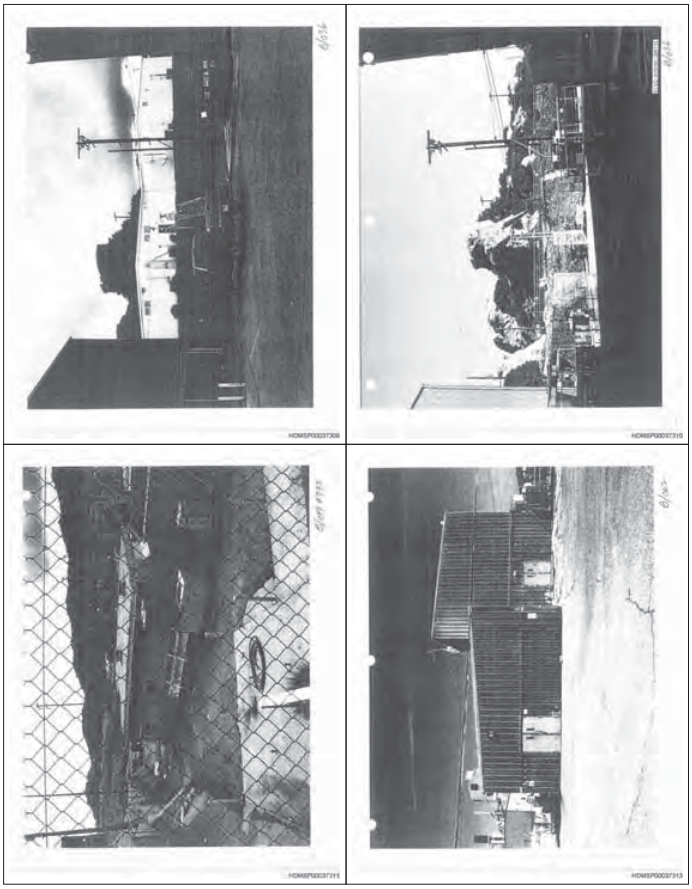
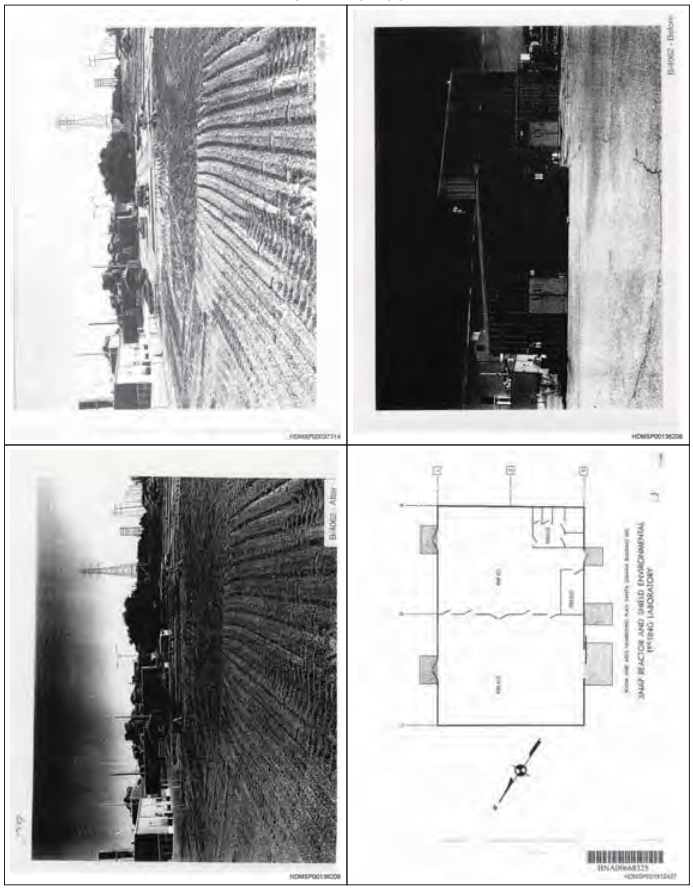
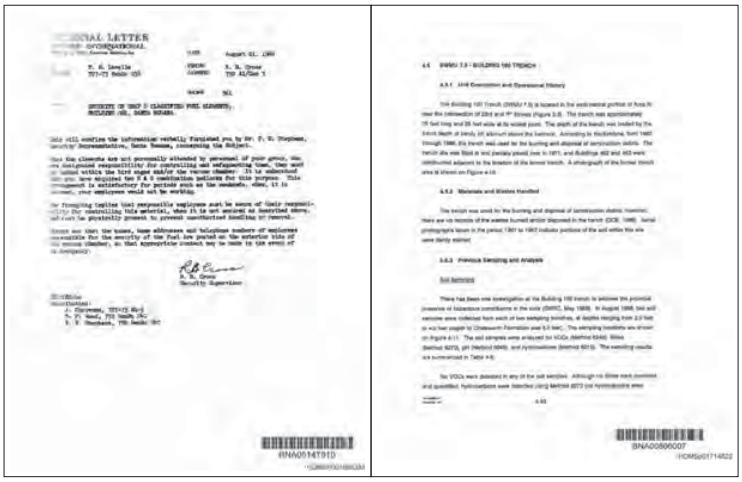


BUILDING 4062

BUILDING 4062



BUILDING 4062



BUILDING 4062

DRC 24238 ra

2600

ENERGY TECHNOLOGY ENGINEERING CENTER

Operated For The U.S. Department of Energy
Rocketdyne Division, Rockwell International

No. 886-AN-0003 Rev.____
Page 1 of 20
Original Date 12/10/91
Rev. Date -

TITLE: SODIUM DISPOSAL FACILITY CLOSURE-FACILITY FAMILIARIZATION TRAINING

-APPROVALS-

Originators: 12/10/91

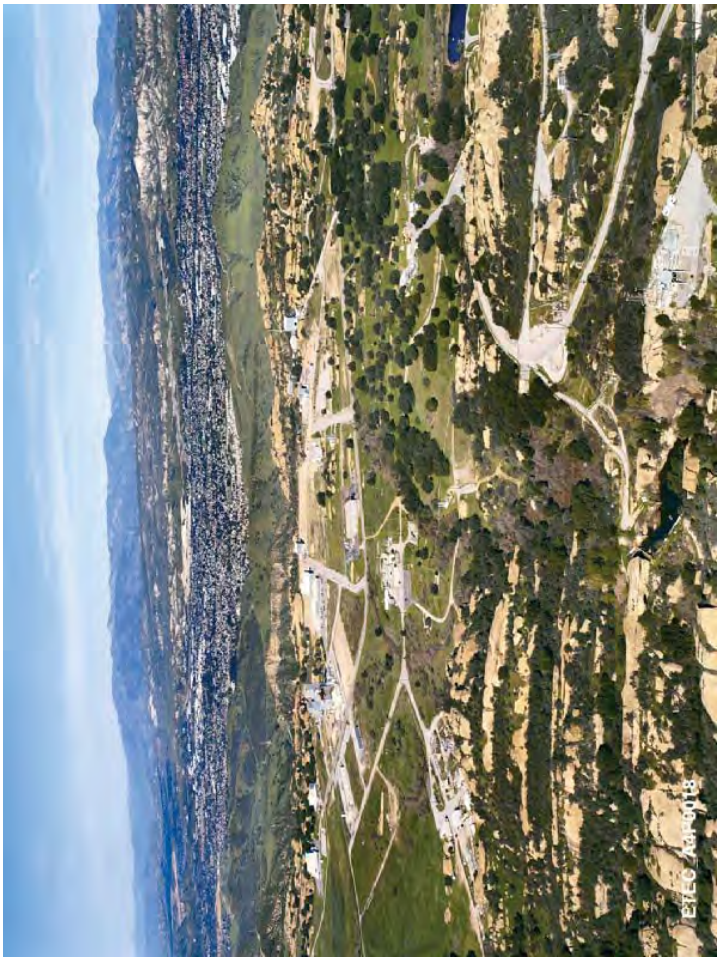
Fac Mgr 12-12-91
RP & HPS 12/14/91
Enviro 12/11/91
HS & FE 12/13/91
Qual Assur 12-17-91

REV. LTR.	REVISION	APPROVAL/DATE

OFFICIAL COPY
JAN

Form 735-A-6 Rev 6-91

BUILDING 4062



Historical Site Assessment of Area IV
Santa Susana Field Laboratory
Ventura County, California

Volume 2 – Area IV Site Summaries

Prepared by Sapere Consulting, Inc. and
The Boeing Company for the Department of Energy
Under Contract DE-AC03-99SF21530

May 2005

United States Environmental Protection Agency
Environmental Sciences Division
P.O. Box 93478
Las Vegas, NV 89193-3478
TS-PIC-20909963S/21009965S
March 2010
Research and Development

EPA

AERIAL PHOTOGRAPHIC ANALYSIS OF SANTA SUSANA FIELD LABORATORY - AREA IV

Ventura County, California

Volume 1 & 2

EPA Region 9

SFUND RECORDS CTR
2137511

[redacted]

DOE/EA-1345

ENVIRONMENTAL ASSESSMENT FOR CLEANUP AND CLOSURE OF THE ENERGY TECHNOLOGY ENGINEERING CENTER

FINAL

March 2003

[redacted]

BUILDING 4062

Solutions Taking Shape.

Subsurface Investigation Results for Underground Storage Tank UT-70, Building 062 Santa Susana Field Laboratory Ventura County, California

Prepared for
Boeing North American, Inc.
Rocketdyne Propulsion and Power
P.O. Box 7922
Canoga Park, CA 91309-7922

March 1998

OGDEN ENVIRONMENTAL AND ENERGY SERVICES

HDMSe00106294

G. D. HEIL, INC DEMOLITION CONTRACTORS
837 S. East St., Anaheim, California 92805 714-687-9100 Fax 714-687-9108
Contractors State License # 659496

June 8, 1999

Mr. Mel Mitchell
Mail Stop CA08
Boeing Company
6633 Canoga Ave., PO Box 7922
Canoga Park, CA 91309-7922

Re: ITB No. 503818, Demolition of 8 Buildings, Rocketdyne SSFL

Dear Mel,

We propose to furnish material and labor and equipment necessary to perform all work as outlined below, for the sum of : $92,060.00 (Ninety two thousand sixty dollars)

Site clearing to include demolition and removal of ;

One story metal building (B4023)	6,500 sf
One story metal building (B4025)	5,600 sf
One story metal building (B430)	2,500 sf
One story metal building (B4036)	4,550 sf
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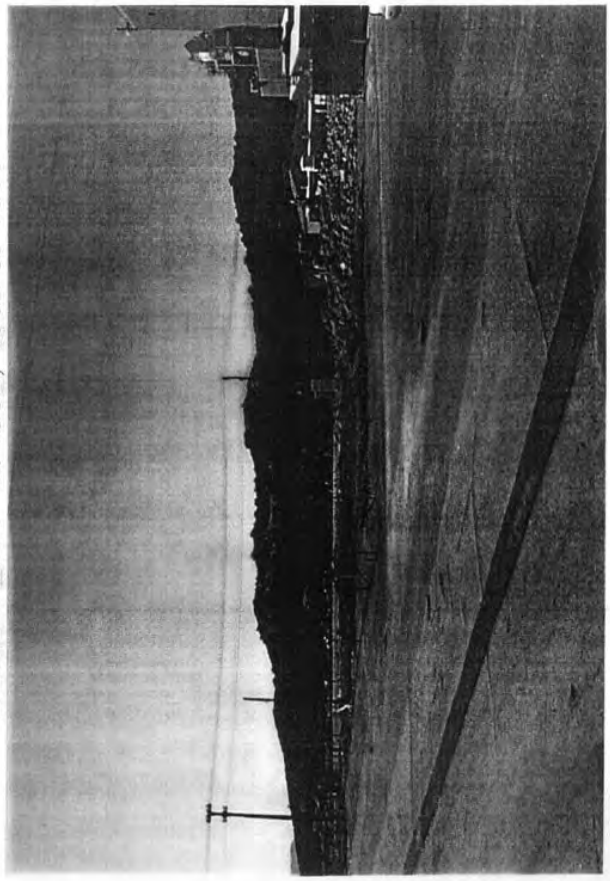
One story metal building (B4062) with ½ basement	2,400 sf
One story metal building (B4065)	2,700 sf
One story metal building (B4066)	4,600 sf
Excavate pits that are backfilled at B4025	65 cy
Backfill and compact to 90% pits at B4025	
Backfill and compact to 90% basement at B4062	450 cy
Backfill and compact to 90% miscellaneous foundation excavations	
Miscellaneous concrete pads around the perimeter of buildings	
Sawcut, break and remove approximately 10 ft of AC at perimeter of demo	
Provide 6 ft high temporary chain link fence at the perimeter of the demo area	
Provide work plan for lead abatement as required	

ADDITIVE ALTERNATES

1. Dismantle and save on building site 2 ton crane owned by the government. Loading or relocating crane is not included. Add $4,160.
2. Import fill dirt for backfill. Add $13.80 per ton. Note that approximately 950 tons of fill (at a cost of $13,100) would be need for basement backfill, all other areas should not need any fill material.
3. Provide performance and payment bond. Add 2-½ % to contract price.

HDMSP00036894

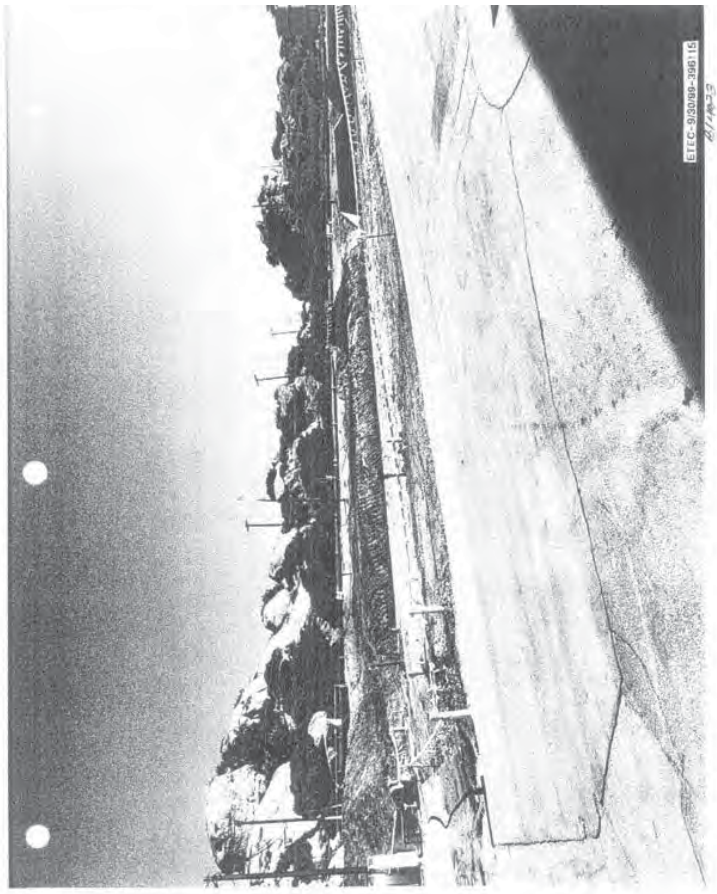
Demo Pak A - B/4062, 4065 & 4066



HDMSP00037301

HDMSP00037303

BUILDING 4062



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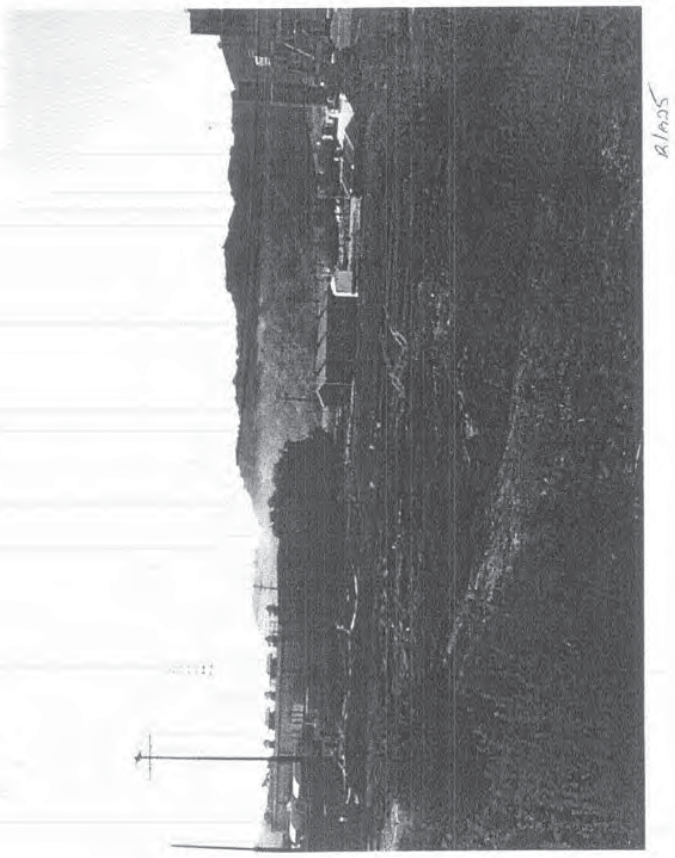

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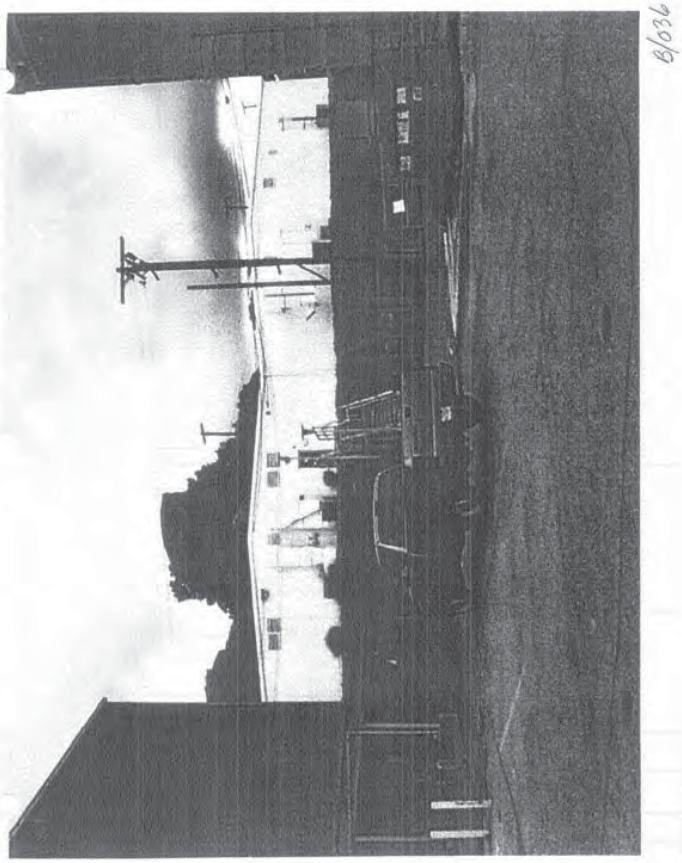
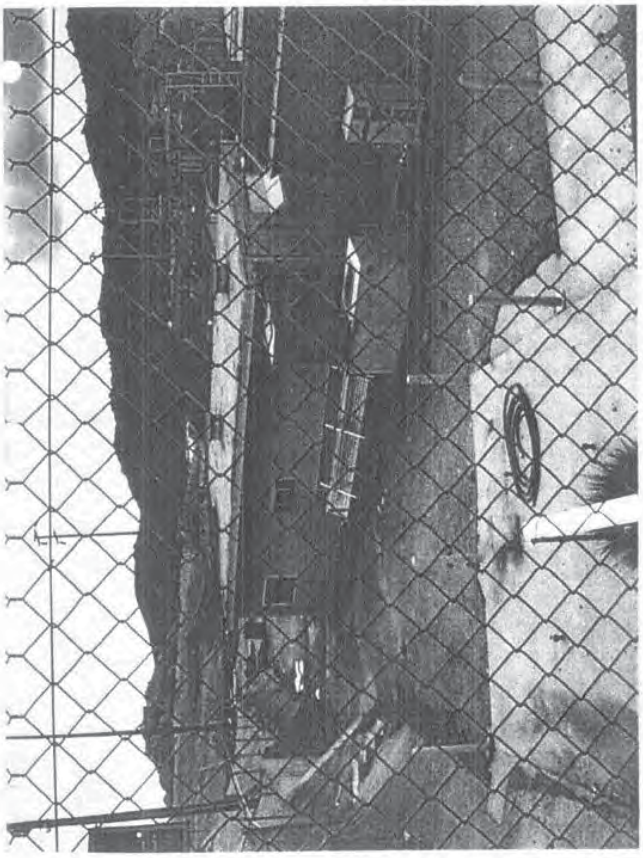


HDMSP00037309

BUILDING 4062

HDMSP00037310



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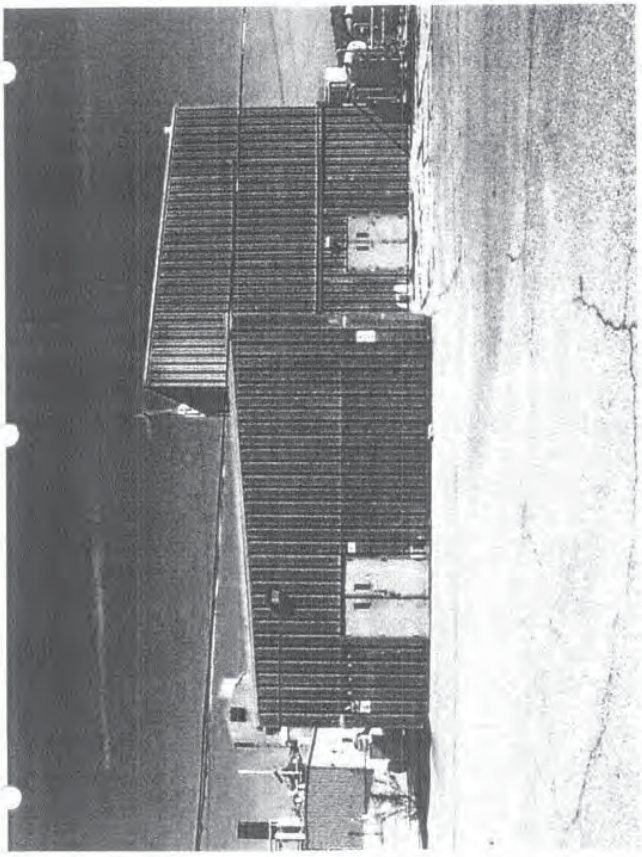

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HDMSP00037314

BUILDING 4062

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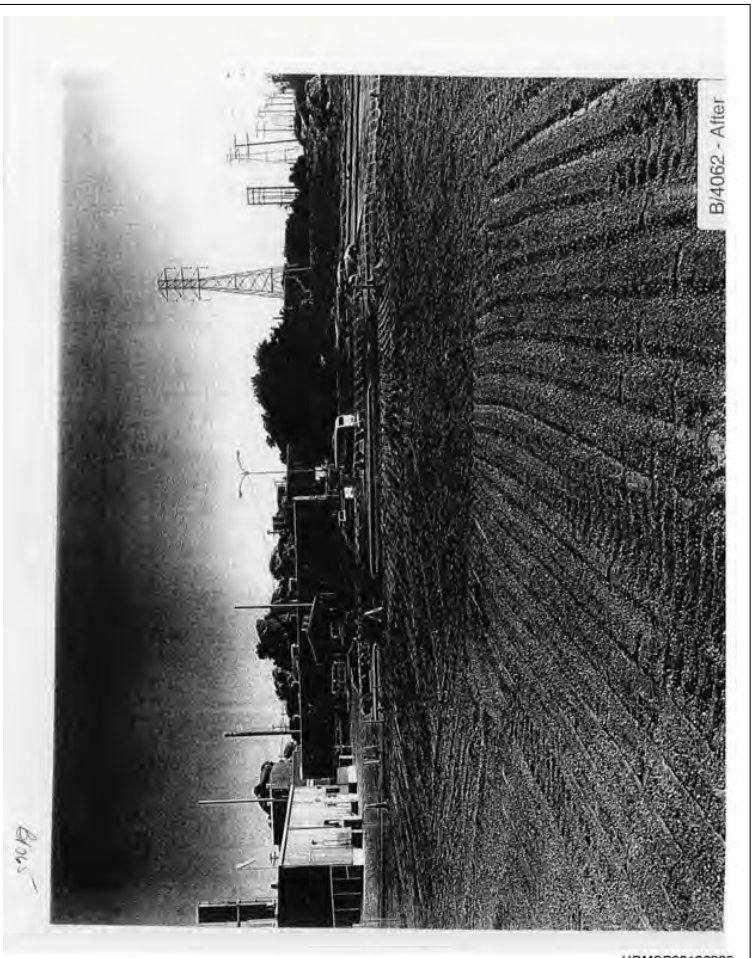

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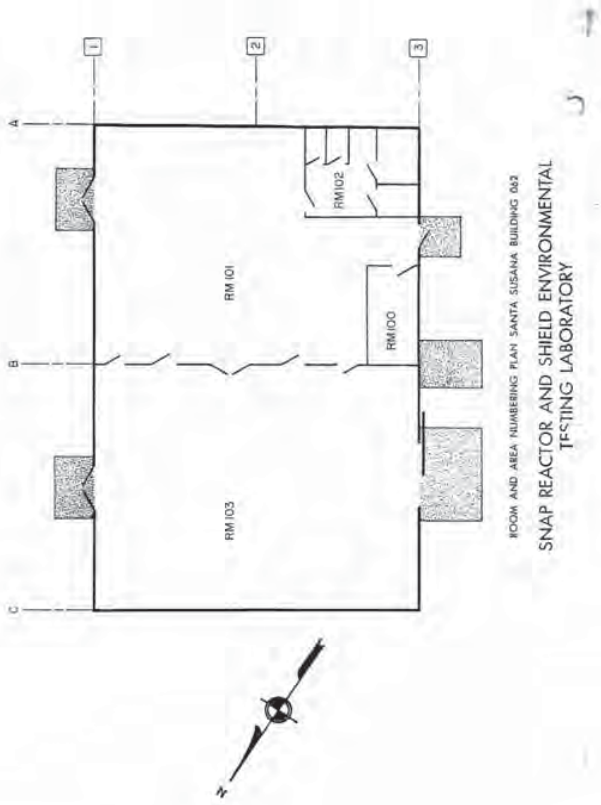

BNA00668325

HDMSP001812427

INTERNAL LETTER
ROCKETDYNE INTERNATIONAL
Division of North American Aviation, Inc.

DATE August 21, 1964

TO T. H. Lavelle
Mail Code 727-73 SanSu 038

FROM R. B. Cross
ADDRESS 752 AI/Can 3

PHONE 561

SUBJECT SECURITY OF SNAP 8 CLASSIFIED FUEL ELEMENTS, BUILDING 062, SANTA SUSANA

This will confirm the information verbally furnished you by Mr. P. E. Stephens, Security Representative, Santa Susana, concerning the Subject.

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R. B. Cross
R. B. Cross
Security Supervisor

RC:PES:bs
Distribution:
A. Caruvana, 727-73 HQ-5
R. F. Weed, 752 SanSu 040
P. E. Stephens, 752 SanSu 040

BNA05147910

HDMSP001905335

BUILDING 4062

4.5 SWMU 7.5 - BUILDING 100 TRENCH

4.5.1 Unit Description and Operational History

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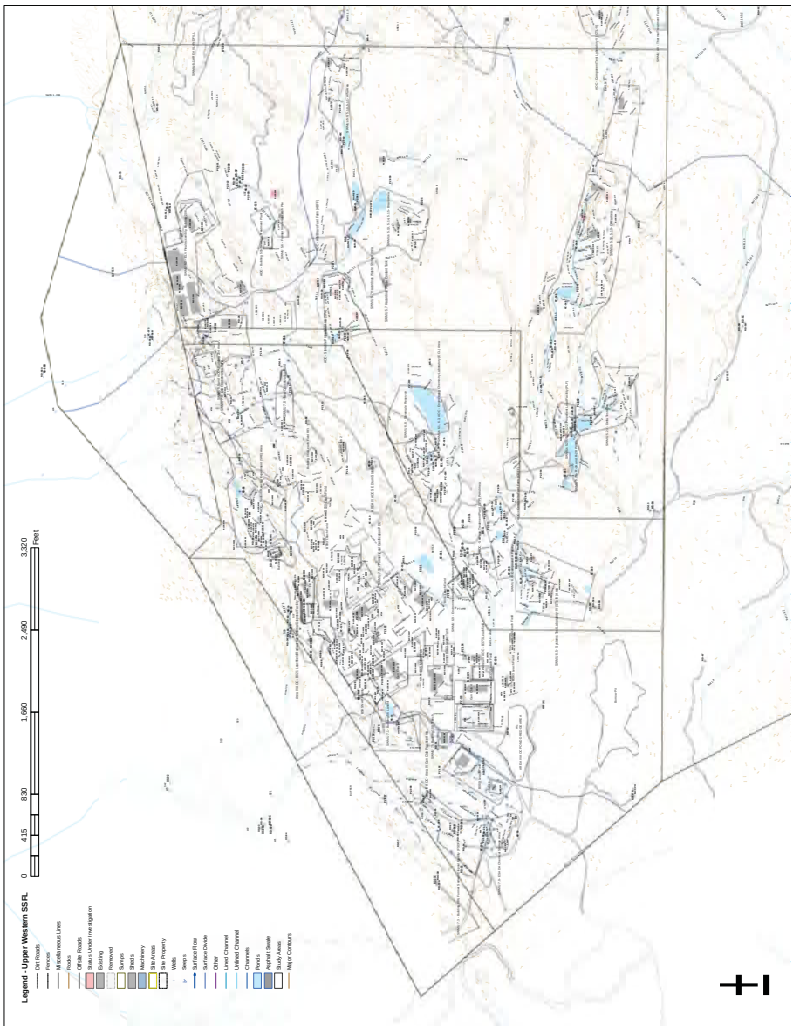
BNA00806007
HDMSp01714822



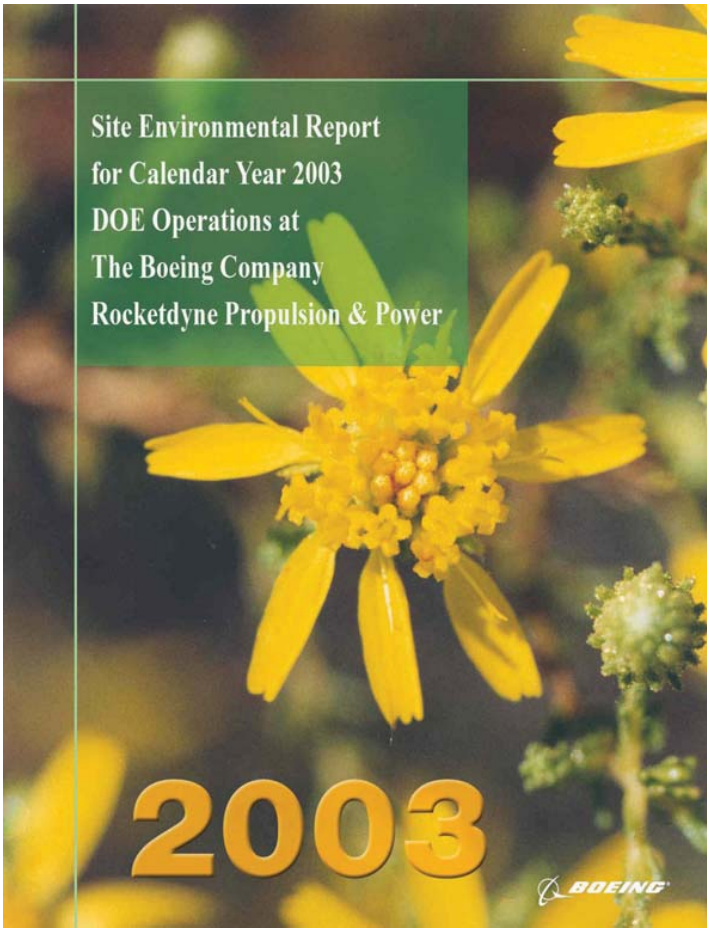
BUILDING 4065

BUILDING 4065

DOE AREA IV BUILDINGS

BUILDING NO.	NAME	MANAGER	STATUS
012E	ETEC X-RAY FACILITY	GAYLORD	INACTIVE
013E	THERMAL TRANSIENT FACILITY	GERRITSEN	ACTIVE
014E	SODIUM STORAGE	GERRITSEN	INACTIVE STANDBY
019E	ETEC COMPUTER CENTER/CONSTRUCTION STAGING	JETTER/ZWENG	ACTIVE
021	R/A WASTE DECONTAMINATION	HORTON	INACTIVE STANDBY
022	R/A VAULT STORAGE	HORTON	INACTIVE STANDBY
023	LIQUID METALS CHEMISTRY	GAY	ACTIVE
024	DEVELOPMENT TEST BLDG.	GERRITSEN	INACTIVE STANDBY
025E	SCTI MAIN. SHOP & STORAGE	MOORE	ACTIVE
026E	SCTL CONTROL CENTER	DEBEAR	INACTIVE STANDBY
027E	LEASED TO RKD FOR WELD SHOP	GAYLORD	ACTIVE
029E	HAZARDOUS WASTE STORAGE	GERRITSEN	ACTIVE
030E	TRAFFIC & WAREHOUSING-LEASED TO ROCKETDYNE	GAYLORD	ACTIVE
032E	LMDL-1	DEBEAR	INACTIVE STANDBY
034	RMDF ENGINEERING OFFICE	HORTON	ACTIVE
036E	OFFICE BLDG. LEASED TO RKD	GAYLORD	ACTIVE
038E	ETEC HEADQUARTERS/DOE SITE OFFICE	GAYLORD	ACTIVE
039E	OFFICE BLDG.	GAYLORD	INACTIVE
041	EQUIPMENT STORAGE	GERRITSEN	ACTIVE
042	LMFBR DEV. TESTING	GAY	INACTIVE STANDBY
044	RMDF AP OFFICE	HORTON	ACTIVE
049E	POU CONTROL CENTER	GAY	INACTIVE
057E	ETEC GENERAL TEST	GERRITSEN	INACTIVE
059E	LARGE LEAK TEST RIG	GERRITSEN	ACTIVE
062E	INSTRUMENTATION LAB.	WARGO	ACTIVE
064	NUCLEAR MATERIAL STORAGE	HORTON	INACTIVE STANDBY
065E	ETEC CHEMISTRY LAB.	JETTER	ACTIVE
066E	INSTRUMENTATION LAB.	WARGO	ACTIVE
075	CONTAMINATED EQUIPMENT STORAGE	HORTON	ACTIVE
133E	SODIUM BURN FACILITY	GERRITSEN	ACTIVE
228E	POWER PAK	MOORE	ACTIVE STANDBY
226E	SCTL MG BLDG.	DEBEAR	INACTIVE STANDBY
320E	FUEL OIL PUMP BLDG.	MOORE	INACTIVE
355E	SCTI CONTROL CENTER	MOORE	ACTIVE
356E	SODIUM COMPONENT TEST INSTALLATION	MOORE	ACTIVE STANDBY
357E	SCTI SUPPLY STORAGE	MOORE	INACTIVE STANDBY
358E	SCTL SUPPORT BLDG.	DEBEAR	INACTIVE
360E	CHEMICAL STORAGE BLDG.	MOORE	ACTIVE
361E	HAS MAT'L STORAGE	MOORE	ACTIVE STANDBY
392E	SCTI ELECTRICAL EQUIPMENT	MOORE	INACTIVE
459E	UNINTERRUPTIBLE POWER SUPPLY	GERRITSEN	INACTIVE
461E	MOTOR GENERATOR BLDG.	DEBEAR	INACTIVE STANDBY
462E	SODIUM PUMP TEST FACILITY	DEBEAR	INACTIVE STANDBY
463E	COMPONENTS HANDLING & CLEANING	GERRITSEN	ACTIVE STANDBY
473E	HYDRAULIC TEST INSTRUMENTATION	GERRITSEN	INACTIVE
482E	ENGINEERING OFFICE LEASED TO ROCKETDYNE	GAYLORD	PARTIAL ACTIVE
483E	ENGINEERING OFFICE	GAYLORD	INACTIVE
484E	RESTROOM FACILITY	GAYLORD	ACTIVE
485E	ENGINEERING OFFICE,	GAYLORD	INACTIVE
486E	ENGINEERING OFFICE	GAYLORD	ACTIVE
487E	ENGINEERING OFFICE	JETTER	ACTIVE

BUILDING 4065



Historical Site Assessment of Area IV
Santa Susana Field Laboratory
Ventura County, California

Volume 2 – Area IV Site Summaries

Prepared by Sapere Consulting, Inc. and
The Boeing Company for the Department of Energy
Under Contract DE-AC03-99SF21530

May 2005

United States Environmental Protection Agency
Environmental Sciences Division
P.O. Box 93478
Las Vegas, NV 89193-3478
TS-PIC-20909963S/21009965S
March 2010
Research and Development

EPA

AERIAL PHOTOGRAPHIC ANALYSIS OF SANTA SUSANA FIELD LABORATORY - AREA IV

Ventura County, California

Volume 1 & 2

EPA Region 9

BUILDING 4065

G. D. HEIL, INC DEMOLITION CONTRACTORS

837 S. East St., Anaheim, California 92805 714-687-9100 Fax 714-687-9108
Contractors State License # 659496

June 8, 1999

Mr. Mel Mitchell
Mail Stop CA08
Boeing Company
6633 Canoga Ave., PO Box 7922
Canoga Park, CA 91309-7922

Re: ITB No. 503818, Demolition of 8 Buildings, Rocketdyne SSFL

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ADDITIVE ALTERNATES

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3. Provide performance and payment bond. Add 2-½ % to contract price.

