

STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

EXECUTIVE OFFICER SUMMARY REPORT
MEETING DATE: October 14, 2009

ITEM: **6 C**

SUBJECT: **Stanford University and the United States Department of Energy for the SLAC National Laboratory, located at 2575 Sand Hill Road, Menlo Park, San Mateo County – Adoption of Time Schedule Order**

CHRONOLOGY: July 1985 - Initial Site Cleanup Requirements adopted
May 2005 - Revised Site Cleanup Requirements adopted

DISCUSSION: The Revised Tentative Time Schedule Order (Appendix A) is a companion to the Revised Tentative Site Cleanup Requirements Order (Revised SCR) recommended for Board adoption in item 5 C. The Revised Tentative Time Schedule Order (Revised TSO) prescribes maximum civil liabilities for any non-compliance with the tasks and schedule contained in the Revised SCR, once the Revised SCR is adopted by the Board. The Revised SCR updates the 2005 site cleanup requirements for SLAC by including the same tasks and an updated compliance schedule necessary to address the soil and groundwater pollution at SLAC. While Stanford and the Department of Energy (the “Dischargers”) have worked cooperatively with Board staff to comply with the tasks of the 2005 order, some compliance deadlines were missed. The Revised TSO prescribes maximum civil liabilities should the Dischargers fail to comply with the updated compliance schedule in the Revised SCR.

The Dischargers submitted written comments on the draft TSO during the public comment period (Appendix B). Board staff has prepared a written response to those comments (Appendix C) and revised the TSO where appropriate. The Dischargers have indicated their acceptance of the Revised TSO, so we expect this item to remain uncontested.

RECOMMEN-
DATION: Adopt the Revised Tentative Time Schedule Order

APPENDICES: A - Revised Tentative Time Schedule Order
B - Comments Received
C - Response to Comments

APPENDIX A

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

REVISED TENTATIVE ORDER

TIME SCHEDULE ORDER PRESCRIBING ADMINISTRATIVE CIVIL LIABILITY for:

**STANFORD UNIVERSITY
UNITED STATES DEPARTMENT OF ENERGY**

for the:

**SLAC–NATIONAL ACCELERATOR LABORATORY
2575 SAND HILL ROAD
MENLO PARK, SAN MATEO COUNTY**

The California Regional Water Quality Control Board, San Francisco Bay Region (hereinafter Regional Water Board), finds that:

PURPOSE OF ORDER

1. This Order prescribes the maximum civil liability for non-compliance with the tasks and schedule contained in Site Cleanup Requirements Order No. R2-2009-XXXX, which is a Cleanup and Abatement Order (CAO) adopted by the Regional Water Board pursuant to Section 13304 of the California Water Code. The tasks and schedule in Order No. R2-2009-XXXX, require plans to address soil and groundwater pollution at the SLAC-National Accelerator Laboratory (formerly know as the Stanford Linear Accelerator Center) for protection of water quality and human and environmental health. Although Stanford University and the United States Department of Energy (collectively, the “Dischargers”) have worked cooperatively with Regional Water Board staff to complete required tasks of a 2005 cleanup order (Order No. R2-2005-0022), some deadlines were missed. The Dischargers will be subject to civil liability prescribed in this Order should they fail to complete any task of Order No. R2-2009-XXXX, which are restated in Table 1 of this Order.

SITE LOCATION, OWNERSHIP, AND DESCRIPTION

2. The SLAC site is a 426-acre, high-energy particle physics and particle astrophysics, synchrotron radiation and photon science research facility. It is located approximately two miles west of the main Stanford University (Stanford) campus adjacent to Menlo Park in an unincorporated portion of San Mateo County, California. It is located within an area consisting of properties that are residentially zoned by the County of San Mateo. Its unusually shaped property boundary is due to the two-mile long, narrow linear accelerator (LINAC), which runs east-west under Highway 280, and the larger rectangular target/research area at the eastern end of the LINAC.
3. SLAC is a federally-funded national research laboratory constructed in 1963 and continuously managed and operated by Stanford under a contract with the United States Department of Energy (DOE). It is located on land owned by Stanford and leased to DOE. The original lease agreement was signed in 1962 between the Atomic Energy Commission (DOE’s predecessor) and Stanford for a period of 50 years, expiring in 2012. The SLAC land is part of the original land grant that established Stanford ; the land

cannot be sold and must be held in perpetuity by Stanford's trustees to support its educational mission. Land use at the facility is a combination of industrial, educational, and short-term residential.

