



**Department of Energy**  
National Nuclear Security Administration  
1301 Clay Street  
Oakland, California 94612-5208

**JAN 09 2002**

Subject: *Draft* Environmental Assessment (EA) for the Cleanup and Closure of the Energy Technology Engineering Center (ETEC), Simi Valley, California.

Dear Stakeholder,

On January 9, 2002, the U.S. Department of Energy (DOE) officially released the enclosed *draft* EA for the Cleanup and Closure of ETEC, Simi Valley, California. The public comment period for the EA will be *January 9, 2002 through February 11, 2002*. During this time, you or your organization may submit formal comments about the EA, which will be considered by DOE in the preparation of a final EA.

DOE has prepared this *draft* EA to evaluate the potential impacts of implementing *additional* cleanup and closure activities at ETEC. Three cleanup actions are described, a preferred action and two alternative proposals. An analysis of potential impacts on human health and the environment are presented as a part of each of these three proposals.

The EA document will be available for public review at three local informational repositories:

**Simi Valley Library**  
2969 Tapo Canyon Road  
Simi Valley, CA  
(805) 526-1735

**California State University, Northridge**  
Urban Archives Center  
Oviatt Library, Basement, Room 4  
18111 Nordhoff Street  
Northridge, CA  
(818) 885-2832

**Platt Branch Library**  
23600 Victory Boulevard  
Woodland Hills, CA  
(818) 340-9386

Copies of the EA document are available by:

- Contacting the **Energy Information Center** at (510) 637-1762
- Sending an **email request** to [etec.ea@oak.doe.gov](mailto:etec.ea@oak.doe.gov).
- Downloading a copy at the **DOE/OAK website**, [http://www.oak.doe.gov/etec\\_ea.html](http://www.oak.doe.gov/etec_ea.html)

The EA can be referenced by its Document Release No: DOE/EA-1345.

On January 24, 2002, two public meetings will take place (2pm-4pm and 7pm-9pm) at the Grande Vista Hotel (999 Enchanted Way, Simi Valley), during which, public officials and community leaders will be available to answer questions about the EA.

Sincerely,

  
for James T. Davis  
Assistant Manager  
for Environment and  
Nuclear Energy

Enclosure



DOE/EA-1345

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# **ENVIRONMENTAL ASSESSMENT FOR CLEANUP AND CLOSURE OF THE ENERGY TECHNOLOGY ENGINEERING CENTER**

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**DRAFT**

January 2002

U.S. Department of Energy  
Oakland Operations Office  
Oakland, CA

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DOE/EA-1345

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## TABLE OF CONTENTS

<b>Acronyms</b> .....	<b>v</b>
<b>Glossary</b> .....	<b>vi</b>
<b>1.0 INTRODUCTION</b> .....	<b>1-1</b>
1.1 Purpose and Need .....	1-2
1.2 Alternatives .....	1-2
1.3 Scoping .....	1-4
1.4 Other Opportunities for Public Involvement.....	1-5
1.5 Organization of the EA .....	1-5
<b>2.0 BACKGROUND</b> .....	<b>2-1</b>
2.1 History of the Site .....	2-1
2.2 Regulatory Framework .....	2-2
2.3 Facility Descriptions .....	2-4
2.3.1 Radiological Facilities.....	2-4
2.3.1.1 Radioactive Materials Handling Facility Complex .....	2-4
2.3.1.2 Building 4059 .....	2-6
2.3.1.3 Building 4024 .....	2-6
2.3.2 Sodium Pump Test Facility (Building 4462).....	2-7
2.3.3 Other DOE Support Facilities .....	2-7
2.4 Waste Management Activities .....	2-9
2.5 Current Status of the Site .....	2-10
<b>3.0 PROPOSED ACTION AND ALTERNATIVES</b> .....	<b>3-1</b>
3.1 Introduction.....	3-1
3.2 Alternative 1: Cleanup and Closure Under DOE Standard (Preferred Alternative) .....	3-2
3.2.1 Decontamination and Demolition of the Remaining Radiological Facilities and Soil Remediation.....	3-3
3.2.1.1 Radioactive Materials Handling Facility Complex .....	3-3
3.2.1.2 Building 4059 .....	3-5
3.2.1.3 Building 4024 .....	3-6
3.2.2 Closure and Demolition of the Sodium Pump Test Facility.....	3-6
3.2.3 Demolition of All Remaining Uncontaminated DOE Support Facilities .....	3-7
3.2.4 Transportation .....	3-7
3.3 Alternative 2: Cleanup and Closure Using a $1 \times 10^{-6}$ Risk Standard .....	3-8
3.4 No Action Alternative: No Further Cleanup and Secure the Site .....	3-10
3.5 Alternatives Considered But Not Analyzed.....	3-11
3.5.1 Clean Up SSFL.....	3-11
3.5.2 Dispose of All Waste as LLW.....	3-11
3.5.3 Clean Up to Industrial Standards.....	3-11
3.5.4 Clean Up to Background Levels .....	3-12
3.6 Summary of Impacts .....	3-12
<b>4.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES</b> .....	<b>4-1</b>
4.1 Land Use .....	4-1
4.1.1 Current Conditions .....	4-1
4.1.2 Impacts of Alternative 1 (Cleanup and Closure Under DOE Standard).....	4-1
4.1.3 Impacts of Alternative 2 (Cleanup and Closure Using a $1 \times 10^{-6}$ Risk Standard).....	4-1