HDMSP00036894

HDMSP00051407

HDMSP00051408

HDMSP00051409

BUILDING 4065

HDMSP00051410

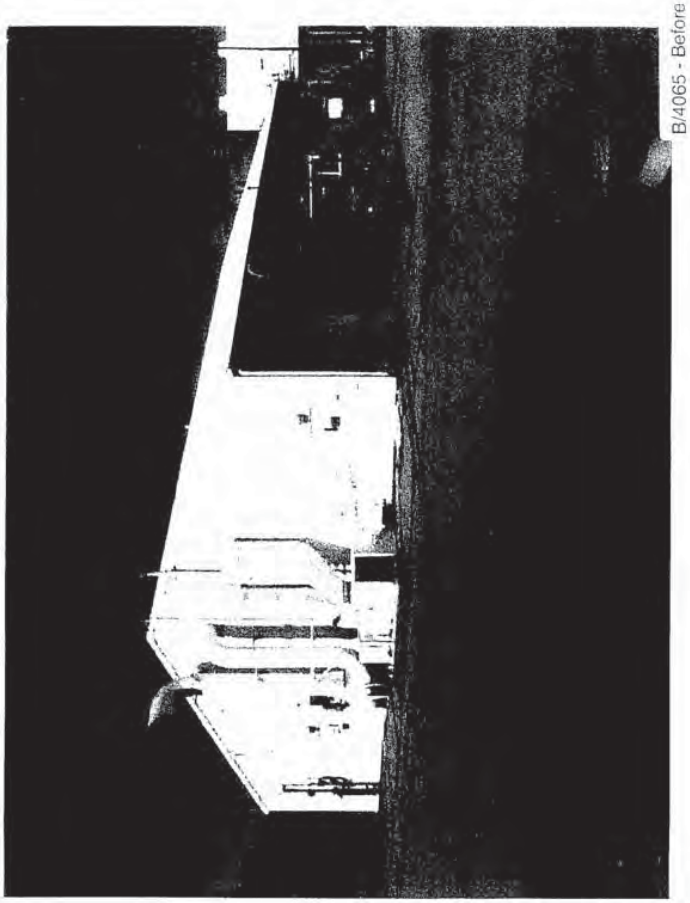
HDMSP00051411

HDMSP00051412

HDMSP00051413

BUILDING 4065

HDMSP00136210



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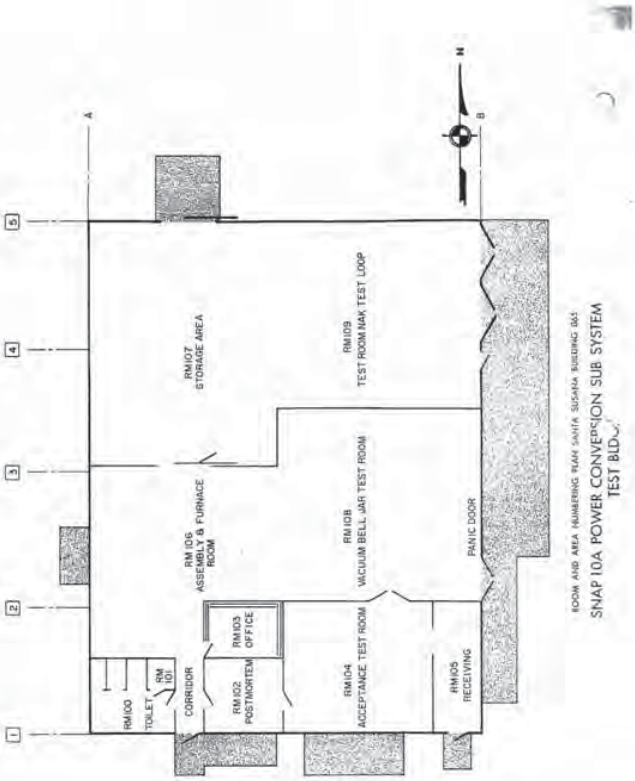

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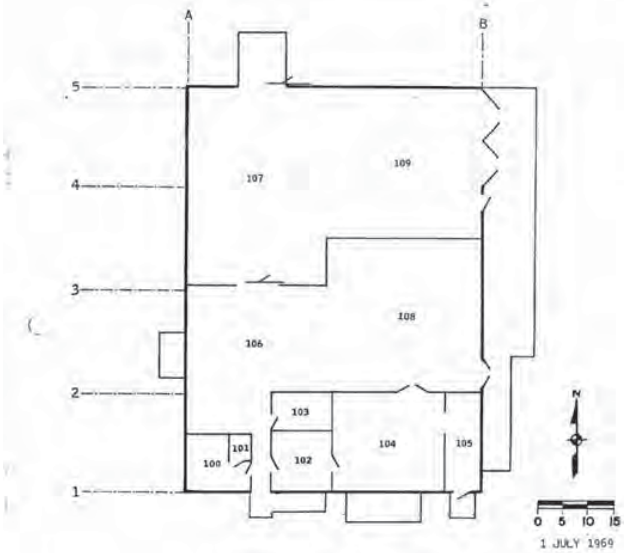

SNAP THERMOELECTRIC CONVERTER TEST

BUILDING 065

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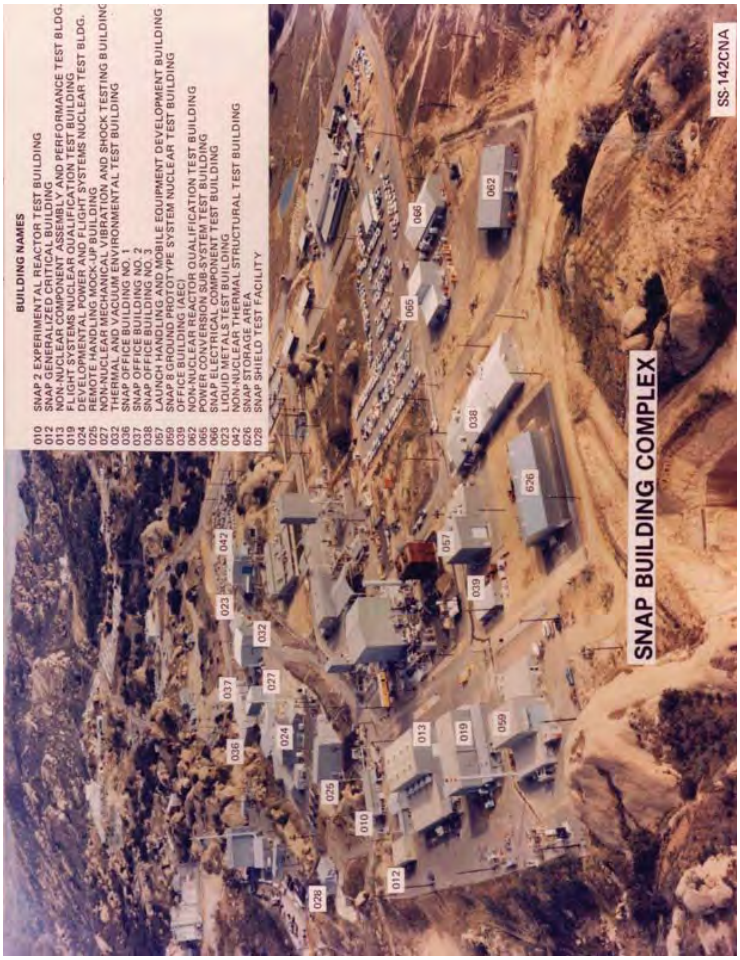
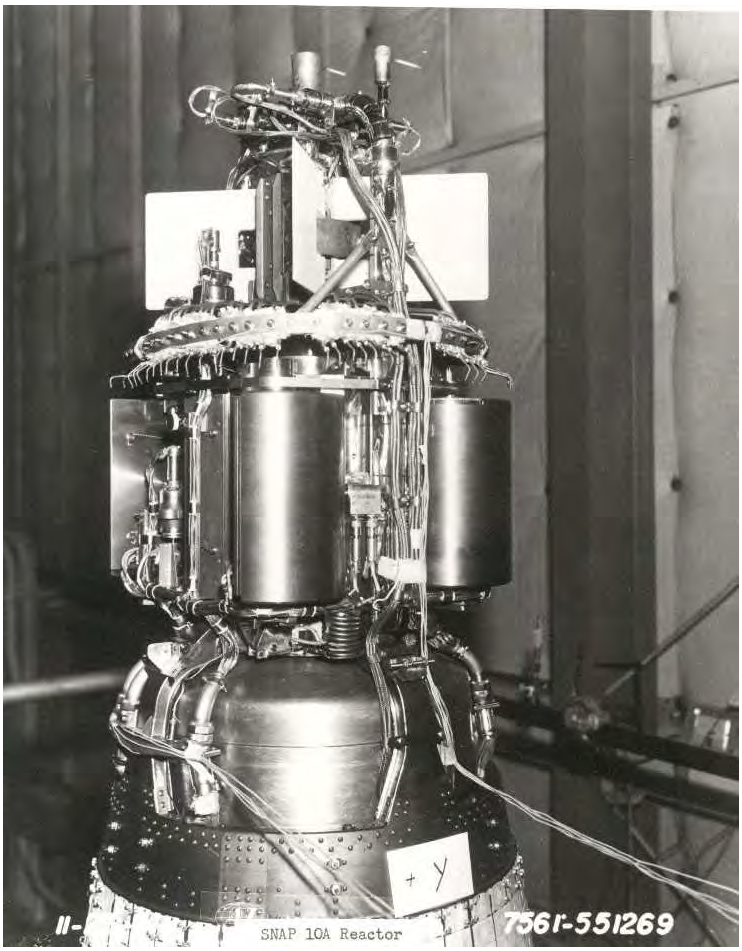
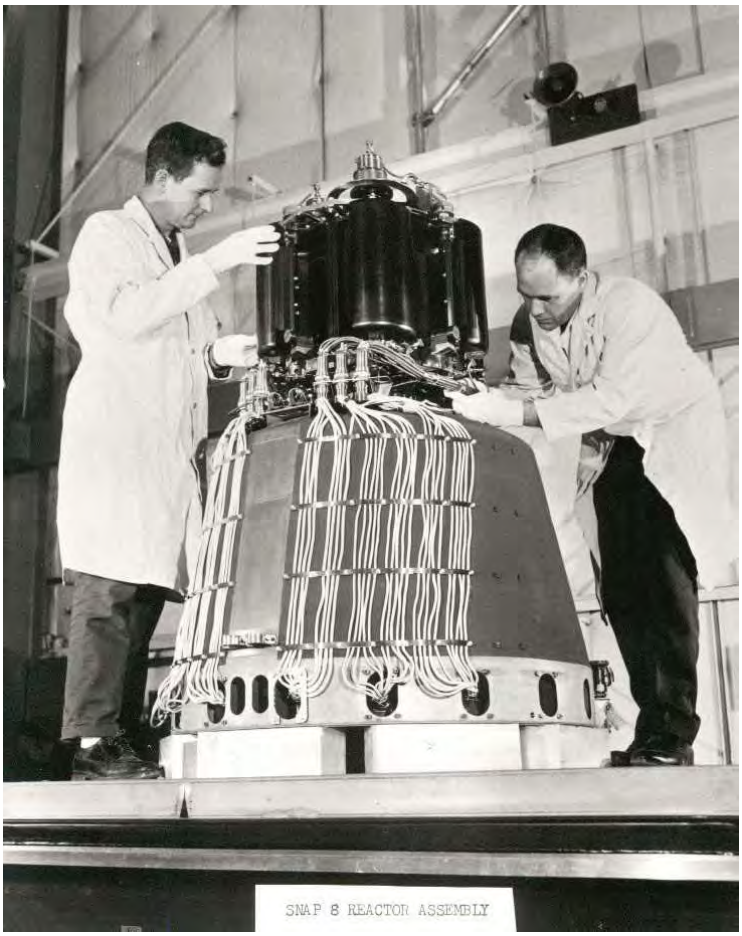
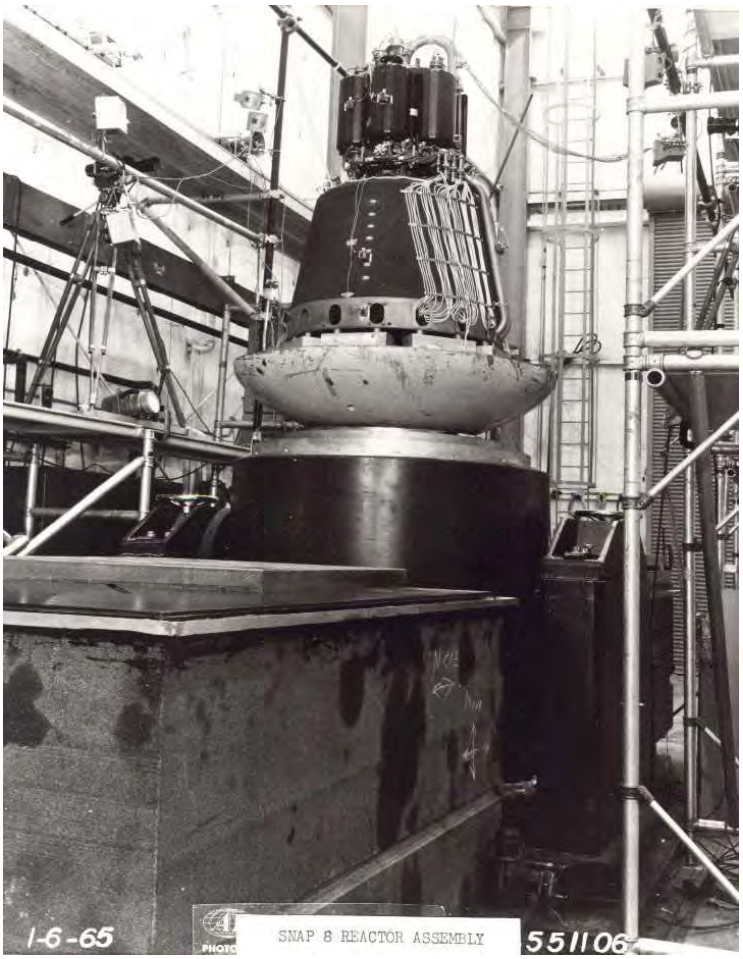
BUILDING 4065

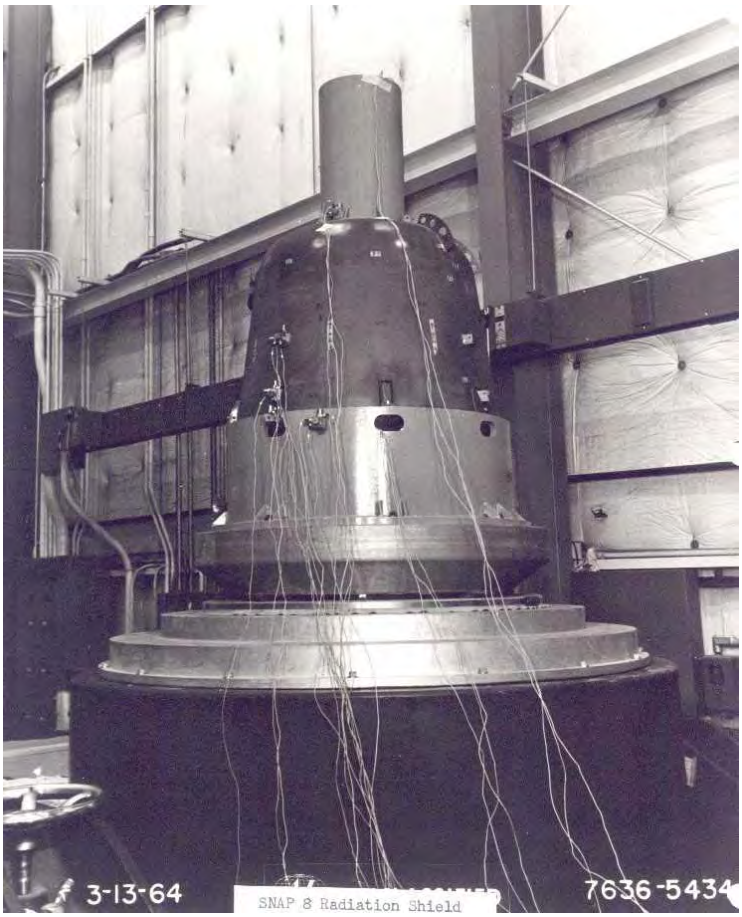




BUILDING 4065







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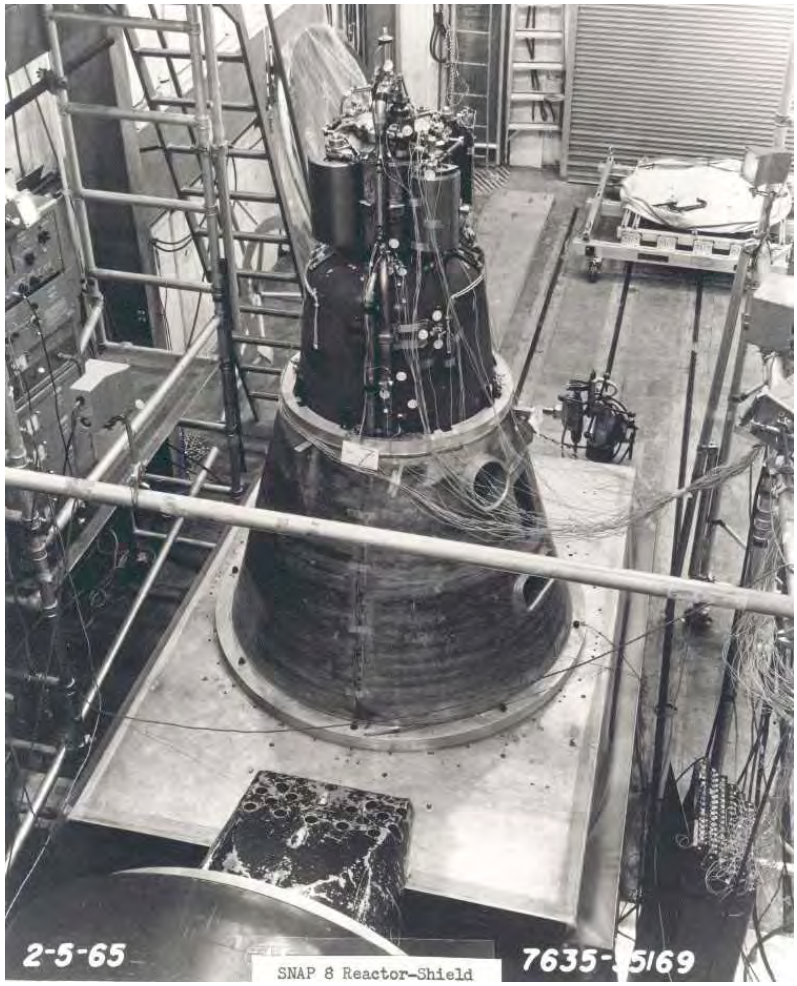
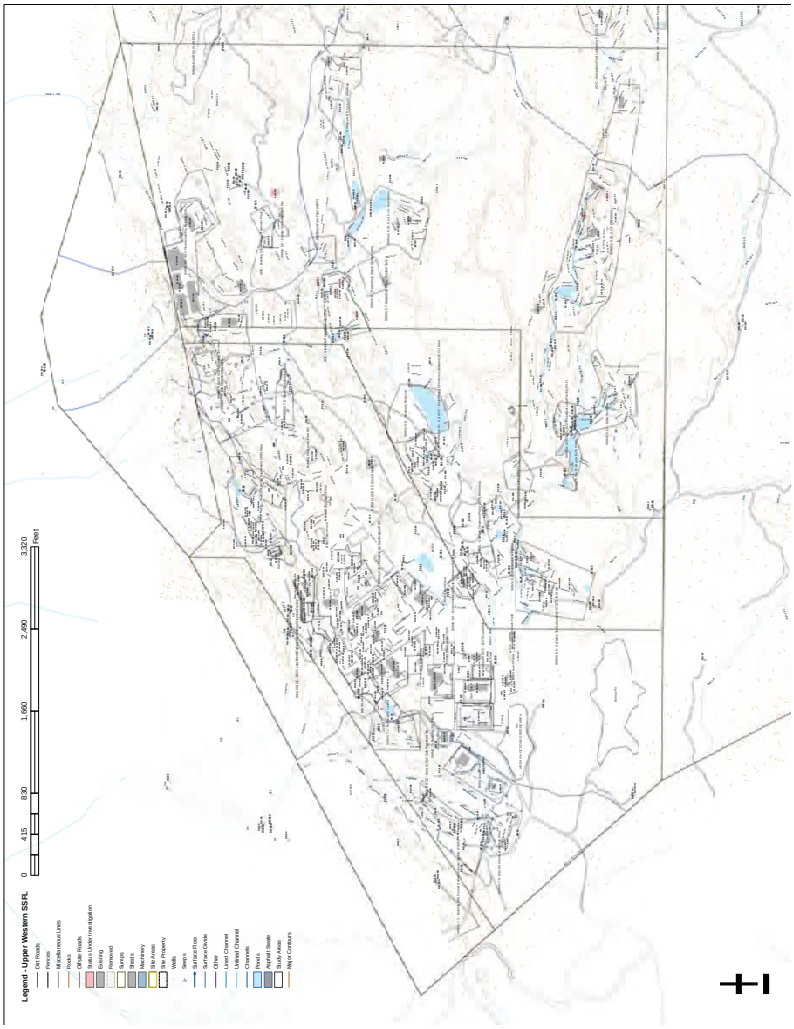




BUILDING 4066

BUILDING 4066

DOE AREA IV BUILDINGS

BUILDING NO.	NAME	MANAGER	STATUS
012E	ETEC X-RAY FACILITY	GAYLORD	INACTIVE
013E	THERMAL TRANSIENT FACILITY	GERRITSEN	ACTIVE
014E	SODIUM STORAGE	GERRITSEN	INACTIVE STANDBY
019E	ETEC COMPUTER CENTER/CONSTRUCTION STAGING	JETTER/ZWENG	ACTIVE
021	R/A WASTE DECONTAMINATION	HORTON	INACTIVE STANDBY
022	R/A VAULT STORAGE	HORTON	INACTIVE STANDBY
023	LIQUID METALS CHEMISTRY	GAY	ACTIVE
024	DEVELOPMENT TEST BLDG.	GERRITSEN	INACTIVE STANDBY
025E	SCTI MAIN. SHOP & STORAGE	MOORE	ACTIVE
026E	SCTL CONTROL CENTER	DEBEAR	INACTIVE STANDBY
027E	LEASED TO RKD FOR WELD SHOP	GAYLORD	ACTIVE
029E	HAZARDOUS WASTE STORAGE	GERRITSEN	ACTIVE
030E	TRAFFIC & WAREHOUSING-LEASED TO ROCKETDYNE	GAYLORD	ACTIVE
032E	LMDL-1	DEBEAR	INACTIVE STANDBY
034	RMDF ENGINEERING OFFICE	HORTON	ACTIVE
036E	OFFICE BLDG. LEASED TO RKD	GAYLORD	ACTIVE
038E	ETEC HEADQUARTERS/DOE SITE OFFICE	GAYLORD	ACTIVE
039E	OFFICE BLDG.	GAYLORD	INACTIVE
041	EQUIPMENT STORAGE	GERRITSEN	ACTIVE
042	LMFBR DEV. TESTING	GAY	INACTIVE STANDBY
044	RMDF AP OFFICE	HORTON	ACTIVE
049E	POU CONTROL CENTER	GAY	INACTIVE
057E	ETEC GENERAL TEST	GERRITSEN	INACTIVE
059E	LARGE LEAK TEST RIG	GERRITSEN	ACTIVE
062E	INSTRUMENTATION LAB.	WARGO	ACTIVE
064	NUCLEAR MATERIAL STORAGE	HORTON	INACTIVE STANDBY
065E	ETEC CHEMISTRY LAB.	JETTER	ACTIVE
066E	INSTRUMENTATION LAB.	WARGO	ACTIVE
075	CONTAMINATED EQUIPMENT STORAGE	HORTON	ACTIVE
133E	SODIUM BURN FACILITY	GERRITSEN	ACTIVE
228E	POWER PAK	MOORE	ACTIVE STANDBY
226E	SCTL MG BLDG.	DEBEAR	INACTIVE STANDBY
320E	FUEL OIL PUMP BLDG.	MOORE	INACTIVE
355E	SCTI CONTROL CENTER	MOORE	ACTIVE
356E	SODIUM COMPONENT TEST INSTALLATION	MOORE	ACTIVE STANDBY
357E	SCTI SUPPLY STORAGE	MOORE	INACTIVE STANDBY
358E	SCTL SUPPORT BLDG.	DEBEAR	INACTIVE
360E	CHEMICAL STORAGE BLDG.	MOORE	ACTIVE
361E	HAS MAT'L STORAGE	MOORE	ACTIVE STANDBY
392E	SCTI ELECTRICAL EQUIPMENT	MOORE	INACTIVE
459E	UNINTERRUPTIBLE POWER SUPPLY	GERRITSEN	INACTIVE
461E	MOTOR GENERATOR BLDG.	DEBEAR	INACTIVE STANDBY
462E	SODIUM PUMP TEST FACILITY	DEBEAR	INACTIVE STANDBY
463E	COMPONENTS HANDLING & CLEANING	GERRITSEN	ACTIVE STANDBY
473E	HYDRAULIC TEST INSTRUMENTATION	GERRITSEN	INACTIVE
482E	ENGINEERING OFFICE LEASED TO ROCKETDYNE	GAYLORD	PARTIAL ACTIVE
483E	ENGINEERING OFFICE	GAYLORD	INACTIVE
484E	RESTROOM FACILITY	GAYLORD	ACTIVE
485E	ENGINEERING OFFICE,	GAYLORD	INACTIVE
486E	ENGINEERING OFFICE	GAYLORD	ACTIVE
487E	ENGINEERING OFFICE	JETTER	ACTIVE

Historical Site Assessment of Area IV
Santa Susana Field Laboratory
Ventura County, California

Volume 2 – Area IV Site Summaries

Prepared by Sapere Consulting, Inc. and
The Boeing Company for the Department of Energy
Under Contract DE-AC03-99SF21530

May 2005

BUILDING 4066

United States Environmental Protection Agency
Research and Development

Environmental Sciences Division
P.O. Box 93478
Las Vegas, NV 89193-3478

TS-PIC-20909963S/21009965S
March 2010

EPA

AERIAL PHOTOGRAPHIC ANALYSIS OF SANTA SUSANA FIELD LABORATORY - AREA IV

Ventura County, California

Volume 1 & 2

EPA Region 9

G. D. HEIL, INC DEMOLITION CONTRACTORS
837 S. East St., Anaheim, California 92805 714-687-9100 Fax 714-687-9108
Contractors State License # 659496

June 8, 1999

Mr. Mel Mitchell
Mail Stop CA08
Boeing Company
6633 Canoga Ave., PO Box 7922
Canoga Park, CA 91309-7922

Re: ITB No. 503818, Demolition of 8 Buildings, Rocketdyne SSFL

Dear Mel,

We propose to furnish material and labor and equipment necessary to perform all work as outlined below, for the sum of : $92,060.00 (Ninety two thousand sixty dollars)

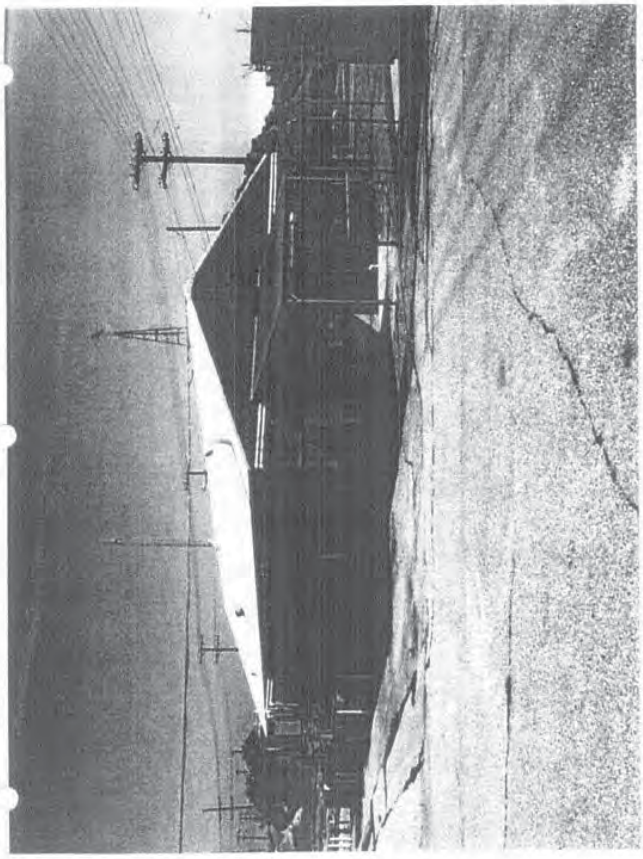
Site clearing to include demolition and removal of ;

One story metal building (B4023)	6,500 sf
One story metal building (B4025)	5,600 sf
One story metal building (B430)	2,500 sf
One story metal building (B4036)	4,550 sf
One story CMU building (B4049)	900 sf
One story metal building (B4062) with ½ basement	2,400 sf
One story metal building (B4065)	2,700 sf
One story metal building (B4066)	4,600 sf
Excavate pits that are backfilled at B4025	65 cy
Backfill and compact to 90% pits at B4025	
Backfill and compact to 90% basement at B4062	450 cy
Backfill and compact to 90% miscellaneous foundation excavations	
Miscellaneous concrete pads around the perimeter of buildings	
Sawcut, break and remove approximately 10 ft of AC at perimeter of demo	
Provide 6 ft high temporary chain link fence at the perimeter of the demo area	
Provide work plan for lead abatement as required	

ADDITIVE ALTERNATES

1. Dismantle and save on building site 2 ton crane owned by the government. Loading or relocating crane is not included. Add $4,160.
2. Import fill dirt for backfill. Add $13.80 per ton. Note that approximately 950 tons of fill (at a cost of $13,100) would be need for basement backfill, all other areas should not need any fill material.
3. Provide performance and payment bond. Add 2-½ % to contract price.

HDMSP00036894



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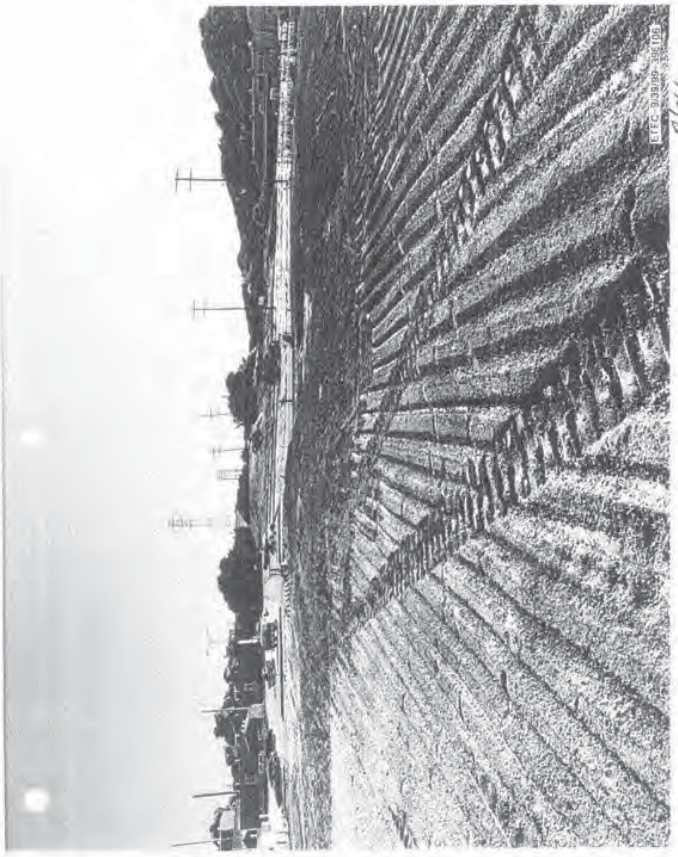

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BUILDING 4066

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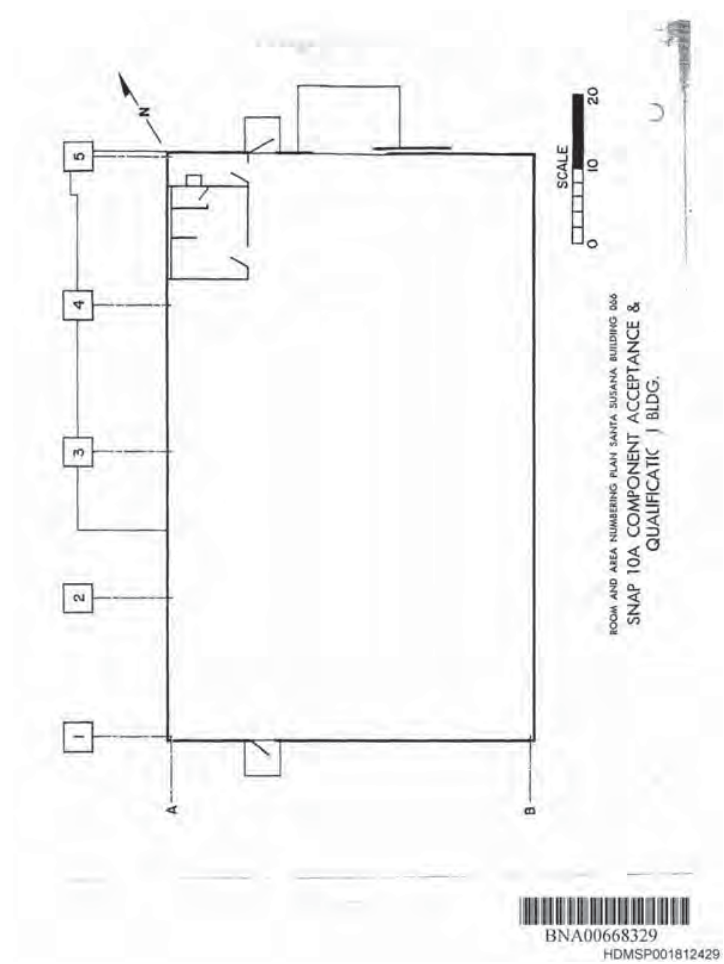

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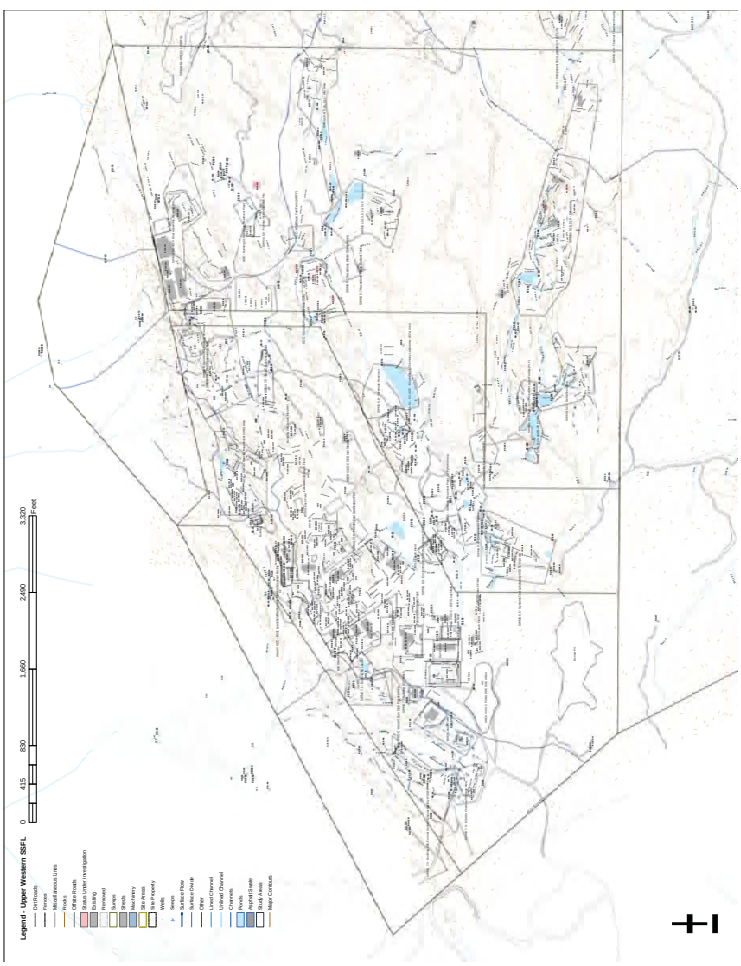

BUILDING 4100

BUILDING 4100

DOE AREA IV BUILDINGS

BUILDING NO.	NAME	MANAGER	STATUS
012E	ETEC X-RAY FACILITY	GAYLORD	INACTIVE
013E	THERMAL TRANSIENT FACILITY	GERRITSEN	ACTIVE
014E	SODIUM STORAGE	GERRITSEN	INACTIVE STANDBY
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027E	LEASED TO RKD FOR WELD SHOP	GAYLORD	ACTIVE
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486E	ENGINEERING OFFICE	GAYLORD	ACTIVE
487E	ENGINEERING OFFICE	JETTER	ACTIVE

GEN-ZR-0015

RAD CONTROL

EXECUTIVE SUMMARY OF THE DOE SSFL SITE RADIOLOGICAL SURVEY

SANTA SUSANA FIELD LABORATORY

VENTURA COUNTY, CALIFORNIA

1-5 2/13P

Prepared for the U.S. Department of Energy under Contract DE-AC03-76-SF00700

ENERGY TECHNOLOGY ENGINEERING CENTER

Operated for the U.S. Department of Energy by Rockwell International

OFFICIAL COPY

OCT 2 6 1988

NOTICE: THIS COPY SUPERSEDES ALL PRIOR COPIES ISSUED.

A4CM-ZR-0011
Revision A.

AREA IV RADIOLOGICAL CHARACTERIZATION SURVEY

FINAL REPORT

Volume I

Santa Susana Field Laboratory
Rocketdyne Division
Rockwell International

August 15, 1996

A4CM-ZR-0011
Revision A.

AREA IV RADIOLOGICAL CHARACTERIZATION SURVEY

FINAL REPORT

Volume II

Santa Susana Field Laboratory
Rocketdyne Division
Rockwell International

August 15, 1996

BUILDING 4100

A4CM-ZR-0011
Revision A.

AREA IV RADIOLOGICAL CHARACTERIZATION SURVEY

FINAL REPORT

Volume III

Santa Susana Field Laboratory
Rocketdyne Division
Rockwell International

August 15, 1996

A4CM-ZR-0011
Revision A.

AREA IV RADIOLOGICAL CHARACTERIZATION SURVEY

FINAL REPORT

Volume IV

Santa Susana Field Laboratory
Rocketdyne Division
Rockwell International

August 15, 1996

BUILDING 4100

Energy Systems Group
D/789 Correspondence
ACTION

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

July 17, 1980

Docket No. 50-147

RECEIVED
JUL 28 1980
Correspondence Dept.

Mr. M. E. Remley, Director
Health, Safety, & Radiation
Services
Energy Systems Group
Rockwell International Corporation
8900 De Soto Avenue
Canoga Park, CA 91304

Dear Mr. Remley:

The Commission has requested the Office of the Federal Register to publish the enclosed "Notice of Proposed Issuance of Order Terminating Facility License" in accordance with your application dated July 16, 1974, as supplemented April 30, 1980.

Sincerely,

Robert W. Reid, Chief
Operating Reactors Branch #4
Division of Licensing

Enclosure: Notice

cc w/enclosure:
See next page

RECEIVED
JUL 29 1980
M.E. REMLEY

8986 ESG

80ESG-3900

Energy Systems Group
8900 De Soto Avenue
Canoga Park, CA 91304
Telephone: (213) 341-1000
TWX: 910-494-1237
Telex: 181017

Rockwell International

April 30, 1980

In reply refer to 80ESG-3900

Mr. William Gammill
Acting Assistant Director for
Operating Reactor Projects
Division of Operating Reactors
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

References: (1) Rockwell International Letter 74AT-4512 dated July 16, 1974, L. W. Wheeler to Donald J. Skovholt, "Application for Amendment of Facility License CX-17 to Authorize the Dismantling of the Facility, Disposal of its Component Parts, and Voluntary Surrender of the Facility License, Docket 50-147"

(2) U.S. AEC letter, George Lear to L. W. Wheeler, November 1, 1974, transmitting the order authorizing the dismantlement of the Fast Critical Experimental Laboratory reactor

Dear Mr. Gammill:

Subject: Radiation Survey Report of the FCEL Reactor Facility Following Dismantlement and Decontamination of the Facility

The Fast Critical Experimental Laboratory (FCEL) reactor covered by Facility License CX-17 has been dismantled in accordance with the dismantling plan submitted with the application transmitted with our letter of July 16, 1974 (Reference 1 above) and the dismantling order transmitted with your letter of November 1, 1974 (Reference 2 above).

The facility has also been decontaminated as described in the dismantling plan transmitted with the July 16, 1974 letter. Enclosed with this letter is a report on the radiation survey of the facility showing that the radiation levels in the facility area do indeed meet the requirements described in the dismantling plan. We are now requesting that the facility be inspected by representatives of the Commission, termination of License CX-17 be authorized, and the facility be released for unrestricted use.

BUILDING 4100

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION V
1990 N. CALIFORNIA BOULEVARD
SUITE 202, WALNUT CREEK PLAZA
WALNUT CREEK, CALIFORNIA 94596

RECEIVED
JUL 15 1980
M.E. REMLEY

RECEIVED
JUL 14 1980
Correspondence Dept.

JUL 11 1980

Docket No. 50-147

Energy Systems Group
Rockwell International Corporation
8900 De Soto Avenue
Canoga Park, California 91304

Attention: Dr. M. E. Remley, Director
Health, Safety and Radiation Services

Gentlemen:

Subject: NRC Inspection of Rockwell International's FCEL Facility

This refers to the closeout inspection conducted by Mr. J. R. Curtis of this office on June 3-4, 1980 of the condition of the FCEL Facility and to the discussion of our findings held by Mr. Curtis with you and other members of the staff at the conclusion of the inspection.

The inspection was conducted to observe the condition of the facility and verify that the licensee conducted surveys and documented results as they were described in the Report of Radiation Surveys of the FCEL Reactor Facility submitted to DOR, USNRC, Attn: Wm. Gammell, (ltr M. E. Remley to Wm. Gammell, April 30, 1980; reference #80 ESG-3900). The inspection consisted of examination of records, interviews with personnel, observations by the inspector and the performance of direct radiation and contamination measurements by the inspector.

Based on the findings of this inspection including results of surveys performed on June 4, 1980, the inspector confirmed that the facility has been decontaminated and the condition is as described in the report of radiation surveys cited above. Region V is forwarding the report of this inspection to the NRC Office of Nuclear Reactor Regulation (NRR) for their consideration in termination of the license.

In accordance with section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and the enclosed inpsection report will be placed in the NRC's Public Document Room. If this report contains any information that you believe to be proprietary, it is necessary that you submit a written application

8398 ESG

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

RECEIVED
OCT 6 1980
M.E. REMLEY

October 1, 1980

RECEIVED
OCT 6 1980
Correspondence Dept.

Docket No. 50-147

Mr. M. E. Remley, Director
Health, Safety & Radiation
Services
Energy Systems Group
Rockwell International Corporation
8900 De Soto Avenue
Canoga Park, California 91304

Dear Mr. Remley:

The Commission has issued the enclosed Order that terminates Facility License No. CX-17 for the Fast Critical Experimental Laboratory reactor in accordance with your application dated July 16, 1974, as supplemented April 30, 1980. The related Safety Evaluation is also enclosed.

In connection with this action, we are enclosing two copies of Amendment No. 17 to Indemnity Agreement No. B-13 that deletes Facility License No. CX-17 from the indemnity agreement while retaining your other two facilities on the agreement. Please sign and return one copy to this office.

A copy of the Order is being filed with the Office of the Federal Register for publication.

Sincerely,

Robert W. Reid, Chief
Operating Reactors Branch #4
Division of Licensing

Enclosures:
1. Order Terminating Facility License
2. Safety Evaluation
3. Indemnity Agreement No. B-13, Amendment No. 17

cc w/enclosures:
See next page

12332 ESG

BUILDING 4100

70 D

September 1989 558list.rjt
Prepared by R. J. Tuttle

Listing of locations in SSFL Area IV associated with radioactive materials

On the map, clockwise from the top:

ETB Annex (T003)

A "counting room" in the ETB Annex was used for measurements of very small amounts of radioactivity in activation foils used in the SRE and other reactor tests. Check sources were used here.

