

Resource Management Agency

Ventura County

<https://vcrma.org/make-a-complaint-code-compliance>

Fire Department

Ventura County

<https://vcfd.org/complaints/>

Air Pollution Control District

Ventura County

<https://vcfd.org/complaints/>

Re: Complaints Regarding Santa Susana Field Laboratory Explosive Demolition of Sodium Pump Test Facility (Building 4462) on October 1, 2021, and Potential Explosive Demolition of Other Structures at Site Without Appropriate Permits, Authorizations, and Precautions

To the Ventura County Resource Management Agency, Fire Department, and APCD:

On October 1, 2021, the Sodium Pump Test Facility (Building 4462), in the Boeing-owned nuclear area (Area IV) of the Santa Susana Field Laboratory (SSFL) was blown up with explosives by contractors for the Department of Energy (DOE). The building had been identified by USEPA as Class 1, meaning the highest category of potential for radioactive contamination, and DOE agreed that the debris from the demolition must be disposed of in a licensed low-level radioactive waste disposal facility.

To the best of our knowledge, this extraordinary act of blowing up a potentially contaminated building was done without benefit of requesting a demolition permit from the County Resource Management Agency, without a Fire Code Operational Permit for use of explosives, and in abrogation of the dust control requirements specified in the Standard Operating Procedure (SOP) for the demolition. See p. 24 of SOP at https://www.dtsc-ssfl.com/files/lib_doe_area_iv/Demo_HWMF_six_DOE_Bldgs/69461_SOP_Phase_1_DOE_Buildings_4038_4057_4462_and_4463_03_03_2021.pdf.

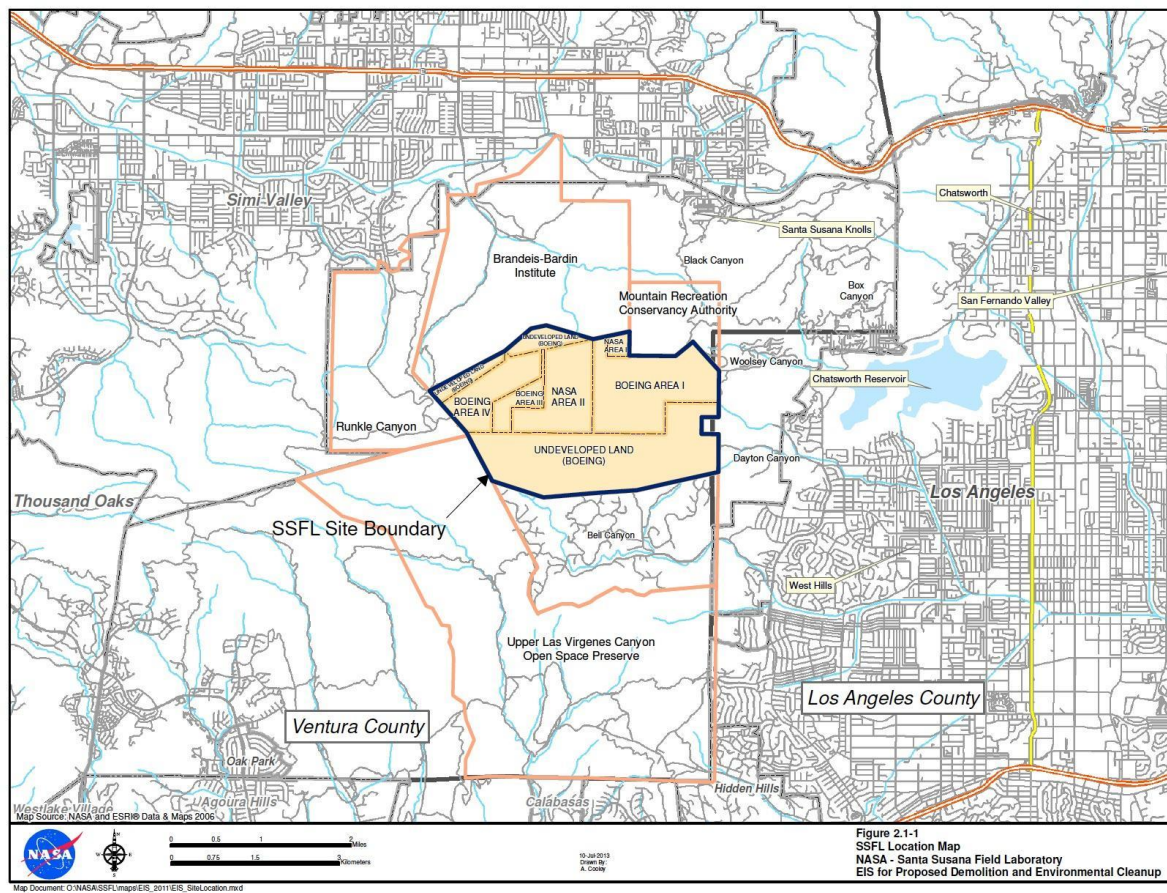
In addition to apparent violation of County requirements, the state Department of Toxic Substances Control (DTSC) apparently allowed this to occur, with no environmental review as set forth in the California Environmental Quality Act (CEQA), no opportunity for public comment on the SOP's plan to blow up the building, and with no enforcement action taken over