4.1.4	Impacts of No Action Alternative (No Further Cleanup and Secure the Site) .....	4-4
4.2	Geology and Soils .....	4-4
4.2.1	Current Conditions .....	4-4
4.2.2	Impacts of Alternative 1 (Cleanup and Closure Under DOE Standard).....	4-5
4.2.3	Impacts of Alternative 2 (Cleanup and Closure Using a $1 \times 10^{-6}$ Risk Standard) ....	4-5
4.2.4	Impacts of No Action Alternative (No Further Cleanup and Secure the Site) .....	4-5
4.3	Air Quality .....	4-5
4.3.1	Current Conditions .....	4-5
4.3.2	Impacts of Alternative 1 (Cleanup and Closure Under DOE Standard).....	4-7
4.3.3	Impacts of Alternative 2 (Cleanup and Closure Using a $1 \times 10^{-6}$ Risk Standard) ....	4-7
4.3.4	Impacts of No Action Alternative (No Further Cleanup and Secure the Site) .....	4-7
4.4	Water Quality and Water Resources .....	4-7
4.4.1	Current Conditions .....	4-7
4.4.2	Impacts of Alternative 1 (Cleanup and Closure Under DOE Standard).....	4-9
4.4.3	Impacts of Alternative 2 (Cleanup and Closure Using a $1 \times 10^{-6}$ Risk Standard) ....	4-9
4.4.4	Impacts of No Action Alternative (No Further Cleanup and Secure the Site) .....	4-9
4.5	Human Health .....	4-9
4.5.1	Current Conditions .....	4-9
4.5.2	Impacts of Alternative 1 (Cleanup and Closure Under DOE Standard).....	4-11
4.5.3	Impacts of Alternative 2 (Cleanup and Closure Using a $1 \times 10^{-6}$ Risk Standard) ...	4-12
4.5.4	Impacts of No Action Alternative (No Further Cleanup and Secure the Site) .....	4-13
4.6	Biological Resources.....	4-13
4.6.1	Current Conditions .....	4-13
4.6.2	Impacts of Alternative 1 (Cleanup and Closure Under DOE Standard).....	4-15
4.6.3	Impacts of Alternative 2 (Cleanup and Closure Using a $1 \times 10^{-6}$ Risk Standard) ...	4-15
4.6.4	Impacts of No Action Alternative (No Further Cleanup and Secure the Site) .....	4-15
4.7	Cultural Resources .....	4-15
4.7.1	Current Conditions .....	4-15
4.7.2	Impacts of Alternative 1 (Cleanup and Closure Under DOE Standard).....	4-16
4.7.3	Impacts of Alternative 2 (Cleanup and Closure Using a $1 \times 10^{-6}$ Risk Standard) ...	4-16
4.7.4	Impacts of No Action Alternative (No Further Cleanup and Secure the Site) .....	4-16
4.8	Noise and Aesthetics.....	4-16
4.8.1	Current Conditions .....	4-16
4.8.2	Impacts of Alternative 1 (Cleanup and Closure Under DOE Standard).....	4-16
4.8.3	Impacts of Alternative 2 (Cleanup and Closure Using a $1 \times 10^{-6}$ Risk Standard) ...	4-16
4.8.4	Impacts of No Action Alternative (No Further Cleanup and Secure the Site) .....	4-17
4.9	Socioeconomics .....	4-17
4.9.1	Current Conditions .....	4-17
4.9.2	Impacts of Alternative 1 (Cleanup and Closure Under DOE Standard).....	4-17
4.9.3	Impacts of Alternative 2 (Cleanup and Closure Using a $1 \times 10^{-6}$ Risk Standard) ...	4-17
4.9.4	Impacts of No Action Alternative (No Further Cleanup and Secure the Site) .....	4-17
4.10	Waste Management.....	4-18
4.10.1	Current Conditions .....	4-18
4.10.2	Impacts of Alternative 1 (Cleanup and Closure Under DOE Standard).....	4-18
4.10.3	Impacts of Alternative 2 (Cleanup and Closure Using a $1 \times 10^{-6}$ Risk Standard) ...	4-19
4.10.4	Impacts of No Action Alternative (No Further Cleanup and Secure the Site) .....	4-19
4.11	Transportation .....	4-20
4.11.1	Current Conditions .....	4-20
4.11.2	Impacts of Alternative 1 (Cleanup and Closure Under DOE Standard).....	4-20
4.11.3	Impacts of Alternative 2 (Cleanup and Closure Using a $1 \times 10^{-6}$ Risk Standard) ...	4-21
4.11.4	Impacts of No Action Alternative (No Further Cleanup and Secure the Site) .....	4-22