ETB Hot Cave (T003)

A shielded installation in the northeast-end of the Engineering Test Building (ETB, T003) was used for analysis of irradiated fuel samples. It was decontaminated and decommissioned in 1976. Traces of uranium were found in the sewer line from this building. No activity was found in accessible locations downstream. (SRE fuel elements were also temporarily stored, before use, in T003)

T030

A Van de Graff accelerator using tritium targets was operated here. The accelerator was removed about 1962 and the facility was surveyed. A survey in 1988 confirmed that there was no activation in the building and no tritium in the soil around the building.

Old Conservation Yard

A survey in 1988 found low levels of Cs-137 in soil that had accumulated on the surface of a paved area. This was removed in August 1989.

Decon Trailer

This facility was set up for the possible emergency decontamination of injured personnel. No radioactive material has ever been in this trailer.

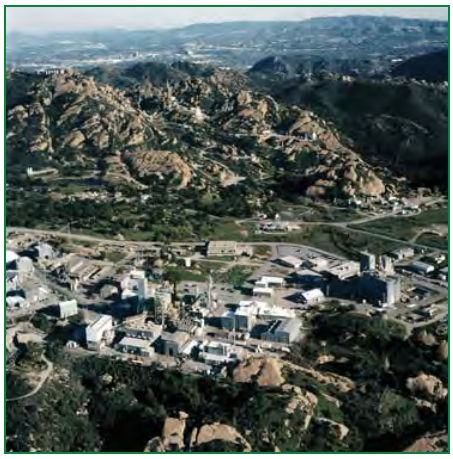
AE-6/L-85

The AE-6 was the first reactor to be operated in California. It was converted to the L-85 and operated at 3kW. Several related buildings are at this facility. It was decommissioned in 1987.

BOEING

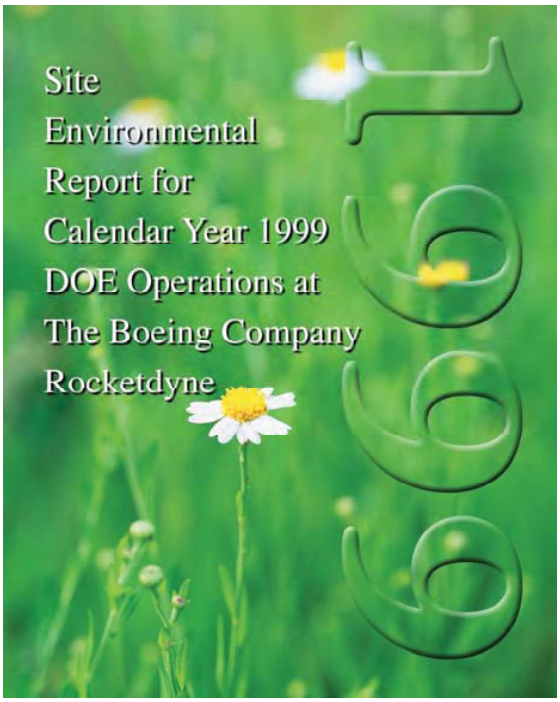
RD99-115

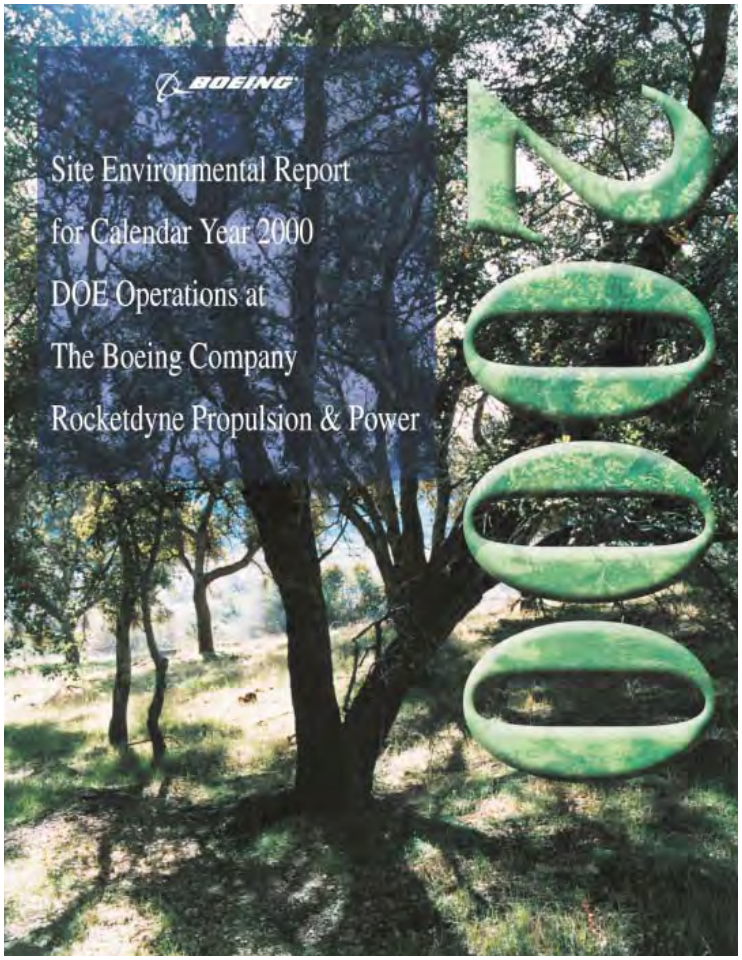
Site Environmental Report for Calendar Year 1998 DOE Operations at Rocketdyne Propulsion & Power



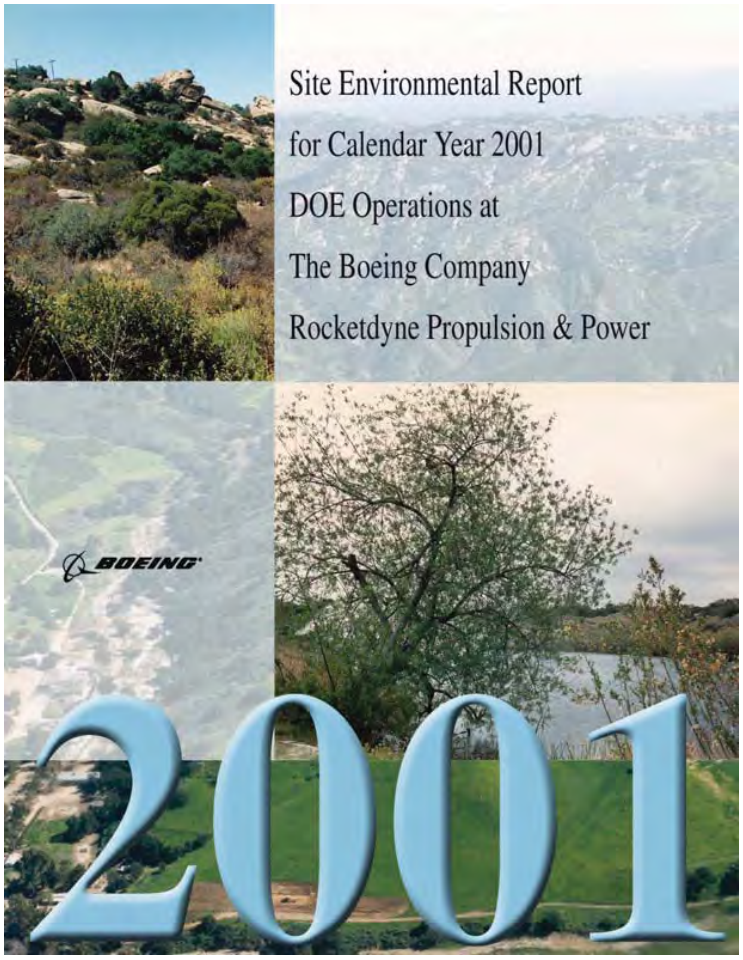
BOEING

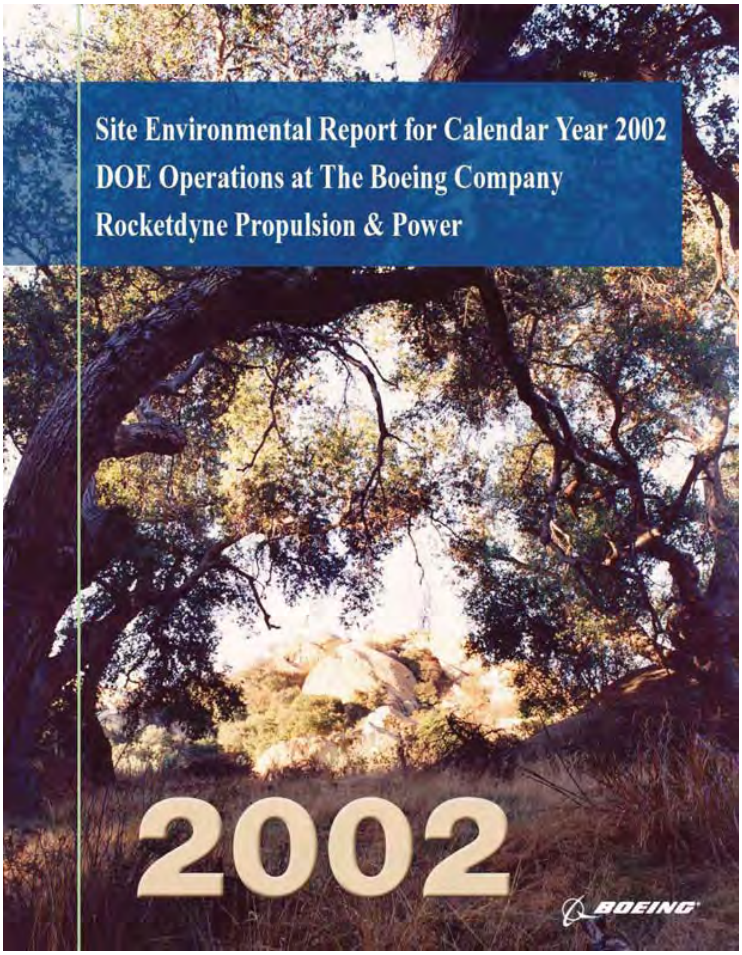
RD00-159

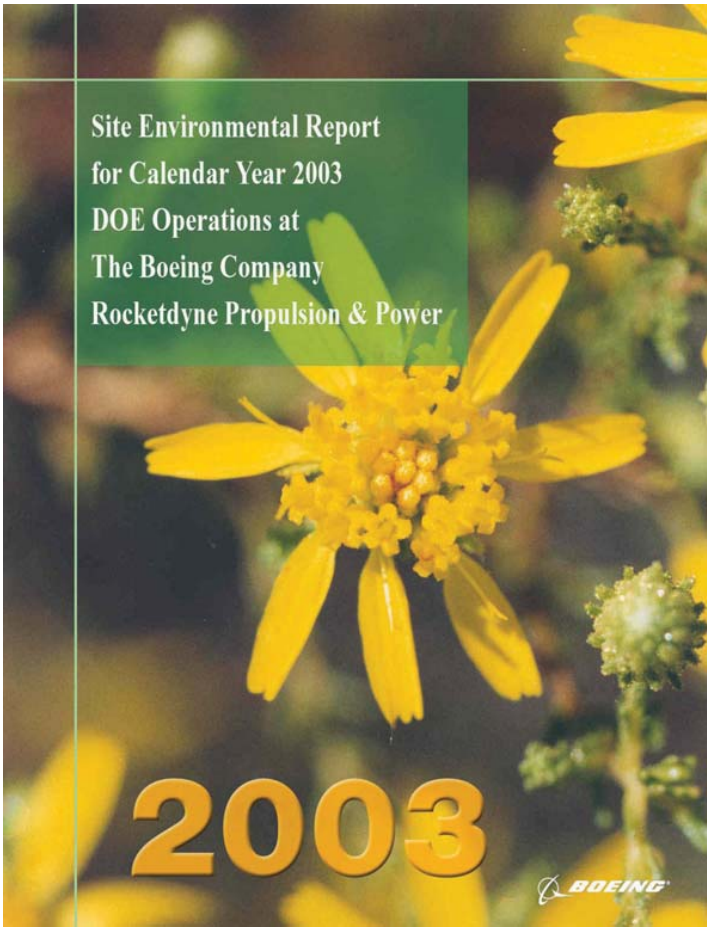


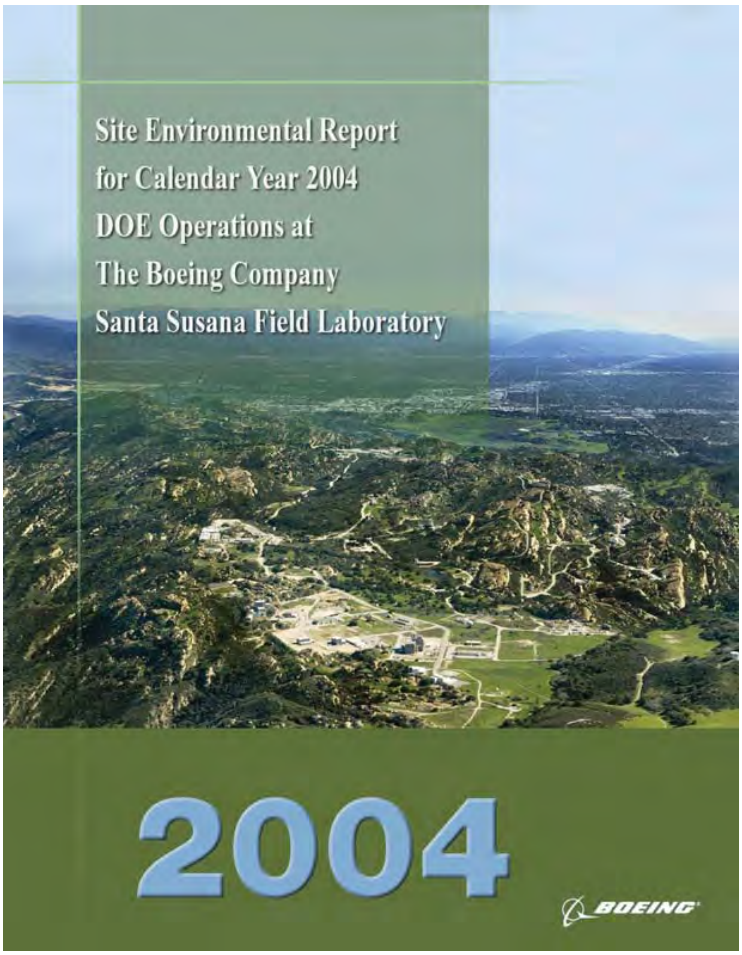


BUILDING 4100









BUILDING 4100

BOEING

Site Environmental Report
for Calendar Year 2005

DOE Operations at
The Boeing Company
Santa Susana Field Laboratory

September 2006

BOEING

Site Environment Report for
Calendar Year 2006

DOE Operations at
The Boeing Company
Santa Susana Field Laboratory
Area IV

BOEING

Site Environment Report for

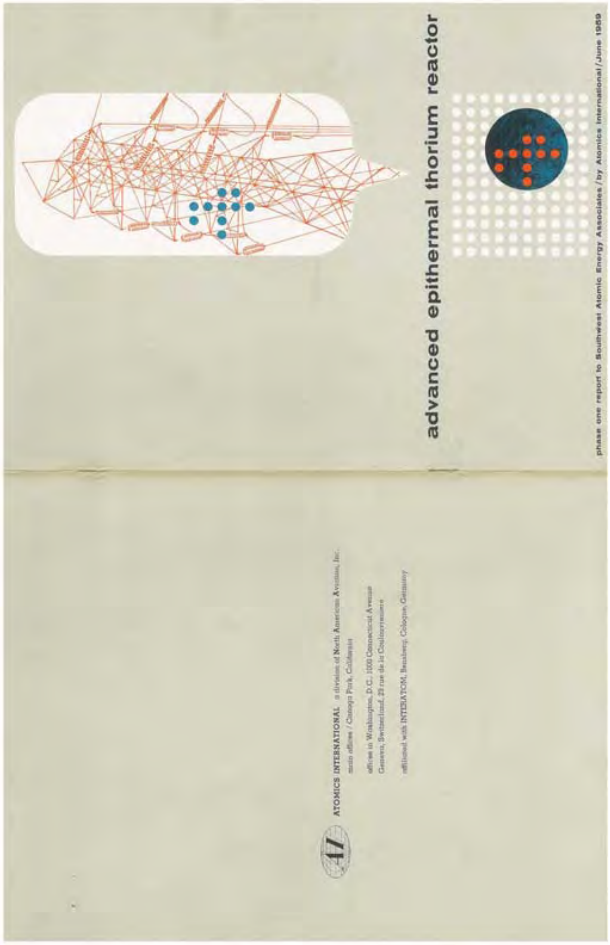
Calendar Year 2007

DOE Operations at

The Boeing Company

Santa Susana Field Laboratory

Area IV



ATOMICS INTERNATIONAL a division of North American Aviation, Inc.
canoga offices / Canoga Park, California

offices in Washington, D.C. / 1000 Connecticut Avenue
Geneva, Switzerland / 20 rue de la Corraterie

affiliated with INTERATOM, Bensberg, Cologne, Germany

advanced epithermal thorium reactor

phase one report to Southwest Atomic Energy Associates / by Atomics International / June 1959

BUILDING 4100

Historical Site Assessment of Area IV
Santa Susana Field Laboratory
Ventura County, California

Volume 2 – Area IV Site Summaries

Prepared by Sapere Consulting, Inc. and
The Boeing Company for the Department of Energy
Under Contract DE-AC03-99SF21530

May 2005

DOE/EH-0175

U.S. Department of Energy

Environment, Safety, and Health
Washington, DC 20585

Tiger Team Assessment
Energy Technology Engineering Center

APRIL 1991

Preliminary Assessment/Site Inspection Report
Santa Susana Field Laboratory
Simi Valley, California

EPA ID No.: CAN000908498
USACE Contract No.: W91238-06-F-0083
Document Control No.: 12767.063.419.1650

November 30, 2007

Prepared for:
U.S. Environmental Protection Agency
Region 9

Prepared by:
Weston Solutions, Inc.
1575 Treat Blvd, Suite 212
Walnut Creek, CA 94598

United States Environmental Protection Agency	Environmental Sciences Division P.O. Box 93478 Las Vegas, NV 89193-3478	TS-PIC-20909963S/21009965S March 2010

Research and Development

EPA

AERIAL PHOTOGRAPHIC ANALYSIS OF SANTA SUSANA FIELD LABORATORY - AREA IV

Ventura County, California

Volume 1 & 2

EPA Region 9

BUILDING 4100

Return to Rutherford

GEN-AR-0031
69A

ACTION PLAN

in response to the

April, 1991

Tiger Team Assessment

of the

Energy Technology Engineering Center

October 1, 1991

OFFICIAL
FOR CUSTOMER
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RELEASE DATE
OCT 10 1991

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Energy Technology Engineering Center
Operated for the U.S. Department of Energy
Rocketdyne Division, Rockwell International

No. GEN-ZR-0011 Rev.
Page 1 of 131
Orig. Date 8-26-88
Rev. Date

DRR 23181 CR

TITLE: "Radiological Survey of the T056 Landfill; Area From 23rd Street to Building T100; And An Area Across From Building T011"

-APPROVALS-

Written by: J. A. Chapman J A Chapman
Approved by: Robert J. Tuttle R J Tuttle
Kenneth T. Stafford K T Stafford

REV. LTR.	REVISION	APPROVAL/DATE

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EXECUTIVE SUMMARY OF THE DOE SSFL SITE RADIOLOGICAL SURVEY

SANTA SUSANA FIELD LABORATORY

VENTURA COUNTY, CALIFORNIA

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HDMSe00235963

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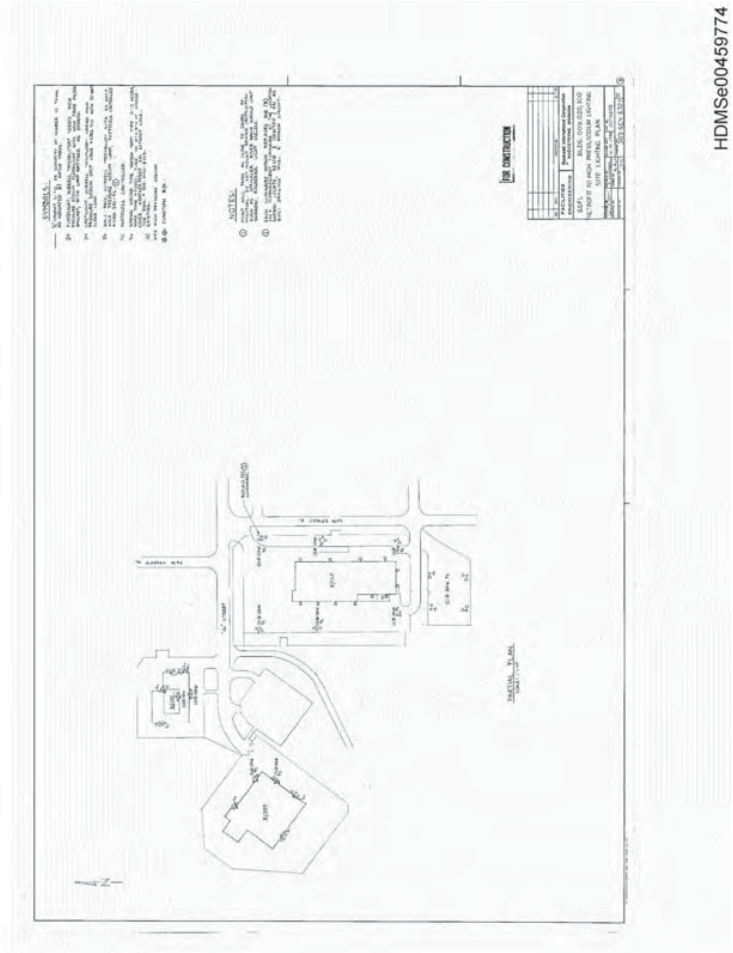

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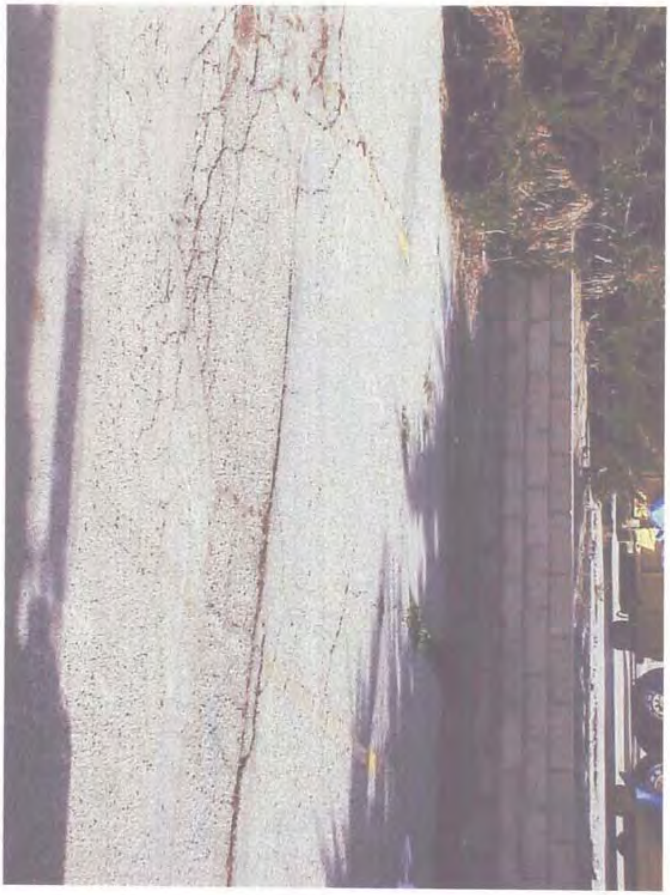

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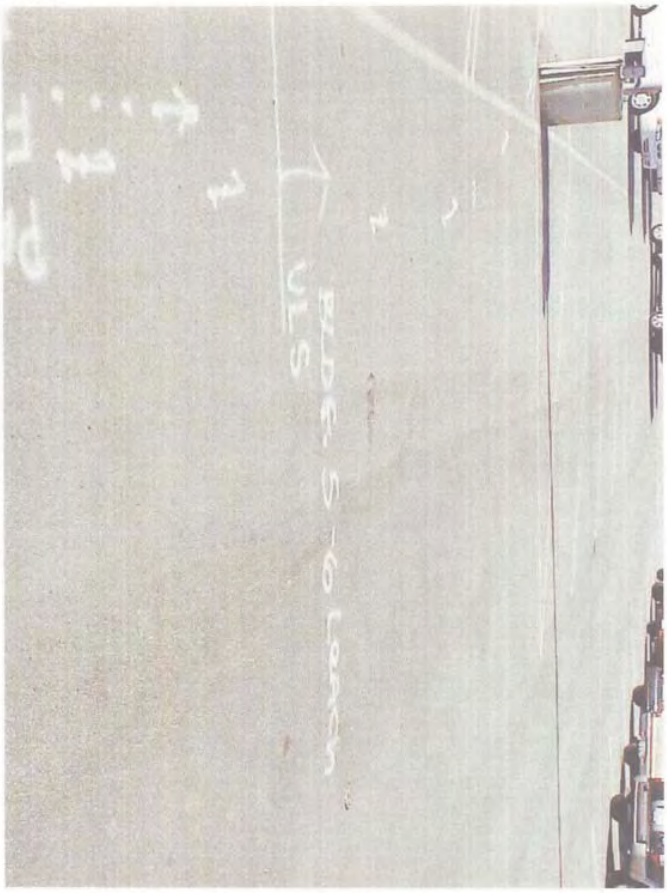

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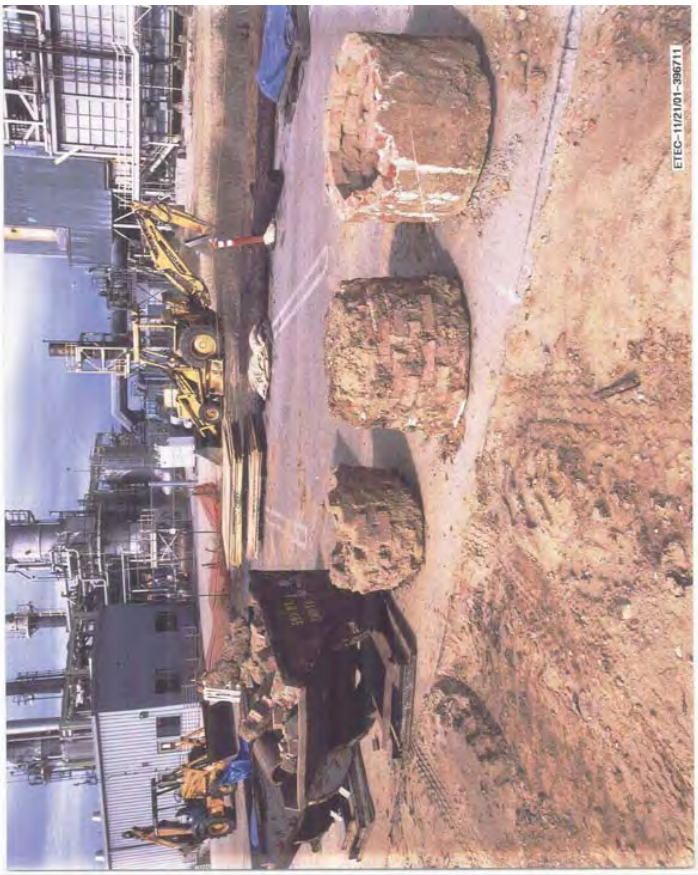

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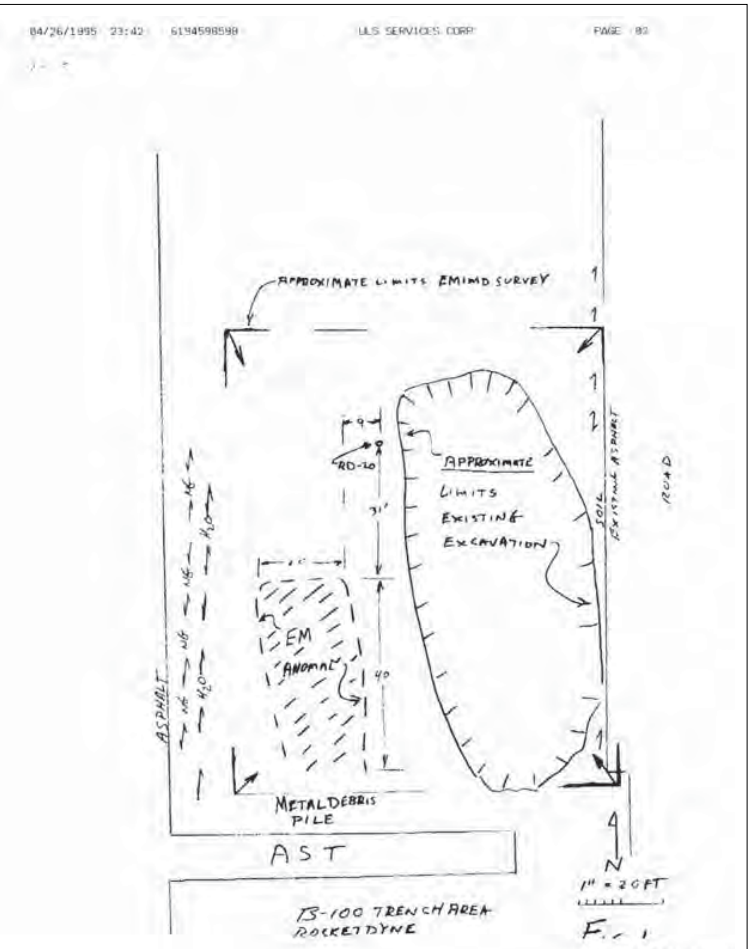

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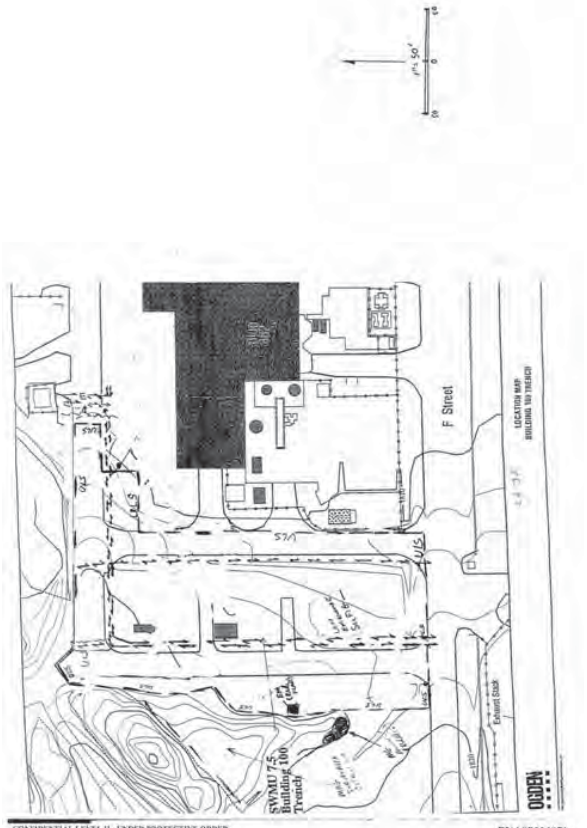

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United States District Court for the Central District of California, No. CV 97-1554

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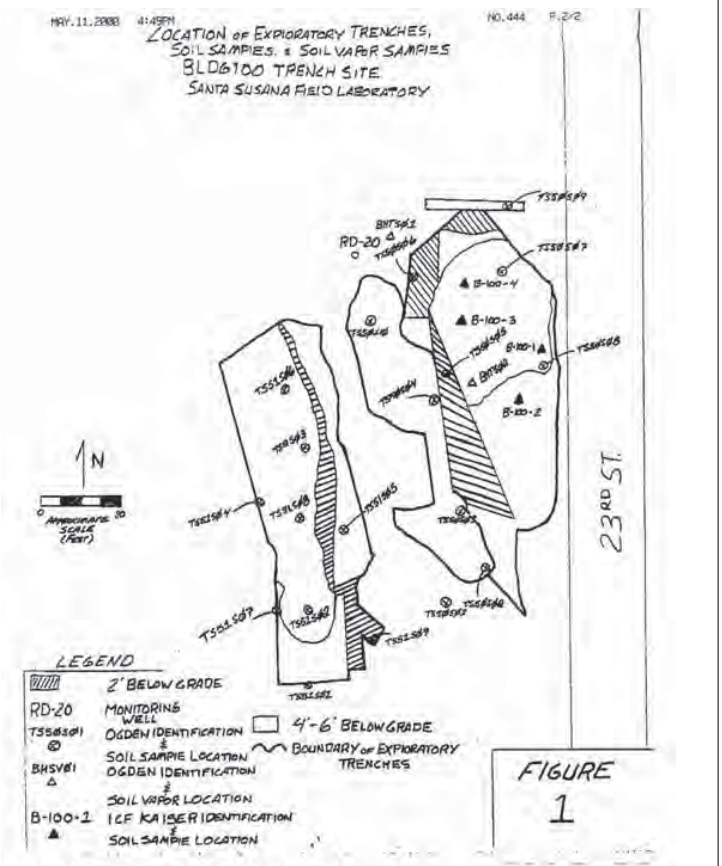
HDMSP001786301



CONFIDENTIAL LEVEL II - UNDER PROTECTIVE ORDER.
United States District Court for the Central District of California, No. CV 97-1554

BNA08664054

HDMSP001786303

BUILDING 4100

4.5 SWMU 7.5 - BUILDING 100 TRENCH

4.5.1 Unit Description and Operational History

The Building 100 Trench (SWMU 7.5) is located in the west-central portion of Area IV near the intersection of 23rd and "F" Streets (Figure 2-3). The trench was approximately 75 feet long and 25 feet wide at its widest point. The depth of the trench was limited by the 5-foot depth of sandy silt alluvium above the bedrock. According to Rocketdyne, from 1960 through 1966, the trench was used for the burning and disposal of construction debris. The trench site was filled in and partially paved over in 1971, and Buildings 462 and 463 were constructed adjacent to the location of the former trench. A photograph of the former trench area is shown on Figure 4-10.

4.5.2 Materials and Wastes Handled

The trench was used for the burning and disposal of construction debris; however, there are no records of the wastes burned and/or disposed in the trench (DOE, 1988). Aerial photographs taken in the period 1961 to 1967 indicate portions of the soil within this site were darkly stained.

4.5.3 Previous Sampling and Analysis

Soil Sampling

There has been one investigation at the Building 100 trench to address the potential presence of hazardous constituents in the soils (GWRC, May 1989). In August 1988, two soil samples were collected from each of two sampling trenches, at depths ranging from 2.0 feet to 4.0 feet (depth to Chatsworth Formation was 5.0 feet). The sampling locations are shown on Figure 4-11. The soil samples were analyzed for VOCs (Method 8240), BNAs (Method 8270), pH (Method 9045), and hydrocarbons (Method 8015). The sampling results are summarized in Table 4-6.

No VOCs were detected in any of the soil samples. Although no BNAs were identified and quantified, hydrocarbons were detected using Method 8270 (no hydrocarbons were

BNA00806007

HDMSp01714822

BNA02528727

HDMSp01714841

UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON 25, D.C.

NORTH AMERICAN AVIATION, INCORPORATED

DOCKET NO. 50-147

LICENSE

License No. CX-17

1. This license applies to the separable-half type critical experiments facility (hereinafter referred to as "the reactor") which is owned by North American Aviation, Incorporated and located on the Corporation's site in Ventura County, California, and described in the application dated August 18, 1959, and amendments thereto dated September 11, 1959, April 20, 1960 and June 26, 1960 (hereinafter collectively referred to as "the application").

2. Pursuant to the Atomic Energy Act of 1954, as amended, (hereinafter referred to as "the Act") and having considered the record in this matter, the Atomic Energy Commission (hereinafter referred to as "the Commission") finds that:

A. The reactor has been constructed in conformity with Construction Permit No. CPCX-15 issued to North American Aviation, Incorporated and will operate in conformity with the application and in conformity with the Act and with the rules and regulations of the Commission;

B. There is reasonable assurance that the reactor can be operated at the designated location without endangering the health and safety of the public;

C. North American Aviation, Incorporated is technically and financially qualified to operate the reactor, to assume financial responsibility for payment of Commission charges for special nuclear material and to undertake and carry o t the proposed use of such material for a reasonable period of time, and to engage in the proposed activities in accordance with the C mission's regulations;

D. The possession and operation of the reactor and the receipt, possession and use of the source material, byproduct material and special nuclear material in the manner proposed in the application will not be inimical to the common defense and security or to the health and safety of the public; and

E. North American Aviation, Incorporated has filed with the Commission proof of financial protection which satisfies the requirements of Commission regulations c rently in effect.

Rockwell International

SUPPORTING DOCUMENT

GO NO.	S/A NO.	PAGE 1 OF	TOTAL PAGES	REV LTR/CHG NO (SEE SUMMARY OF CHG)	NUMBER
Burden	Burden	54	55	Rev. 8	N001ER000017

PROGRAM TITLE

DOCUMENT TITLE: Nuclear Operations at Rockwell's Santa Susana Field Laboratory - A Factual Perspective

DOCUMENT TYPE: Facility Report

KEY NOUNS: Nuclear operations, nuclear power, nuclear reactor, Santa Susana Field Laboratory

ORIGINAL ISSUE DATE: December 20, 1989

REL. DATE: 10-2-90

PREPARED BY	DATE	DEPT	MAIL ADDR
R. D. Oldenkamp	1/10/90	638	T006
J. C. Mills	1/16/90	638	HB19

IR&D PROGRAM? YES ☐ NO ☒
IF YES, ENTER IR NO

APPROVALS	DATE
L. J. Auge	1/16/90
G. G. Gaylord	1/16/90
D. C. Gibbs	1/16/90
R. T. Lancet	1/16/90
W. R. McCurnin	1/17/90
R. J. Tuttle	

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	* G. Subbaraman	NA 02

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* COMPLETE DOCUMENT
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ABSTRACT

This report describes the radioactivity at Rocketdyne's Santa Susana Field Laboratory (SSFL), and puts the information into perspective to permit readers to make an informed evaluation of the SSFL situation for themselves. Emphasis has been placed on the presentation of facts which clarify and/or quantify: (1) the history of nuclear operations at the SSFL; (2) the regulation of those operations; (3) the amount of radioactivity that has been removed from the site; (4) the amount of radioactivity remaining; and (5) Rocketdyne's plans for both ongoing cleanup and operations.

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FORM 034-C REV 12-84

BUILDING 4100

Rockwell International
Rocketdyne Division

SUPPORTING DOCUMENT

GO NO	S A NO	PAGE 1 OF	TOTAL PAGES	REV LTR CHG NO (SEE SUMMARY OF CHG)	NUMBER
96108	Burden	34	34	New	N001SRR140105

PROGRAM TITLE
Nuclear Safeguards Review Panel

DOCUMENT TITLE
Radiation Safety Committee Annual Review for 1987

DOCUMENT TYPE
Safety Review Report

KEY NOUNS
Radiation Safety Committee
Annual Review 1987

ORIGINAL ISSUE DATE: June 15, 1988
REL. DATE: 6-23-88 Sw

PREPARED BY/DATE: T. E. Dix T. E. Dix 6/23/88
DEPT: 635/124
MAIL ADDR: HB07

IR&D PROGRAM? YES ☐ NO ☒
IF YES, ENTER TPA NO.

APPROVALS
W. Nagel 6/23/88
M. E. Remley 23 June 88

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	*V. Swanson	T006
	*R. J. Tuttle	T100
	*E. H. Badger	TQ20
	*J. H. Wallace	T034
	*F. E. Begley	T100

ABSTRACT

Results are presented of the 1987 annual review and inspection of Rocketdyne radiation producing devices and radioactive material Use Authorizations at the Santa Susana, Canoga and De Soto sites by the Radiation Safety Committee, held May 16, June 1, June 2, and June 9, 1988. No major radiation safety concerns were found. Nine generic recommendations resulted from the review.