4. The SLAC site is bordered to the north by Sand Hill Road, with the commercial and residential development of Sharon Heights across the road. The SLAC site is also bordered by residential development (Stanford Hills) and agricultural/equestrian facilities (Harry Cohn Ranch) to the east, agricultural (Webb Ranch, Harry Cohn Ranch) and equestrian facilities (Portola Valley Training Center) to the south, and by undeveloped areas to the west, including the Jasper Ridge Biological Preserve, which is owned, monitored and protected by Stanford.
5. SLAC has conducted numerous site investigations as part of its overall Environmental Restoration Program that included extensive soil and groundwater sampling and the installation of over 100 groundwater monitoring wells. Results of these investigations indicate that soil and groundwater pollution exists at various locations within the site. Constituents of concern for soil are: volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), total petroleum hydrocarbons (TPH), polychlorinated biphenyls (PCBs), lead, and tritium. Constituents of concern for groundwater are: VOCs, SVOCs, petroleum hydrocarbons, and tritium. Source areas that contributed to pollutant releases include storage areas and areas where hazardous materials, including VOCs, SVOCs, PCBs, petroleum hydrocarbons, and radionuclides, were used or generated. The VOCs were used as cleaning agents and the PCBs were used in electrical transformers. PCBs are no longer used at the SLAC facility in transformers at concentrations above 500 parts per million (ppm). All transformers with PCB concentrations above 500 ppm have been drained, flushed, and refilled with non-PCB containing oil; however, some residual PCBs remain in the transformers. Generation of radionuclides is the result of operating the LINAC for high-energy particle physics research. Several removal actions have been performed for VOCs, SVOCs, PCBs, TPH, and metals in soil and groundwater. Evaluation of remedial alternatives addressing soil and groundwater pollution is ongoing.

REGULATORY HISTORY

6. In 1985, the Regional Water Board adopted Order No. 85-88, which required investigation and remediation of soil and groundwater pollution from a former chlorinated solvent underground storage tank. Since then, Regional Water Board staff has overseen investigation and cleanup activities funded through a grant with DOE.
7. In 2005, the Regional Water Board adopted Order No. R2-2005-0022, identifying additional locations that required investigation, remediation, and monitoring of soil and groundwater pollution. Order No. R2-2005-0022, as amended on August 23, 2006 by the Executive Officer, required completion of 13 tasks at these locations.
8. The Dischargers have completed the first four tasks of Order No. R2-2005-0022. In compliance with Task 4, the Dischargers submitted a report, dated May 2006, which grouped areas needing investigation into four operable units (OUs).
9. In attempting to comply with Task 5 of Order No. R2-2005-0022, the Dischargers missed report submittal deadlines for three of the four OUs. The missed deadlines are summarized below and in Finding No. 14 of Order No. R2-2009-XXXX.

Task No.	Description	Original Due Date (per Order No. R2-2005-0022)	Status
5	Final remedial investigation report for the Tritium OU	August 19, 2008	Submitted June 1, 2009
5	Final remedial investigation report for the West SLAC/Campus Area/IR-8 Drainage Channel	September 3, 2008	TBD ¹
5	Final remedial investigation report Research Yard/SSRL/IR-6 Drainage Channel OU	March 19, 2009	Due date revised to June 26, 2010 ²

- 1) A revised schedule for submittal of the West SLAC OU RI Report must be proposed in a revised compliance schedule which is due by April 15, 2010, per Task 15 of CAO No. R2-2009-XXXX
- 2) Per Table 5 of CAO No. R2-2009-XXXX

- 10. In December, 2008, the Dischargers submitted a proposed draft revision to the compliance schedule for all task deliverables in Order No. R2-2005-0022. The Dischargers worked in collaboration with Regional Water Board staff to resolve inconsistencies in the compliance schedule, identify attainable timelines for task deliverables, and develop a rolling milestone approach for implementation.
- 11. The remaining nine tasks contained in Order No. R2-2005-0022, along with the final revised compliance schedule for task deliverables, are now included in Order No. 2009-XXXX. The revised compliance schedule for task deliverables in Order No. R2-2009-XXXX is the same as the time schedule in Table 1 of this Order.