4.12	Environmental Justice .....	4-22
4.13	Mitigation.....	4-23
4.14	Cumulative Impacts .....	4-24
<b>5.0</b>	<b>UNAVOIDABLE ADVERSE ENVIRONMENTAL IMPACTS, RELATIONSHIP OF SHORT-TERM USES OF THE ENVIRONMENT AND LONG-TERM PRODUCTIVITY, AND IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES.....</b>	<b>5-1</b>
5.1	Unavoidable Adverse Environmental Impacts.....	5-1
5.2	Relationship of Short-Term Uses of the Environment and Long-Term Productivity.....	5-1
5.3	Irreversible and Irretrievable Commitments of Resources .....	5-1
<b>6.0</b>	<b>BIBLIOGRAPHY .....</b>	<b>6-1</b>
	<b>APPENDIX A SCOPING COMMENTS SUMMARY AND DOE RESPONSES .....</b>	<b>A-1</b>
	<b>APPENDIX B LIST OF AGENCIES AND PERSONS CONSULTED AND CONTACTED .....</b>	<b>B-1</b>
	<b>APPENDIX C RADIATION AND HUMAN HEALTH.....</b>	<b>C-1</b>
	<b>APPENDIX D SENSITIVE SPECIES OBSERVED ON OR POTENTIALLY OCCURRING AT THE SSFL FACILITY .....</b>	<b>D-1</b>

*Draft*

## FIGURES

1-1	Location of SSFL, Area IV, and ETEC.....	1-1
2-1	ETEC Radiological, Sodium, and Other Uncontaminated or Decontaminated Facilities.....	2-5
4-1	SSFL Arrangement .....	4-2
4-2	SSFL Location in Relation to Nearby Communities .....	4-3

## TABLES

2-1	Other Support Facilities at ETEC .....	2-8
3-1	Waste Volumes Generated Under Alternative 1 .....	3-2
3-2	Offsite Shipments Under Alternative 1 .....	3-8
3-3	Waste Volumes Generated Under Alternative 2 .....	3-9
3-4	Offsite Shipments Under Alternative 2.....	3-10
3-5	Summary of Impacts .....	3-14
4-1	Results of Radioactive Air Emissions Monitoring, 1996-2000 .....	4-6
4-2	Waste Volumes Stored and Generated.....	4-18
4-3	Offsite Waste Shipments.....	4-20

## ACRONYMS

ALARA	as low as reasonably achievable
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
DOE	U.S. Department of Energy
EA	environmental assessment
EPA	U.S. Environmental Protection Agency
ETEC	Energy Technology Engineering Center
LLW	low-level radioactive waste
MLLW	mixed low-level waste
NASA	National Aeronautics and Space Administration
NEPA	National Environmental Policy Act
NESHAP	National Emissions Standards for Hazardous Air Pollutants
NPDES	National Pollutant Discharge Elimination System
PCB	polychlorinated biphenyl
RCRA	Resource Conservation and Recovery Act
RFI	RCRA facility investigation
RMHF	Radioactive Materials Handling Facility
WIPP SEIS-II	<i>Waste Isolation Pilot Plant Disposal Phase Final Supplemental Environmental Impact Statement</i>
SNAP	Space Nuclear Auxiliary Power
SPTF	Sodium Pump Test Facility
SSFL	Santa Susana Field Laboratory
TCE	trichloroethylene
TRU	transuranic
WIPP	Waste Isolation Pilot Plant
U.S.C.	United States Code