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ZONE III
EPA REGION 9

RCRA ENFORCEMENT, PERMITTING, AND ASSISTANCE CONTRACT

FINAL
OVERSIGHT VERIFICATION AND CONFIRMATION
RADIOLOGICAL SURVEY REPORT
FOR
BUILDINGS T-011, T-019, T-055, AND T-100

DECEMBER 20, 2002

Prepared for:

U.S. Environmental Protection Agency
Office of Compliance
Washington, DC 20460

Prepared by:

Tetra Tech EM Inc.
135 Main Street, Suite 1800
San Francisco, California 94105

EPA Contract No. 68-W-02-021
Work Assignment No. R09107

Marcie Rash
Project Manager

ZONE III
EPA REGION 9

RCRA ENFORCEMENT, PERMITTING, AND ASSISTANCE CONTRACT

FINAL
ROCKETDYNE TECHNICAL SUPPORT
AND FIELD OVERSIGHT
DOCUMENT REVIEW FOR
BUILDINGS T009, T011, T019, T055, AND T100

DECEMBER 20, 2002

Prepared for:

U.S. Environmental Protection Agency
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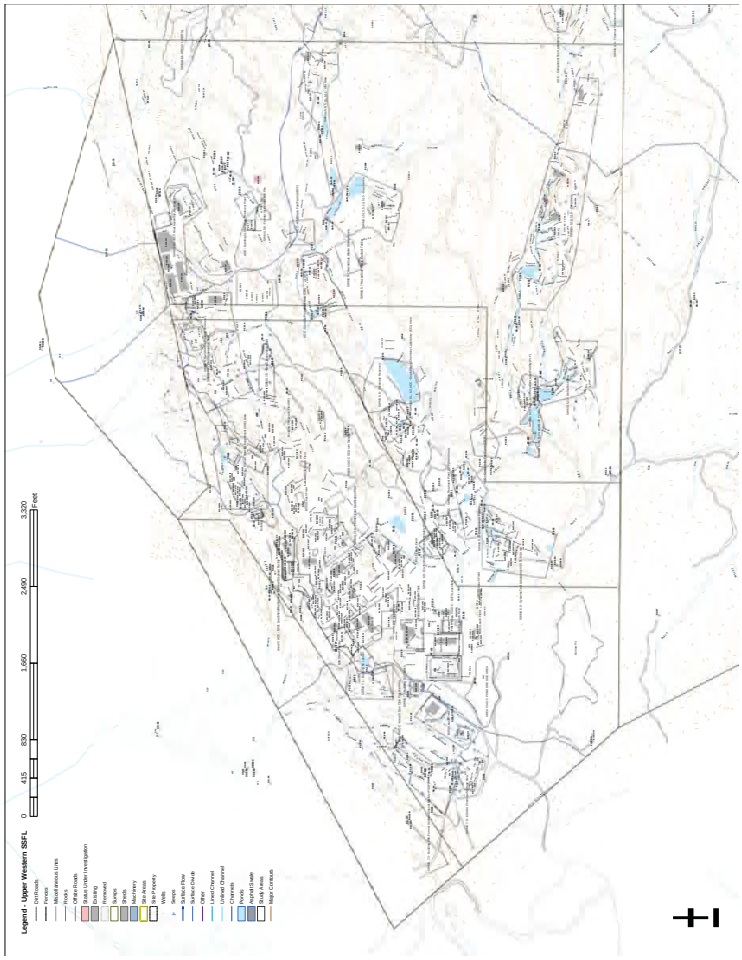


BUILDING 4100

HEALTH PHYSICS

Laboratory Status Report

Room No. or Designation	Nature of Operations	Hazardous Materials	Probable Hazard	Personnel Responsible
508	Heating in furnace	uranium, about .5 kg	contamination	[redacted]
511	Cintering Beo, mixtures	BeO, usually cintered	possible airborne contamination	
	Thermoconductivity measurements	BeO, usually cintered in furnace		
512	Transpiration experiments heating in furnace, some cutting	BeO-aluminum mixtures some uranium	possible airborne contamination	
513	Cintering in furnaces, hot pressing, mixing, cold pressing	BeO, metal, mixtures occasionally small amounts uranium	contamination, airborne contamination	
514	Mixing, storage	Beo powder	airborne contamination, contamination	
515	Cutting, grinding	Beo, metal, various mixtures	airborne contamination, contamination	
521	Cintered BeO under various stresses	BeO	possible contamination	
528	Spectograph, X-ray defraction	small samples of nearly everything	contamination	
530	Electronmicroscope	Beo, irradiated and non-irradiated samples	contamination, irradiation	
531	Cintering, grinding, diffusion measurements	cintered BeO	possible airborne contamination	

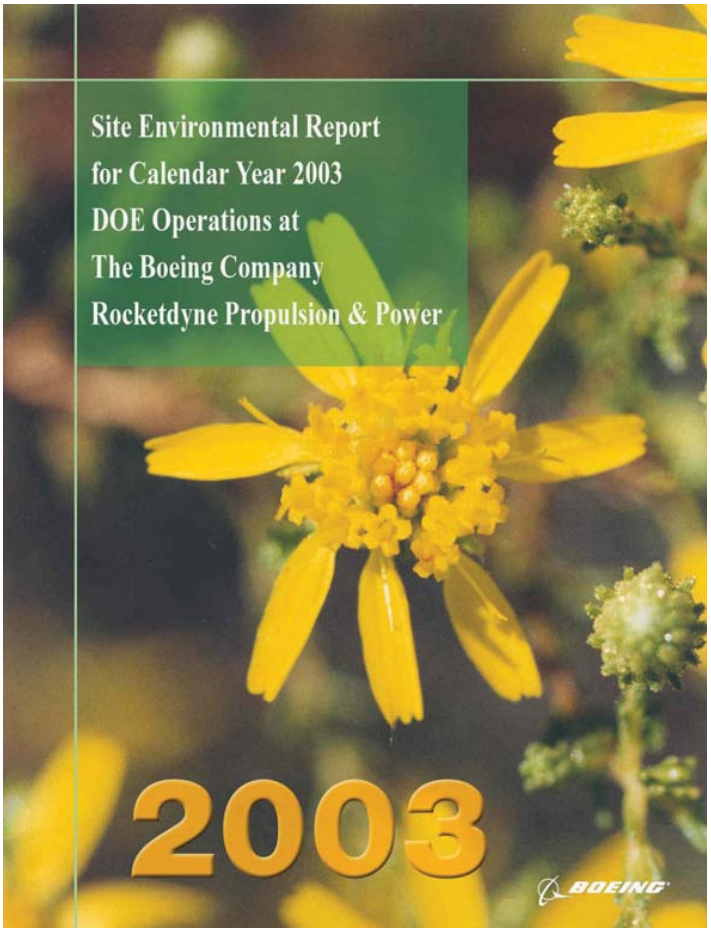
HP 43
2/27/59

BUILDING 4383

BUILDING 4383

DOE AREA IV BUILDINGS

BUILDING NO.	NAME	MANAGER	STATUS
012E	ETEC X-RAY FACILITY	GAYLORD	INACTIVE
013E	THERMAL TRANSIENT FACILITY	GERRITSEN	ACTIVE
014E	SODIUM STORAGE	GERRITSEN	INACTIVE STANDBY
019E	ETEC COMPUTER CENTER/CONSTRUCTION STAGING	JETTER/ZWENG	ACTIVE
021	R/A WASTE DECONTAMINATION	HORTON	INACTIVE STANDBY
022	R/A VAULT STORAGE	HORTON	INACTIVE STANDBY
023	LIQUID METALS CHEMISTRY	GAY	ACTIVE
024	DEVELOPMENT TEST BLDG.	GERRITSEN	INACTIVE STANDBY
025E	SCTI MAIN. SHOP & STORAGE	MOORE	ACTIVE
026E	SCTL CONTROL CENTER	DEBEAR	INACTIVE STANDBY
027E	LEASED TO RKD FOR WELD SHOP	GAYLORD	ACTIVE
029E	HAZARDOUS WASTE STORAGE	GERRITSEN	ACTIVE
030E	TRAFFIC & WAREHOUSING-LEASED TO ROCKETDYNE	GAYLORD	ACTIVE
032E	LMDL-1	DEBEAR	INACTIVE STANDBY
034	RMDF ENGINEERING OFFICE	HORTON	ACTIVE
036E	OFFICE BLDG. LEASED TO RKD	GAYLORD	ACTIVE
038E	ETEC HEADQUARTERS/DOE SITE OFFICE	GAYLORD	ACTIVE
039E	OFFICE BLDG.	GAYLORD	INACTIVE
041	EQUIPMENT STORAGE	GERRITSEN	ACTIVE
042	LMFBR DEV. TESTING	GAY	INACTIVE STANDBY
044	RMDF AP OFFICE	HORTON	ACTIVE
049E	POU CONTROL CENTER	GAY	INACTIVE
057E	ETEC GENERAL TEST	GERRITSEN	INACTIVE
059E	LARGE LEAK TEST RIG	GERRITSEN	ACTIVE
062E	INSTRUMENTATION LAB.	WARGO	ACTIVE
064	NUCLEAR MATERIAL STORAGE	HORTON	INACTIVE STANDBY
065E	ETEC CHEMISTRY LAB.	JETTER	ACTIVE
066E	INSTRUMENTATION LAB.	WARGO	ACTIVE
075	CONTAMINATED EQUIPMENT STORAGE	HORTON	ACTIVE
133E	SODIUM BURN FACILITY	GERRITSEN	ACTIVE
228E	POWER PAK	MOORE	ACTIVE STANDBY
226E	SCTL MG BLDG.	DEBEAR	INACTIVE STANDBY
320E	FUEL OIL PUMP BLDG.	MOORE	INACTIVE
355E	SCTI CONTROL CENTER	MOORE	ACTIVE
356E	SODIUM COMPONENT TEST INSTALLATION	MOORE	ACTIVE STANDBY
357E	SCTI SUPPLY STORAGE	MOORE	INACTIVE STANDBY
358E	SCTL SUPPORT BLDG.	DEBEAR	INACTIVE
360E	CHEMICAL STORAGE BLDG.	MOORE	ACTIVE
361E	HAS MAT'L STORAGE	MOORE	ACTIVE STANDBY
392E	SCTI ELECTRICAL EQUIPMENT	MOORE	INACTIVE
459E	UNINTERRUPTIBLE POWER SUPPLY	GERRITSEN	INACTIVE
461E	MOTOR GENERATOR BLDG.	DEBEAR	INACTIVE STANDBY
462E	SODIUM PUMP TEST FACILITY	DEBEAR	INACTIVE STANDBY
463E	COMPONENTS HANDLING & CLEANING	GERRITSEN	ACTIVE STANDBY
473E	HYDRAULIC TEST INSTRUMENTATION	GERRITSEN	INACTIVE
482E	ENGINEERING OFFICE LEASED TO ROCKETDYNE	GAYLORD	PARTIAL ACTIVE
483E	ENGINEERING OFFICE	GAYLORD	INACTIVE
484E	RESTROOM FACILITY	GAYLORD	ACTIVE
485E	ENGINEERING OFFICE,	GAYLORD	INACTIVE
486E	ENGINEERING OFFICE	GAYLORD	ACTIVE
487E	ENGINEERING OFFICE	JETTER	ACTIVE



Historical Site Assessment of Area IV
Santa Susana Field Laboratory
Ventura County, California

Volume 2 – Area IV Site Summaries

Prepared by Sapere Consulting, Inc. and
The Boeing Company for the Department of Energy
Under Contract DE-AC03-99SF21530

May 2005

ENVIRONMENTAL MONITORING

SEMIANNUAL REPORT

JANUARY 1, 1964 TO JUNE 30, 1964

by

R. R. Garcia
J. D. Moore
C. J. Schwering

Approved

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SEMIANNUAL REPORT

JULY 1, 1964 TO DECEMBER 31, 1964

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J. D. Moore
C. J. Schwering

W. L. Fisher
Approved

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JANUARY 1, 1965 TO JUNE 30, 1965

by

R. R. Garcia
C. J. Schwering

W. L. Fisher
Approved

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JULY 1, 1965 TO DECEMBER 31, 1965

AND

ANNUAL REPORT

1965

by

J. D. Moore
C. J. Schwering

APPROVED: R E Alexander
R. E. Alexander
Supervisor, Radiation Safety Unit

ENVIRONMENTAL MONITORING

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JANUARY 1, 1966 TO JUNE 30, 1966

by

J. D. Moore

APPROVED: R E Alexander
R. E. Alexander
Supervisor, Radiation Safety Unit

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JULY 1, 1966 TO DECEMBER 31, 1966

AND

ANNUAL REPORT

1966

by

J. D. Moore

APPROVED: R. E. Alexander
R. E. Alexander
Supervisor, Radiation Safety Unit

ENVIRONMENTAL MONITORING

SEMIANNUAL REPORT

JANUARY 1, 1967 TO JUNE 30, 1967

by

J. D. MOORE

APPROVED: R. E. Alexander
R. E. Alexander
Supervisor, Radiation Safety Unit

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JULY 1, 1967 TO DECEMBER 31, 1967

AND

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BUILDING 4383

ENVIRONMENTAL MONITORING

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JULY 1, 1968 TO DECEMBER 31, 1968

AND

ANNUAL REPORT

1968

by

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APPROVED: W. F. Heine
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Supervisor,
Operational Safety Unit

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JANUARY 1, 1969 TO JUNE 30, 1969

by

J. D. MOORE

APPROVED: W. F. Heine
W. F. Heine
Supervisor
Operational Safety Unit

United States Environmental Protection Agency

Environmental Sciences Division
P.O. Box 93478
Las Vegas, NV 89193-3478

TS-PIC-20909963S/21009965S
March 2010

Research and Development

EPA

AERIAL PHOTOGRAPHIC ANALYSIS OF SANTA SUSANA FIELD LABORATORY - AREA IV

Ventura County, California

Volume 1 & 2

EPA Region 9

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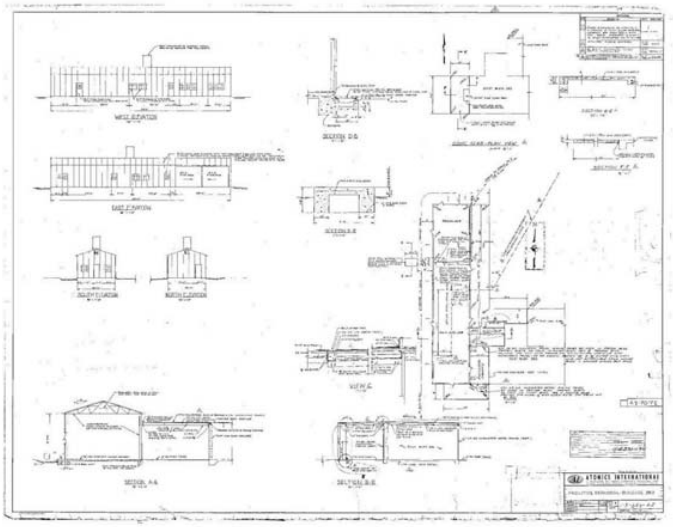
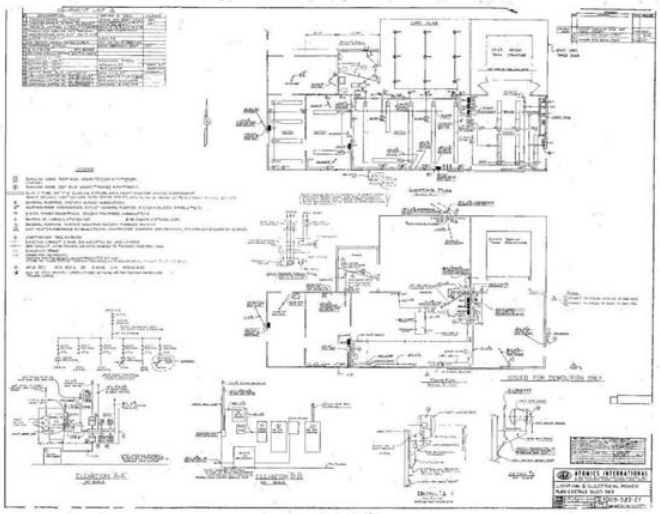


BUILDING 4383



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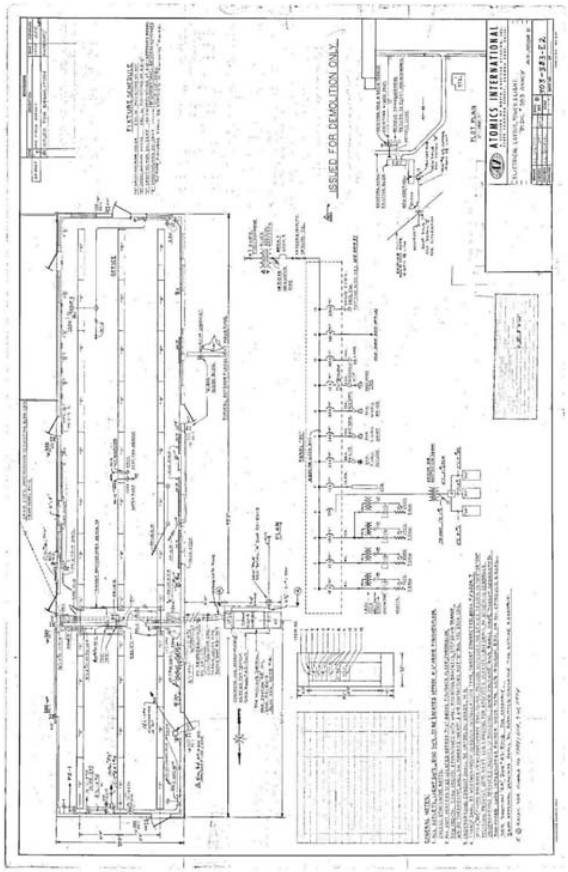

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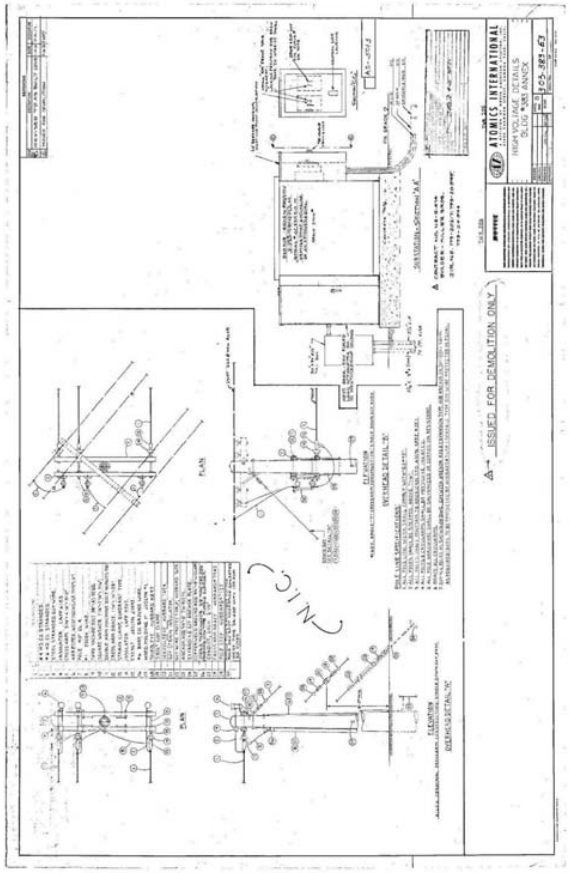

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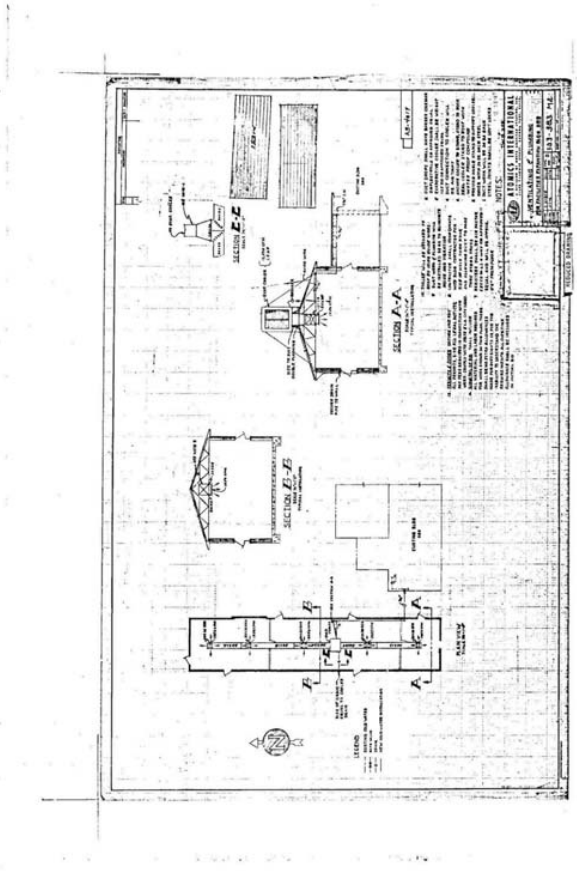

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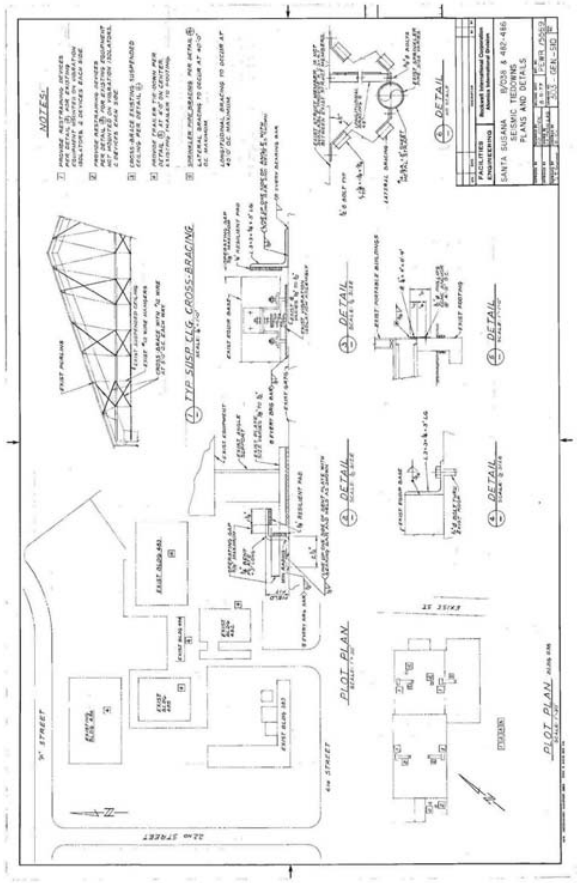
BUILDING 4383



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COPY A 48

ENVIRONMENTAL MONITORING
SEMIANNUAL REPORT
JANUARY 1, 1962 TO JUNE 30, 1962

AEC Research and Development Report

ATOMICS INTERNATIONAL
A DIVISION OF NORTH AMERICAN AVIATION, INC.

HDMSE00507090

A4CM-ZR-0011
Revision A.

AREA IV RADIOLOGICAL CHARACTERIZATION SURVEY

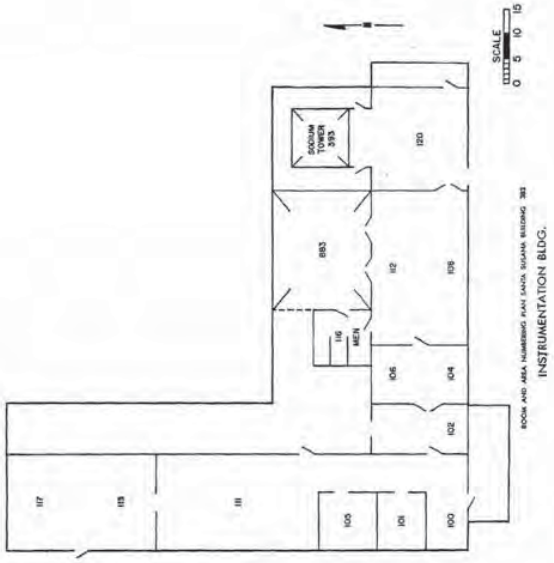
FINAL REPORT

Volume I

Santa Susana Field Laboratory
Rocketdyne Division
Rockwell International

August 15, 1996

HDMSP00146565



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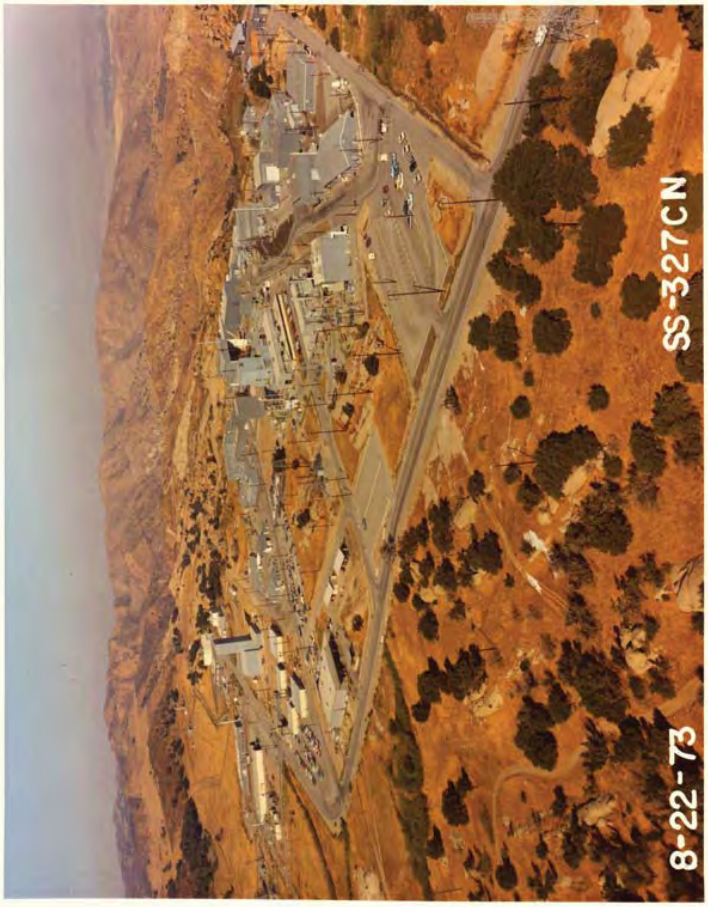
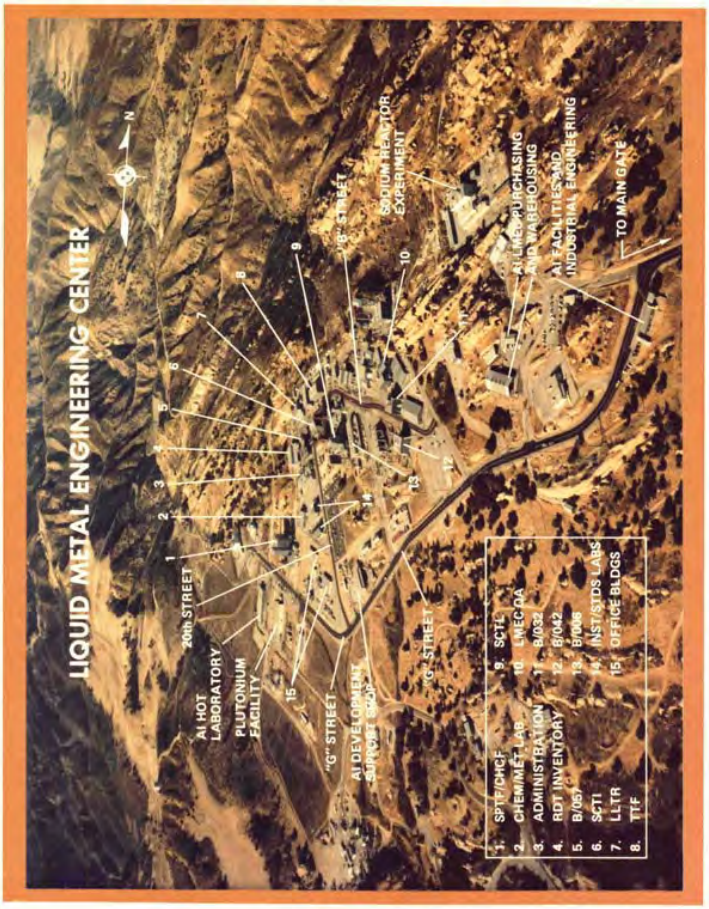
BUILDING 4383





BUILDING 4383

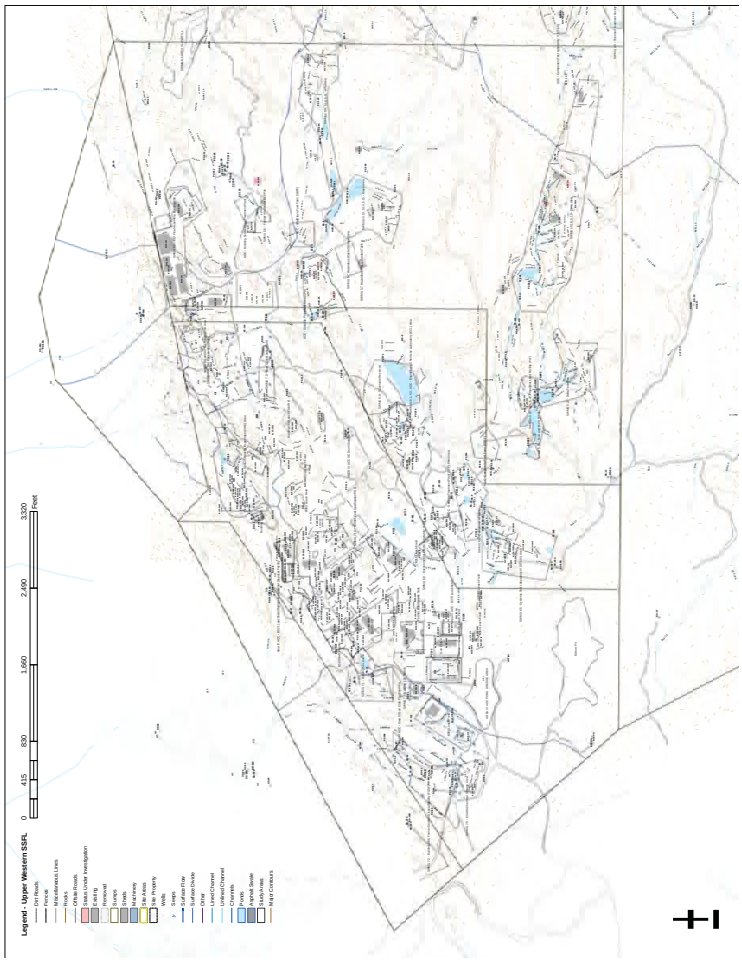
L M E C

FACILITY DESCRIPTIONS

March 1973

Liquid Metal Engineering Center

Operated for
the U.S. Atomic Energy Commission by Atomics International Division
Rockwell International Corporation



Room Number Designation	Major Operations	Hazardous Materials	Probable Hazard	Personnel Hazards
		Laboratory Status Report		
508 511	Heating in furnace Sintering BeO, mixtures Thermoconductivity measurements	uranium, about .5 kg BeO, usually sintered	contamination possible airborne contamination	[redacted]
512	Transpiration experiments heating in furnace, some cutting	in furnace BeO-aluminum mixtures some uranium	possible airborne contamination	
513	Sintering in furnaces, hot pressing, mixing, cold pressing	BeO, metal, mixtures occasionally small amounts uranium	contamination, airborne contamination	
514	Mixing, storage	BeO powder	airborne contamination, contamination	
515	Cutting, grinding	BeO, metal, various mixtures	airborne contamination, contamination	
521	Sintered BeO under various stresses	BeO	possible contamination	
528	Spectography, X-ray diffraction, electronmicroscope	small samples of nearly everything	contamination	
530		BeO, irradiated and non-irradiated samples	contamination, irradiation	
531	Sintering, grinding, diffusion measurements	sintered BeO	possible airborne contamination	

UP 43
3/27/93

BUILDING 4459

BUILDING 4459

DOE AREA IV BUILDINGS

BUILDING NO.	NAME	MANAGER	STATUS
012E	ETEC X-RAY FACILITY	GAYLORD	INACTIVE
013E	THERMAL TRANSIENT FACILITY	GERRITSEN	ACTIVE
014E	SODIUM STORAGE	GERRITSEN	INACTIVE STANDBY
019E	ETEC COMPUTER CENTER/CONSTRUCTION STAGING	JETTER/ZWENG	ACTIVE
021	R/A WASTE DECONTAMINATION	HORTON	INACTIVE STANDBY
022	R/A VAULT STORAGE	HORTON	INACTIVE STANDBY
023	LIQUID METALS CHEMISTRY	GAY	ACTIVE
024	DEVELOPMENT TEST BLDG.	GERRITSEN	INACTIVE STANDBY
025E	SCTI MAIN. SHOP & STORAGE	MOORE	ACTIVE
026E	SCTL CONTROL CENTER	DEBEAR	INACTIVE STANDBY
027E	LEASED TO RKD FOR WELD SHOP	GAYLORD	ACTIVE
029E	HAZARDOUS WASTE STORAGE	GERRITSEN	ACTIVE
030E	TRAFFIC & WAREHOUSING-LEASED TO ROCKETDYNE	GAYLORD	ACTIVE
032E	LMDL-1	DEBEAR	INACTIVE STANDBY
034	RMDF ENGINEERING OFFICE	HORTON	ACTIVE
036E	OFFICE BLDG. LEASED TO RKD	GAYLORD	ACTIVE
038E	ETEC HEADQUARTERS/DOE SITE OFFICE	GAYLORD	ACTIVE
039E	OFFICE BLDG.	GAYLORD	INACTIVE
041	EQUIPMENT STORAGE	GERRITSEN	ACTIVE
042	LMFBR DEV. TESTING	GAY	INACTIVE STANDBY
044	RMDF AP OFFICE	HORTON	ACTIVE
049E	POU CONTROL CENTER	GAY	INACTIVE
057E	ETEC GENERAL TEST	GERRITSEN	INACTIVE
059E	LARGE LEAK TEST RIG	GERRITSEN	ACTIVE
062E	INSTRUMENTATION LAB.	WARGO	ACTIVE
064	NUCLEAR MATERIAL STORAGE	HORTON	INACTIVE STANDBY
065E	ETEC CHEMISTRY LAB.	JETTER	ACTIVE
066E	INSTRUMENTATION LAB.	WARGO	ACTIVE
075	CONTAMINATED EQUIPMENT STORAGE	HORTON	ACTIVE
133E	SODIUM BURN FACILITY	GERRITSEN	ACTIVE
228E	POWER PAK	MOORE	ACTIVE STANDBY
226E	SCTL MG BLDG.	DEBEAR	INACTIVE STANDBY
320E	FUEL OIL PUMP BLDG.	MOORE	INACTIVE
355E	SCTI CONTROL CENTER	MOORE	ACTIVE
356E	SODIUM COMPONENT TEST INSTALLATION	MOORE	ACTIVE STANDBY
357E	SCTI SUPPLY STORAGE	MOORE	INACTIVE STANDBY
358E	SCTL SUPPORT BLDG.	DEBEAR	INACTIVE
360E	CHEMICAL STORAGE BLDG.	MOORE	ACTIVE
361E	HAS MAT'L STORAGE	MOORE	ACTIVE STANDBY
392E	SCTI ELECTRICAL EQUIPMENT	MOORE	INACTIVE
459E	UNINTERRUPTIBLE POWER SUPPLY	GERRITSEN	INACTIVE
461E	MOTOR GENERATOR BLDG.	DEBEAR	INACTIVE STANDBY
462E	SODIUM PUMP TEST FACILITY	DEBEAR	INACTIVE STANDBY
463E	COMPONENTS HANDLING & CLEANING	GERRITSEN	ACTIVE STANDBY
473E	HYDRAULIC TEST INSTRUMENTATION	GERRITSEN	INACTIVE
482E	ENGINEERING OFFICE LEASED TO ROCKETDYNE	GAYLORD	PARTIAL ACTIVE
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484E	RESTROOM FACILITY	GAYLORD	ACTIVE
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486E	ENGINEERING OFFICE	GAYLORD	ACTIVE
487E	ENGINEERING OFFICE	JETTER	ACTIVE

SFUND RECORDS CTR
2137498

#57

U.S. Department of Energy
COMMUNITY MEETING
Agenda

Wednesday, June 22, 2005

Grand Vista Hotel
999 Enchanted Way
Simi Valley, CA 93065

6:15 PM	Doors open
6:30 - 7:15 PM	Poster Stations open for viewing: 1. Aerial Photos 2. What did we do in Area IV? 3. Historical Site Assessment (HSA) – Focus on the "Hot Lab" 4. Recent Tritium sampling results and maps 5. Chemical sampling maps on and off-site
7:15 – 7:50 PM	Operational history of Area IV and the Historical Site Assessment Jeff Smyth, Facilitator Mike Lopez, DOE Program Manager Majelle Lee, Boeing Program Manager
7:50 – 8:30 PM	Discussion and Q&A Session
8:30 - 9:00 PM	Poster stations and one-on-one questions

Please take the time to visit the stations and talk with our project team about the DOE cleanup of Area IV.

A copy of the historical site assessment is available on the DOE's website at http://apps.em.doe.gov/etec, along with updated information about the clean-up of Area IV. Copies of the historical site assessment will also be delivered to local libraries.

Please fill out the evaluation cards to help us improve our future meetings and communication.

Thanks for joining us!

SFUND RECORDS CTR
2137511

[redacted]

DOE/EA-1345

ENVIRONMENTAL ASSESSMENT FOR CLEANUP AND CLOSURE OF THE ENERGY TECHNOLOGY ENGINEERING CENTER

FINAL

March 2003

#12

[redacted]

BUILDING 4459

DRC 24238 rc

2600

ENERGY TECHNOLOGY ENGINEERING CENTER
Operated For The U.S. Department of Energy
Rocketdyne Division, Rockwell International

No. 886-AN-0003 Rev.____
Page 1 of 20
Original Date 12/10/91
Rev. Date -

TITLE: SODIUM DISPOSAL FACILITY CLOSURE-FACILITY FAMILIARIZATION TRAINING

-APPROVALS-

Originators: 12/10/91
Fac Mgr 12-12-91
RP & HPS 12/14/91
Enviro 12/11/91
HS & FE 12/13/91
Qual Assur 12-17-91

REV. LTR.	REVISION	APPROVAL/DATE

OFFICIAL COPY

Form 735-A-6 Rev 6-91

Historical Site Assessment of Area IV
Santa Susana Field Laboratory
Ventura County, California

Volume 2 – Area IV Site Summaries

Prepared by Sapere Consulting, Inc. and
The Boeing Company for the Department of Energy
Under Contract DE-AC03-99SF21530

May 2005

United States Environmental Protection Agency
Research and Development

Environmental Sciences Division
P.O. Box 93478
Las Vegas, NV 89193-3478

TS-PIC-20909963S/21009965S
March 2010

EPA

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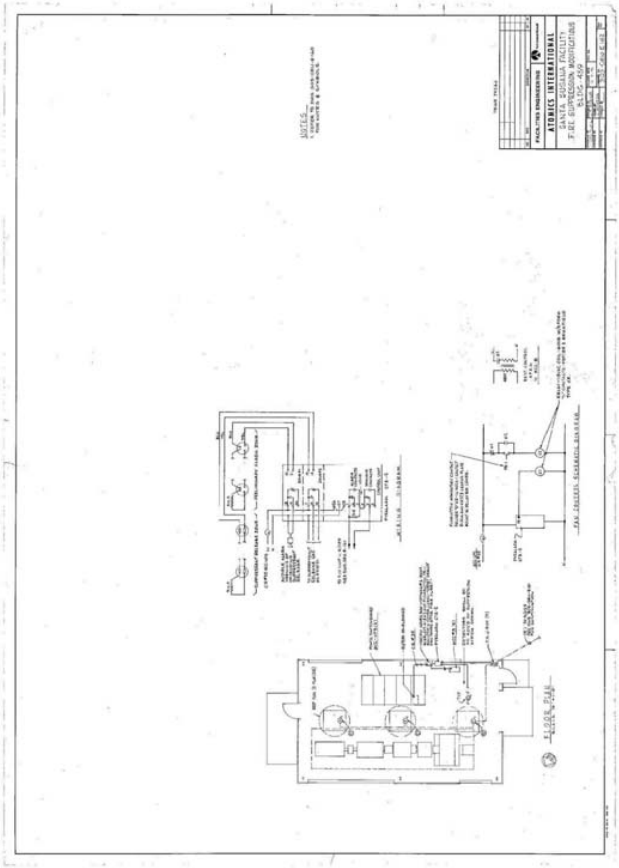
Ventura County, California

Volume 1 & 2

EPA Region 9



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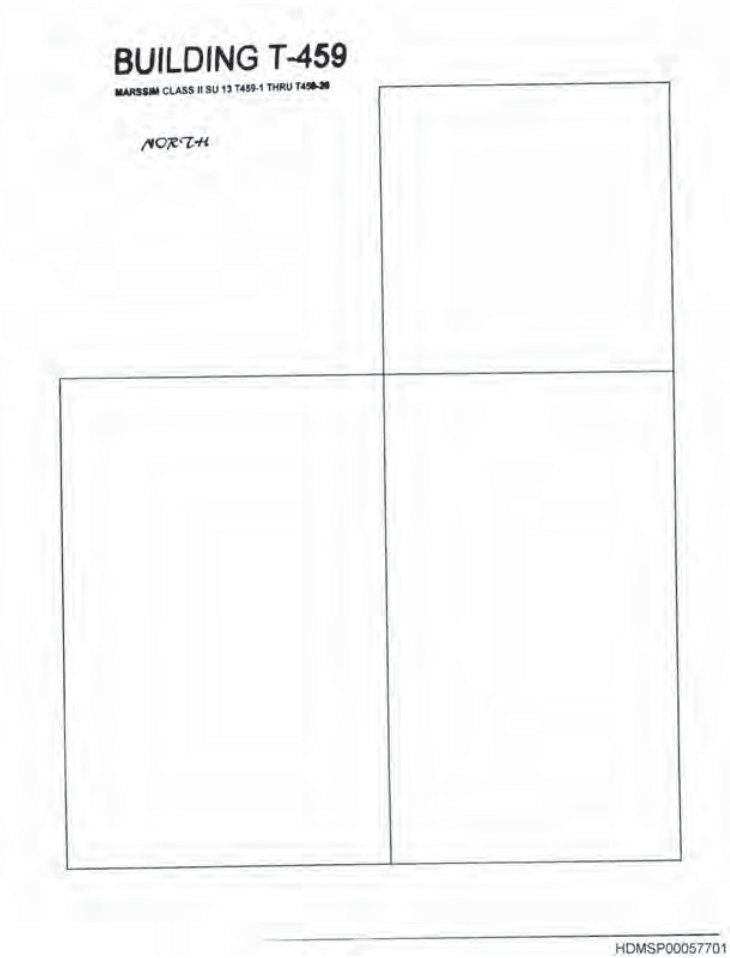
BUILDING 4459



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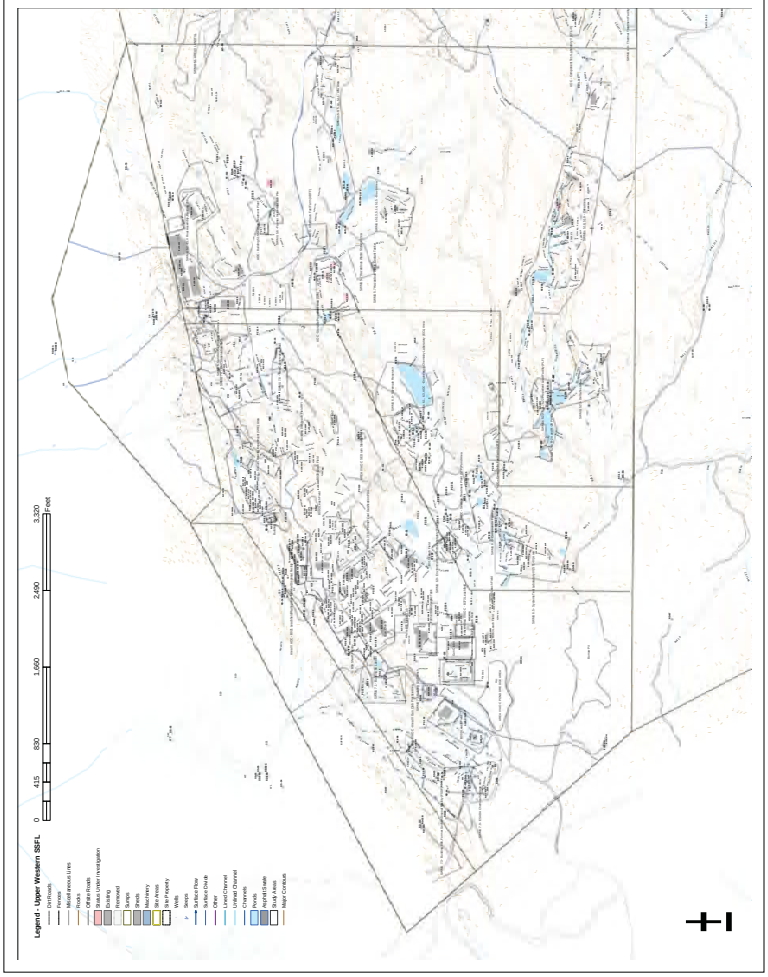

BUILDING 4461

BUILDING 4461

DOE AREA IV BUILDINGS

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012E	ETEC X-RAY FACILITY	GAYLORD	INACTIVE
013E	THERMAL TRANSIENT FACILITY	GERRITSEN	ACTIVE
014E	SODIUM STORAGE	GERRITSEN	INACTIVE STANDBY
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355E	SCTI CONTROL CENTER	MOORE	ACTIVE
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BOEING

Site Environment Report for

Calendar Year 2007

DOE Operations at

The Boeing Company

Santa Susana Field Laboratory

Area IV

Historical Site Assessment of Area IV
Santa Susana Field Laboratory
Ventura County, California

Volume 2 – Area IV Site Summaries

Prepared by Sapere Consulting, Inc. and
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Under Contract DE-AC03-99SF21530

May 2005

BUILDING 4461

United States Environmental Protection Agency

Environmental Sciences Division
P.O. Box 93478
Las Vegas, NV 89193-3478

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Research and Development

EPA

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NAA-SR-7650
COPY A 48

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SEMIANNUAL REPORT
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AEC Research and Development Report

ATOMICS INTERNATIONAL
A DIVISION OF NORTH AMERICAN AVIATION, INC.

