

Response to Comments
from
Mr. Daniel Hirsch
Committee to Bridge the Gap

1. However, the notices do not indicate what modifications are proposed.

The notices indicate that the modifications were necessary to address current closure requirements and comments provided by DTSC; change the procedures for decontamination of facility equipment and structures; provide for more frequent samples; and, extend the closure period. The changes to the closure plans are identified in the complete permit modification notifications, which will be posted on DTSC's website for Santa Susana Field Laboratory (SSFL).

2. Additionally, no URLs are provided for either the existing Closure Plans or the proposed permit modifications. Generally, DTSC tries to post such items on its SSFL website and include in its Public Notices information to let the public know where on the website it can be found.

The public notice for a Class 1 permit modification is provided by the permittee. Due to the short deadline for issuing the public notice, the permittee does not know where DTSC will post the documents at the time the public notice is prepared, so the URLs cannot be provided. The documents are now available on DTSC's website for SSFL.*

3. The notice says any person may request DTSC to review or reject any Class 1 Modification, but that of course is very difficult if we cannot readily review the Plan and its proposed modification. Also, no deadline is provided as to when the public must submit its request for review or rejection.

The Class 1 permit modification notification and the proposed closure plans are available at the local repositories for review. In addition, the documents are available on the DTSC website for SSFL. The regulations for Class 1 permit modifications do not specify a period for the public to submit a request for DTSC to review the permit modification. Because Class 1* permit modifications require DTSC approval prior to being implemented, DTSC is currently reviewing the permit modification. The permittee did not request authorization from DTSC to put the modification into effect in less than 30 days. Typically, DTSC does not make a decision on a Class 1* permit modification in less than 30 days.*

4. Could you please post the relevant documents on the DTSC SSFL website; and send out an email to DTSC's SSFL email list notifying them where it is posted and also what the deadline for comment is?

The relevant documents are posted on the DTSC SSFL website. An email will be sent to the SSFL list with the locations of the documents. There is no deadline

for comments. Typically, DTSC does not make a decision on a Class 1 permit modification in less than 30 days.*

5. Lastly, it would be very helpful if you could, in reply to my email and in the above email requested to the SSFL list, explain what this is all about.

Boeing and NASA have submitted Class 1 permit modification notifications to amend the closure plans for eight inactive groundwater treatment units.*

The post-closure permit for SSFL Areas I and III identifies five (5) groundwater treatment units: Alfa AST (air stripping tower), Area 1 Road AST, Canyon AST, STL-IV AST, and WS-5 UV Peroxide (ultraviolet light). The post-closure permit for SSFL Area II identifies three (3) groundwater treatment units: Bravo AST, Delta AST, and RD-9 UV/Peroxide. A closure plan describes the steps needed to remove or decontaminate hazardous waste residues and contaminated containment system components, equipment, structures, and soils, including sampling and testing. The closure plan is part of the permit application, which is approved and incorporated into the post-closure permit. The closure plans are part of the Groundwater Remediation Operation Plan identified in permit condition II.N.1 in both the post-closure permit for Areas I and III and the post-closure permit for Area II. The closure plans approved in the post-closure permits were prepared in October 2000.

The permit modification process is used to amend the closure plans. Boeing and NASA submitted closure notifications for the inactive groundwater treatment units in March 2010. Class 1 permit modification notifications were also submitted in March 2010. DTSC rejected these permit modifications in April 2010. In January 2011, DTSC provided comments on closure plans proposed by Boeing and NASA. Boeing and NASA prepared new closure plans and submitted the Class 1* permit modification notifications on February 3, 2011.*

6. How long has the groundwater treatment program been shut down?

Extraction and treatment of groundwater was suspended at SSFL in 2000 as part of the DTSC approved field investigation to evaluate the deep Chatsworth groundwater conceptual model at the site. The Work Plan for Additional Field Investigations Chatsworth Formation Operable Unit (dated October 2000) was approved by DTSC in October 2000. The scope of the investigation included drilling 11 coreholes through the vertical depth of the contamination in source areas; analyzing the rock core for VOCs; and retrofitting the coreholes and the existing deep wells with discrete monitoring ports. A critical aspect of the field investigation was to collect discrete head measurements from the retrofitted wells and coreholes through the vertical depth of the dipping layered and fractured geology. The vertical head profiles aid in understanding the three dimensional flow in the fractured bedrock. Prior to allowing shutdown of the extraction wells, DTSC stipulated increased sampling frequency of TCE and other chemicals to

monitor the stability of the plume while the extraction wells were not operating. The approach taken is outlined in the Appendix B of the October 2000 Work plan and required that wells in the vicinity of the extraction wells be monitored monthly for constituents of concern the first 3 months following shutdown, and quarterly thereafter. If concentrations of contaminants exceed prior levels, Boeing would meet with DTSC to assess the extent of change in water quality conditions and stability of the plume and reinstate pumping. Most of the pumping wells were shut down at the initiation of the field work in 2000. The Delta treatment system was operational for groundwater sampling purge water and to treat groundwater pumped from WS-9A until the 2005 Topanga Fire damaged piping from WS-9A.

7. Why is it not running?

There are three main reasons why the groundwater extraction and treatment was not restarted. These reasons are: the inefficiencies in the existing groundwater extraction and treatment systems; the presence of emergent chemicals in the groundwater; and, damage to the groundwater extraction and treatment system infrastructure by the 2005 Topanga Fire.

It was estimated that approximately 230 gallons of TCE were recovered from the existing permitted groundwater treatment systems after pumping and treating approximately 1.64 billion gallons since the 1980s. Based on this assessment, the modified approach presented in the Groundwater Interim Measures Workplan, currently under review, was developed.

Testing for emergent chemicals such as NDMA, perchlorate, and 1,4-dioxane, became more frequent and widespread since 2000. As a result, these chemicals were detected at the site. It was determined that, in many cases, the existing treatment systems, as permitted, may not be able to effectively treat the influent groundwater from many of the extraction wells.

The Topanga Fires in late summer 2005, impacted a majority of the site. In general, the groundwater treatment systems were not visibly damaged; however, the extensive network of double-walled piping which delivered water from the extraction wells to the treatment units was mostly destroyed. Although electricity was available to each of the treatment systems, the power to most of the extraction wells was destroyed.

8. Is there another groundwater treatment system operating in its place?

As part of the proposed Groundwater Interim Measures, a groundwater extraction treatment system (referred to as GETS) has been constructed at the site to treat the anticipated range of chemicals (including 1,4-dioxane, metals, and perchlorate) in the groundwater and to replace the older permitted groundwater treatment systems at the site.

9. Is it more effective than the system that has been closed?

Yes, see above.

10. With so much contamination in the groundwater, it is troubling to see treatment systems inoperable.

Groundwater data from the site has been evaluated to identify any changes in the nature and extent of the contaminant plumes. No significant changes in the extent of the contaminant plumes have been identified by DTSC since groundwater extraction ceased. However, concentrations have increased in the groundwater at or near some source areas where groundwater has risen and is now in contact with the overlying contaminated rock and/or soil. These areas are contained towards the center of the identified plumes and do not appear to have any effect on the distal portions of the plume at this time. Upon approval of the Groundwater Interim Measures Workplan, work would begin to install wells and restart groundwater extraction and treatment.