JUSTIFICATION OF THE ORDER

- 12. The Regional Water Board finds that there is a threatened violation of CAO No. R2-2009-XXXX in light of the Dischargers’ past history of delayed compliance with Order No. R2-2005-0022.
- 13. Pursuant to Section 13308(a) of the California Water Code: “If the Board determines there is a threatened or continuing violation of any Cleanup and Abatement Order, Cease and Desist Order, or any Order issued under Section 13267 or 13383, the Board may issue an Order establishing a time schedule and prescribing a civil penalty which shall become due if compliance is not achieved with that schedule.”
- 14. In view of threatened violation of CAO No. R2-2009-XXXX, issuance of a Time Schedule Order under Section 13308(a) of the California Water Code, which establishes tasks, a compliance time schedule, and maximum civil liabilities to be assessed in the event of violation, including delayed compliance, is an appropriate action to ensure timely compliance with CAO No. R2-2009-XXXX.
- 15. According to Section 13308(b) of the California Water Code: “The amount of the civil penalty [in a Section 13308 Order] shall be based upon the amount reasonably necessary to achieve compliance, and may not include any amount intended to punish or redress previous violations. The amount of penalty may not exceed ten thousand dollars (\$10,000) for each day in which the violation occurs.”
- 16. If the Regional Water Board Assistant Executive Officer determines the Dischargers have failed to comply with the time schedule of this Order, it may issue a complaint pursuant to Water Code Section 13323(a) alleging the violation(s) of the time schedule and setting forth the amount of civil liability due

under this Order. The Dischargers may either pay the civil liability or request a hearing before the Regional Water Board. If the Regional Water Board decides to impose the liability, it may impose a liability that is less than the amount prescribed in this Order if it makes express findings setting forth the reasons for its action based on the specific factors to be considered for administrative civil liabilities in Water Code Section 13327 which states:

In determining the amount of civil liability, the regional board, and the state board upon review of any order pursuant to Section 13320, shall take into consideration the nature, circumstance, extent, and gravity of the violation or violations, whether the discharge is susceptible to cleanup or abatement, the degree of toxicity of the discharge, and, with respect to the violator, the ability to pay, the effect on ability to continue in business, any voluntary cleanup efforts undertaken, any prior history of violations, the degree of culpability, economic benefit or savings, if any, resulting from the violation, and other matters as justice may require.

CALIFORNIA ENVIRONMENTAL QUALITY ACT

17. Adoption of this Order will not have any direct or reasonably foreseeable indirect physical change on the environment since it merely prescribes liabilities that will become due if there is non-compliance with Order No. R2-2009-XXXX. As such, this Order is not subject to the California Environmental Quality Act (“CEQA”) pursuant to Cal. Code Regs., tit. 14, Section 15060(c)(2). Even if it were, adoption of the Order falls within the general exemption that CEQA does not apply to activities that have no potential for causing a significant effect on the environments under Cal. Code of Regs., tit. 14, Section 15061(b)(3).

NOTIFICATION

18. The Regional Water Board has notified the Dischargers and interested agencies and persons of its intent under California Water Code Section 13308 to adopt a Time Schedule Order for the discharge and has provided them with the opportunity for a public hearing and an opportunity to submit their written comments.

PUBLIC HEARING

19. The Regional Water Board, at a public meeting, heard and considered all comments pertaining to this discharge.

IT IS HEARBY ORDERED, pursuant to Section 13308, of Division 7 of the California Water Code that the Dischargers, their assigned agents, successors and assigns, must complete the tasks described in accordance with the task schedule specified in Table 1 of this Order. In the event of non-compliance with a task or task schedule, civil liability up to the prescribed maximum shall accrue on each day after the due date until the task is completed.

A. TASKS

1. **Environmental Baseline Report:** Completed
2. **Proposed Land Use and Development Plan:** Completed
3. **Public Participation Plan:** Completed
4. **Remedial Investigation/Feasibility Study (RI/FS) Workplan and Implementation Schedule:** Completed
5. **Remedial Investigation (RI) Report**

COMPLIANCE DATE FOR TASK 5: In accordance with Table 1

MAXIMUM CIVIL LIABILITY FOR TASK 5: Up to \$10,000 each day the report is late not to exceed the actual cost of compliance

6. **Baseline Human Health and Ecological Risk Assessment:**

COMPLIANCE DATE FOR TASK 6: In accordance with Table 1

MAXIMUM CIVIL LIABILITY FOR TASK 6: Up to \$10,000 each day the report is late not to exceed the actual cost of compliance

7. **Feasibility Study (FS) Report:**

COMPLIANCE DATE FOR TASK 7: In accordance with Table 1

MAXIMUM CIVIL LIABILITY FOR TASK 7: Up to \$10,000 each day the report is late not to exceed the actual cost of compliance

