
Santa Susana Field Laboratory Community Cancer Studies

Since 1990, numerous studies have examined cancer rates in the communities surrounding the Santa Susana Field Laboratory (SSFL). The combined evidence of these studies has failed to find that people living near SSFL are at an increased risk for developing cancers as a result of SSFL operations. The conclusions of these studies are summarized below, but links to the studies themselves are included so that you can review them and reach your own conclusions about what the studies show.

California Department of Health Services

Two studies were performed by the Environmental Epidemiology Unit of the California Department of Health Services (DHS), now renamed the Department of Public Health (DPH).

In the 1990 study¹, DHS concluded that, “... ***these findings are consistent with random variation in cancer incidence rates.***”

In the 1992 study², DHS concluded that, “***These analyses suggest that people living near the SSFL are not at increased risk for developing cancers associated with radiation exposure.***”

The 1992 report further observed that, “***We would expect that if community exposure to ionizing radiation were causing an elevation in cancers in this geographic area we would see the greatest increase among those cancers known to be most strongly associated with radiation exposure. Not only is such a pattern not evident, but the very radiosensitive cancer group appears to be somewhat underrepresented in people living near the SSFL***”

Tri-Counties Regional Cancer Registry

In September 1997, the Tri-Counties Regional Cancer Registry released the results of cancer rates in the communities in Ventura County surrounding SSFL³. The report concluded, “***My conclusion from this simple preliminary analysis is that residents of the study area seem to have cancer incidence risk which is similar to that of the other residents of the Tri-Counties region, except***”

¹ William E. Wright & Carin Perkins, California Department of Health Services, “Cancer Incidence Rates in Five Los Angeles County Census Tracts”, October 10, 1990.
http://www.etec.energy.gov/Environmental_and_Health/Documents/CancerStudies/DHS_Cancer_Study_1990.pdf

² Molly J. Coye & Lynn R. Goldman, California Department of Health Services, “Cancer Incidence Near the Santa Susana field Laboratory”, March 27, 1992.
http://www.etec.energy.gov/Environmental_and_Health/Documents/CancerStudies/DHS_Cancer_Study_1992.pdf

³ Kiumarss Nasser, Tri-Counties Regional Cancer Registry, September 29, 1997.
http://www.etec.energy.gov/Environmental_and_Health/Documents/CancerStudies/Nasser_CancerStudy_1997.pdf

for leukemia in women which is significantly lower, and cancer of the lung & bronchus which is higher."

California Department of Toxic Substances Control

In August 1999, the Department of Toxic Substances Control (DTSC) released its report⁴ of an inquiry into the California Department of Health Services (DHS) Cancer Registry Studies. DTSC found no evidence of elevated cancer rates surrounding SSFL.

DTSC also hired an expert panel of epidemiologists to review the three previous state and county cancer studies. The expert panel⁵ concluded, ***"... the combined evidence from all three [studies] does not indicate an increased rate of cancer in the regions examined."*** The panel further concluded, ***"The results do not support the presence of any major environmental hazard."***

Tri-Counties Regional Cancer Surveillance Program

In October 2006, the Tri-Counties Cancer Surveillance Program conducted a study⁶ of census tract 75.03, encompassing a 2 to 3 mile radius surrounding SSFL in Ventura County. The study concluded, ***"Based on this analysis, I conclude that occurrence of newly diagnosed invasive cancers in census tract 75.03 in Ventura County, does not show any unusual pattern and has actually decreased by 7.5 percent from 1988 through 2004."***

University of Michigan School of Public Health

A 2007 study⁷ on cancer incidence in the community, by Dr. Hal Morgenstern of the University of Michigan, School of Public Health, concluded that, ***"The results from this study suggest little or no association between residential distance from SSFL and the incidence of all cancers or the group of (radiosensitive) malignancies thought to be affected by ionizing radiation. There was, however, a weak positive association during both follow-up periods between distance from***

⁴ Cal/EPA, Department of Toxic Substances Control, "Rocketdyne Inquiry. Summary of Findings and Report", August 1999.

http://www.etec.energy.gov/Environmental_and_Health/Documents/CancerStudies/Rocketdyne_Inquiry_Report.pdf

⁵ Myrto Petreas, Hazardous Materials Laboratory, "Health Studies at Santa Susana Field Laboratory - Expert Panel Review", June 20 1999.

http://www.etec.energy.gov/Environmental_and_Health/Documents/CancerStudies/ExpertPanelReport.pdf

⁶ Kiumarss Nasser, Tri-Counties Cancer Surveillance Program, October 10, 2006.

http://www.etec.energy.gov/Environmental_and_Health/Documents/CancerStudies/2006TriCountyStudy.pdf

⁷ Hal Morgenstern, University of Michigan School of Public Health, "Cancer Incidence in the Community Surrounding the Rocketdyne Facility in Southern California", March 2007.

http://www.etec.energy.gov/Environmental_and_Health/Documents/CancerStudies/Final_Epi_Report.pdf

SSFL and the group of (chemosensitive) malignancies thought to be affected by exposure to chemicals used at Rocketdyne ...”

The report further cautioned, ***“It is important to recognize that the associations observed between distance from SSFL and the incidence of specific cancers are based on small numbers of cases within strata of the regions closest to SSFL. Thus, precision of effect estimation is often poor (resulting in wide confidence intervals), and statistical power for detecting effects is low, which implies that some of our estimates may be chance findings and should be interpreted cautiously. Furthermore, we have no direct evidence that the associations we observed, even if they reflect real differences among the three regions, necessarily reflect the effects of environmental exposures originating at SSFL.”***

University of Southern California

In 2011, Dr. Thomas Mack of the Keck School of Medicine at the University of Southern California (USC) reviewed previous community cancer incidence studies and performed a new assessment of cancer rates in census tracts surrounding SSFL. Dr. Mack presented his results and findings⁸ to the West Hills Neighborhood Council in 2011 and in a Department of Toxic Substances Control public meeting on April 9, 2014, in which he concluded,

- ***“It is not possible to completely rule out any offsite carcinogenic effects from SSFL”***
- ***“No evidence of measurable offsite cancer causation occurring as a result of emissions from the SSFL was found”***
- ***“Further, no evidence of any cancer causation by any environmental factor was found”***

Risk Assessment Corporation

After the Woolsey Fire, in response to concerns that were raised by some community members, Boeing engaged outside experts to study whether any radioactive materials may have been carried off-site from SSFL in the smoke plume and deposited in the surrounding area. The study by Risk Assessment Corporation concluded that **there was no evidence that any radioactive material originating from SSFL traveled offsite during the Woolsey Fire**. In addition, the study noted that **no evidence was found of impacts to off-site soils from past operations at the SSFL that may have resulted in releases to the atmosphere**. The results were presented in a peer reviewed article that was published in the Health Physics Journal in April of 2023.

⁸ Thomas Mack, University of Southern California, “Cancer Occurrence in Offsite Neighborhoods Near the Santa Susana Field Laboratory,” April 9, 2014. http://www.dtsc-ssfl.com/files/lib_pub_involve/meeting_agendas/meeting_agendas_etc/66362_Santa_Susana_8.pdf

⁹ Risk Assessment Corporation, “Potential Airborne Releases and Deposition of Radionuclides from the Santa Susana Field Laboratory during the Woolsey Fire,” April 2023. https://journals.lww.com/health-physics/Fulltext/2023/04000/Potential_Airborne_Releases_and_Deposition_of.3.aspx