the failure to follow the SOP requirements for “water cannons to create a curtain to collect the dust.”

It appears that shortly before the explosive destruction of Building 4462, a second building, 4463, the Component Handling and Cleanup Facility, was also demolished with explosives. SOP p. 23. Furthermore, nearby residents have for the last year reported booms and the sky lighting up above SSFL, so the issue of explosive demolition of structures at SSFL may extend far beyond the most recent event of October 1.

We are filing complaints separately about DTSC’s conduct in the matter. We here bring to your attention potential violations of County requirements by the owners of the land and building(s) involved.

Background



The Santa Susana Field Laboratory consists of 2850 acres, in Ventura County. It is a former nuclear reactor and rocket testing facility. Ten reactors operated at the site, four of which are known to have had accidents, including a partial meltdown. On the order of 30,000 rocket tests, many with toxic rocket fuels, were conducted. Radioactive and toxic wastes were for years burned in open-air burnpits. Separately, in 1996, two workers were killed in an explosion involving hazardous wastes; Rocketdyne pled guilty to three felony charges involving the illegal disposal of these materials.

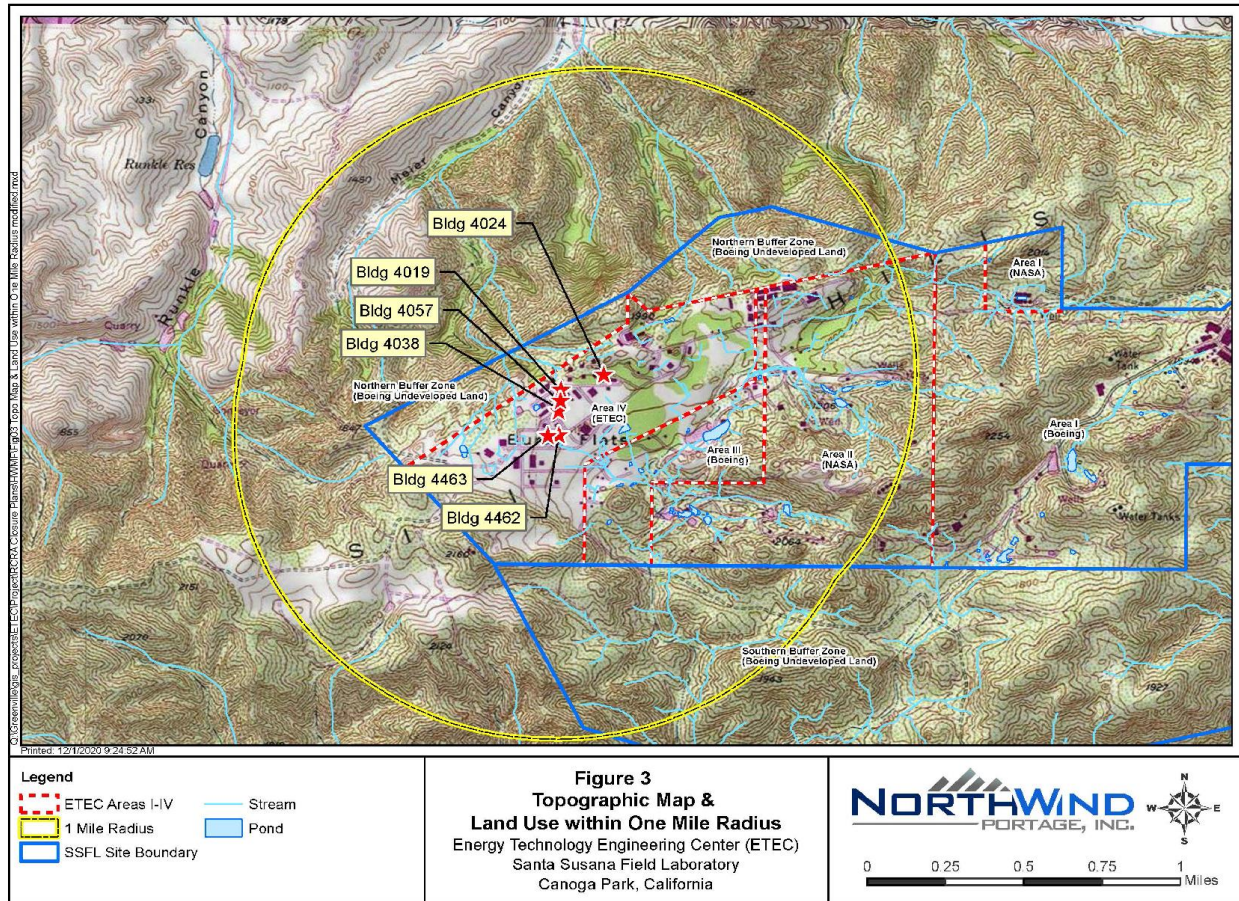
There is widespread radioactive and toxic chemical contamination of soil, surface and groundwater, and buildings. A federally funded study led by UCLA Professor Yoram Cohen found contaminants had migrated from the site at levels exceeding EPA's levels of concern.

<https://www.rocketdynecleanupcoalition.org/resources/documents/potential-for-offsite-exposures-associated-with-santa-susana-field-laboratory/>

A separate federally funded study by Professor Hal Morgenstern of the University of Michigan found a greater than 60% increase in rates of key cancers associated with proximity to SSFL.