8. **Remedial Action Plan (RAP):**

COMPLIANCE DATE FOR TASK 8: In accordance with Table 1

MAXIMUM CIVIL LIABILITY FOR TASK 8: Up to \$10,000 each day the report is late not to exceed the actual cost of compliance

9. Remedial Design (RD) Report:

COMPLIANCE DATE FOR TASK 9: In accordance with Table 1

MAXIMUM CIVIL LIABILITY FOR TASK 9: Up to \$10,000 each day the report is late not to exceed the actual cost of compliance

10. Operation and Maintenance (O&M) Plan:

COMPLIANCE DATE FOR TASK 10: In accordance with Table 1

MAXIMUM CIVIL LIABILITY FOR TASK 10: Up to \$10,000 each day the report is late not to exceed the actual cost of compliance

11. RAP Implementation Report:

COMPLIANCE DATE FOR TASK 11: In accordance with Table 1

MAXIMUM CIVIL LIABILITY FOR TASK 11: Up to \$10,000 each day the report is late not to exceed the actual cost of compliance

12. Risk Management Plan (RMP):

COMPLIANCE DATE FOR TASK 12: In accordance with Table 1

MAXIMUM CIVIL LIABILITY FOR TASK 12: Up to \$10,000 each day the report is late not to exceed the actual cost of compliance

13. Five-Year Review Report:

COMPLIANCE DATE FOR TASK 13: In accordance with Table 1

MAXIMUM CIVIL LIABILITY FOR TASK 13: Up to \$10,000 each day the report is late not to exceed the actual cost of compliance

14. Investigation, Remediation, and Closure Protocol for Newly Discovered Sites, Deferred Areas, and Land Use Changes:

COMPLIANCE DATE FOR TASK 14: In accordance with Table 1

MAXIMUM CIVIL LIABILITY FOR TASK 14: Up to \$10,000 each day the report is late not to exceed the actual cost of compliance

15. Compliance Schedule for Submittal of the West SLAC/Campus Area/IR-8 Drainage OU Remedial Investigation Report:

COMPLIANCE DATE FOR TASK 15: April 15, 2010

MAXIMUM CIVIL LIABILITY FOR TASK 15: Up to \$10,000 each day the report is late not to exceed the actual cost of compliance

I, Bruce H. Wolfe, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on October 14, 2009.

Bruce H. Wolfe
Executive Officer

Attachments:

Table 1 - Compliance Schedule for Task Deliverables

Table 1 - Compliance Schedule for Task Deliverables per Order No. R2-2009-XXXX

Task	Task Title	Due Date for Submittal of Final Report ^{1,2}			
		GW VOC OU	Tritium OU ⁵	West SLAC Campus Area IR-8 OU	Research Yard/SSRL IR-6 OU
1-4	Complete				
5	Remedial Investigation (RI) Report	Complete	Complete	TBD ⁸	26 June 2010
6	Baseline Human Health & Ecological Risk Assessment	Complete	N/A(P) ⁵	194 days from Task 5 approval ³	208 days from Task 5 approval ³
7	Feasibility Study (FS) Report	19 November 2009	N/A(P) ⁵	260 days from Task 6 approval ³	306 days from Task 6 approval ³
8	Remedial Action Plan (RAP)	216 days from Task 7 approval ³	N/A(P) ⁵	216 days from Task 7 approval ³	296 days from Task 7 approval ³
9	Remedial Design (RD) Report	216 days from Task 8 approval ⁴	N/A(P) ⁵	216 days from Task 8 approval ⁴	TBD ⁷
10	Operation and Maintenance Plan	526 days from Task 9 approval ³	03 February 2010 ⁶	466 days from Task 9 approval ³	TBD ⁷
11	RAP Implementation Report	571 days from Task 9 approval ³	N/A(P) ⁵	536 days From Task 9 approval ³	TBD ⁷
12	Risk Management Plan	171 days from Task 11 approval ³	N/A(P) ⁵	216 days from Task 11 approval ³	TBD ⁷
13	5-Year Review Report	5 years from first OU Task 11 approval ³			
14	Protocol for Newly Discovered Sites, Deferred Areas, and Land Use Changes	01 June 2010			
15	West SLAC OU RI Compliance Schedule	N/A	N/A	15 April 2010	N/A