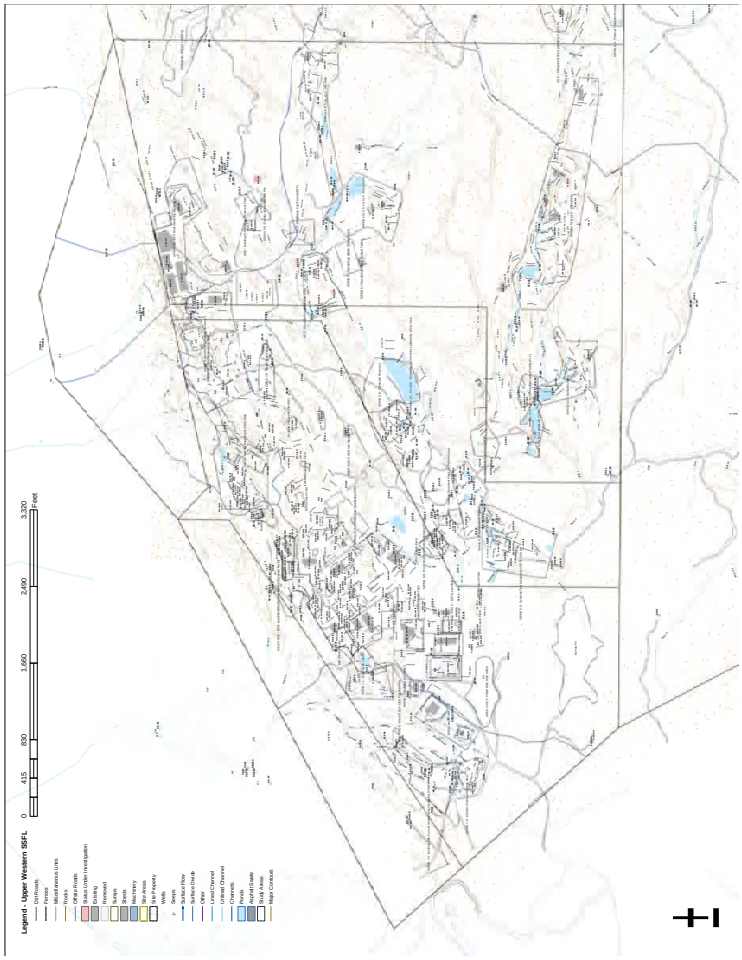
HDMSE00507090

BOEING FAX COVERSHEET

DATE:	April 19, 2007	PAGES:	(3) Three (including cover)
TO:	Ms. Julie Flores	FROM:	Mr. Paul Costa
LOCATION:	Ventura County Air Pollution Control District	LOCATION:	The Boeing Company
FAX NO.:	(805) 645-1444	FAX NO.:	(818) 466-8743
PHONE:		PHONE:	(818) 466-8779
E-MAIL:		E-MAIL:	paul.j.costa@boeing.com
MC:		MC:	055-T487
SUBJECT:	Demolition of Building 4461-4463, Area IV, Santa Susana Field Laboratory		

Please see attached letter and application.

HDMSP00078578



BUILDING 4462

BUILDING 4462

DOE AREA IV BUILDINGS

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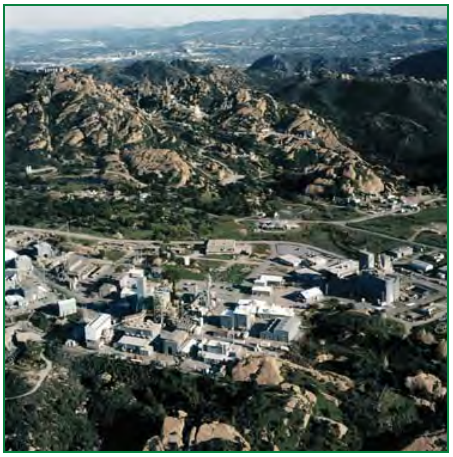
487E	ENGINEERING OFFICE	JETTER	ACTIVE

BOEING

RD99-115

Site Environmental Report for Calendar Year 1998 DOE Operations at Rocketdyne Propulsion & Power



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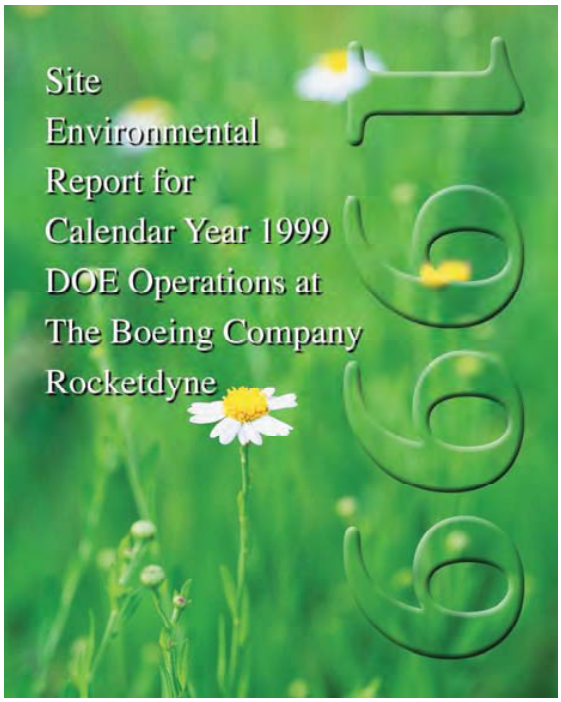
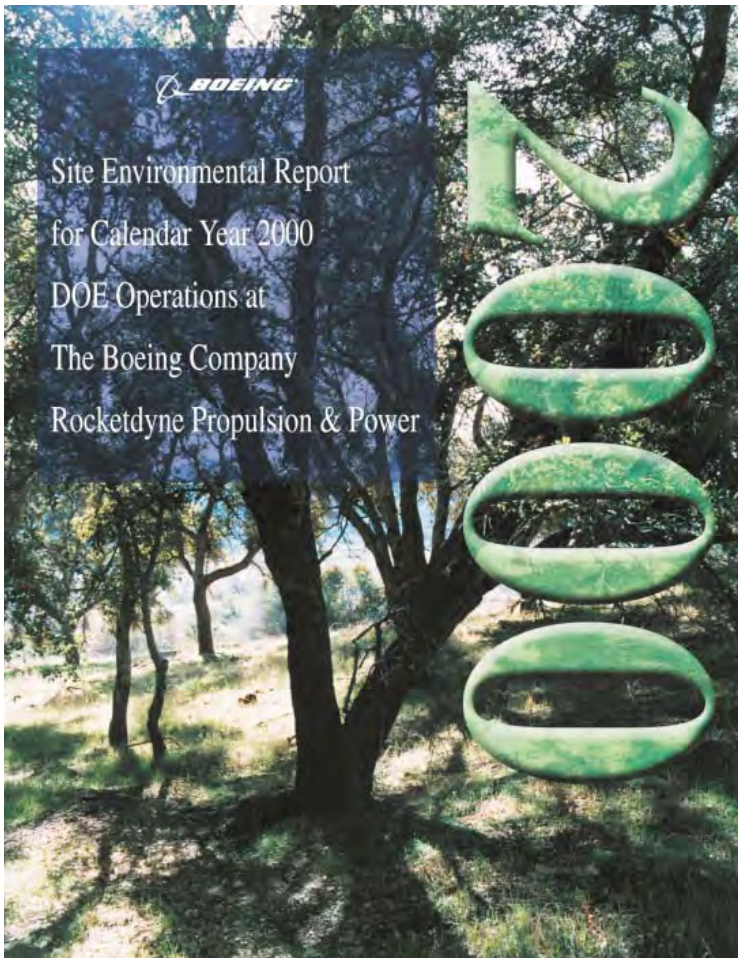
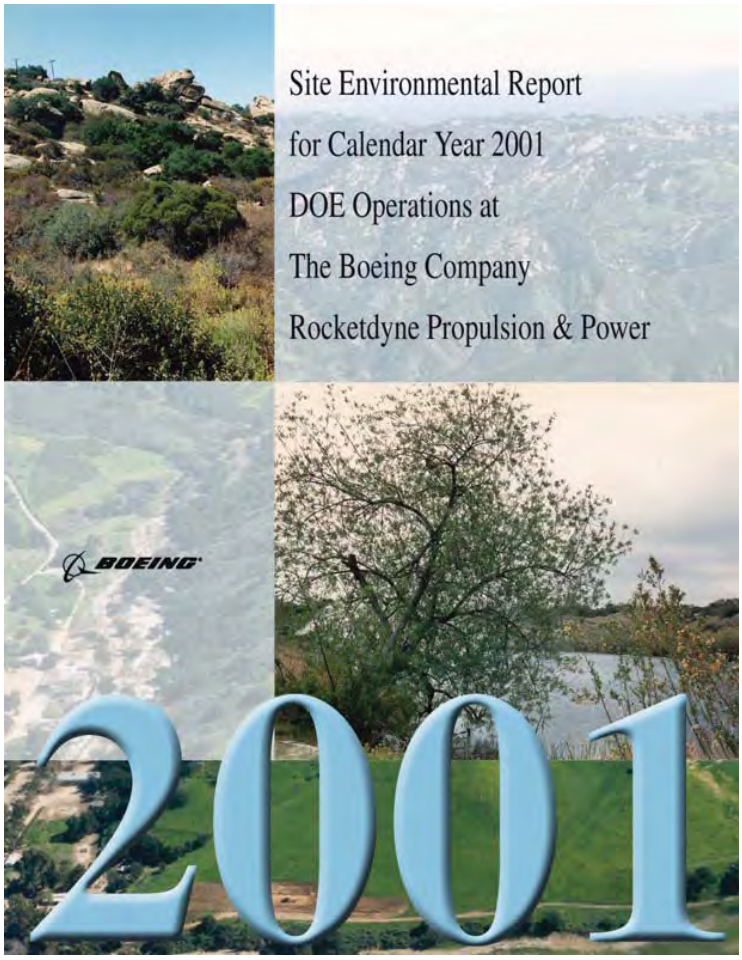
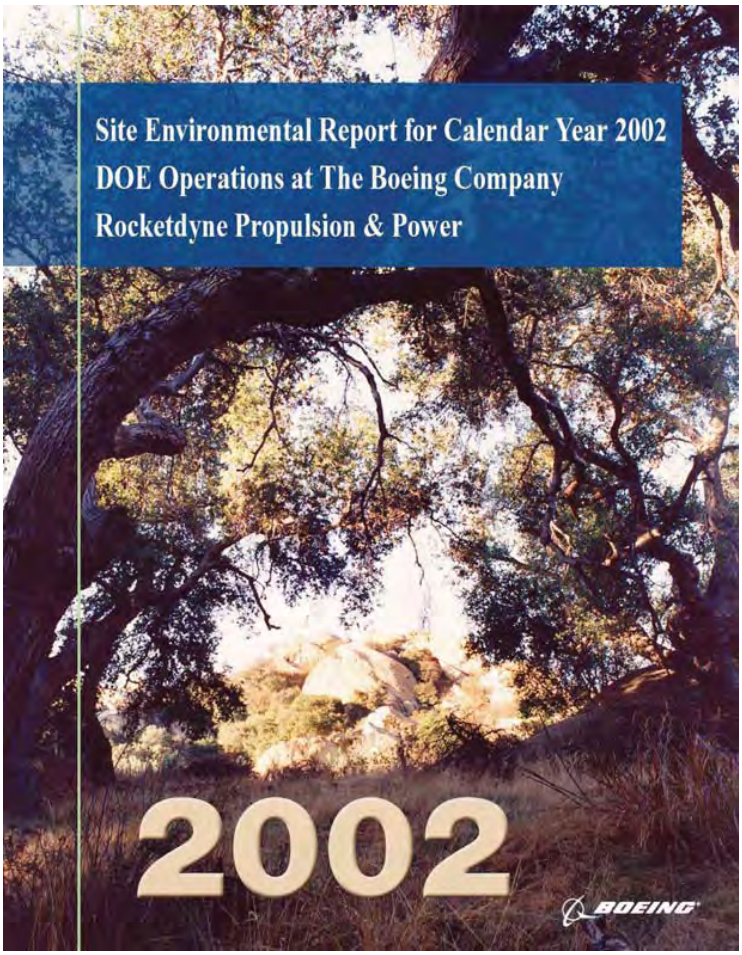
RD00-159

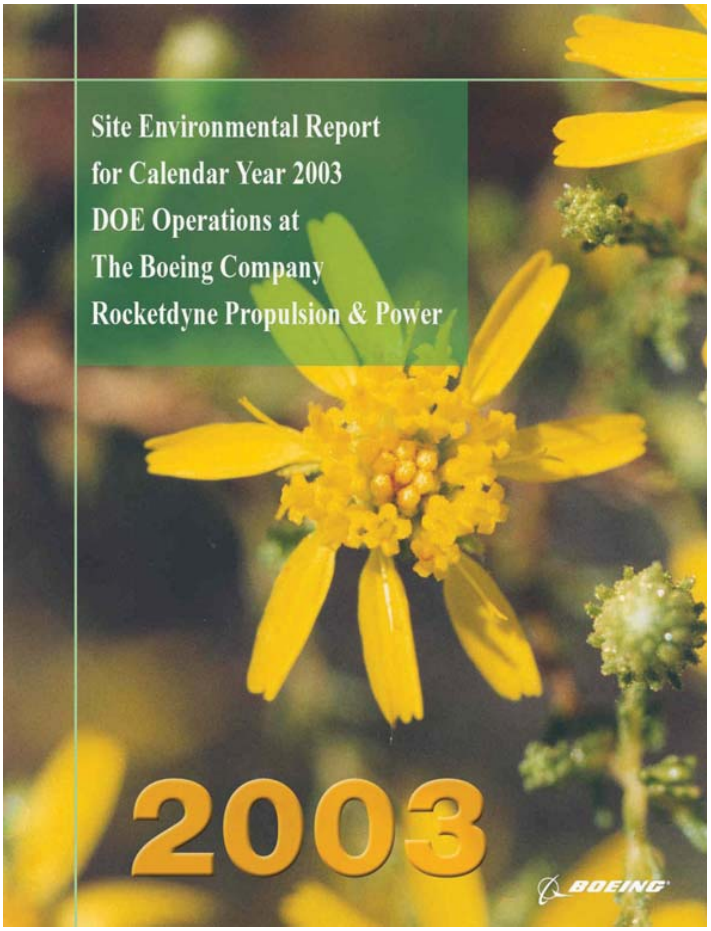


BUILDING 4462









BUILDING 4462

BOEING

Site Environment Report for

Calendar Year 2007

DOE Operations at

The Boeing Company

Santa Susana Field Laboratory

Area IV

Historical Site Assessment of Area IV
Santa Susana Field Laboratory
Ventura County, California

Volume 2 – Area IV Site Summaries

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May 2005

3YE
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ROCKETDYNE DIVISION
ENVIRONMENTAL MONITORING
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ANNUAL REPORT
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1989

Rockwell International

Rocketdyne Division
6633 Canoga Avenue
Canoga Park, California 91303

BUILDING 4462

United States
Environmental Protection
Agency

Environmental Sciences
Division
P.O. Box 93478
Las Vegas, NV 89193-3478

TS-PIC-20909963S/21009965S
March 2010

Research and Development

EPA

AERIAL PHOTOGRAPHIC ANALYSIS OF SANTA SUSANA FIELD LABORATORY - AREA IV

Ventura County, California

Volume 1 & 2

EPA Region 9

HDMSe00398996

HDMSe00398997

HDMSe00398998

BUILDING 4462

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HDMSe00399000

HDMSe00399001

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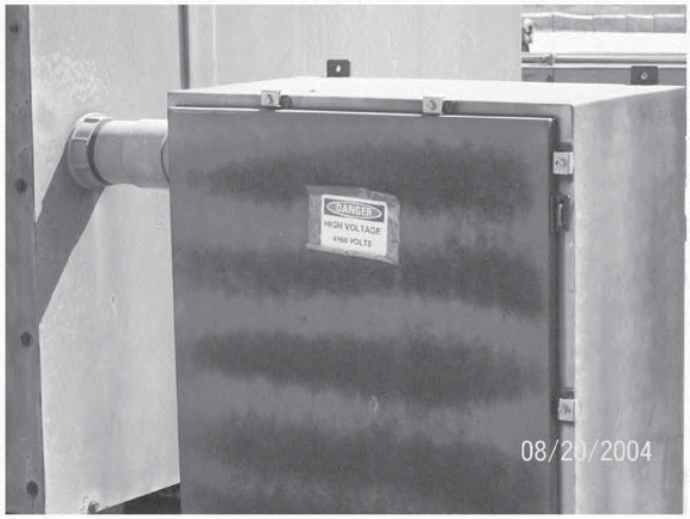
BUILDING 4462

HDMSe00399006



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NAA-SR-7650
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ENVIRONMENTAL MONITORING
SEMIANNUAL REPORT
JANUARY 1, 1962 TO JUNE 30, 1962

AEC Research and Development Report

ATOMICS INTERNATIONAL
A DIVISION OF NORTH AMERICAN AVIATION, INC.

HDMSE00507090

BUILDING 4462

BOEING FAX COVERSHEET

DATE:	April 19, 2007	PAGES:	(3) Three (including cover)
TO:	Ms. Julie Flores	FROM:	Mr. Paul Costa
LOCATION:	Ventura County Air Pollution Control District	LOCATION:	The Boeing Company
FAX NO.:	(805) 645-1444	FAX NO.:	(818) 466-8743
PHONE:		PHONE:	(818) 466-8779
E-MAIL:		E-MAIL:	paul.j.costa@boeing.com
MC:		MC:	055-T487
SUBJECT:	Demolition of Building 4461-4463, Area IV, Santa Susana Field Laboratory		

Please see attached letter and application.

HDMSP00078578

Internal Letter — Rockwell International

Date: September 18, 1984 — No. GDR-84-036

To: W. I. Greenwell, Rocketdyne - SSFL, 052, 055-SS12

From: G. D. Redman, Rocketdyne - SSFL, 052, 055-SS12, 5217

Subject: Fuel Spill, Bldg. 462, Emergency Generator

On Monday, 17 September 1984 at approximately 1:44 a.m., Control Center Operator Wiesinger received a telephone call from Rotating Shift Crewman Mark Schmidt, D/720, SSN: 543-21-3500, extension 5128, stating that the emergency generator located on the northeast side of building 462 was leaking diesel fuel and would have to be shut down.

Fire Protection Officer Tatman was at the scene at the time and via radio requested the presence of the writer and a pumper for area wash down. Fire Protection Officer Emmick by radio stated he would return to the Control Center for fire engine 317 and report to the scene.

CCO Wiesinger dispatched Protective Services Officers Gulifoyle and Delling to the scene via radio. All units were on scene at 1:48 a.m.

Upon arrival, the writer observed draining down the asphalt incline to road level (22nd St.) where the fuel ran south along 22nd St. to a drainage sump. This sump connects to an underground drainage pipe that crosses "G" Street below ground surface and resurfaces on the south side of "G" Street and then runs into Silverwall lake.

All responding D/052 personnel stood by with one 1½" hose line while D/720 personnel Mark Schmidt and Leonard E. Spenard shut down the emergency generator and shut off the diesel fuel supply lines. At this time, FPO Tatman and PSO Delling arrived at the scene with Oil Dry and all D/052 members started covering the areas of fuel contamination. An Oil Dry dyke was formed with the Oil Dry at the drain to keep any further diesel fuel contamination out of the drain system.

The writer then talked with the two members of the rotating crew and was advised that at 3:14 p.m. 09-16-84 the SSFL facility was experiencing high winds and during that time, a power transformer had failed causing the emergency generator to activate due to an electrical power outage. The rotating crew had been advised by SSFL Maintenance department that it would be okay to leave the generator on until the transformer could be fixed on 09-17-84 day shift.

After the shut down, the assistant manager for building 462 was contacted at 3:15 a.m. by the rotating crew members and Mr. Dave Darley, D/720, extension 5573 advised his crew members to shut down the inverters inside the building to save the battery banks and to have Security notify Maintenance electricians of the situation and have them in to fix the transformer breaker, since the complete building was without electrical power, and the fire detection system was affected.

CONFIDENTIAL - UNDER PROTECTIVE ORDER, United States District Court for the Central District of California No. CV 07-1854

BNA 143937

HDMSp01637429

October 2, 1994

TO: Linda L. Wenninger — FROM: Steve Salazar

SUBJECT: Small Sodium Leak At the Sodium Pump Test Facility (SPTF) Building #462, Santa Susana Facility.

On Friday, 30 September 1994, at 9:50 P.M., Santa Susana Security Control Center Operator V. Burgett notified the writer of a sodium fire at building 462. Burgett stated John Biggio of D/025 had contacted the control center by using the emergency telephone to reported a sodium fire on the upper level of building #462. All available emergency response personnel and Support Van #521 were dispatched to the scene.

The writer responded to the reported fire and upon arrival manager Biggio had met with the writer in the Sodium Pump Test facility's control center to explain the current hazardous situation. Biggio stated Patrick Fallandy of D/025 had discovered the fire at 9:45 P.M. and immediately reported it to him. Also stating the system was operating at a temperature of six hundred fifty (650) degrees, with eight (8) PSI of pressure and was uncertain of the incident would escalate. The writer was then taken to the third deck, one hundred forty one (141) foot level of the west section of the subject building's test facility and shown where the fire was located. The writer observed that a one (1) inch venturian flow line connecting to a thirty (30) inch test line, had a small amount of sodium seeping through a tack weld which connected flow sensor FE-527 to the line. The sodium appeared to be balled up round the sensor and the one (1) inch sodium line. The sodium seemed to be reacting with some flames visible and a little smoke emitting from the molten material. Also a 35 gallon galvanized trash can with some Na-X fire extinguishing agent inside of it, had been placed beneath the leak. After reevaluating the situation it was decided to abort the test and to drain the liquefied sodium into the storage vessels by purging the system with Argon at 9:55 P.M.

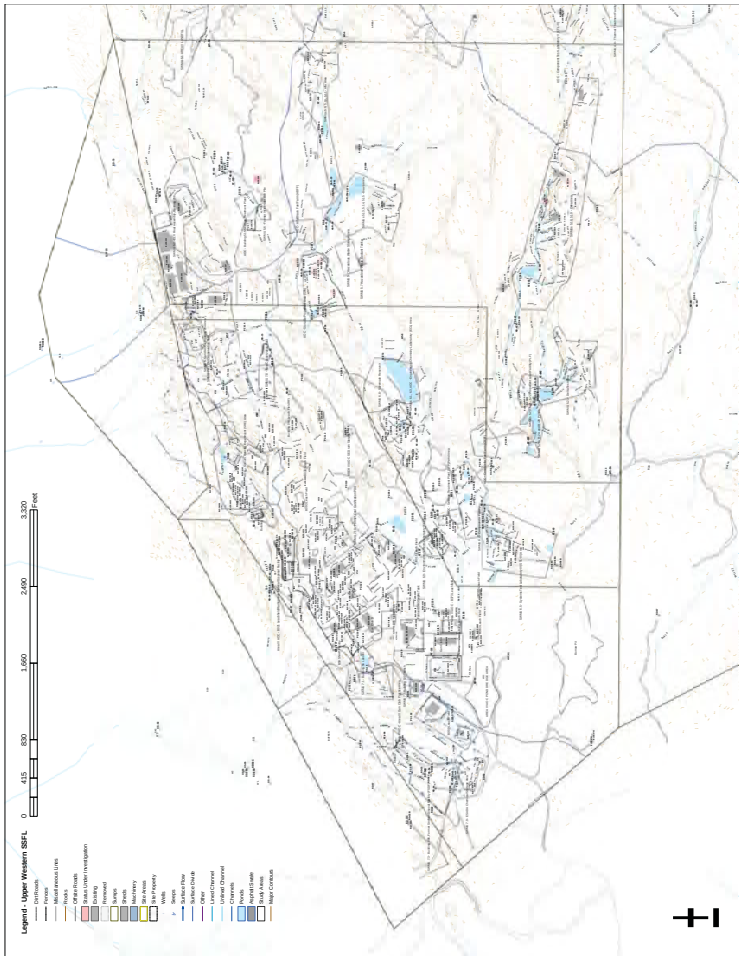
A second shift Canoga facility's officer was sent to the Santa Susana facility to assist in support the emergency crew at 9:55 P.M. and arrived on scene at 10:20 P.M.

Fire Protection Officers J. Bradley and Prather were suited up and instructed to standby until the abort operation was completed to insure the incident did not escalate any further.

At 10:45 P.M. Biggio reported to the writer approximately twenty thousand (20,000) gallons of sodium was drained into storage tanks T-104 & T-105 and the abort operation was completed. All emergency personnel and equipment were released from the scene at this time.

BNA00982630

HDMSp01639402



BUILDING 4462

A S S E T
ENVIRONMENTAL CONSULTANTS
Minority/Women Business Enterprise

LIMITED LEAD PAINT SAMPLING

FOR

BUILDING 4621
SANTA SUSANA FIELD LABORATORY
A TOP WOOSELY CANYON ROAD
SANTA SUSANA, CALIFORNIA

PREPARED FOR:

BOEING
ROCKETDYNE PROPULSION AND POWER
6633 CANOGA AVENUE
P.O. BOX 7922
CANOGA PARK, CALIFORNIA 91309-7922

PREPARED BY:

ASSET ENVIRONMENTAL CONSULTANTS, INC.
5011 ARGOSY AVENUE, SUITE #5
HUNTINGTON BEACH, CA 92649

SEPTEMBER 16th, 1999

ASSET PROJECT NUMBER
C990158

Submitted By:
Rhonda Youngblood
DHS Lead Inspector/Risk Assessor #I3440 Signature

Reviewed By:
Cheryl Marcham
Certified Industrial Hygienist #4098 Signature

5011 Argosy Ave., Suite 5 • Huntington Beach, CA 92649
PH (714) 379-9099 / FAX (714) 379-9098

BUILDING 4463

BUILDING 4463

DOE AREA IV BUILDINGS

BUILDING NO.	NAME	MANAGER	STATUS
012E	ETEC X-RAY FACILITY	GAYLORD	INACTIVE
013E	THERMAL TRANSIENT FACILITY	GERRITSEN	ACTIVE
014E	SODIUM STORAGE	GERRITSEN	INACTIVE STANDBY
019E	ETEC COMPUTER CENTER/CONSTRUCTION STAGING	JETTER/ZWENG	ACTIVE
021	R/A WASTE DECONTAMINATION	HORTON	INACTIVE STANDBY
022	R/A VAULT STORAGE	HORTON	INACTIVE STANDBY
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024	DEVELOPMENT TEST BLDG.	GERRITSEN	INACTIVE STANDBY
025E	SCTI MAIN. SHOP & STORAGE	MOORE	ACTIVE
026E	SCTL CONTROL CENTER	DEBEAR	INACTIVE STANDBY
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038E	ETEC HEADQUARTERS/DOE SITE OFFICE	GAYLORD	ACTIVE
039E	OFFICE BLDG.	GAYLORD	INACTIVE
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057E	ETEC GENERAL TEST	GERRITSEN	INACTIVE
059E	LARGE LEAK TEST RIG	GERRITSEN	ACTIVE
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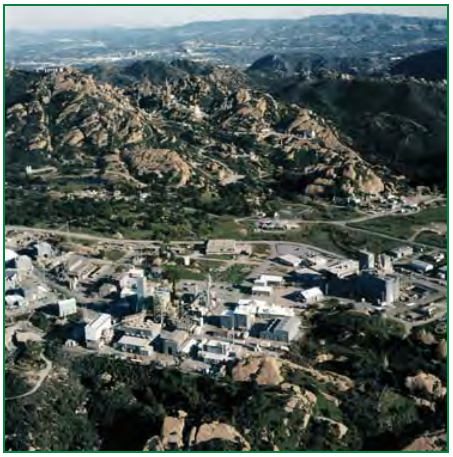
485E	ENGINEERING OFFICE,	GAYLORD	INACTIVE
486E	ENGINEERING OFFICE	GAYLORD	ACTIVE
487E	ENGINEERING OFFICE	JETTER	ACTIVE

BOEING

RD99-115

Site Environmental Report for Calendar Year 1998 DOE Operations at Rocketdyne Propulsion & Power



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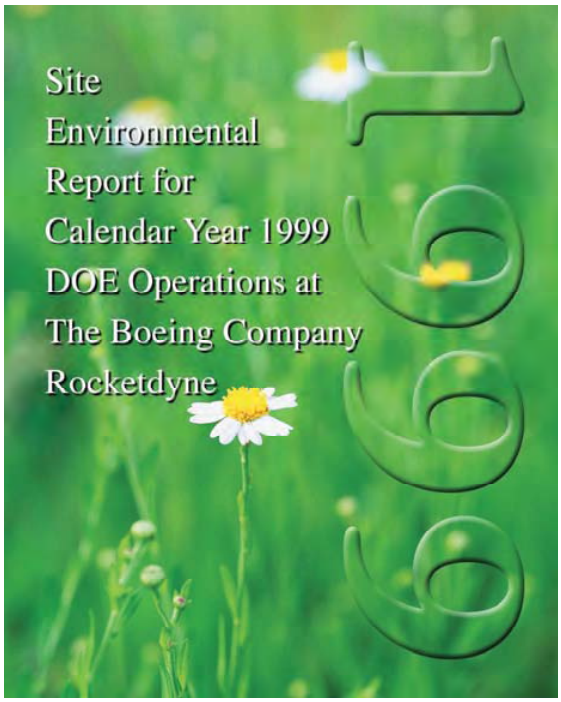

BUILDING 4463

BOEING

Site Environment Report for

Calendar Year 2007

DOE Operations at

The Boeing Company

Santa Susana Field Laboratory

Area IV

Historical Site Assessment of Area IV
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Ventura County, California

Volume 2 – Area IV Site Summaries

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Under Contract DE-AC03-99SF21530

May 2005

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ANNUAL REPORT
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SANTA SUSANA FIELD LABORATORIES SITES
1989

Rockwell International
Rocketdyne Division
6633 Canoga Avenue
Canoga Park, California 91303

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RI/RD94-126

ROCKETDYNE DIVISION
ANNUAL SITE
ENVIRONMENTAL REPORT
SANTA SUSANA FIELD LABORATORY
AND DE SOTO SITES
1993

Prepared by the Staffs of
Radiation Protection and Health Physics Services
and
Environmental Protection

21 October 1994

Rockwell Aerospace
Rocketdyne

BUILDING 4463

38D

RI/RD96-140

ROCKETDYNE DIVISION
ANNUAL SITE
ENVIRONMENTAL REPORT
SANTA SUSANA FIELD LABORATORY
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1995

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United States Environmental Protection Agency
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P.O. Box 93478
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TS-PIC-20909963S/21009965S
March 2010
Research and Development

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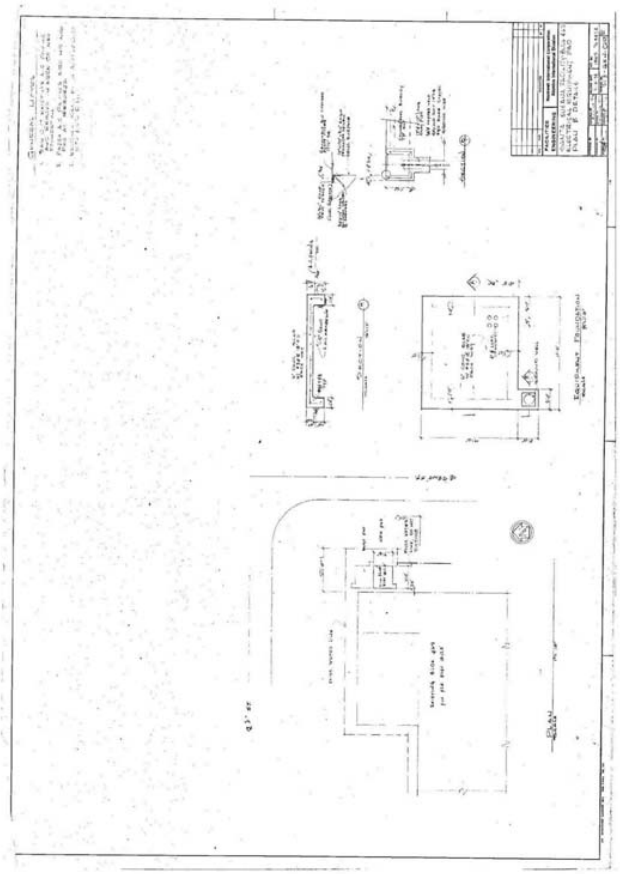
AERIAL PHOTOGRAPHIC ANALYSIS OF SANTA SUSANA FIELD LABORATORY - AREA IV

Ventura County, California

Volume 1 & 2

EPA Region 9



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AEC Research and Development Report

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HDMSE00507090

BUILDING 4463

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DATE:	April 19, 2007	PAGES:	(3) Three (including cover)
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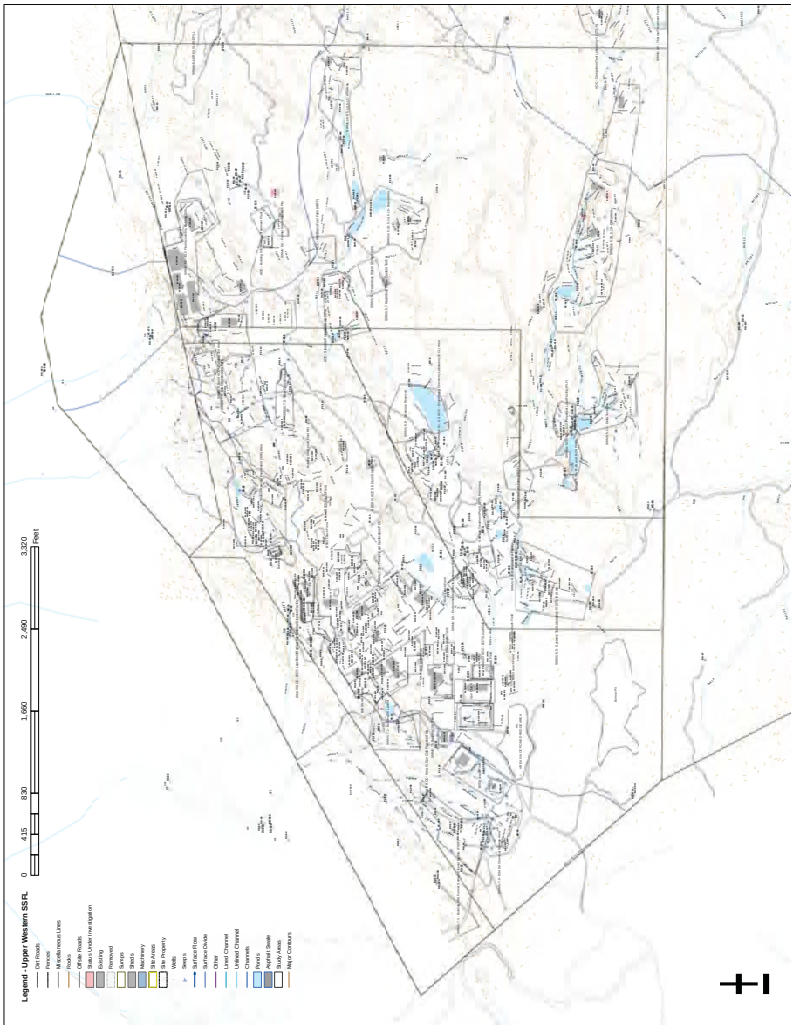
LOCATION:	Ventura County Air Pollution Control District	LOCATION:	The Boeing Company
FAX NO.:	(805) 645-1444	FAX NO.:	(818) 466-8743
PHONE:		PHONE:	(818) 466-8779
E-MAIL:		E-MAIL:	paul.j.costa@boeing.com
MC:		MC:	055-T487

SUBJECT: Demolition of Building 4461-4463, Area IV, Santa Susana Field Laboratory

Please see attached letter and application.

