

Livermore Town Meeting
Update on Site Team Activities

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What is a Site Team ?

- LLNL is a Superfund “cleanup” site -- federal health agency (ATSDR) required to assess health impacts of LLNL
- Public Health Assessment (PHA) -- began in 1996 federal (ATSDR) & state health agency (CDHS) effort
- convened by CDHS-- only mechanism for on-going community participation in investigation of LLNL health impacts
- members from community, federal, state, local health & regulatory agencies, City of Livermore; public comment periods

LLNL and Plutonium

1998

PHA findings to date indicate the potential for widespread plutonium contamination

Mid-1950s

“ It is known that since the mid-1950s, LLNL released small quantities of plutonium to the sanitary sewer under strict DOE discharge limits” *DOE/LLNL 1998*

1961

“Sanitary sewer sludge made available for public and City use as a soil conditioner from at least 1961 to the mid-1970s” *DOE/LLNL 1998*

LLNL and Plutonium

1967

- identified a release through routine monitoring
- estimated size of the release at Radiation Lab
- compared the Radiation Lab estimate to Pu239 - Am241 in the Livermore sanitary sewer system using a “reasonably detailed sampling program” & found “good agreement”
- compared estimate of release to current standards
--- $< 1/2$ the permissible drinking water level
- no hazard to plant personnel, community

Memo to DC Sewell LRL, June 29, 1967

LLNL and Plutonium 1967

- **Radiation Lab monitoring system recognized as “inadequate”**
- **there are no reliable data on which to base LLNL’s estimate at the Radiation Lab -- both the source and releases over 5 days are unknown**
- **estimate at Livermore sewage treatment plant based on inadequate data and faulty assumptions**
- **first measurement of sludge reported to have occurred 6 years after the 1967 release**

LLNL and Plutonium 1967

- **THE CONCENTRATION OF PLUTONIUM IN THE SLUDGE IS UNKNOWN**
- **LLNL compared estimate of release to current standards --- $< 1/2$ the permissible drinking water level & found no hazard to plant personnel, community,**

if the concentration of plutonium in the sludge is unknown --- the hazards are unknown

LLNL and Plutonium 1967

“all of the radioactivity has gone to the sludge lagoons, ... The ultimate fate of the sludge in the sludge lagoons is uncertain at this time.... The sludge is never used in agricultural areas (food production) unless specific public health service approval is granted”

Memo to DC Sewell LRL, June 29, 1967

LLNL and Plutonium 1975

“Large quantities of the digested sludge from the Livermore sewage treatment plant are used by municipal agencies as a soil conditioner in parks and landscaping around public buildings. The dried digested sludge is also available without cost to the general public, and is commonly used as a soil conditioner for home lawns and gardens. ”

Myers et al. “Evaluation of the use of sludge containing plutonium as a soil conditioner for food crops”. September 17, 1975

LLNL and Plutonium 1975

- **study states conditions chosen to “maximize exposure” & concludes that maximum dose a tiny fraction of permissible dose ---- unsupported assumption that the maximum concentration of plutonium in sludge distributed to the public is known**

Hallmarks of the LLNL “safe plutonium” story

**#1 risk decisions based on
inadequate monitoring data,
false assumptions,
unproven assumptions as to
health effects,
& construed narrowly as a
comparison to existing
regulations**

Hallmarks of the LLNL “safe plutonium” story

#2 ALL risk borne by people who did not recognize the risk and therefore could do nothing to prevent it

exposures were and *continue to be* unrecognized by people at risk

Hallmarks of the LLNL “safe plutonium” story

**#3 no precautions to avoid harm
taken in light of scientific
uncertainty**

**where certainty of harm is lacking,
the *precautionary principle* places
the burden to prove safety on the
risk takers**

Hallmarks of the LLNL “safe plutonium” story

#4 LLNL risk decisions reflect clear institutional bias

“A prediction is to be distrusted when it is made by the group that will use it as a basis for policy making --- especially when the prediction is made after the policy decision has been taken.”

New York Times September 29, 1998. “When scientific predictions are so good they’re bad”.
William K. Stevens

Hallmarks of the LLNL “safe plutonium” story

#5 risk decisions reached on behalf of people without their knowledge and consent - no community participation

The past is prologue

LLNL/DOE has narrowly defined the investigation of potential health impacts of Lab activities

(1) PHA limited to what is “permitted” by DOE/LLNL through data and funding

Current PHA activity limited to mapping early 1990s emissions from LLNL --- *not historical data that might be linked to present health concerns*

Funding for LLNL PHA is uncertain

CDHS is currently prohibited from working on PHA without funding (\$100,000 yearly budget)

Yet NIF will cost taxpayers \$17,124 EVERY HOUR for the next 30 years

LLNL/DOE has narrowly defined the investigation of potential health impacts of Lab activities

(2) health agency & community recommendations as to scope of PHA follow-up ignored

1998 Big Trees Park soil sampling:

DOES ADDRESS current levels of plutonium in Big Trees Park

UNCERTAIN ABILITY to characterize past levels or pathways - soil has been disturbed

LLNL/DOE has narrowly defined the investigation of potential health impacts of Lab activities

(3) 1998 Big Trees Park soil sampling: DOES NOT ADDRESS

- wide distribution of sludge in Livermore and (?) Pleasanton**
- Plutonium found in Sunflower Street and Sycamore Grove Parks**
- tritium and other releases**
- community perspective of “acceptable” risk**
- anecdotal reports of health problems and illness patterns observed**

There will be no credible investigation of health impacts of LLNL without full community participation

“The decision to conduct [BTP] follow-up activities will be made in consultation [with] the regulatory agencies” DOE/LLNL 7/98

- To date, community members of Site Team excluded from BTP interpretation decisions**
- Regulatory agency “cover” not equal to “credibility”**
- Regulators must also be held accountable**

What You Can Do

- **Ask CDHS/EHIB to conduct an *independent* investigation of the distribution of plutonium-laced sludge throughout Livermore and other areas**
- **Ask the Agency for Toxic Substances and Disease Registry to fund the LLNL PHA:**

CDHS/EHIB must conduct Site Team and research activities

PHA must include tritium

What You Can Do

Insist on health investigations that are:

independent of the DOE/LLNL

include full community participation

**timely, transparent, and responsive
to the concerns of the people at risk**