N/A(P) – Not Applicable at Present; TBD – To Be Determined

- 1) Due dates apply to submittal of final reports that are acceptable to the Assistant Executive Officer. Due dates account for a 60-day Regional Water Board staff review and comment period for draft documents, and a 46-day comment resolution/document finalization period.
- 2) Task deliverables may be combined (e.g., the Final RAP and Remedial Design) where the process does not rely on a series approval relationship.
- 3) The approval date is the date of the Assistant Executive Officer letter approving or conditionally approving the final report and indicating that the task deliverable is deemed complete.
- 4) The Task 8 (RAP) approval date is the date that the Regional Water Board Assistant Executive Officer approves the RAP after any necessary CEQA review.
- 5) The Final RI Report for the Tritium OU, approved June 12, 2009, identified remaining low levels of tritium in groundwater below the MCL and concluded that no remedial action is necessary at this time other than continuing long term monitoring to assess any changes to current conditions. Stanford is independently conducting a risk assessment associated with tritium at this OU. Therefore, Tasks 6-9 and 11-12 are not applicable at present for the Tritium OU.
- 6) Based on the findings of the Tritium OU RI report, the Task 10 submittal will consist of a Monitoring Plan only.
- 7) The Remedial Action Plan for the Research Yard/SSRL IR-6 OU must include a time schedule for deliverables required for Tasks 9-12.
- 8) As specified in Task 15, a revised schedule for submittal of the West SLAC OU RI Report is due no later than April 15, 2010.

APPENDIX B

STANFORD
UNIVERSITY

OFFICE OF THE PRESIDENT
William Madia
Stanford University VP for
SLAC National Accelerator Laboratory



Telephone (650) 926-8757
Facsimile (650) 926-8709
madia@stanford.edu

September 3, 2009

Mr. Bruce H. Wolfe
Executive Officer
California Regional Water Quality Control Board
San Francisco Bay Region
151 Clay Street, Suite 1400
Oakland, California 94612

RE: Tentative Orders – Time Schedule Order Prescribing Administrative Liability and Updated Site Cleanup Requirements and Rescission of Order No. R2-2005-0022 for the Stanford Linear Accelerator Center—National Accelerator Laboratory
2575 Sand Hill Road, Menlo Park, San Mateo County

Dear Mr. Wolfe:

Stanford University appreciates the opportunity to provide comments on the two Tentative Orders issued to the Department of Energy and Stanford University for the SLAC National Accelerator Laboratory located in Menlo Park, for public review.

The University fully supports the changes to the Site Cleanup Requirements Order which are needed to show the progress we have made over the last four years and to clarify and identify what needs to be done for cleanup of the site for future unrestricted uses. We appreciate the hard work and careful attention that the Water Board staff has given to these documents. Stanford has a few comments on both Orders and we believe it is important for the Water Board to consider and incorporate these into the revised Orders:

Facility Name

The official name of the facility is called the SLAC National Accelerator Laboratory, the name was changed 2008. Both Orders should be changed to reflect the new name.

Time Schedule Order Prescribing Administrative Liability

In addition to the Site Cleanup Order, the Water Board issued an enforcement order called a ‘Time Schedule Order Prescribing Administrative Civil Liability’. This Order prescribes the maximum civil liability for non-compliance with the tasks and scheduled contained in the 2009 Site Cleanup Requirements Order. According to Justification 15, the amount of penalty may not exceed ten thousand dollars (\$10,000) for each day that a violation that occurs (i.e. each day that any deliverable under the Order is late).

Stanford and DOE have worked with the Water Board through our Core Team, which is a collaborative process that has kept the Water Board fully abreast of all issues since the issuance of the original order in May 2005. Because of our past efforts which have included the Board along every step of the way, we believe that the Time Schedule Order is not necessary. Further, the establishment of Task deliverable due dates based on the Water Board approval of the final reports places Stanford University and DOE at risk since neither Stanford University nor DOE has control over the timing of the Water Board deliverable review cycle (and public review cycle as applicable) and the final approval process once the deliverable is submitted. For this reason, we respectfully request that the deliverable due dates be revised based on the initial deliverable submittal dates to the Water Board. Moreover, the proposed penalty of \$10,000 per day is excessive and we respectfully request that it be lowered to \$1500 for each day of violation, should the Water Board feel compelled to issue the Time Schedule Order. This lower amount is much more reasonable and in line with what the Board has issued at other similar sites.

We’ve also made a minor text edit on page 3, Regulatory History, item 9, within the Table. We’ve deleted the words “Tritium OU” within the description of RI for the West SLAC/Campus Area/IR-8 Drainage Channel. We believe this was a typo and inadvertently placed within this section. A copy of this order with our comments are attached.