HDMSP00078578



BUILDING 4482

BUILDING 4482

DOE AREA IV BUILDINGS

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012E	ETEC X-RAY FACILITY	GAYLORD	INACTIVE
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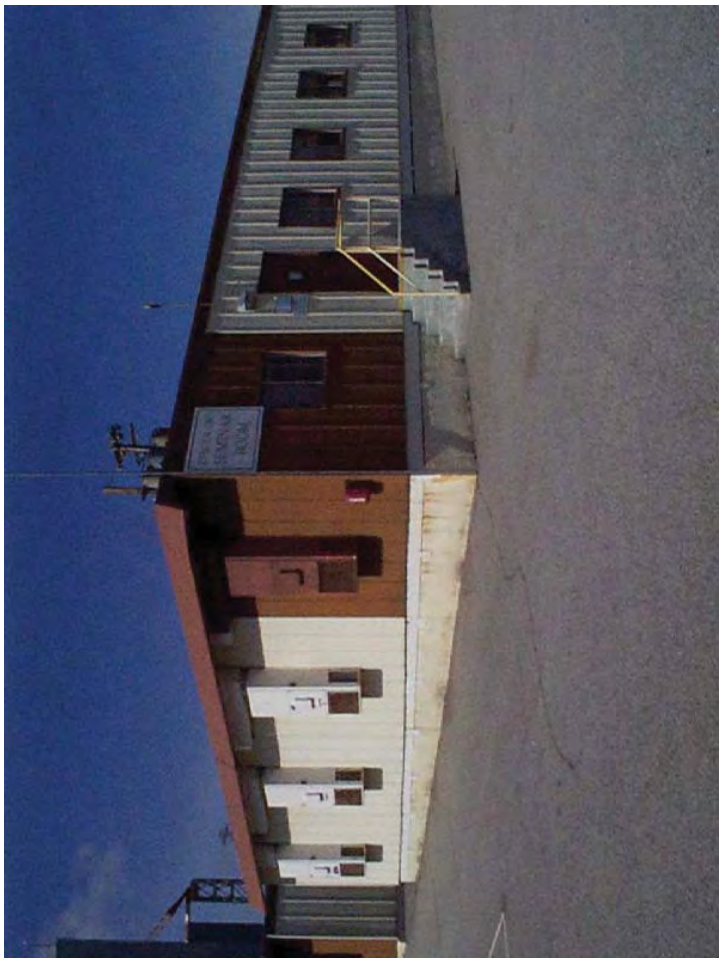

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Ventura County, California

Volume 1 & 2

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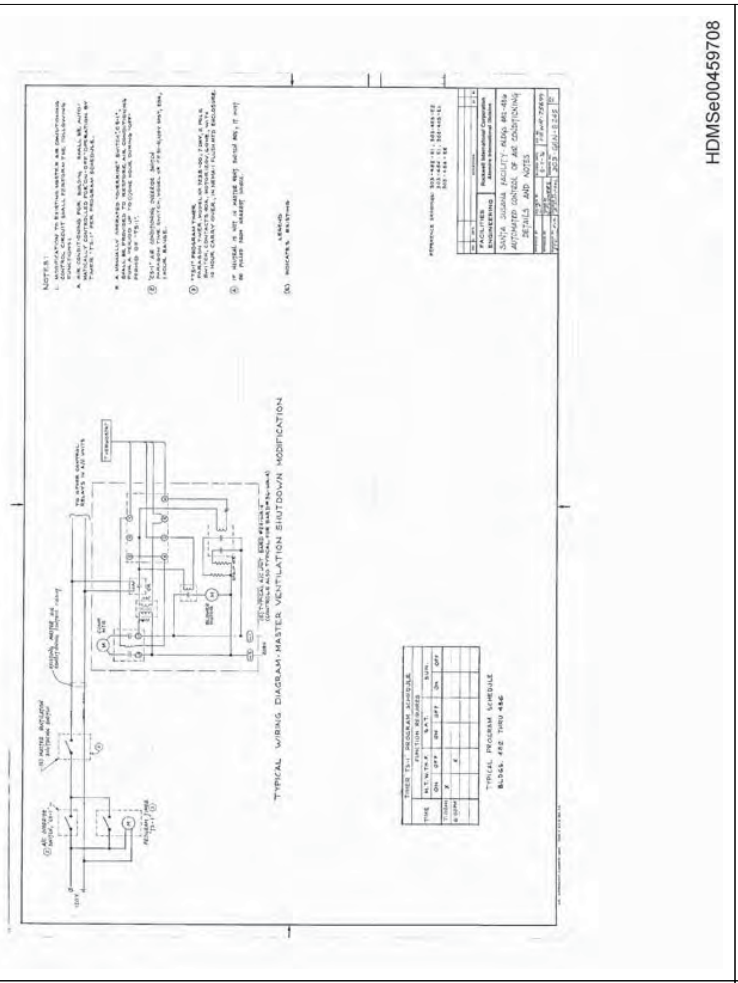
BUILDING 4482



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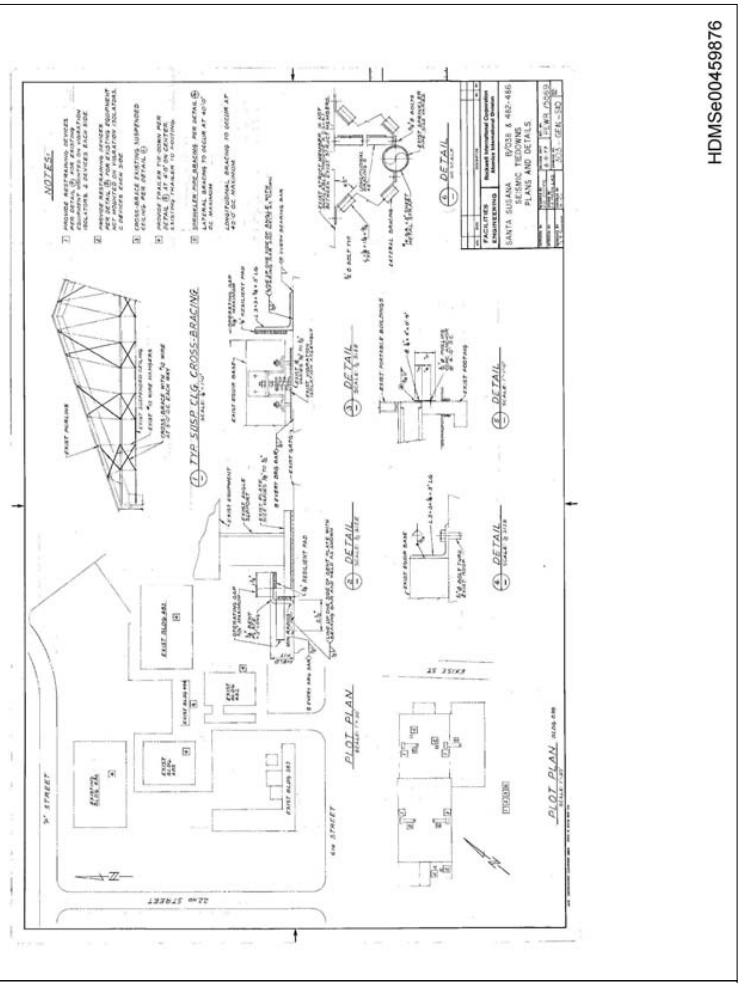

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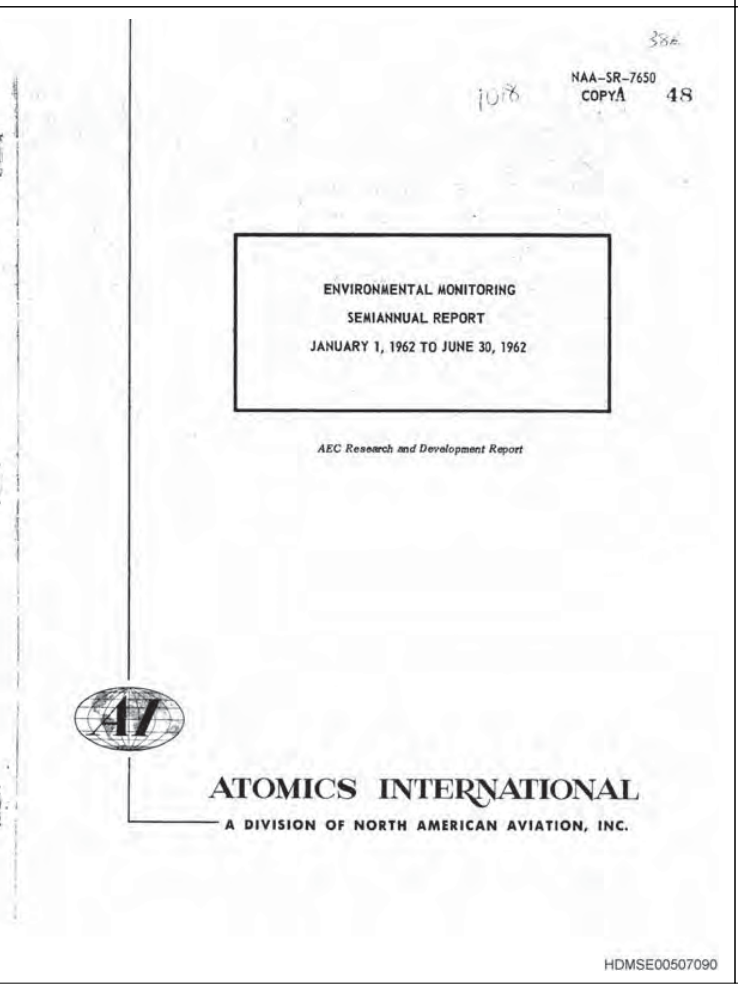

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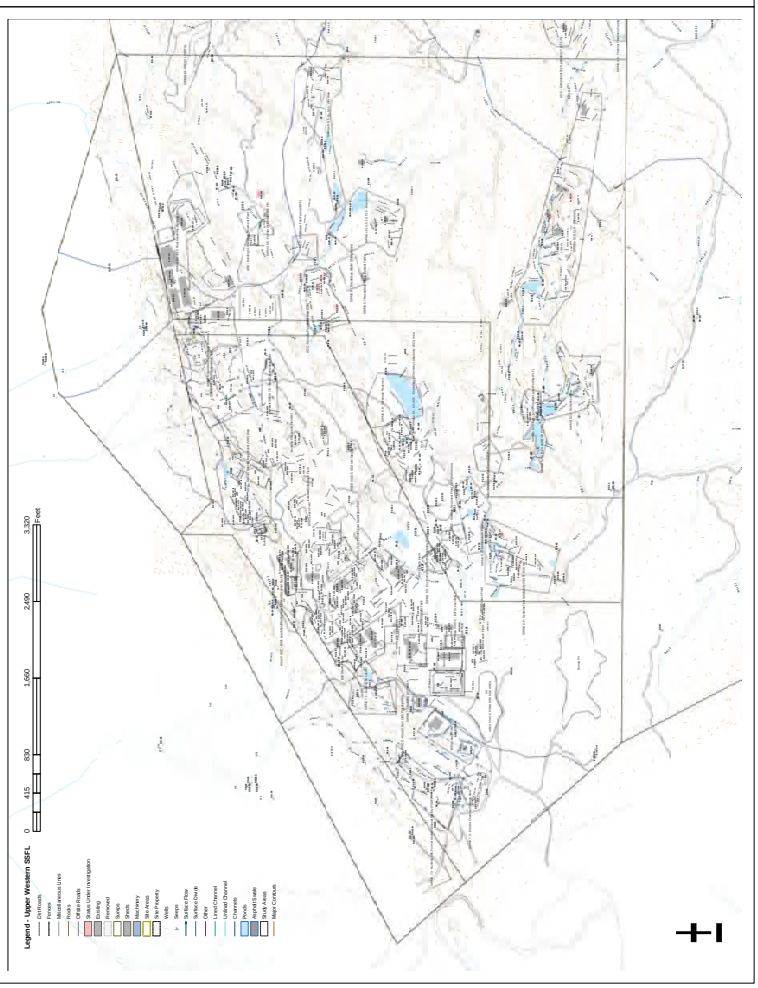

BUILDING 4483

BUILDING 4483

DOE AREA IV BUILDINGS

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027E	LEASED TO RKD FOR WELD SHOP	GAYLORD	ACTIVE
029E	HAZARDOUS WASTE STORAGE	GERRITSEN	ACTIVE
030E	TRAFFIC & WAREHOUSING-LEASED TO ROCKETDYNE	GAYLORD	ACTIVE
032E	LMDL-1	DEBEAR	INACTIVE STANDBY
034	RMDF ENGINEERING OFFICE	HORTON	ACTIVE
036E	OFFICE BLDG. LEASED TO RKD	GAYLORD	ACTIVE
038E	ETEC HEADQUARTERS/DOE SITE OFFICE	GAYLORD	ACTIVE
039E	OFFICE BLDG.	GAYLORD	INACTIVE
041	EQUIPMENT STORAGE	GERRITSEN	ACTIVE
042	LMFBR DEV. TESTING	GAY	INACTIVE STANDBY
044	RMDF AP OFFICE	HORTON	ACTIVE
049E	POU CONTROL CENTER	GAY	INACTIVE
057E	ETEC GENERAL TEST	GERRITSEN	INACTIVE
059E	LARGE LEAK TEST RIG	GERRITSEN	ACTIVE
062E	INSTRUMENTATION LAB.	WARGO	ACTIVE
064	NUCLEAR MATERIAL STORAGE	HORTON	INACTIVE STANDBY
065E	ETEC CHEMISTRY LAB.	JETTER	ACTIVE
066E	INSTRUMENTATION LAB.	WARGO	ACTIVE
075	CONTAMINATED EQUIPMENT STORAGE	HORTON	ACTIVE
133E	SODIUM BURN FACILITY	GERRITSEN	ACTIVE
228E	POWER PAK	MOORE	ACTIVE STANDBY
226E	SCTL MG BLDG.	DEBEAR	INACTIVE STANDBY
320E	FUEL OIL PUMP BLDG.	MOORE	INACTIVE
355E	SCTI CONTROL CENTER	MOORE	ACTIVE
356E	SODIUM COMPONENT TEST INSTALLATION	MOORE	ACTIVE STANDBY
357E	SCTI SUPPLY STORAGE	MOORE	INACTIVE STANDBY
358E	SCTL SUPPORT BLDG.	DEBEAR	INACTIVE
360E	CHEMICAL STORAGE BLDG.	MOORE	ACTIVE
361E	HAS MAT'L STORAGE	MOORE	ACTIVE STANDBY
392E	SCTI ELECTRICAL EQUIPMENT	MOORE	INACTIVE
459E	UNINTERRUPTIBLE POWER SUPPLY	GERRITSEN	INACTIVE
461E	MOTOR GENERATOR BLDG.	DEBEAR	INACTIVE STANDBY
462E	SODIUM PUMP TEST FACILITY	DEBEAR	INACTIVE STANDBY
463E	COMPONENTS HANDLING & CLEANING	GERRITSEN	ACTIVE STANDBY
473E	HYDRAULIC TEST INSTRUMENTATION	GERRITSEN	INACTIVE
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484E	RESTROOM FACILITY	GAYLORD	ACTIVE
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United States Environmental Protection Agency

Environmental Sciences Division
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Volume 1 & 2

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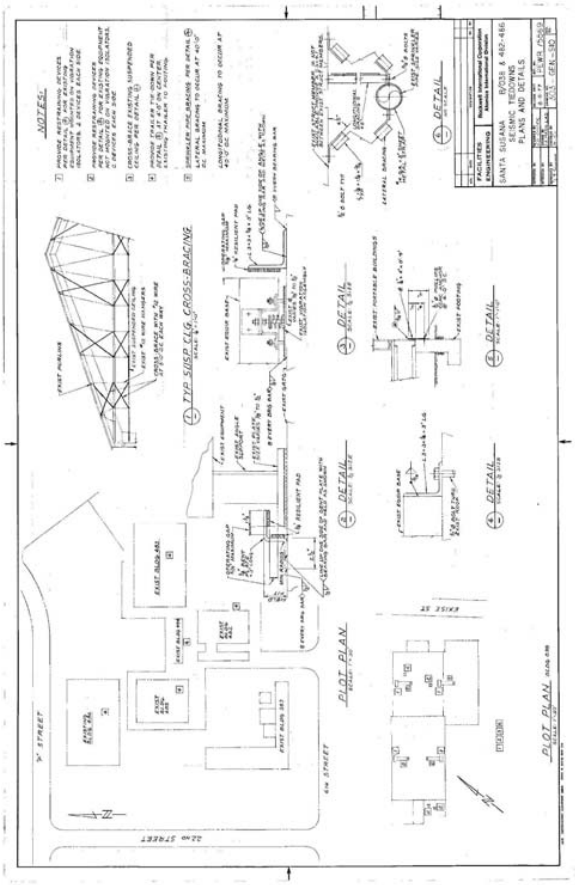

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BUILDING 4483

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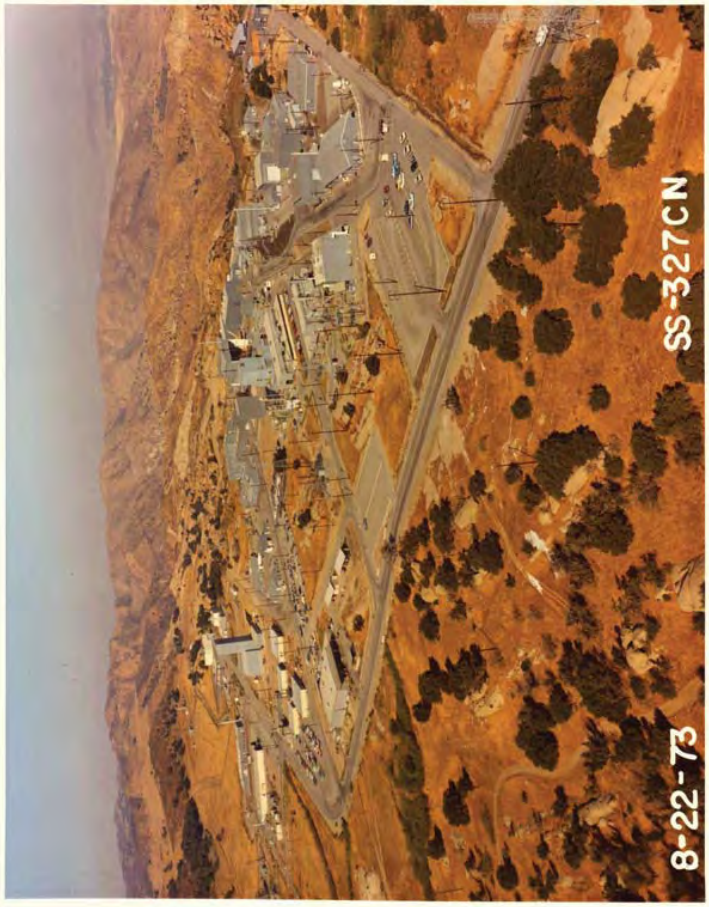

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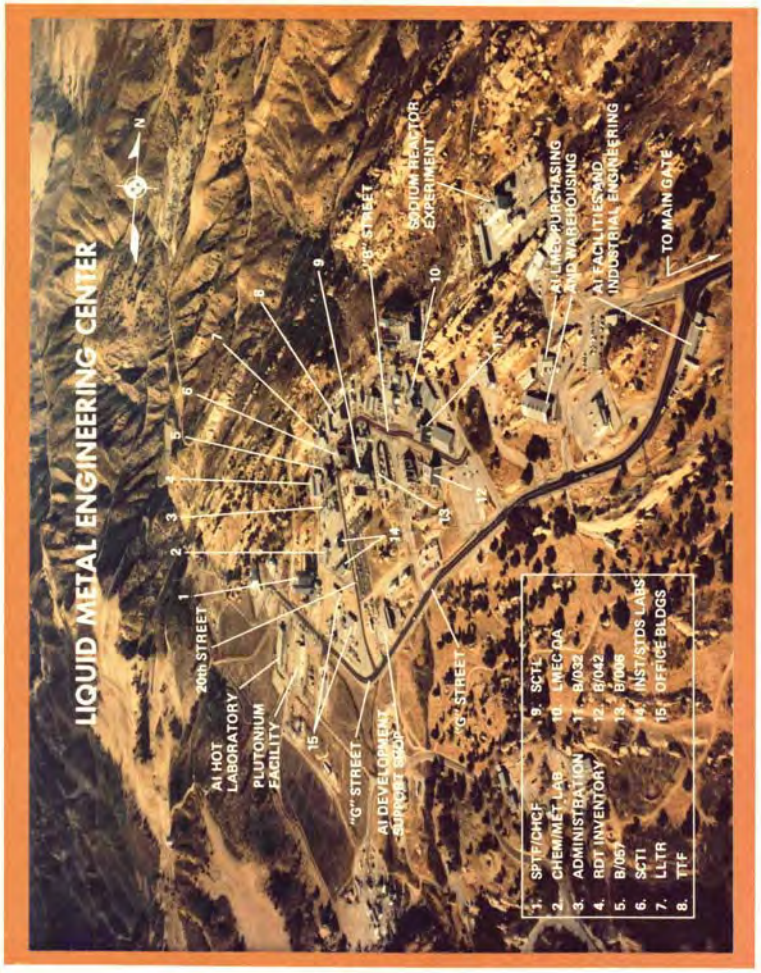

BUILDING 4484

BUILDING 4484

DOE AREA IV BUILDINGS

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013E	THERMAL TRANSIENT FACILITY	GERRITSEN	ACTIVE
014E	SODIUM STORAGE	GERRITSEN	INACTIVE STANDBY
019E	ETEC COMPUTER CENTER/CONSTRUCTION STAGING	JETTER/ZWENG	ACTIVE
021	R/A WASTE DECONTAMINATION	HORTON	INACTIVE STANDBY
022	R/A VAULT STORAGE	HORTON	INACTIVE STANDBY
023	LIQUID METALS CHEMISTRY	GAY	ACTIVE
024	DEVELOPMENT TEST BLDG.	GERRITSEN	INACTIVE STANDBY
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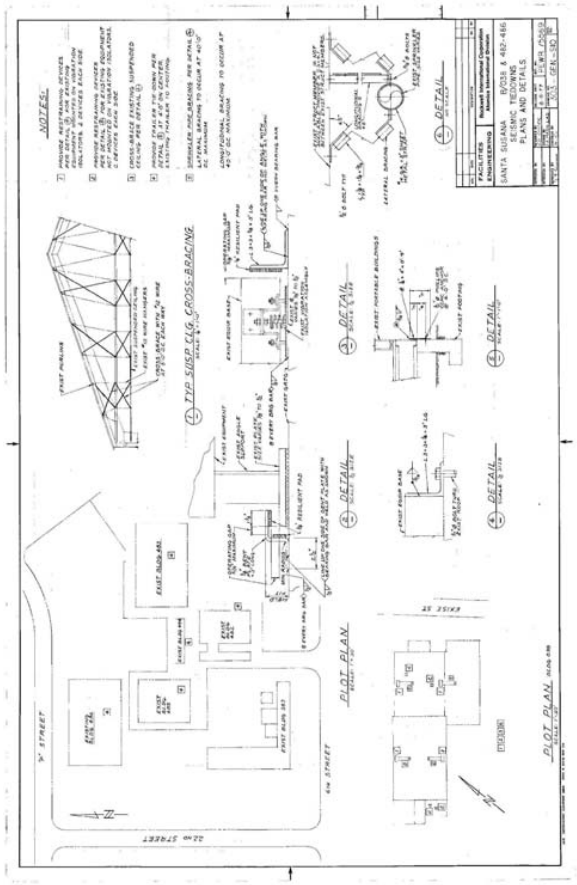

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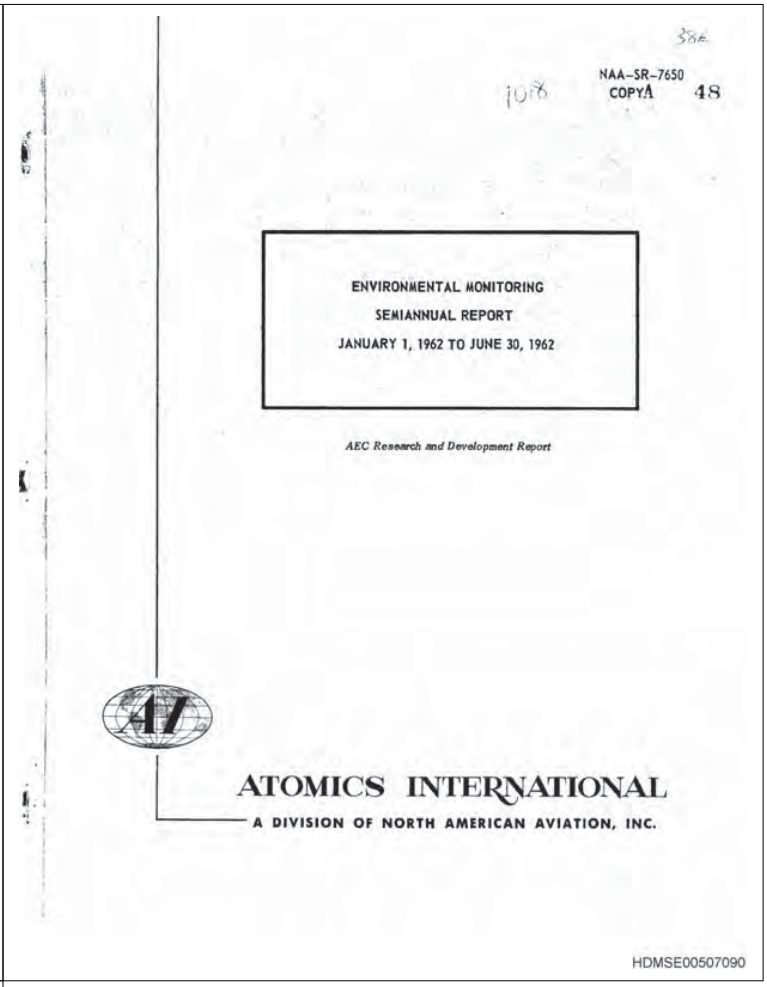

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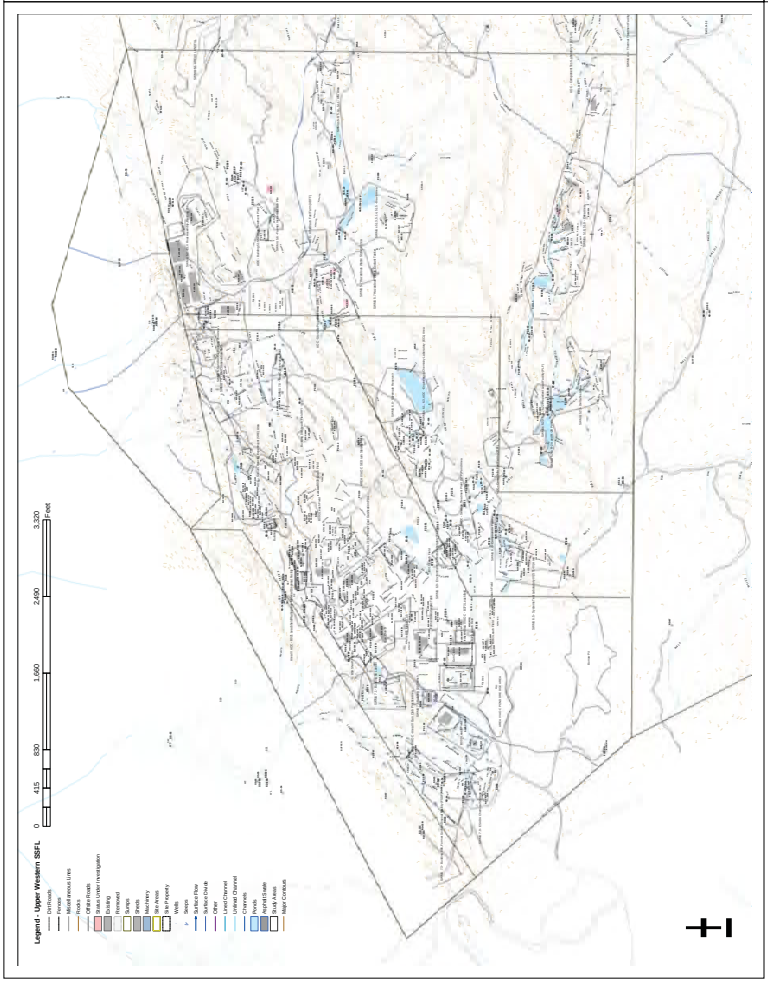

BUILDING 4485

BUILDING 4485

DOE AREA IV BUILDINGS

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012E	ETEC X-RAY FACILITY	GAYLORD	INACTIVE
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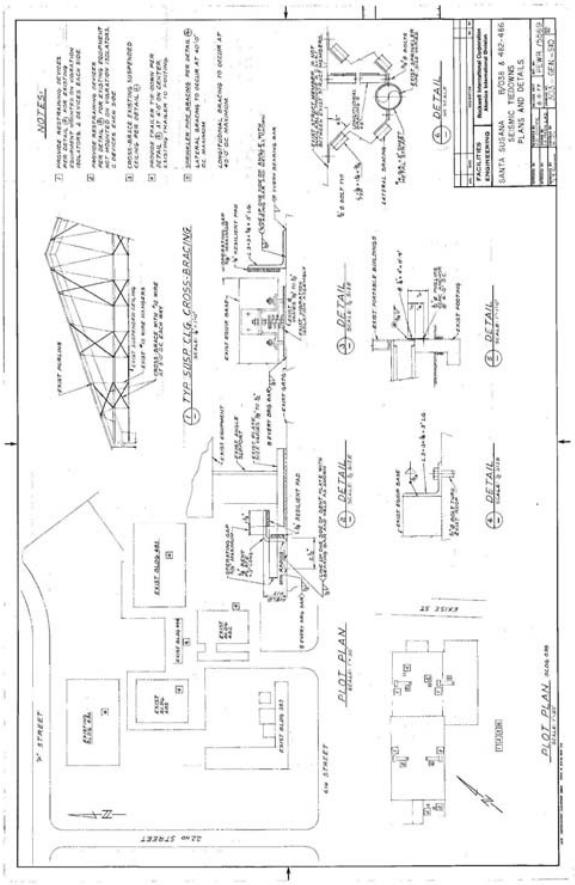
BUILDING 4485



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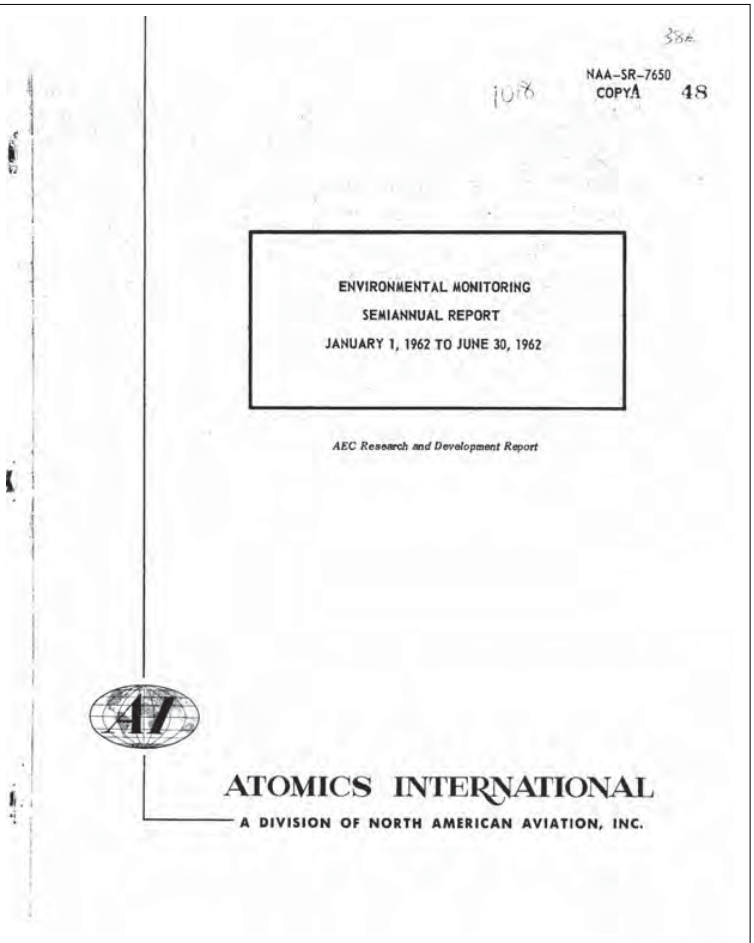

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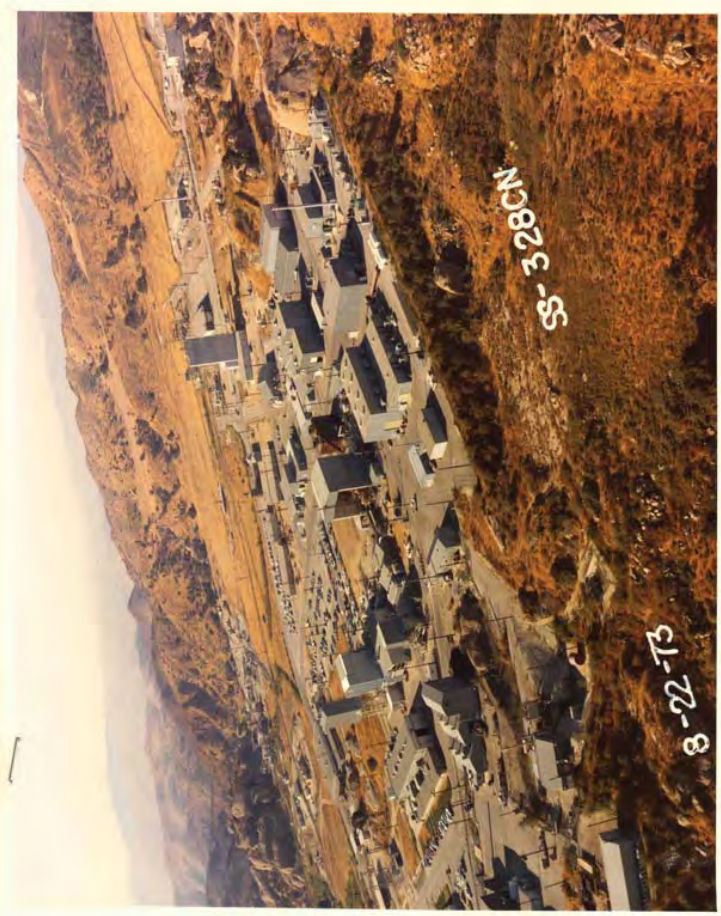

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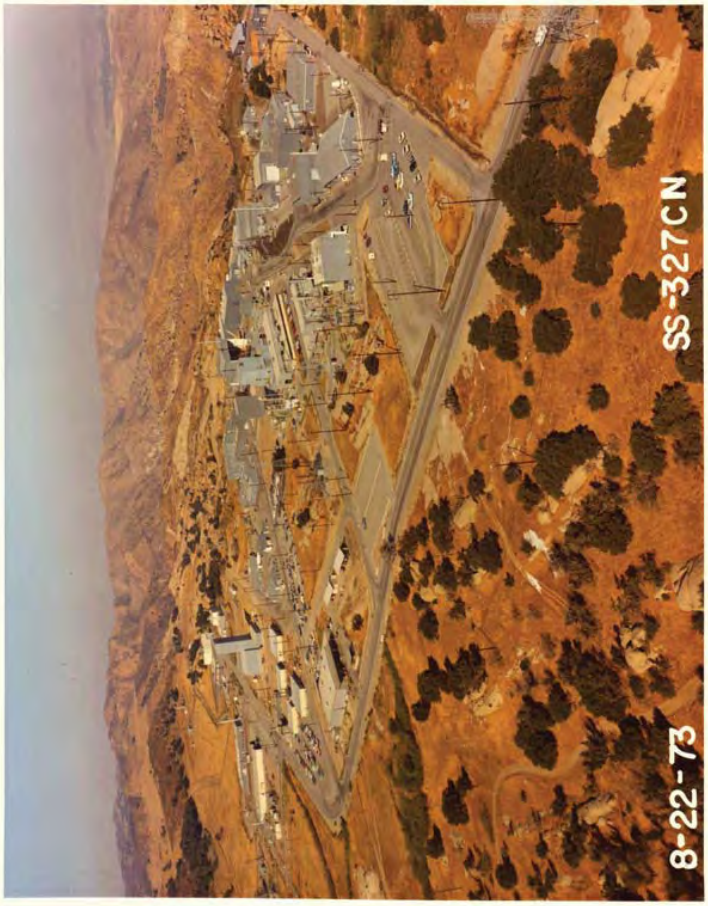
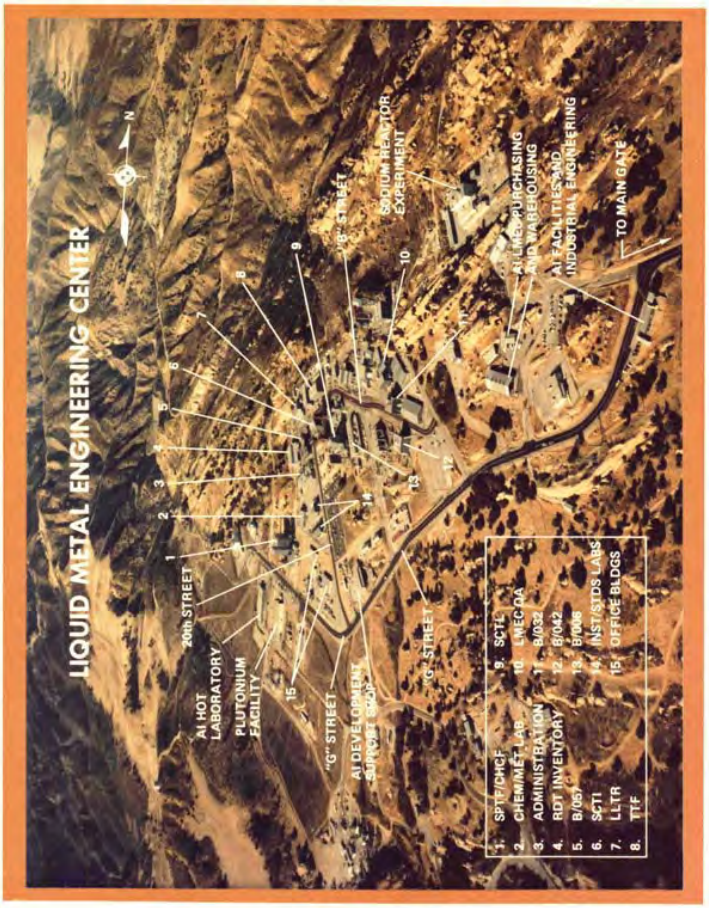




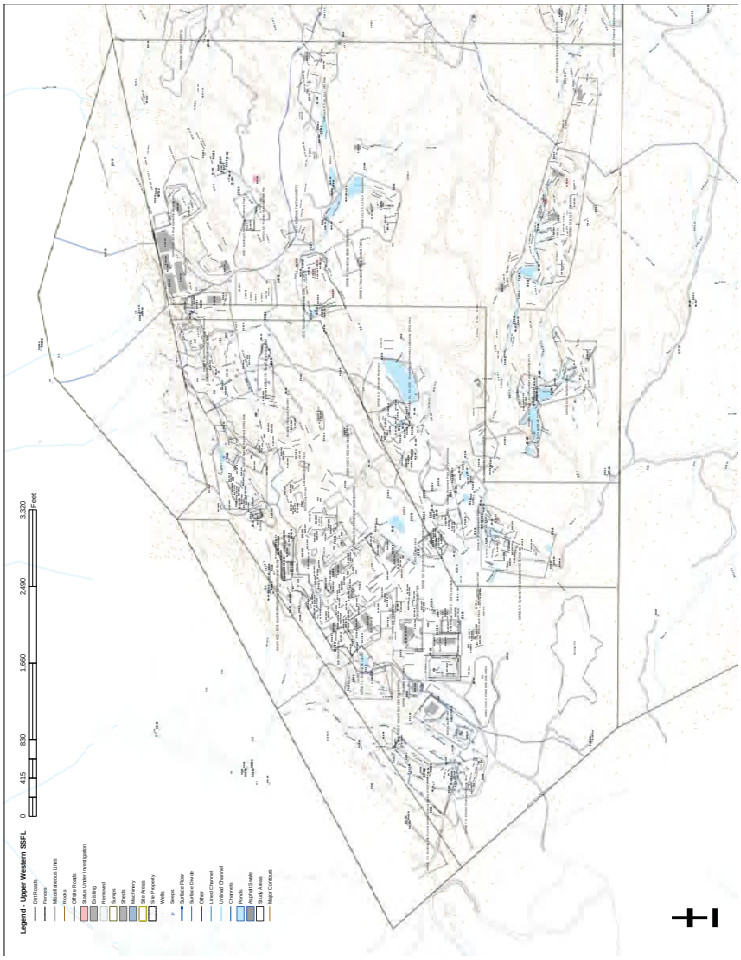
L M E C

FACILITY DESCRIPTIONS

March 1973

Liquid Metal Engineering Center

Operated for
the U.S. Atomic Energy Commission by Atomics International Division
Rockwell International Corporation