<https://www.rocketdynecleanupcoalition.org/files/UofM-Rocketdyne-Epidemiologic-Study-Feb-2007-release.pdf>

Building 4462 that was explosively demolished on October 1 is located in Area IV, on Boeing-owned land that has been leased by the Department of Energy. As shown by the map below from the SOP prepared by DOE's contractors, the building was about 500 yards from the site boundary.



DOE admits that it blew up the building with explosive charges on October 1. Indeed, DOE released video footage of the explosion. See <https://www.energy.gov/em/articles/final-doe-buildings-safely-come-down-etec-site>. Additional footage, from multiple angles, is found at <https://youtu.be/RqeqKteYcag>.





There is no evidence in the videos of any dust suppression measures being carried out. The SOP (p. 24) required such measures:

Dust, an unpreventable byproduct of any type of demolition operation, will last in the general vicinity for five (5) to ten (10) minutes following the energetic felling. The duration of the airborne dust will be a direct function of the wind direction and velocity at the time of the energetic felling. **Dust prevention and control measures, including the use of water cannons to create a curtain to collect the dust, will be in place during demolition and felling operations.** (Emphasis added)

The US Environmental Protection Agency conducted a \$40 million radiological survey of Area IV about a decade ago. As part of that work, it prepared a Historical Site Assessment (HSA) which categorized different sites in Area IV as Class 1, 2, or 3, pursuant to the classification requirements in the Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM). (MARSSIM was prepared by EPA, NRC, DOE, and DOD, and can be accessed at <https://www.epa.gov/radiation/download-marssim-manual-and-resources>.) Class 1 sites are those with the highest potential for radioactive contamination. (See MARSSIM, p. 4-11.)