Updated Site Cleanup Requirements and Rescission of Order No. R2-2005-0022

The purpose of this 2009 Site Cleanup Requirements Order is to revise the deadlines for the existing site cleanup order requirements due to non-compliance and rescind the May 2005 Order no R2-2005-0022.

We note the following in the order and request that two additional changes be made:

- On Table 2, we request that the Beam Dump East (BDE) be added to the list of sites that require investigation when practicable. The BDE site was included in the original order under Finding 15 (e) and the Remedial Investigation was submitted and approved by the Board on June 12, 2009. Due to access constraints and facility operations of this unit at this time, this site should be included on this table.

Mr. Bruce Wolfe
SLAC Tentative Orders
September 3, 2009
Page 3 of 3

- Table 4, Under the Tritium Operable Unit, we respectfully request that the following sentence in this section be removed. “Based on the findings of the Tritium OU Remedial Investigation, no further remedial action is proposed at this time except for long term monitoring.” Pending Stanford University’s submittal of the independent Risk Assessment to the Board for consideration, we believe this sentence as stated is premature.

We again appreciate your attention to this important matter and respectfully request that the Water Board make these important changes. Thank you for your consideration of these comments.

Sincerely,



William J. Madia
Vice President, SLAC National Accelerator Laboratory

cc: Steve Porter
Craig Ferguson
Annette Walton

From: "Osugi, David T" <David.osugi@sso.science.doe.gov>
To: ANaagle@waterboards.ca.gov
CC: ERSimon@waterboards.ca.gov; nettie@stanford.edu;
CRAIGF@SLAC.STANFORD.ED...
Date: 7/30/2009 10:04 AM
Subject: RE: SLAC Order Revision draft courtesy review - Take 2

Alec,

Regarding Table 1 and the deliverables for the Tritium OU, based on previous discussions with Erich and previous written correspondence between DOE and the Water Board, the next deliverable following Water Board approval of the RI report (which we have received) for the Tritium OU is a Monitoring Plan Report (MPR) that is due on October 20, 2009. Instead, the proposed Table 1 calls for an O&M report to be submitted in February 2010. The proposed schedule/deliverable for the Tritium OU is different than what has been discussed by the parties up to this point and we are currently working toward the 10/20/09 deliverable date for the MPR.

Please clarify for us. Thank you.

Dave Osugi
Environmental Scientist/ES&H & Facility Operations (EFO)
SLAC Site Office (SSO)
(650) 926-3305
dave.osugi@sso.science.doe.gov

From: "Osugi, David T" <David.osugi@sso.science.doe.gov>
To: ANaagle@waterboards.ca.gov
CC: Hanley.lee@sso.science.doe.gov; hnuckolls@slac.stanford.edu; Paul.Golan@...
Date: 8/10/2009 2:27 PM
Subject: RE: SLAC Order - Redline/Strikeout Version

Alec,

Thanks you for the opportunity to comment. We are in the process of reviewing the draft and any comments will be provided during the comment period.

With regard to Stanford's recent comments on land use, it is our position that land use has already been addressed in the Long Range Development Plan (LDRP) approved by the Board and clarified sufficiently in subsequent correspondence to DOE and Stanford. As future land use is primarily a landowner issue with potentially significant impacts on DOE's cleanup mission at SLAC, we do not feel it is appropriate for the Board Order to define land use in the precise manner as stated in Stanford's comments.

Also, this issue is one that is currently being addressed between DOE and Stanford as part of ongoing lease negotiations and therefore, any language proposed in this area as part of the order language could have a significant impact on those negotiations.

We believe that in order to be consistent with the approach such issues are typically handled by the regulatory agencies, there should not be any significant change to the original language.

Thank you.

Dave Osugi
SLAC Site Office

From: "Bazzell, Kevin" <Kevin.Bazzell@emcbc.doe.gov>
To: ERSimon@waterboards.ca.gov; dave.osugi@sso.science.doe.gov;
ANauble@wate...
CC: "Bazzell, Kevin" <Kevin.Bazzell@emcbc.doe.gov>
Date: 8/11/2009 4:04 PM
Subject: RE: SLAC Order Revision draft courtesy review - Take 2

Alec/Erich,

I am somewhat confused by the new West SLAC OU definition and what is now expected under the Board Order Deliverables. Can you help us better understand what you are looking for as it relates to the Remedial Investigation Report, as that is the first Deliverable, and if it is more than evaluating the IAs and MSSs previously identified within the Environmental Baseline Report Deliverable? Let me know if you would like to meet to discuss further.