BUILDING 4486

BUILDING 4486

DOE AREA IV BUILDINGS

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012E	ETEC X-RAY FACILITY	GAYLORD	INACTIVE
013E	THERMAL TRANSIENT FACILITY	GERRITSEN	ACTIVE
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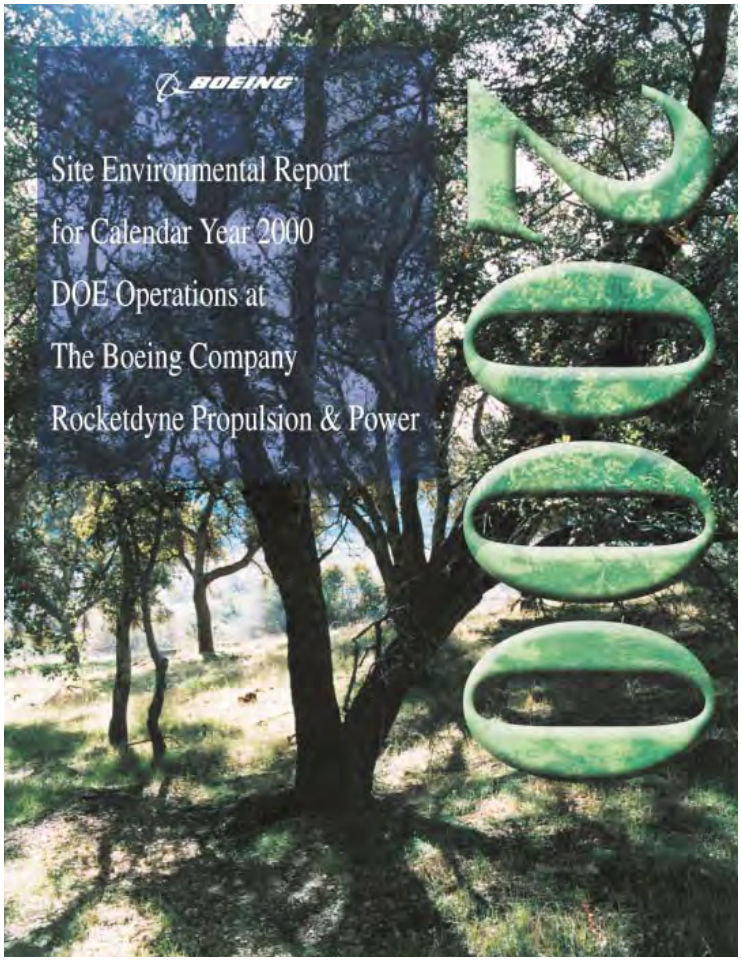

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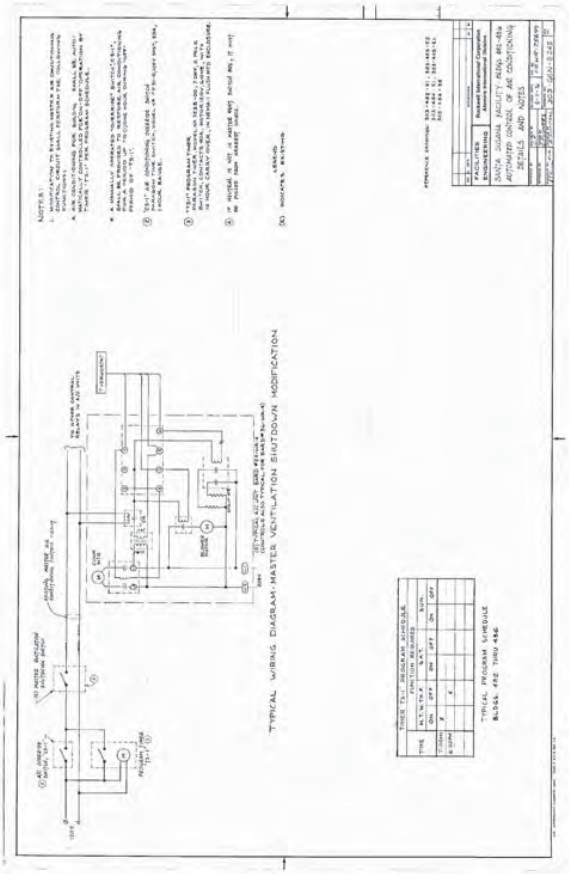

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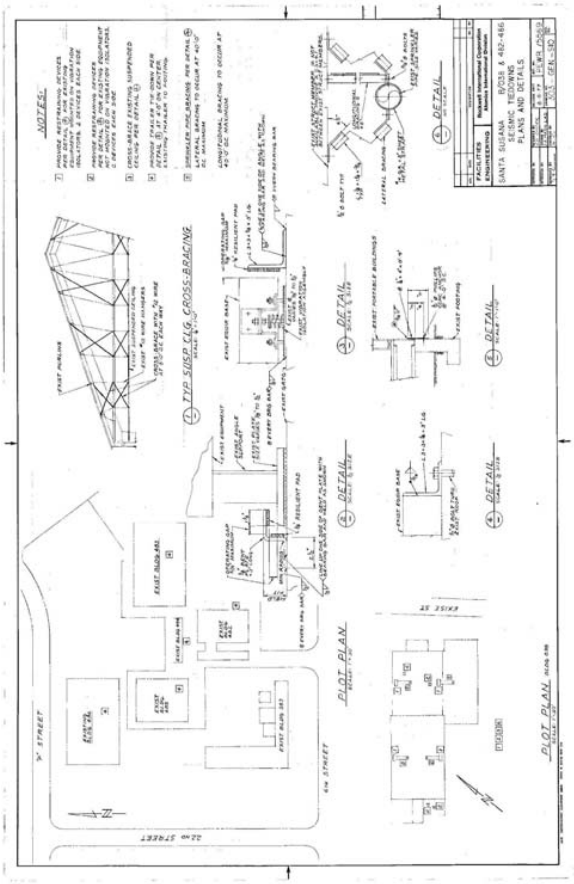

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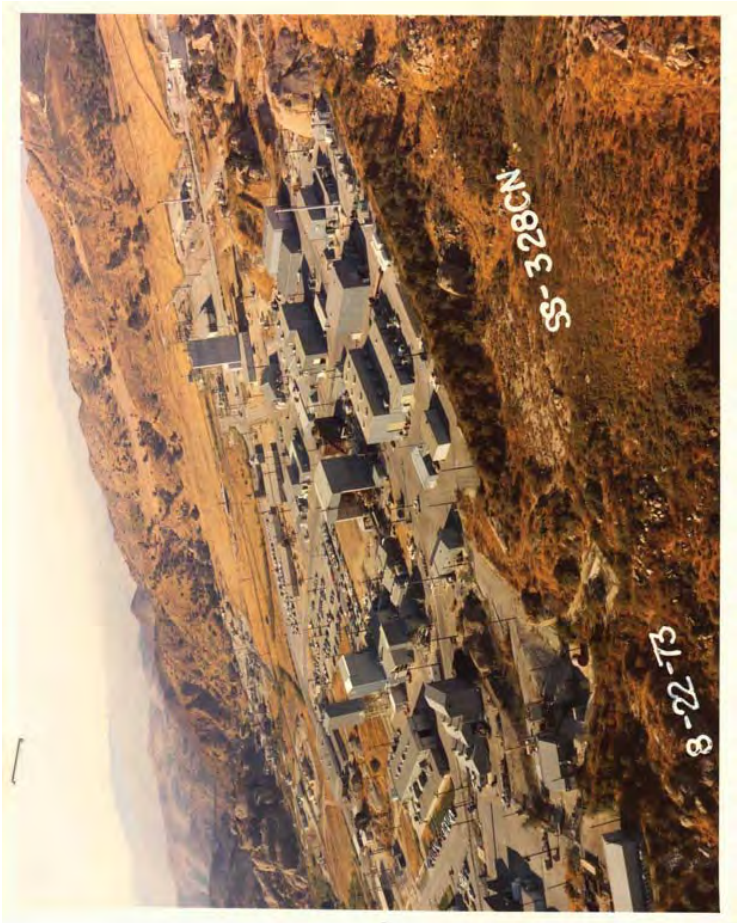

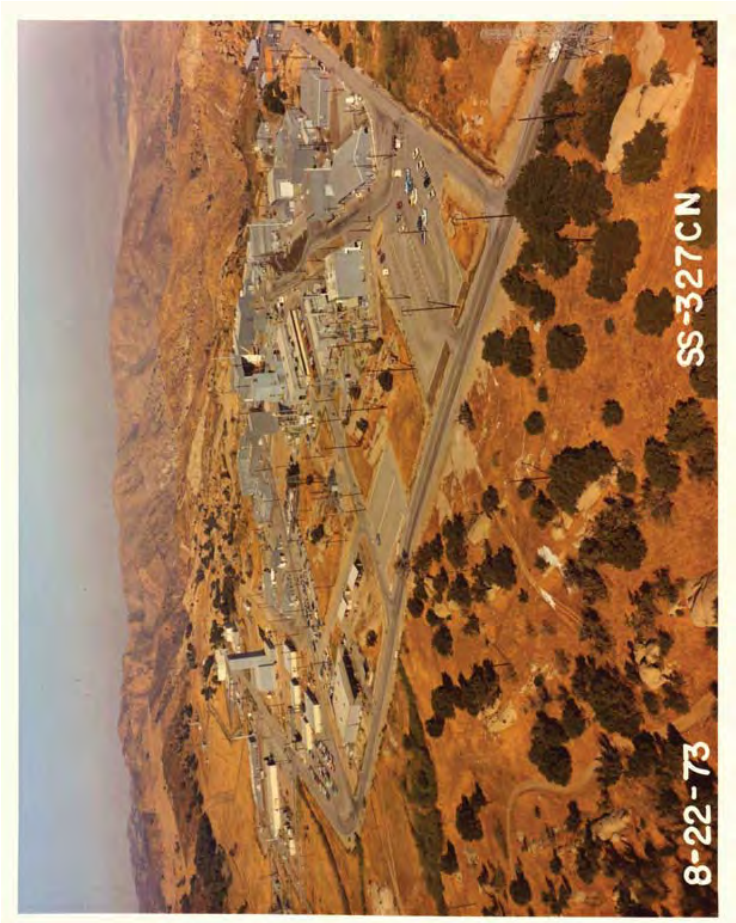

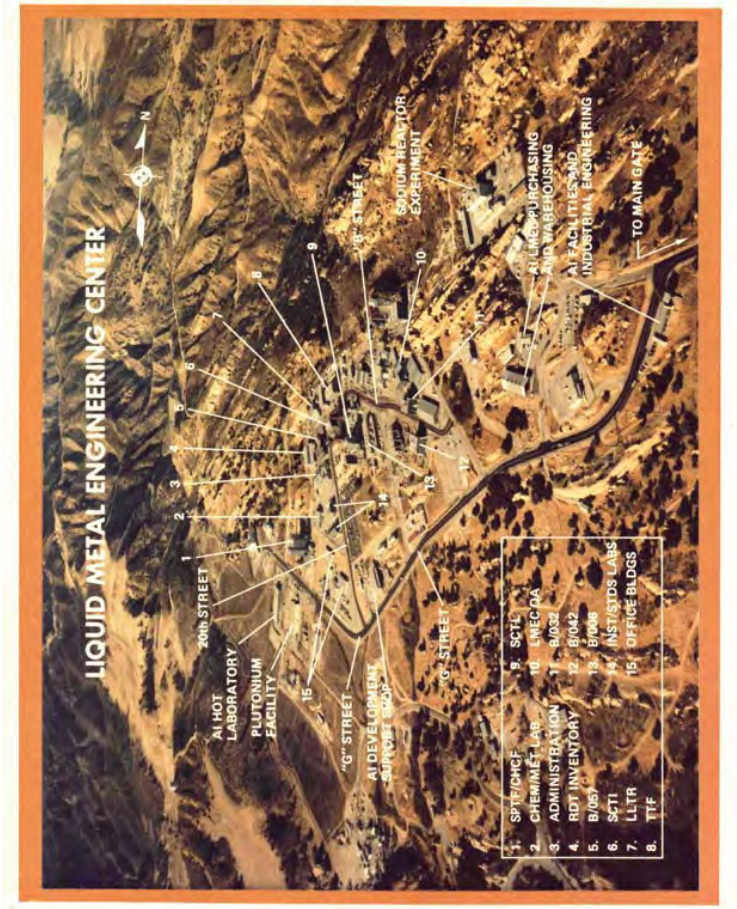

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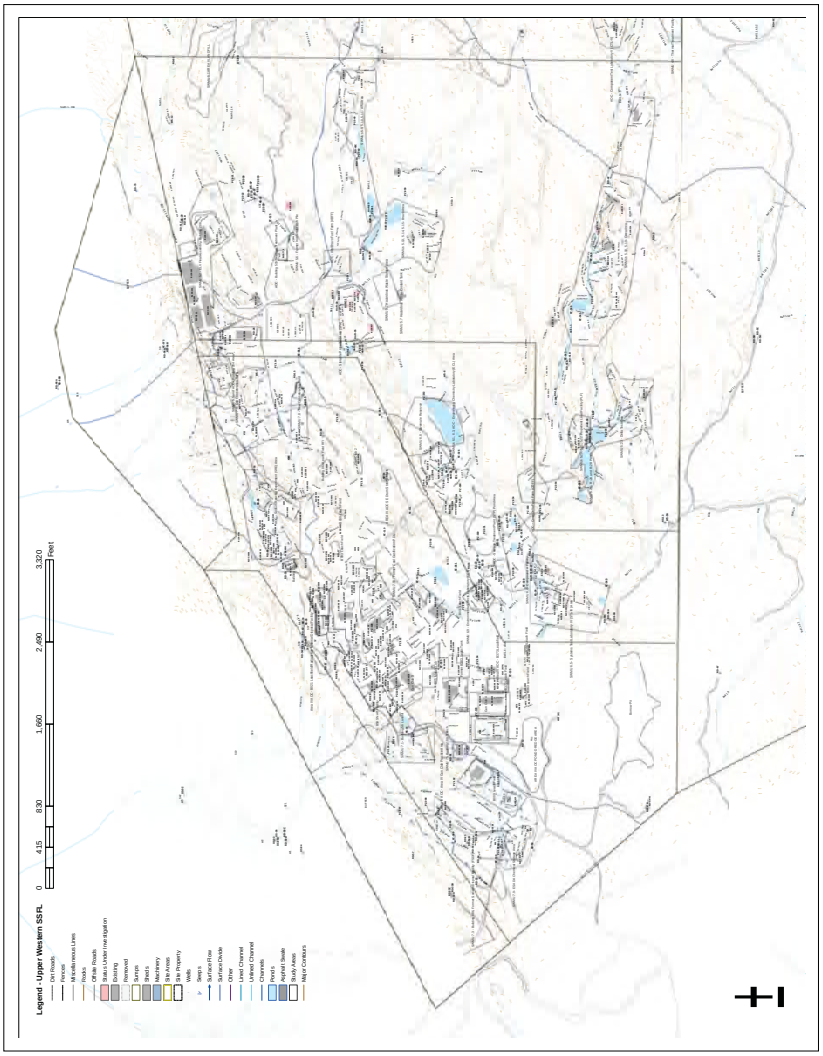

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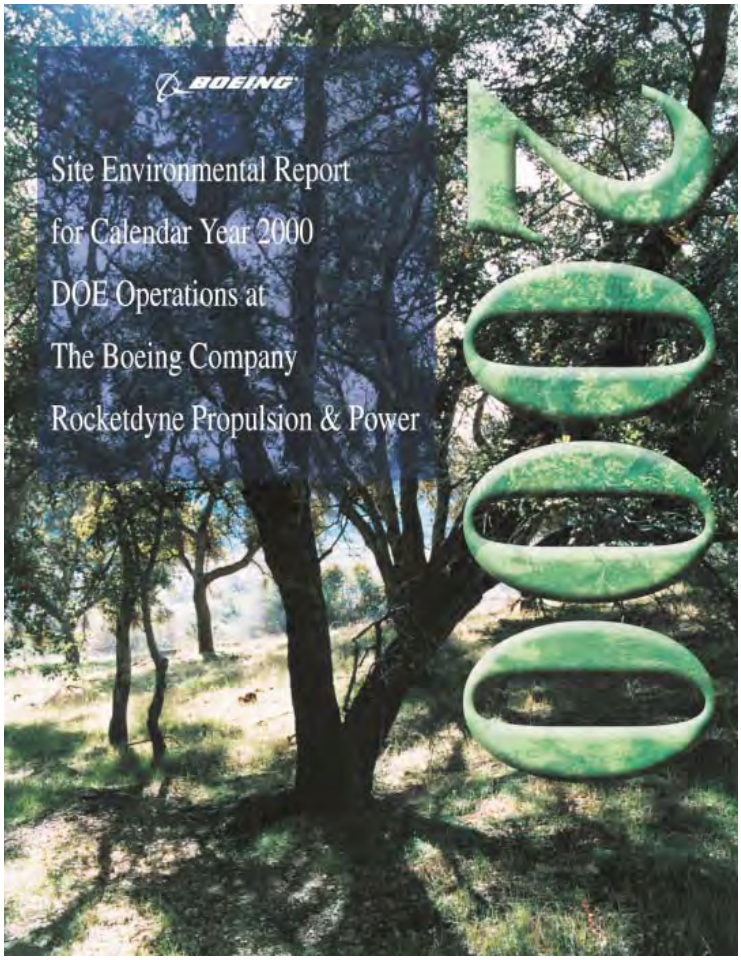
014E	SODIUM STORAGE	GERRITSEN	INACTIVE STANDBY
019E	ETEC COMPUTER CENTER/CONSTRUCTION STAGING	JETTER/ZWENG	ACTIVE
021	R/A WASTE DECONTAMINATION	HORTON	INACTIVE STANDBY
022	R/A VAULT STORAGE	HORTON	INACTIVE STANDBY
023	LIQUID METALS CHEMISTRY	GAY	ACTIVE
024	DEVELOPMENT TEST BLDG.	GERRITSEN	INACTIVE STANDBY
025E	SCTI MAIN. SHOP & STORAGE	MOORE	ACTIVE
026E	SCTL CONTROL CENTER	DEBEAR	INACTIVE STANDBY
027E	LEASED TO RKD FOR WELD SHOP	GAYLORD	ACTIVE
029E	HAZARDOUS WASTE STORAGE	GERRITSEN	ACTIVE
030E	TRAFFIC & WAREHOUSING-LEASED TO ROCKETDYNE	GAYLORD	ACTIVE
032E	LMDL-1	DEBEAR	INACTIVE STANDBY
034	RMDF ENGINEERING OFFICE	HORTON	ACTIVE
036E	OFFICE BLDG. LEASED TO RKD	GAYLORD	ACTIVE
038E	ETEC HEADQUARTERS/DOE SITE OFFICE	GAYLORD	ACTIVE
039E	OFFICE BLDG.	GAYLORD	INACTIVE
041	EQUIPMENT STORAGE	GERRITSEN	ACTIVE
042	LMFBR DEV. TESTING	GAY	INACTIVE STANDBY
044	RMDF AP OFFICE	HORTON	ACTIVE
049E	POU CONTROL CENTER	GAY	INACTIVE
057E	ETEC GENERAL TEST	GERRITSEN	INACTIVE
059E	LARGE LEAK TEST RIG	GERRITSEN	ACTIVE
062E	INSTRUMENTATION LAB.	WARGO	ACTIVE
064	NUCLEAR MATERIAL STORAGE	HORTON	INACTIVE STANDBY
065E	ETEC CHEMISTRY LAB.	JETTER	ACTIVE
066E	INSTRUMENTATION LAB.	WARGO	ACTIVE
075	CONTAMINATED EQUIPMENT STORAGE	HORTON	ACTIVE
133E	SODIUM BURN FACILITY	GERRITSEN	ACTIVE
228E	POWER PAK	MOORE	ACTIVE STANDBY
226E	SCTL MG BLDG.	DEBEAR	INACTIVE STANDBY
320E	FUEL OIL PUMP BLDG.	MOORE	INACTIVE
355E	SCTI CONTROL CENTER	MOORE	ACTIVE
356E	SODIUM COMPONENT TEST INSTALLATION	MOORE	ACTIVE STANDBY
357E	SCTI SUPPLY STORAGE	MOORE	INACTIVE STANDBY
358E	SCTL SUPPORT BLDG.	DEBEAR	INACTIVE
360E	CHEMICAL STORAGE BLDG.	MOORE	ACTIVE
361E	HAS MAT'L STORAGE	MOORE	ACTIVE STANDBY
392E	SCTI ELECTRICAL EQUIPMENT	MOORE	INACTIVE
459E	UNINTERRUPTIBLE POWER SUPPLY	GERRITSEN	INACTIVE
461E	MOTOR GENERATOR BLDG.	DEBEAR	INACTIVE STANDBY
462E	SODIUM PUMP TEST FACILITY	DEBEAR	INACTIVE STANDBY
463E	COMPONENTS HANDLING & CLEANING	GERRITSEN	ACTIVE STANDBY
473E	HYDRAULIC TEST INSTRUMENTATION	GERRITSEN	INACTIVE
482E	ENGINEERING OFFICE LEASED TO ROCKETDYNE	GAYLORD	PARTIAL ACTIVE
483E	ENGINEERING OFFICE	GAYLORD	INACTIVE
484E	RESTROOM FACILITY	GAYLORD	ACTIVE
485E	ENGINEERING OFFICE,	GAYLORD	INACTIVE
486E	ENGINEERING OFFICE	GAYLORD	ACTIVE
487E	ENGINEERING OFFICE	JETTER	ACTIVE



Historical Site Assessment of Area IV
Santa Susana Field Laboratory
Ventura County, California

Volume 2 – Area IV Site Summaries

Prepared by Sapere Consulting, Inc. and
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May 2005

BUILDING 4487

United States Environmental Protection Agency
Environmental Sciences Division
P.O. Box 93478
Las Vegas, NV 89193-3478
TS-PIC-20909963S/21009965S
March 2010
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AERIAL PHOTOGRAPHIC ANALYSIS OF SANTA SUSANA FIELD LABORATORY - AREA IV

Ventura County, California

Volume 1 & 2

EPA Region 9

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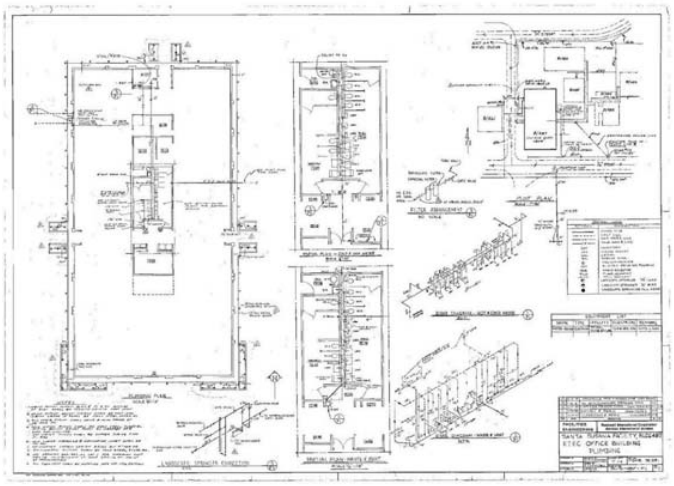

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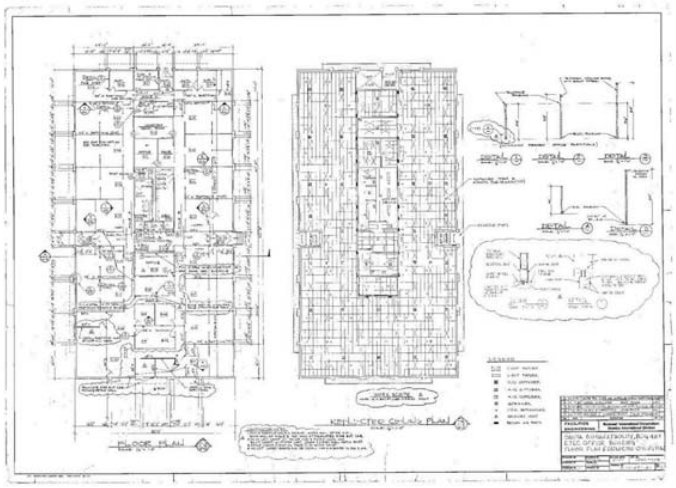

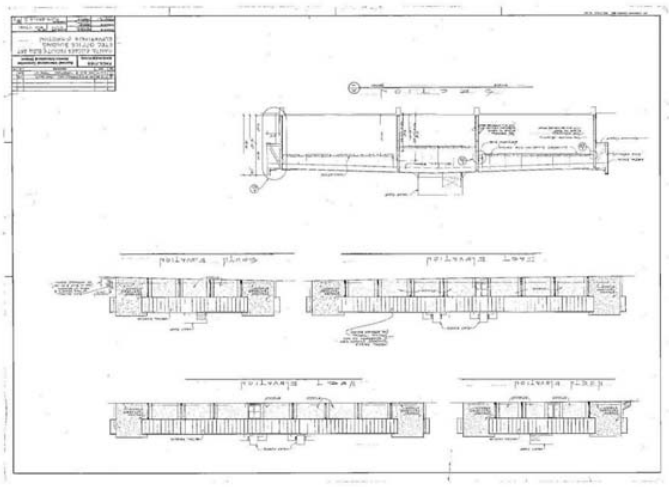

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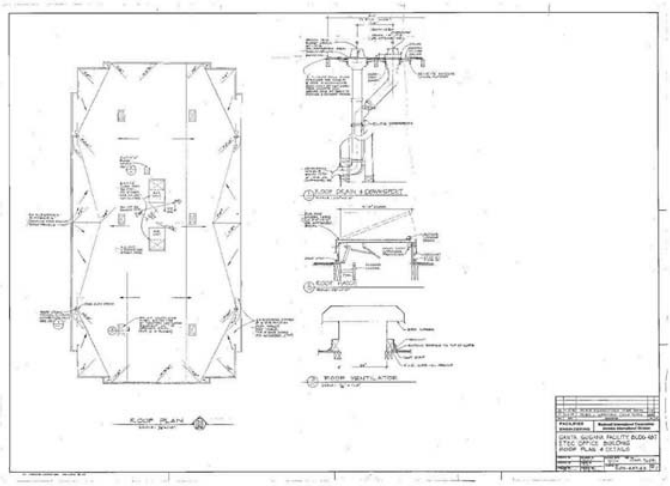

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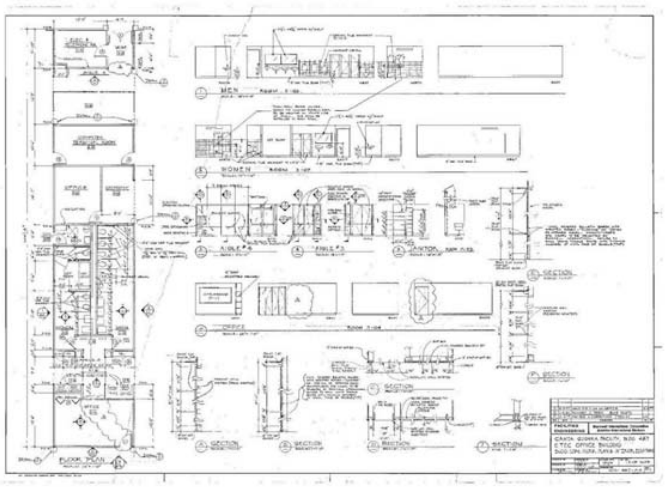

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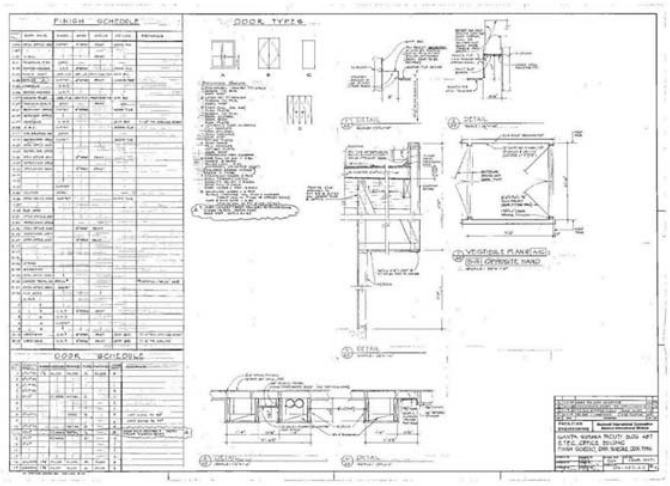

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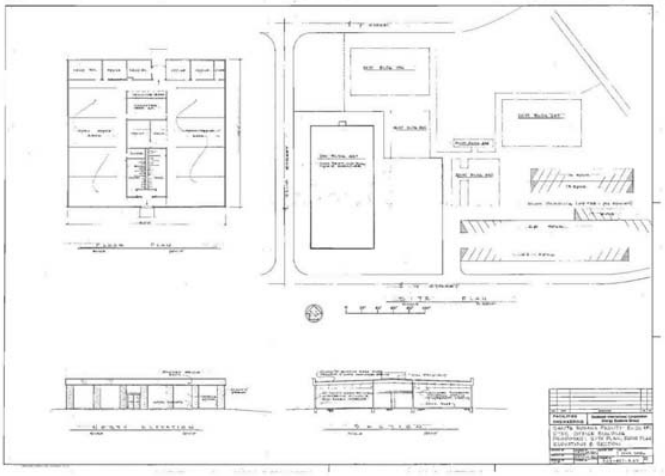

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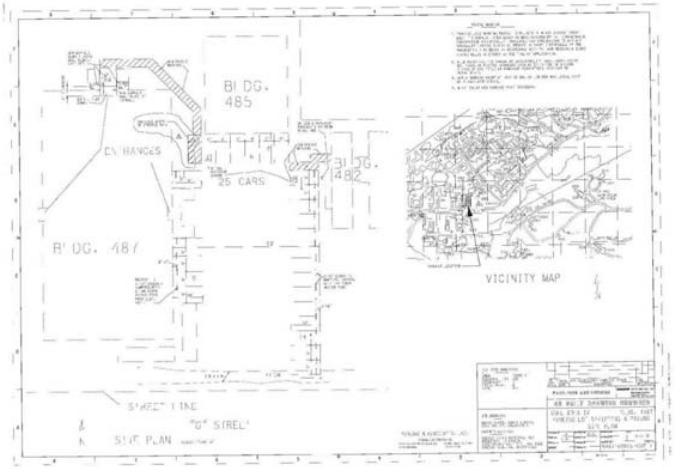

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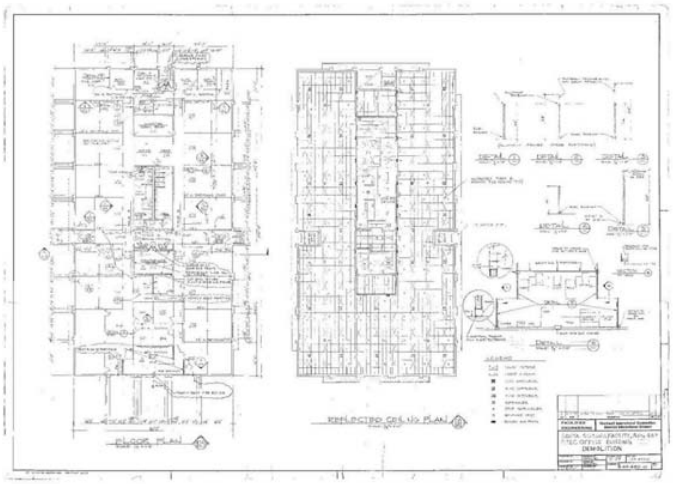

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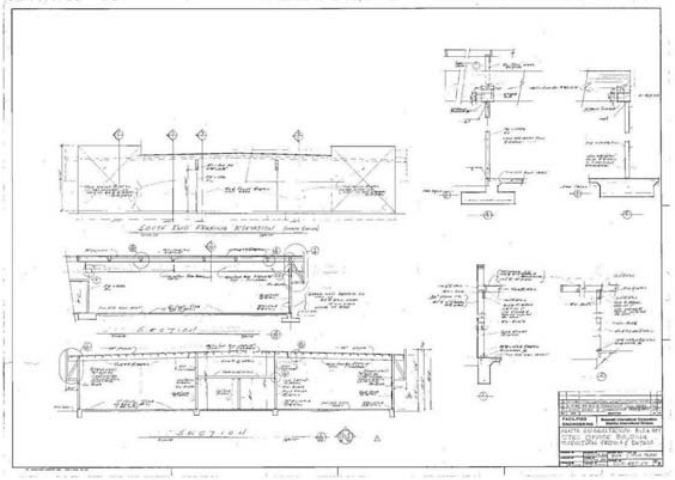

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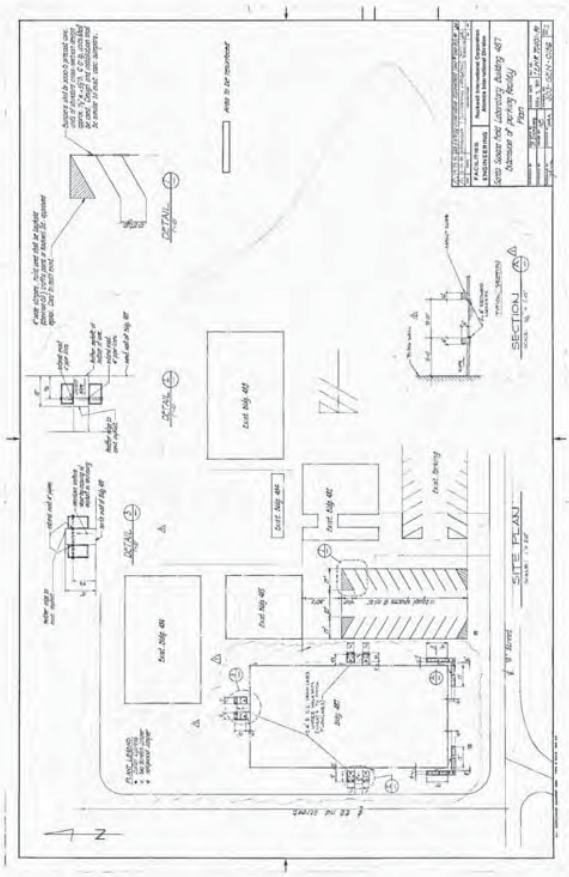
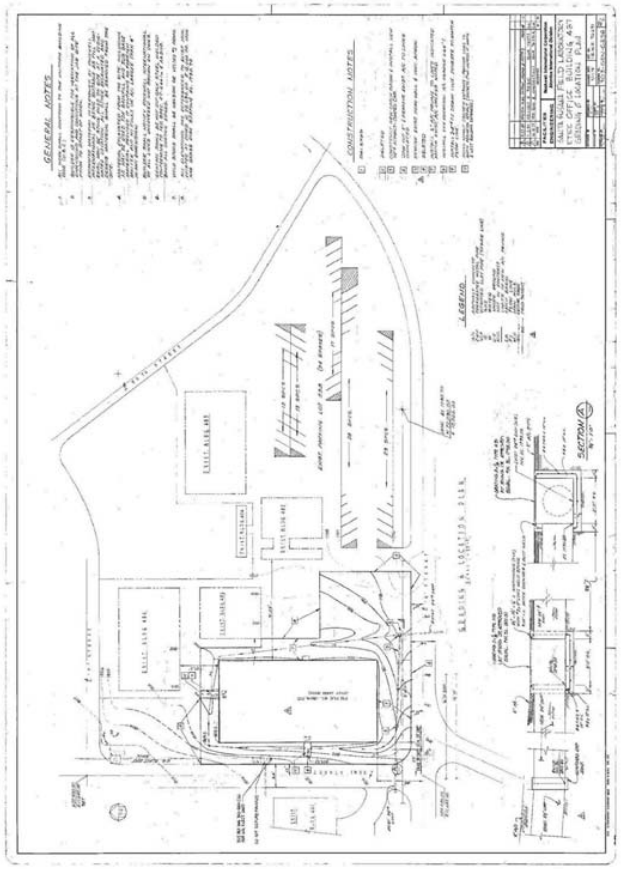


BUILDING 4487



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JANUARY 1, 1962 TO JUNE 30, 1962

AEC Research and Development Report

ATOMICS INTERNATIONAL
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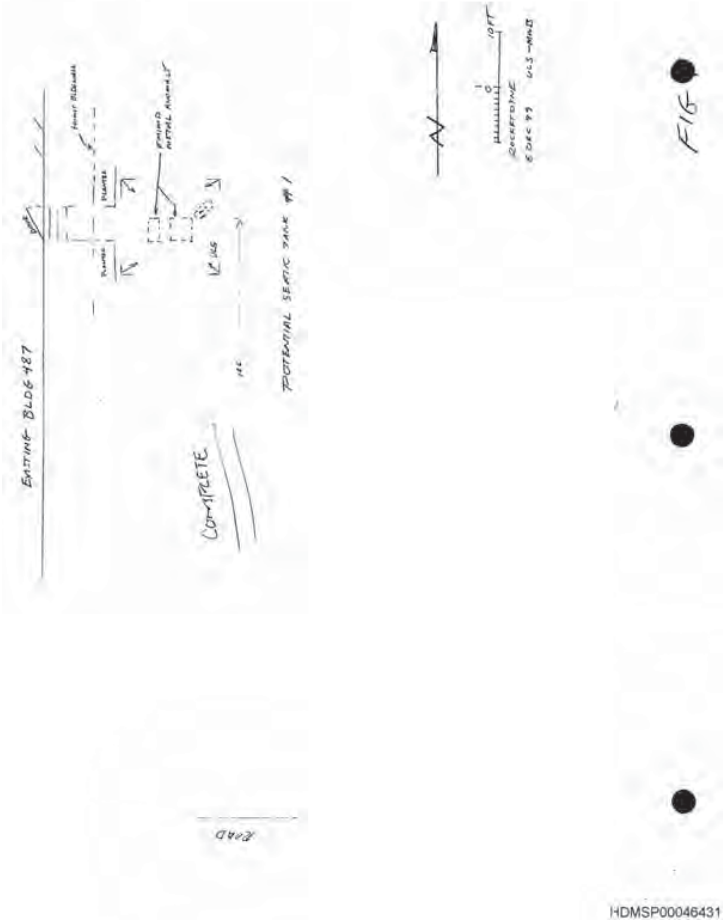

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BUILDING 4487

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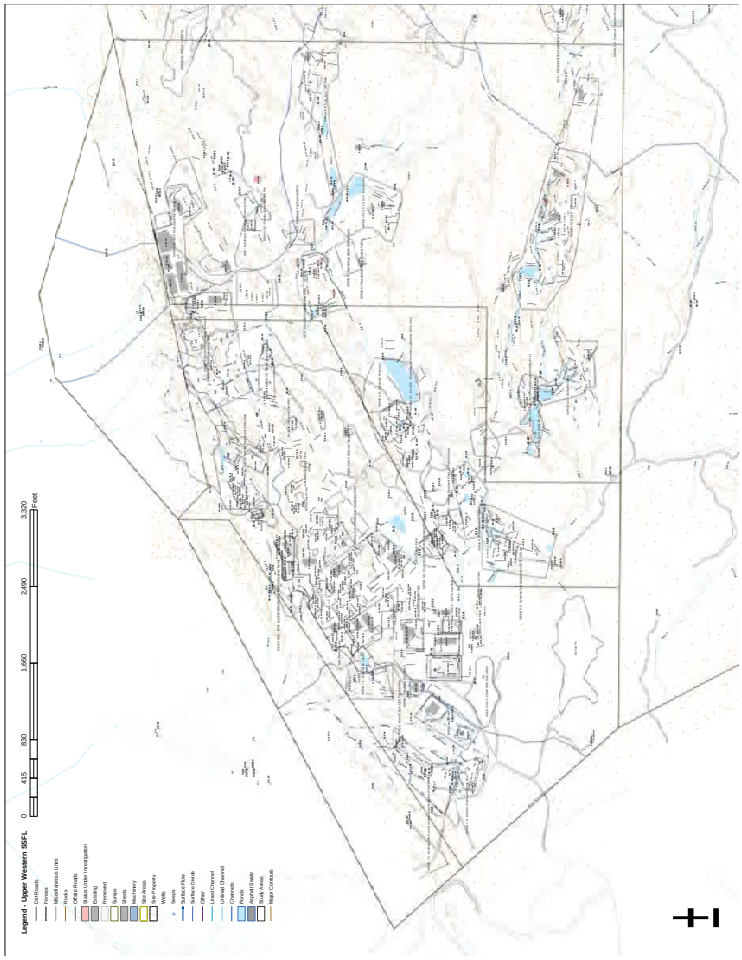

BUILDING 4538

BUILDING 4538

DOE AREA IV BUILDINGS

BUILDING NO.	NAME	MANAGER	STATUS
012E	ETEC X-RAY FACILITY	GAYLORD	INACTIVE
013E	THERMAL TRANSIENT FACILITY	GERRITSEN	ACTIVE
014E	SODIUM STORAGE	GERRITSEN	INACTIVE STANDBY
019E	ETEC COMPUTER CENTER/CONSTRUCTION STAGING	JETTER/ZWENG	ACTIVE
021	R/A WASTE DECONTAMINATION	HORTON	INACTIVE STANDBY
022	R/A VAULT STORAGE	HORTON	INACTIVE STANDBY
023	LIQUID METALS CHEMISTRY	GAY	ACTIVE
024	DEVELOPMENT TEST BLDG.	GERRITSEN	INACTIVE STANDBY
025E	SCTI MAIN. SHOP & STORAGE	MOORE	ACTIVE
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036E	OFFICE BLDG. LEASED TO RKD	GAYLORD	ACTIVE
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039E	OFFICE BLDG.	GAYLORD	INACTIVE
041	EQUIPMENT STORAGE	GERRITSEN	ACTIVE
042	LMFBR DEV. TESTING	GAY	INACTIVE STANDBY
044	RMDF AP OFFICE	HORTON	ACTIVE
049E	POU CONTROL CENTER	GAY	INACTIVE
057E	ETEC GENERAL TEST	GERRITSEN	INACTIVE
059E	LARGE LEAK TEST RIG	GERRITSEN	ACTIVE
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226E	SCTL MG BLDG.	DEBEAR	INACTIVE STANDBY
320E	FUEL OIL PUMP BLDG.	MOORE	INACTIVE
355E	SCTI CONTROL CENTER	MOORE	ACTIVE
356E	SODIUM COMPONENT TEST INSTALLATION	MOORE	ACTIVE STANDBY
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Historical Site Assessment of Area IV
Santa Susana Field Laboratory
Ventura County, California

Volume 2 – Area IV Site Summaries

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Under Contract DE-AC03-99SF21530

May 2005

United States Environmental Protection Agency

Environmental Sciences Division
P.O. Box 93478
Las Vegas, NV 89193-3478

TS-PIC-20909963S/21009965S
March 2010

Research and Development

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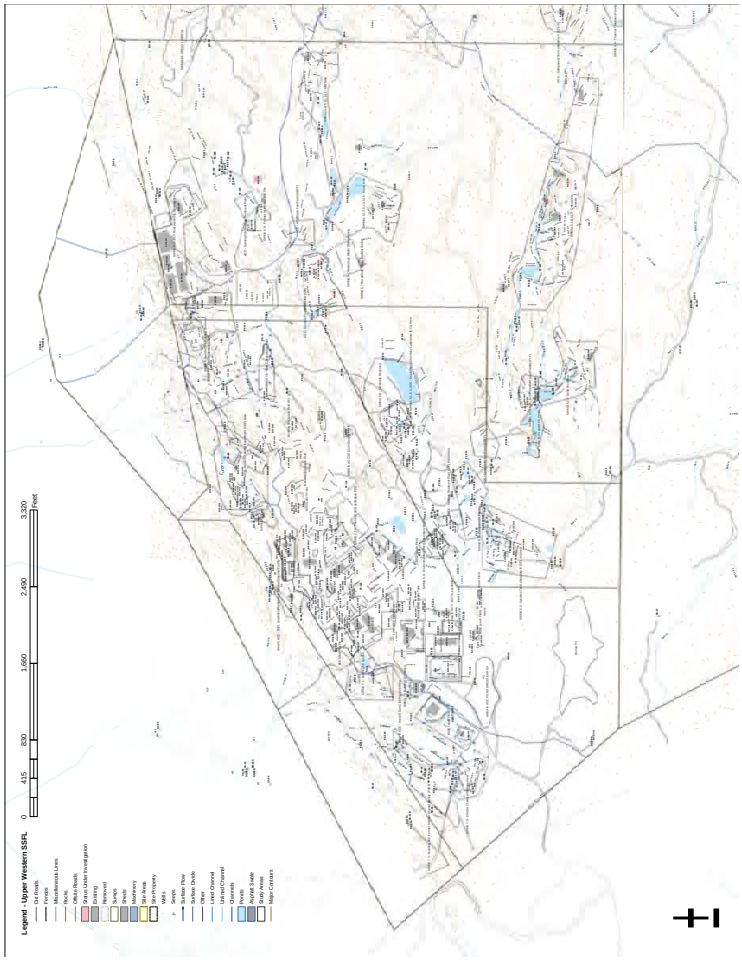
AERIAL PHOTOGRAPHIC ANALYSIS OF SANTA SUSANA FIELD LABORATORY - AREA IV

Ventura County, California

Volume 1 & 2

EPA Region 9



BUILDING 4626

BUILDING 4626

Energy Technology Engineering Center

Operated for the U.S. Department of Energy
Rocketdyne Division, Rockwell International

No. GEN-ZR-0010 Rev. ___
Page 1 of 142
Orig. Date 8-26-88
Rev. Date ___

DRE 23180 Ch

TITLE: "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"

-APPROVALS-

Written by: Jeffrey A. Chapman JA Chapman

Approved by: Robert J. Tuttle RJ Tuttle

Kenneth T. Stafford

REV. LTR.	REVISION	APPROVAL/DATE

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DOE AREA IV BUILDINGS

BUILDING NO.	NAME	MANAGER	STATUS
012E	ETEC X-RAY FACILITY	GAYLORD	INACTIVE
013E	THERMAL TRANSIENT FACILITY	GERRITSEN	ACTIVE
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486E	ENGINEERING OFFICE	GAYLORD	ACTIVE
487E	ENGINEERING OFFICE	JETTER	ACTIVE

GEN-ZR-0015

RAD CONTROL

EXECUTIVE SUMMARY OF THE DOE SSFL SITE RADIOLOGICAL SURVEY

SANTA SUSANA FIELD LABORATORY

VENTURA COUNTY, CALIFORNIA

1-5 42(1)P

Prepared for the U.S. Department of Energy under Contract DE-AC03-76-SF00700

ENERGY TECHNOLOGY ENGINEERING CENTER
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by Rockwell International

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ORISE
OAK RIDGE INSTITUTE FOR SCIENCE AND EDUCATION

March 13, 1996

Mr. Don Williams
U.S. Department of Energy
EM-421
Cloverleaf Building
Washington, DC 20585-0002

SUBJECT: FINAL REPORT - 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; SANTA SUSANA FIELD LABORATORY, ROCKWELL INTERNATIONAL, VENTURA COUNTY, CALIFORNIA

Dear Mr. Williams:

Enclosed are two copies of the subject report. Comments on the draft report that were provided in your December 28, 1995 memorandum have been incorporated into the final report. The report describes the procedures and results of the radiological surveys that the Environmental Survey and Site Assessment Program (ESSAP) of the Oak Ridge Institute for Science and Education (ORISE) performed during the period of September 11 through 14, 1995.