EPA ranked both Building 4462 and 4463 as Class I, having the highest potential for contamination. See EPA HSA Table 1.3c, Summary of Subarea HSA-5C Sites Potential Radiological Contaminants of Concern. EPA identified as potential radionuclides of concern at these buildings U-233, U-234, U-235, U-236, U-238, Th-232, Np-237, Pu-238, Pu-239, Pu-240, Pu-241, Th-228, Ra-228, Th-230, Ra-226, Pb-210, Pa-231, Ac-227.

Further, in its radiological survey, EPA found elevated strontium-90, above the Field Action Level or FAL, in soil near Building 4462. See pdf pp. 44, 87: https://www.dtsc-ssfl.com/files/lib_doe_area_iv/epaareaivsurvey/techdocs/65789_Final_Radiological_Characterization_of_Soils_122112.pdf

DOE has misleadingly attempted to describe the buildings as “non-radiological.” Note the difference between that phrase and “non-radioactive.” DOE means by “non-radiological” that no reactors or similar devices were located in these buildings. But they were sodium facilities, testing sodium pumps and cleaning and handling sodium-contaminated components. Building 4462 is the Sodium Pump Test Facility and EPA in the HSA calls Building 4463 the “Sodium Cleaning and Handling Facility Building.”

Most if not all of the reactors at SSFL were sodium-cooled. Unlike normal water-cooled reactors, they used liquid sodium as a coolant. The reactor that suffered the partial meltdown, for example, was the Sodium Reactor Experiment. Although no reactors were in Buildings 4462

and 4463, reactor sodium coolant was. And sodium coolant that had been used in the reactors would be radioactive. That is why the Sodium Burn-pit, in which no radioactivity was supposed to be placed, got contaminated extensively with radioactivity, that was nonetheless in the sodium.

Additionally, DOE may attempt to claim that it had surveyed the buildings and found no radioactive contamination. That rejected survey demonstrated no such thing. DOE compared its measured values in the buildings to measurements it made for “background.” Background measurements are required by MARSSIM (see p. 4-13) to be only taken from locations that cannot have been contaminated and are not supposed to be taken from the survey unit being examined. Yet DOE did just the opposite--it took its “background” measurements inside the very buildings being checked, and only a couple feet from the places being compared against. See the photo below, with the spots painted white being the “background” locations and the places painted red being the areas being compared to “background.”



Northwind, ETEC Radiological Survey Report for Buildings 4462 and 4463, Nov. 19, 2019, pdf p 25

The DTSC wouldn't accept the report, so DOE proposed in January of 2021 to conduct a gamma survey. DTSC and the California Dept. of Health Services raised objections to the inadequacy of the proposed survey, and so DOE withdrew the proposal and agreed to ship all the debris from the demolition of these buildings to a licensed low-level radioactive waste disposal site. In other words, DOE agreed that one had to assume that all the building debris was radioactive.

In short, these buildings handled sodium, reactor coolant with significant potential to be radioactive. EPA identified these buildings as MARSSIM Class I, having the highest potential for contamination. EPA found contamination nearby. And DOE agreed that all debris from the

buildings needed to be disposed of as radioactive waste. So blowing them up is incomprehensible. And not having in place the required water canons to produce a “water curtain” for dust control adds to the incomprehensibility of what DOE did.

Specific Complaint to Ventura County Resource Management Agency Regarding Code Compliance

The complaint is demolition, including use of explosives, without necessary permits.

Specific Complaint to Ventura County Fire Department

The complaint concerns the lack of a Fire Code Operational Permit for use of explosives.

Specific Complaint to Ventura County Air Pollution Control District

The complaint concerns the failure to follow the dust abatement requirements set forth in the SOP, particularly the failure to employ a “water cannon to create a water curtain” to mitigate any release.

We are particularly interested in learning if any of your agencies were notified in advance of the explosive demolitions, and if any permits were requested. We also request being informed if there have been other explosive demolitions in the last several years at SSFL, whether they occurred in Area IV or other areas of the site, and whether they involved DOE, Boeing, or NASA.