Thanks,

Kevin



Department of Energy
Washington, DC 20585

September 4, 2009

Mr. Bruce H. Wolfe
Executive Officer
California Regional Water Quality Control Board
San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, CA 94612

**SUBJECT: Department of Energy Comments on the Draft Time Schedule Order
Prescribing Administrative Liability and Updated Site Cleanup
Requirements and Rescission of Order No. R2-2005-0022 for the
SLAC National Accelerator Laboratory**

Dear Mr. Wolfe:

The purpose of this letter is to formally transmit for your consideration, comments from the U.S. Department of Energy (DOE) on the Time Schedule Order (TSO) Prescribing Administrative Liability and Updated Site Cleanup Requirements (SCR) and Rescission of Order No. R2-2005-0022 for the SLAC National Accelerator Laboratory (SLAC).

The consolidated comments from the DOE Office of Environmental Management and the DOE Office of Science are provided in table format as an enclosure to this letter. Many of the comments have been previously discussed with members of your staff during previous monthly SLAC Core Team meetings. We believe that the Core Team process has been an effective collaborative process for communicating and resolving important issues and concerns since it was initiated in 2005.

DOE does agree that the existing SCR for SLAC issued in May 2005 requires revisions that more accurately reflects the progress and accomplishments to date as well as the current strategy and path forward for achieving the mutually agreed upon environmental cleanup objectives. We also wish to specifically highlight those enclosed comments that are related to ensuring that the scope of the individual deliverables for each Operable Unit is clear and well-defined and that inconsistencies identified in the previously approved implementation schedule and deliverables have been addressed. The successful resolution of these and other issues in the SCR and TSO will help ensure that DOE and Stanford University are able to meet their regulatory commitments and cleanup goals under the order. DOE requests that you reconsider the proposed maximum penalty of \$10,000/day as we believe that all parties have worked collaboratively and in good faith to fully communicate and resolve issues through the monthly Core Team meetings. Additionally, we request that the TSO specified fines/penalties only be levied for egregious non-compliance.



Mr. Bruce H. Wolfe

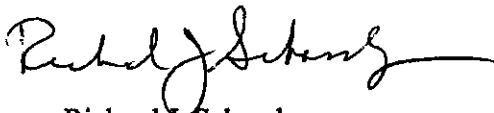
2

September 4, 2009

We would like to acknowledge our appreciation of the manner in which your staff has worked with DOE and Stanford to help ensure continued progress on the environmental remediation project at SLAC and respectfully request consideration of our comments.

Should you have any questions regarding this letter, please feel free to contact Rich Schassburger at (510) 637-1617 or Paul Golan at (650) 926-3208.

Sincerely,



Richard J. Schassburger
Director
Oakland Projects Office



Paul M. Golan
Site Manager
SLAC Site Office

Enclosure

cc w/encl:

William Madia, Stanford University
Alexander Merola, SLAC
Craig Ferguson, SLAC
Steve Porter, SLAC
Annette Walton, SMC
Alec Naugle, SLAC
Erich Simon, RWQCB

DOE Comments on Two Tentative Orders Concerning the Adoption of Site Cleanup Requirements and a Time Schedule for the SLAC National Accelerator Laboratory

Comment #	Location	Description
1	General	<p>The Figures were not included in the document for review.</p> <p>There is no mention of the primary reason that this Order was being changed which was to fix the inconsistencies in the compliance schedule (see new Finding 16). This new wording implies that the dischargers have not been making any progress and “threaten” to stop future progress which is not the case. The Order should acknowledge the proactive and collaborative approach by DOE and Stanford to address inconsistencies in the compliance schedule and clarify the scope of deliverables to the Water Board. DOE and Stanford believe that communication of these issues to the Water Board staff through the monthly Core Team meetings demonstrated good faith efforts by the parties to ensure ongoing progress in complying with all requirements of the Order.</p>
2	Finding 1, Purpose of the Order	<p>The description of how the Operable Units (OUs) were developed is not correct. The IAs and MSSs were initially identified and grouped into the three listed categories. The OUs were created from the IAs and MSSs from the No Further Investigation, Pending Risk Assessment category and the Further Investigation category. Other sites and geographical areas were not part of the OU definition. (See Finding 14, Task 4, last sentence wording.)</p>
3	Finding 13, Remedial Investigations and Remediation Status:	<p>As written, Figure 4 would depict the West SLAC OU as many small distinct areas on the map. If the intent is to provide a general geographic representation of the four OUs, then the description should be something more like Figure 4 shows the general areas that encompass each of the OUs. Figures 5A and 5B could also depict each of the OUs by color coding each of the applicable IAs and MSSs.</p>
4	Finding 13, Remedial Investigations and Remediation Status:, Last paragraph	<p>Task 7 for the Groundwater VOC OU was submitted on March 27, 2009 and should, therefore, be considered complete. The existing Time Schedule for Implementation describes dates for document submittals for Executive</p>
5	Finding 14, Completed Tasks, Tasks 7-13	