## GLOSSARY

### **Additional theoretical lifetime cancer risk**

The potential risk to an individual of developing cancer that could result from that individual's exposure to radiological contaminants over and above the existing risk from exposure to naturally occurring (background) levels of radiation. The lifetime risk of incurring cancer from all causes is 0.23, according to the U.S. National Center for Health Statistics (1998).

### **Background radiation**

Radiation from naturally occurring radioactive materials as they exist in nature (such as radon) and cosmic rays from space filtered through the Earth's atmosphere. Other sources of background radiation include medical procedures (x-rays), air travel, consumer and industrial products, and fallout from prior nuclear weapons testing. Background radiation in the United States averages 300 millirem per year.

### **Berm**

A sloped wall or embankment (typically constructed of earth, hay bales, or timber framing) used to prevent inflow or outflow of material into/from an area.

### **Contamination**

The deposition of unwanted radioactive or hazardous material on the surfaces of structures, areas, objects, or people.

### **Decommissioning**

The process of removing from service a facility that is no longer needed for its original purpose. For facilities in which nuclear materials were handled, it usually involves decontaminating the facility so that it may be dismantled or dedicated to other purposes.

### **Decontamination**

The actions taken to reduce or remove substances that pose a substantial present or potential hazard to human health or the environment, such as radioactive contamination from facilities, soil, or equipment by washing, chemical action, mechanical cleaning, or other techniques.

### **Fast breeder reactor**

A nuclear reactor with fertile material loaded around the core, to be converted into fissile material through neutron capture, which generates more fissile material than is consumed.

### **Latent cancer fatality**

A fatality resulting from a cancer that was originally induced by radiation but which may occur years after the exposure. Small doses of radiation result in fractional latent cancer fatalities, or only a probability that a latent cancer fatality may be incurred. The lower the fractional latent cancer fatality, the lower the probability that a latent cancer fatality will be incurred. For example,  $1 \times 10^{-4}$  latent cancer fatalities means 1 chance in 10,000 of incurring a latent cancer fatality;  $1 \times 10^{-6}$  latent cancer fatalities means 1 chance in 1 million of incurring a latent cancer fatality.

### **Maximally exposed individual**

A hypothetical individual whose location and habits result in the highest possible total radiological or chemical exposure (and thus dose) from a particular source for all exposure routes (for example, inhalation, ingestion, direct exposure). For purposes of analyzing the impacts of decontamination, decommissioning, and demolition activities at ETEC, the maximally exposed individual was assumed to be an individual living off the site in a residence 2,867 meters (9,406 feet) northwest of the Radioactive Materials Handling Facility. For purposes of analyzing the risk of residual contamination on the site following remediation, the maximally exposed individual was assumed to be an individual living on the site for 40 years.

### **National Environmental Policy Act of 1969 (NEPA)**

A federal act designed to promote inclusion of environmental concerns in federal decision-making. The Act is implemented by procedures issued by the Council on Environmental Quality and DOE.

### **Millirem (mrem)**

One-thousandth of a rem (0.001 rem); *see* “Rem.”

### **Rem (Roentgen Equivalent in Man)**

The unit of a dose equivalent from ionizing radiation to the human body that is used to measure the amount of radiation to which a person has been exposed.

### **Remediation**

Action taken to permanently remedy a release or threatened release of a hazardous substance to the environment, instead of or in addition to removal.

### **Scientific notation**

A system of expressing very large or very small numbers based on the use of positive and negative powers of 10. A number written in scientific notation is expressed as the product of a number between 1 and 10 and a positive or negative power of 10.

*Examples:*

5,000 would be written as  $5 \times 10^3$

0.005 would be written as  $5 \times 10^{-3}$

### **Scoping**

An early and open process for determining the range of issues to be addressed in an environmental impact statement or environmental assessment (EA) and for identifying the significant issues related to a proposed action.

### **Waste characterization**

The identification of waste composition and properties by reviewing process knowledge, nondestructive examination, nondestructive assay, or sampling and analysis. Characterization provides the basis for determining appropriate storage, treatment, handling, transportation, and disposal requirements.