Please contact me at (423) 576-5073 or W. L. (Jack) Beck at (423) 576-5031 if we may provide you with any additional information.

Sincerely,

Timothy J. Vitkus
Project Manager
Environmental Survey and
Site Assessment Program

TJV:tsf

Enclosure

cc: M. Lopez, DOE/OAK
W. Beck, ORISE/ESSAP
T. Bright, ORISE/ESSAP
File/386

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Rocketdyne Division, Rockwell International

No. 886-AN-0003 Rev.____
Page 1 of 20
Original Date 12/10/91
Rev. Date -

TITLE: SODIUM DISPOSAL FACILITY CLOSURE-FACILITY FAMILIARIZATION TRAINING

-APPROVALS-

Originators: 12/10/91

Fac Mgr 12-12-91
RP & HPS 12/14/91
Enviro 12/16/91
HS & FE 12/16/91
Qual Assur 12-17-91

REV. LTR. | REVISION | APPROVAL/DATE

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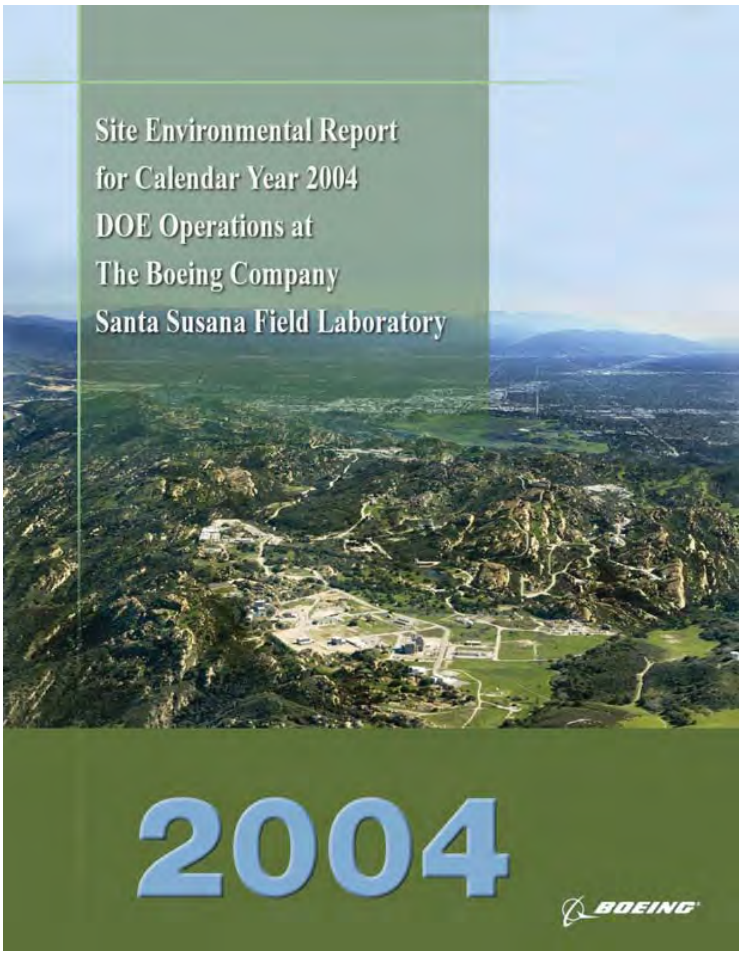
Form 735-A-6 Rev 6-91



BOEING

Site Environmental Report
for Calendar Year 2005

DOE Operations at
The Boeing Company
Santa Susana Field Laboratory

September 2006

BUILDING 4626

DHS Alpha/Beta Scaler Count and Beta Frisk of 4626 Concrete Pad

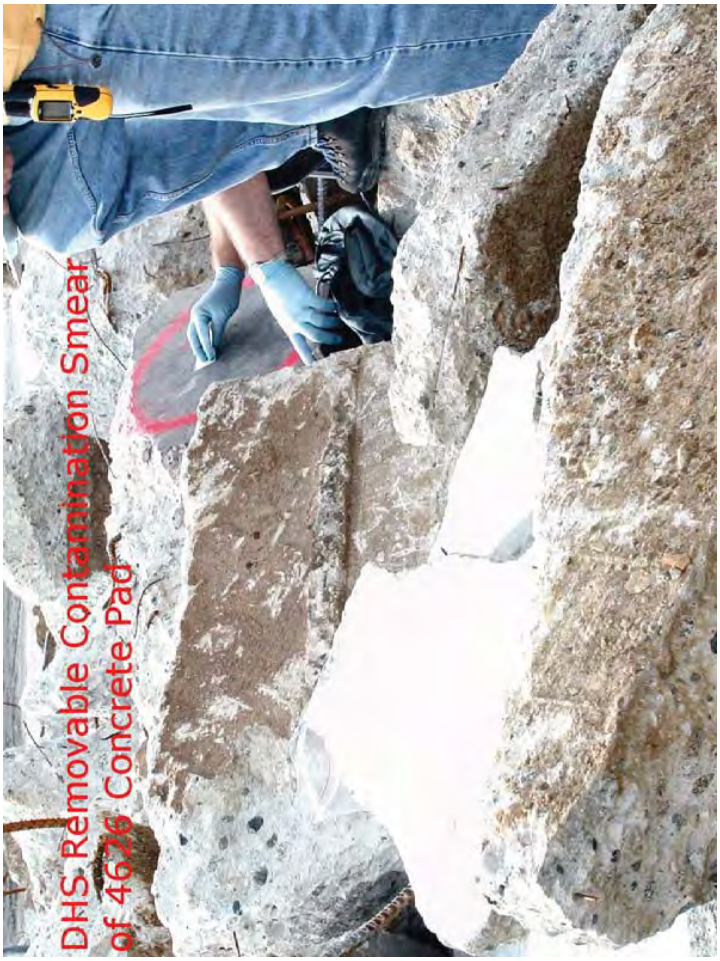
DHS Alpha/Beta Scaler Count of 4626 Concrete Pad

DHS Alpha/Beta Scaler Count of 4626 Concrete Pad

DHS Electronics

BUILDING 4626

BUILDING 4626



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Volume 1 & 2

EPA Region 9

BUILDING 4626

GEN-ZR-0015

EXECUTIVE SUMMARY OF THE DOE SSFL SITE RADIOLOGICAL SURVEY

SANTA SUSANA FIELD LABORATORY

VENTURA COUNTY, CALIFORNIA

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The Boeing Company
Rocketdyne Propulsion & Power
6633 Canoga Avenue
P.O. Box 7922
Canoga Park, CA 91309-7922

BOEING

December 11, 2003
In reply refer to 2003RC04381

Ms. Jeri Simmons
U.S. Department of Energy
NNSA Service Center
1301 Clay Street
Oakland CA 94612-5208

Subject: Contract No. DE-AC03-99SF21530, Notification of Completion of GFY 2004 Contract Milestone "Demolish Building 4013, and Building 4626 Excluding Foundation per Multi Year Work Plan First Quarter GFY2004, RD01-269-02," MS02-04

Dear Ms. Simmons:

This letter and the supporting photographs are the documentation for the completion of the GFY 2004 Performance Fee Environmental Milestone, "Demolish Building 4013, and Building 4626 excluding foundation."

Any questions should be referred to Sandy Samuels at (818) 586-5635 or the undersigned at (818) 586-5283.

Sincerely,

Majelle Lee
Program Manager
DOE Site Closure

SS:SB:je

Enclosures: 2 photographs, before and after B/4013,
2 photographs, before and after B/4626

cc w/encl: Mary Gross, DOE-NNSA Service Center
Michael Lopez, DOE-NNSA Service Center

SHEA-098733

RD03-383

HDMSP00037520

Trippeda, Daniel M

From: EXT-Boggio, John M
Sent: Tuesday, January 13, 2004 3:26 PM
To: Trippeda, Daniel M; Samuels, Sandra L
Subject: B-4626 Foundation SOW

WAREHOUSE FOUNDATION B/4626

STATEMENT OF WORK

This warehouse foundation consists of a 9800 sq. ft 6 inch thick reinforced concrete slab with footings and entryway aprons.

Demolish and Remove from SSFL

- Building B/4626 warehouse foundation slab, footings and aprons
- An abandoned 8 inch waterline under the slab.

After contract signing, the contractor has 15 working days to be on site, and begin the demolition listed above.

All work must be completed within 15 calendar days from contract award.

The contractor is expected to recycle removed materials whenever feasible

All debris material shall be removed on a daily basis and shall not be allowed to accumulate.

All trucks removing debris material must be weighed prior to leaving SSFL.

Grade the site to the natural contours to prevent or eliminate soil erosion. Install storm water erosion prevention devices and systems as necessary to allow natural grasses and plants to take root..

The contractor shall provide a schedule with the bid showing the work to be preformed each day. This schedule includes setup, demolition, removal and **daily truck traffic**. Normal work hours are 7:00 am to 3:00 pm Mon. thru Fri. Overtime ,weekend and holiday work is not authorized.

Contractors are not to subcontract the demolition portion of the job; subcontracting for the debris removal and crane work is allowed.

The following drawings will be provided during the job walk:
303-626-C2 Site Plans
303-626-P5 Underground Utilities
303-626-S1 Floor Plan
303-626-S4 Floor Plan (addition)

12/1/2004

HDMSP00045376

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 NW AREA
SANTA SUSANA FIELD LABORATORY
VENTURA COUNTY, CALIFORNIA

A. Rockwell International. Interim Storage Facility Decommissioning Final Report. March 15, 1985.

Comments

1. Section 2.0: The document should be revised to clearly state which radionuclides were potential contaminants. The reviewer must assume that the contaminants are mixed fission and activation products.

2. Section 4.4.1: The document states that water was found in four of the eight storage cells. Was the source of this water groundwater or rainwater? If the source was groundwater intrusion, was the potential for groundwater contamination investigated?

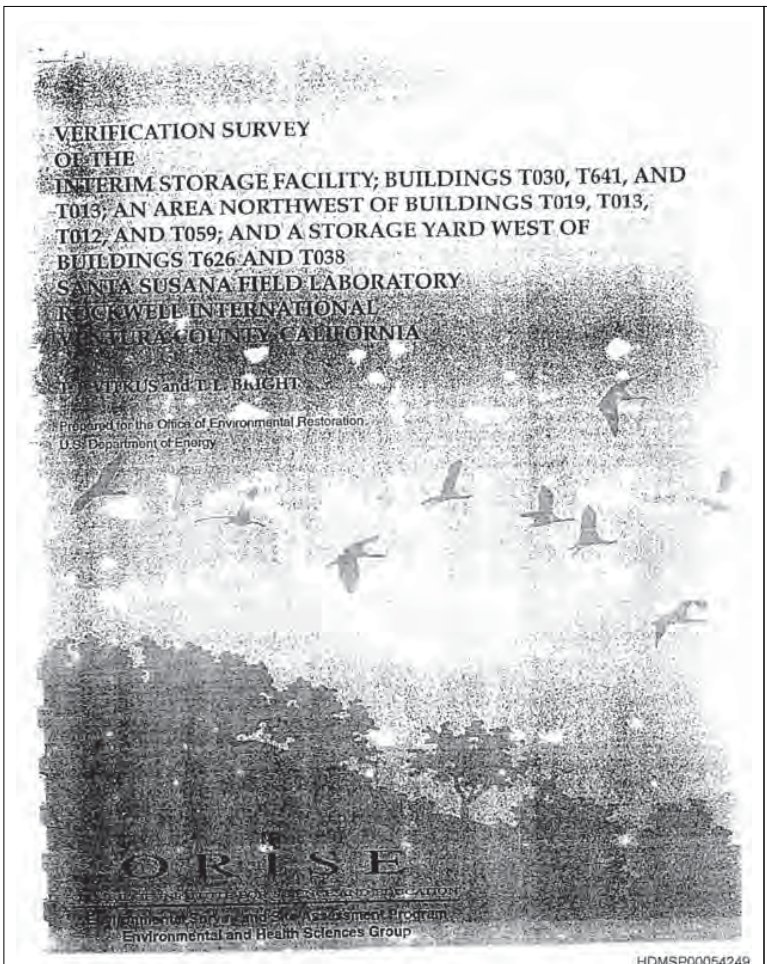
3. Section 4.4.2: The document indicates that concrete and other materials were surveyed and if found to be uncontaminated, used as backfill. The document should provide the surface activity data for this material in units of dpm/100 cm^2 and a reference for the specific DOE surface contamination guidelines used for data comparison.

4. Section 4.7, Phase B: The document should be revised to include an approved site-specific cleanup guideline, rather than the 100 pCi/g gross detectable beta activity criterion, and the available data compared directly with this guideline. Secondly, if Sr-90 is suspected as a contaminant with Cs-137, radionuclide-specific analyses should be performed to quantify the Sr-90 levels. ESSAP recommends that if the site has retained any of the samples collected during this project in an archive, a representative portion of those samples should be analyzed for Sr-90.

5. Section 4.7, Phase C: This portion of the post-decommissioning activities section describes the final status survey procedures and states that 10 percent of available grid blocks were surveyed. It is ESSAP's opinion, and common industry practice, that a final status survey include surface scans and soil sampling of 100 percent of a remediated area. In addition, the document discusses the contribution of the "skyshine" from the RMDF to the area ambient gamma activity levels. Because of the elevated background gamma activity, ESSAP questions whether the scan sensitivity of the procedure was adequate to detect residual areas of contamination

HDMSP00054145

BUILDING 4626



HDMSP00054249

The Boeing Company
6633 Canoga Avenue
P.O. Box 7922
Canoga Park, CA 91309-7922

CERTIFIED MAIL

August 28, 2003
In reply refer to 2003RC3178

BOEING

Ms. Julie Flores
Ventura County Air Pollution Control District
669 County Square Drive
Ventura, CA 93003

Subject: Demolish Buildings 4027 & 4626
Area IV, Santa Susana Field Laboratory

Dear Ms. Flores:

The Boeing Company (Boeing) is hereby submitting a completed Ventura County Air Pollution Control District (VCAPCD) AB3205 form for the demolition of buildings 4027 & 4626 located within Area IV at the Santa Susana Field Laboratory.

Building 4027 is approximately 8,950 ft^2 and building 4626 is approximately 9,800 ft^2. Concrete foundations, utilities and asphalt surrounding the structures will also be removed during the demolition.

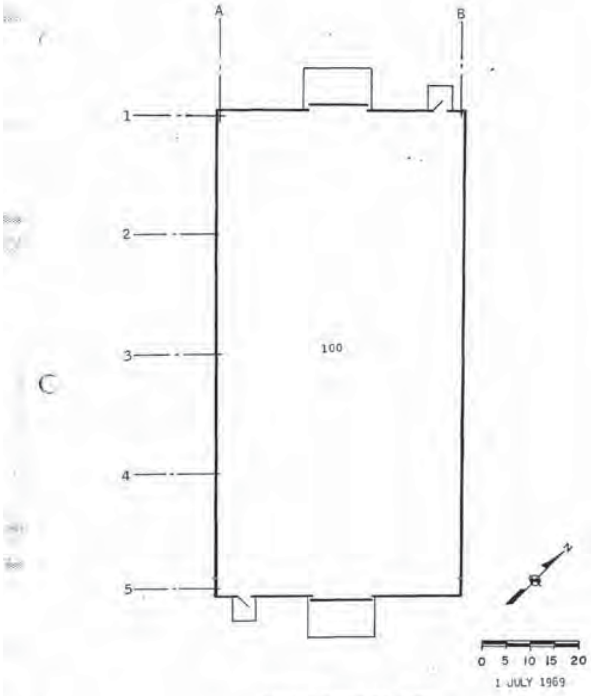
The buildings and adjacent structures will be demolished in accordance with the Ventura County Building Codes and all applicable Federal and State regulations.

Asbestos-containing materials have been identified in the above listed buildings. Boeing will contract the abatement to an outside licensed asbestos abatement contractor prior to demolition. The VCAPCD will be notified of any work identified as 100 square feet or greater. All abatement less than 100 square feet will be tracked to Boeing's annual asbestos abatement notification.

Upon completion of demolition, the area will be graded as required for proper drainage and returned to green field condition. All non-hazardous rubbish will be sent to a Boeing and government approved landfill.

Boeing will schedule the project to begin as soon as the demolition permit can be secured. Project completion is scheduled for later this year.

HDMSP00111192



EQUIPMENT STORAGE - LMEC

BUILDING NO. 626

BNA00668288

HDMSP001812418

Energy Technology Engineering Center
Operated for the U.S. Department of Energy
Rocketdyne Division, Rockwell International

No. GEN-ZR-0010 Rev. _
Page 1 of 142
Orig. Date 8-26-88
Rev. Date _

DRR 83180 CL

TITLE: "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"

-APPROVALS-

Written by: Jeffrey A. Chapman JA Chapman

Approved by: Robert J. Tuttle RJ Tuttle

Kenneth T. Stafford

REV. LTR.	REVISION	APPROVAL/DATE

OFFICIAL COPY
SEP 1 9 1988
NOTICE: THIS COPY SUPERSEDES ALL PRIOR COPIES ISSUED

Form 733-A-6 Rev 6-88

BNA00543394

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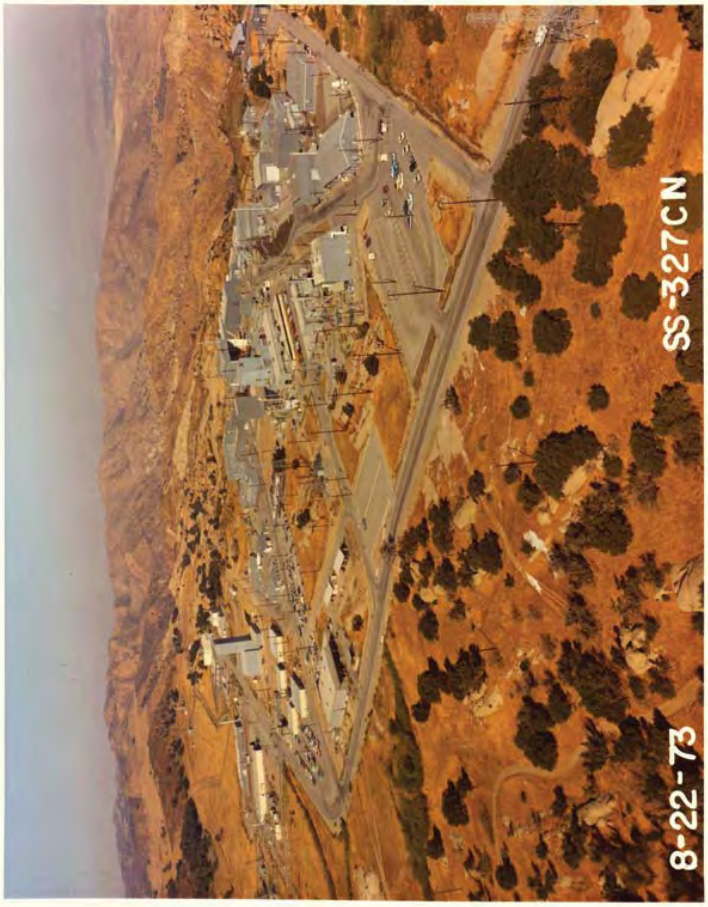
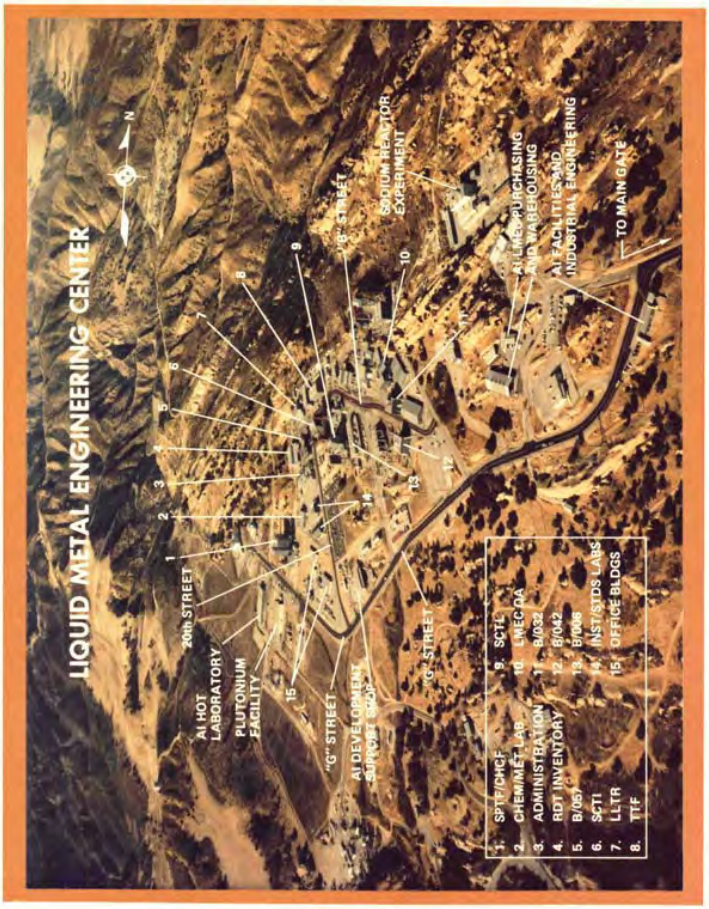
BUILDING 4626





BUILDING 4626

L M E C

FACILITY DESCRIPTIONS

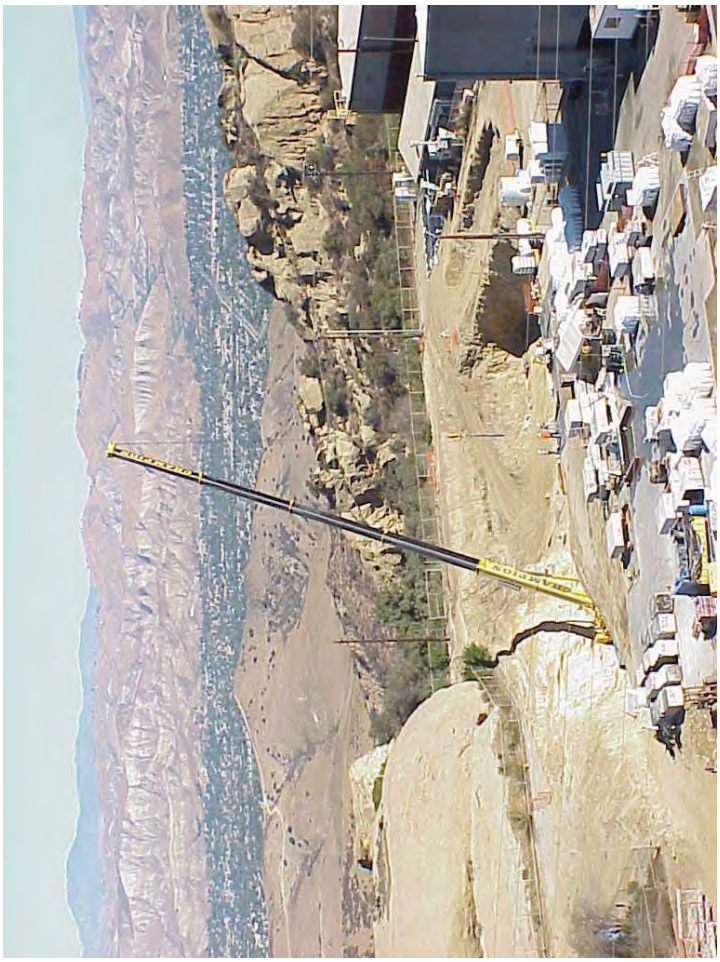
March 1973

Liquid Metal Engineering Center

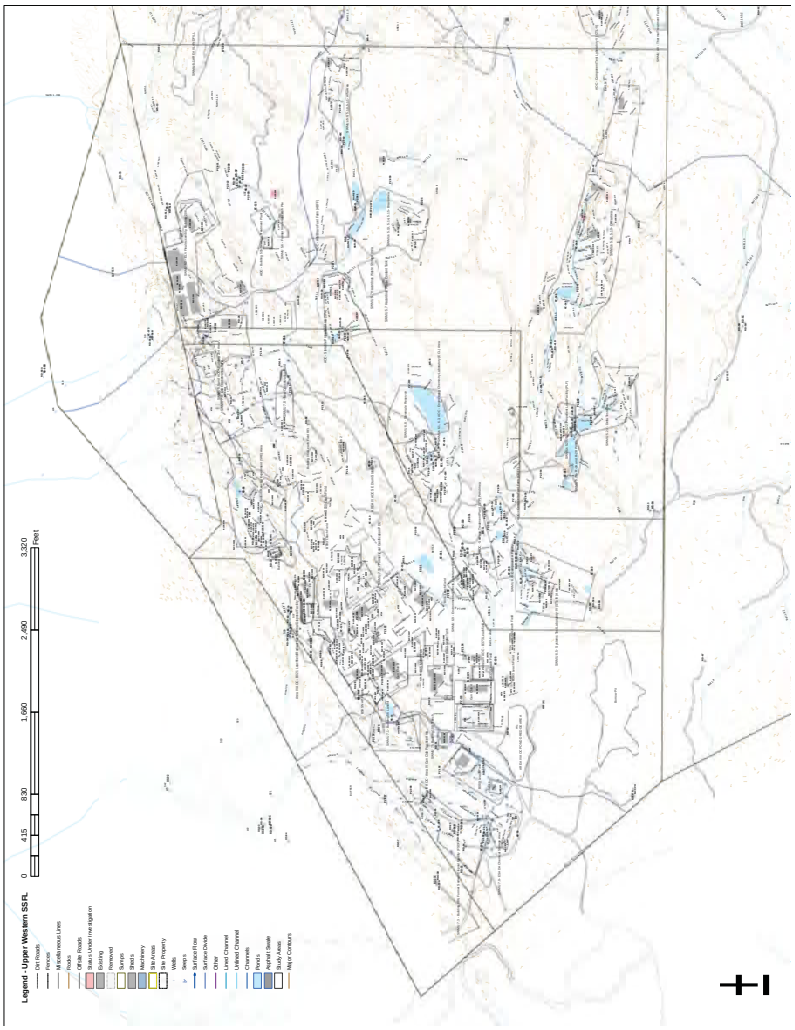
Operated for
the U.S. Atomic Energy Commission by Atomics International Division
Rockwell International Corporation

BUILDING 4626

BUILDING 4626



BUILDING 4626



BUILDING 4662

BUILDING 4662

DOE AREA IV BUILDINGS

BUILDING NO.	NAME	MANAGER	STATUS
012E	ETEC X-RAY FACILITY	GAYLORD	INACTIVE
013E	THERMAL TRANSIENT FACILITY	GERRITSEN	ACTIVE
014E	SODIUM STORAGE	GERRITSEN	INACTIVE STANDBY
019E	ETEC COMPUTER CENTER/CONSTRUCTION STAGING	JETTER/ZWENG	ACTIVE
021	R/A WASTE DECONTAMINATION	HORTON	INACTIVE STANDBY
022	R/A VAULT STORAGE	HORTON	INACTIVE STANDBY
023	LIQUID METALS CHEMISTRY	GAY	ACTIVE
024	DEVELOPMENT TEST BLDG.	GERRITSEN	INACTIVE STANDBY
025E	SCTI MAIN. SHOP & STORAGE	MOORE	ACTIVE
026E	SCTL CONTROL CENTER	DEBEAR	INACTIVE STANDBY
027E	LEASED TO RKD FOR WELD SHOP	GAYLORD	ACTIVE
029E	HAZARDOUS WASTE STORAGE	GERRITSEN	ACTIVE
030E	TRAFFIC & WAREHOUSING-LEASED TO ROCKETDYNE	GAYLORD	ACTIVE
032E	LMDL-1	DEBEAR	INACTIVE STANDBY
034	RMDF ENGINEERING OFFICE	HORTON	ACTIVE
036E	OFFICE BLDG. LEASED TO RKD	GAYLORD	ACTIVE
038E	ETEC HEADQUARTERS/DOE SITE OFFICE	GAYLORD	ACTIVE
039E	OFFICE BLDG.	GAYLORD	INACTIVE
041	EQUIPMENT STORAGE	GERRITSEN	ACTIVE
042	LMFBR DEV. TESTING	GAY	INACTIVE STANDBY
044	RMDF AP OFFICE	HORTON	ACTIVE
049E	POU CONTROL CENTER	GAY	INACTIVE
057E	ETEC GENERAL TEST	GERRITSEN	INACTIVE
059E	LARGE LEAK TEST RIG	GERRITSEN	ACTIVE
062E	INSTRUMENTATION LAB.	WARGO	ACTIVE
064	NUCLEAR MATERIAL STORAGE	HORTON	INACTIVE STANDBY
065E	ETEC CHEMISTRY LAB.	JETTER	ACTIVE
066E	INSTRUMENTATION LAB.	WARGO	ACTIVE
075	CONTAMINATED EQUIPMENT STORAGE	HORTON	ACTIVE
133E	SODIUM BURN FACILITY	GERRITSEN	ACTIVE
228E	POWER PAK	MOORE	ACTIVE STANDBY
226E	SCTL MG BLDG.	DEBEAR	INACTIVE STANDBY
320E	FUEL OIL PUMP BLDG.	MOORE	INACTIVE
355E	SCTI CONTROL CENTER	MOORE	ACTIVE
356E	SODIUM COMPONENT TEST INSTALLATION	MOORE	ACTIVE STANDBY
357E	SCTI SUPPLY STORAGE	MOORE	INACTIVE STANDBY
358E	SCTL SUPPORT BLDG.	DEBEAR	INACTIVE
360E	CHEMICAL STORAGE BLDG.	MOORE	ACTIVE
361E	HAS MAT'L STORAGE	MOORE	ACTIVE STANDBY
392E	SCTI ELECTRICAL EQUIPMENT	MOORE	INACTIVE
459E	UNINTERRUPTIBLE POWER SUPPLY	GERRITSEN	INACTIVE
461E	MOTOR GENERATOR BLDG.	DEBEAR	INACTIVE STANDBY
462E	SODIUM PUMP TEST FACILITY	DEBEAR	INACTIVE STANDBY
463E	COMPONENTS HANDLING & CLEANING	GERRITSEN	ACTIVE STANDBY
473E	HYDRAULIC TEST INSTRUMENTATION	GERRITSEN	INACTIVE
482E	ENGINEERING OFFICE LEASED TO ROCKETDYNE	GAYLORD	PARTIAL ACTIVE
483E	ENGINEERING OFFICE	GAYLORD	INACTIVE
484E	RESTROOM FACILITY	GAYLORD	ACTIVE
485E	ENGINEERING OFFICE,	GAYLORD	INACTIVE
486E	ENGINEERING OFFICE	GAYLORD	ACTIVE
487E	ENGINEERING OFFICE	JETTER	ACTIVE

SPTF

System Design Description

462–XC–0002

THE ASSIGNEE OF THIS "SYSTEM DESIGN DESCRIPTION" IS RESPONSIBLE FOR ITS UPKEEP AT ALL TIMES. IF THE ASSIGNEE NO LONGER HAS A NEED FOR THIS SDD, IT SHALL BE RETURNED TO:

ETEC TECHNICAL SERVICES
BUILDING 038

THE ASSIGNEE SHALL NOT REASSIGN THIS SDD. RE-ASSIGNMENT SHALL BE MADE BY ETEC TECHNICAL SERVICES ONLY. UPON TERMINATION, THE ASSIGNEE SHALL RETURN THIS SDD TO ETEC TECHNICAL SERVICES.

Energy Technology Engineering Center

Operated for the U.S. Department of Energy
by Energy Systems Group, Rockwell International

BUILDING 4662

Historical Site Assessment of Area IV
Santa Susana Field Laboratory
Ventura County, California

Volume 2 – Area IV Site Summaries

Prepared by Sapere Consulting, Inc. and
The Boeing Company for the Department of Energy
Under Contract DE-AC03-99SF21530

May 2005

United States Environmental Protection Agency

Environmental Sciences Division
P.O. Box 93478
Las Vegas, NV 89193-3478

TS-PIC-20909963S/21009965S
March 2010

Research and Development

EPA

AERIAL PHOTOGRAPHIC ANALYSIS OF SANTA SUSANA FIELD LABORATORY - AREA IV

Ventura County, California

Volume 1 & 2

EPA Region 9

386

108

NAA-SR-7650
COPY A 48

ENVIRONMENTAL MONITORING
SEMIANNUAL REPORT
JANUARY 1, 1962 TO JUNE 30, 1962

AEC Research and Development Report

ATOMICS INTERNATIONAL
A DIVISION OF NORTH AMERICAN AVIATION, INC.

HDMSE00507090

BUILDING 4662

The Boeing Company
Santa Susana Field Laboratory

Shipments of Decommissioned Material to Kettleman Hills

Statement

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

Background

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

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

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

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

Building 4059 SNAP Facility

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

In September 1999, Boeing completed a radiological survey of Phase I[2] of 4059 using MARSSIM protocols[3].

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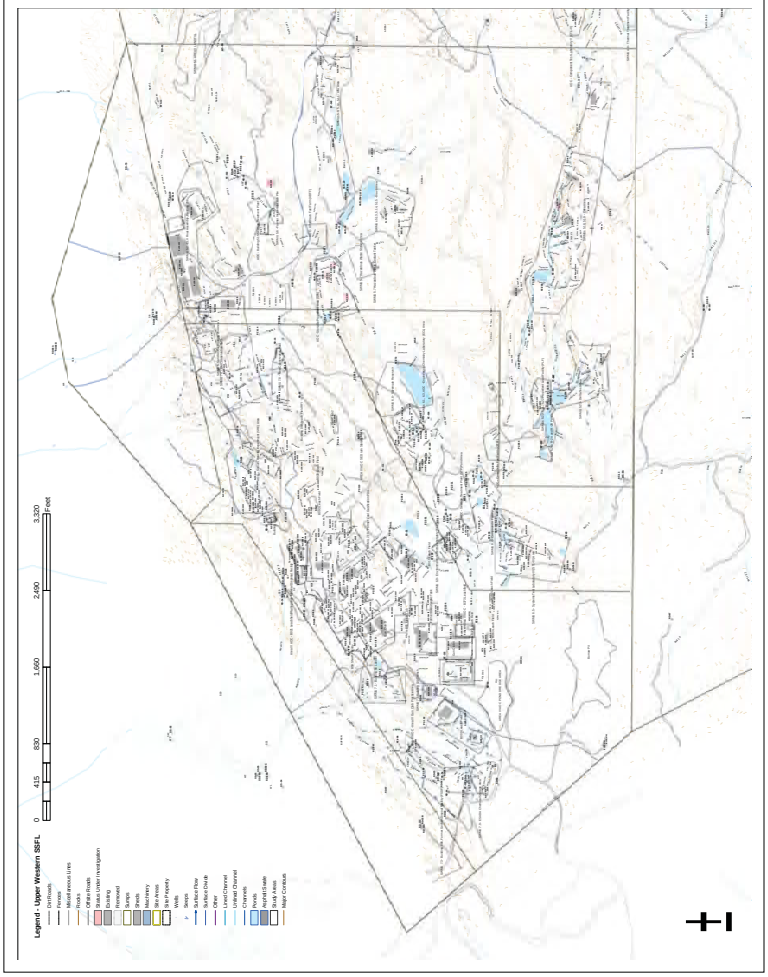
[1] Letter from Celeste Cantu, Executive Director of the State Water Resources Control Board to Radioactive Materials Licensees – Facility Owners and Operators, October 11, 2002
[2] RS-0008, "Building 4059 Final Status Survey Report (Phase I)", September 11, 1999
[3] MARSSIM - Nuclear Regulatory Commission NUREG-1575, Environmental Protection Agency EPA 402-R97-016, "Multi-Agency Radiation Survey and Site Investigation Manual", Rev. 1, August 2000