

Presentation on Livermore Lab Superfund Cleanup for Tracy Residents, Community Leaders and Business Owners

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More information: www.trivalleycares.org



Location

- Site 300 encompasses approximately 10.5 square miles in the Altamont Hills 6 miles southwest of Tracy.
- The Site has been surrounded by open space used mainly for ranching and recreation.
- Tracy Hills Development is being planned near the site boundary.
- 7.1 million people live within 50 mi of Site 300.

What functions are performed at Site 300?

- Site 300 was established to measure the physical and explosive properties of all the components of nuclear weapons, except the fissile materials (e.g. plutonium).
- Operations include analysis of controlled explosions, vibration and shock testing, and fabrication, mechanical pressing and machining of shaped explosives.
- See photos.

Why it is of Concern

- Site 300 was named to the National Priorities List in 1990, and cleanup of the site is expected to take at least 50 years
- Fifty-seven contaminant release areas affecting surface soil, subsurface soil, surface water, or groundwater have been identified at Site 300.
- Most of the contamination has remained within the site boundary – but some extended over a mile along the Corral Hollow stream bed. There are still small areas in the southern boundary where off-site groundwater cannot be used for drinking water.
- A number of closed open-air “firing tables” that were used to conduct tests. Many of these facilities were set in canyon areas – thus when detonations occurred, the airborne particles covered the hillside.

Why it is of Concern

- The highest baseline human health risk assessment estimated a cancer risk of 1×10^{-3} (one in one thousand) for onsite workers inhaling VOC vapors in indoor air at Building 834D. Several other areas have risks that exceed EPA human health risk ranges
- There are several threatened and endangered species at Site 300, and contaminants pose what is called an ecological risk
- Site 300 overlies a “regional groundwater” system, that is used for irrigation and drinking water wells.
- In CA, this groundwater is a protected resource.

Major Contaminants

- ❖ Volatile organic compounds (VOCs)
- ❖ High explosive compounds
- ❖ Radioactive tritium
- ❖ Depleted uranium
- ❖ Nitrate
- ❖ Perchlorate
- ❖ Polychlorinated biphenyls (PCBs)
- ❖ Dioxin
- ❖ Furans

Progress to Date

- ❖ Operating up to 20 groundwater and soil vapor extraction and treatment systems
- ❖ Capping and closing landfills, high explosives rinse water lagoons and burn pits (Note: City & TVC asked for some landfill extraction)
- ❖ Installation of a drainage diversion system to prevent groundwater from rising into the landfills and releasing contaminants to the groundwater
- ❖ Closing numerous “dry wells” (dumping areas) throughout the site
- ❖ Excavation of contaminated soil from source areas throughout the site
- ❖ Remediating by consolidation and solidification of 29,000 cubic yards of PCB-, dioxin-, and furan-contaminated soil at Building 850
- ❖ Sampling of over 680 groundwater monitor wells to track plume migration and remediation progress

Outstanding Issues

- Remediating areas contaminated by depleted uranium (Building 812)
- Remediating perchlorate in numerous areas
- Examining PCB contamination of previously remediated sites, as there was an unexpected quantity of PCBs that were detonated at one firing table
- Continued monitoring of the various groundwater plumes, retarding further migration of on-site plumes, pulling the rest of the off-site plume back on site
- Ensuring that cleanup remains a priority and that the Tracy community is consulted in decision-making.

Opportunities for Public Participation

- The Superfund law allows public comment during the initial stages of study of the contamination and the selection of a proposed plan to remediate the area.
- There are a few areas left where legally required public participation will take place, including the selection of a remedy for the B-812 firing table.
- The Livermore Lab can conduct public workshops beyond those that are legally-mandated.
- Five-Year Reviews.
- National Environmental Policy Act Reviews.

Tri-Valley CAREs' Role

- TVC won the first Technical Assistance Grant (TAG) awarded in the western United States by EPA in 1989. With that grant, we have contracted with an environmental scientist, and we hold regular meetings with Site 300 environmental staff and state and federal regulators.
- TVC hosts community meetings devoted to cleanup issues to help encourage public participation and understanding.
- TVC informs the media, the public and our membership about the cleanup options and opportunities for public comment.
- TVC arranges for public tours of the facility to monitor cleanup progress and help keep the public informed

Community Acceptance Criteria

- Complete the cleanup project in a timely manner.
- Cleanup levels should support many uses of the property that are unrestricted by environmental contamination.
- Cleanup levels should be set to the strictest state and federal government levels.
- Remedies that actively destroy contaminants are preferable.
- The tritium source and plume should be controlled at the earliest possible time in order to prevent further releases to the environment.
- Radioactive substances should be isolated from the environment.

Community Acceptance Criteria

- The ecosystem should be protected.
- Decisions should not rely on modeling alone.
- Additional site characterization is needed and must be budgeted for over many years.
- The public should be involved in cleanup decisions and cleanup progress.
- Cleanup should be given priority over further weapons development.
- Any ongoing activities at Site 300 should be designed to prevent releases to the environment.