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	Officer approval as opposed to the new Order which is based on submittal of final reports.
6	<p>Finding 14, Completed Tasks, Task 5, Task 6 and Tasks 7-13</p> <p>The West SLAC OU and Research Yard bullets as well as the last sentence of the Tasks 7-13 paragraph contain language that states that the applicable task(s) has not been complete and is now required by the Order. This sentence implies that these Tasks were not required by the existing Order which is not the case. Please clarify why this sentence is needed.</p>
7	<p>Finding 17, General</p> <p>The Order language does not reflect data on poor natural background groundwater quality (i.e., high TDS, low yield) at SLAC. These natural groundwater conditions at SLAC serves as a basis for possible future Water Board consideration of exceptions to the drinking water beneficial use allowable under SB 88-63.</p>
8	<p>Finding 23, General</p> <p>A required CEQA analysis by the Water Board could potentially impact schedules and deliverables once the final remedy is selected. The proposed schedule in Table 5 may not take this project schedule impact into consideration.</p>
9	<p>Order Section B. Task 5 Remedial Investigation (RI) Report</p> <p>This section has been revised to potentially change the definition of the West SLAC OU. Sentence 3 now refers to an OU footprint. Since the OU was created from a list of IAs and MSSs (See Finding 14 wording) the footprint would just be areas within each of the IAs and MSSs that make up the OU. If the change was intended to include additional areas or storm drain networks then the wording needs to be changed or the OU definition adjusted accordingly.</p>
10	<p>Order Section B. Task 18 Evaluation of New Health Criteria</p> <p>This section discusses the impact of establishing new cleanup standards on schedules and milestones. Recent identification of changes to the lead standard need to be evaluated to determine impact on the proposed schedule and deliverables per this section of the Order.</p>
11	<p>Order Section B. Task 19</p> <p>The revised wording does not address the process which should be followed</p>

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	Delayed Compliance	if the delay, interruption, etc., is for good cause. Given that the Water Board believes that there is a need for a new Time Schedule Order, there should be an agreed to process which can be followed if a deadline will not be achieved for a good cause.
12	Order Section C, Item 5 Access to Site and Records	Access to the federal facilities is subject Access Restrictions. Subject to such restrictions, access to SLAC will not be unreasonably withheld.
13	Table 2, Investigation Areas and Miscellaneous Soil Sites at SLAC that Require Further Investigation When Practicable	The Portola Valley Training Center (PVTC) facility is not located within the SLAC facility boundary and should be removed from Table 2. Determination of responsibility for cleanup activities at the PVTC location was previously deferred by the Water Board pending further evaluation of the PVTC data presented by DOE and SLAC and clarification of responsibility. A SLAC presentation on historical data collected at the PVTC site was presented to the Core Team and is documented in Core Team meeting minutes.
14	Table 4, West SLAC OU, middle column	See Comment #6 regarding OU footprint wording. As written, the concern is that residual contamination can migrate from the OU IAs and MSSs and impact the IR-8 Drainage Channel. If the intent is to include additional evaluation within the West SLAC OU deliverables, then the wording must change or the OU definition must change.
15	Table 5, Task 5, West SLAC Campus Area IR-8 OU	This date is unachievable if the OU definition changes from the existing definition which was referred to in Finding 14. Basically, specific IAs and MSSs were grouped into the OU.
16	Table 5, Task 8 General	The time durations do not take into consideration the public process which occurs for this deliverable.
17	Table 5, Task 10, Tritium OU	The implementation schedule and deliverables for the Tritium OU were documented in both the August 14, 2008 letter from Stanford and DOE to the Water Board and the December 12, 2008 letter to the Water Board transmitting the Tritium OU RI report. The process for submitting a

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	<p>Monitoring Plan Report (MPR) in lieu of an O&M plan was also discussed with the Water Board in previous Core Team meetings and documented in Core Team minutes. The MPR is on schedule to be submitted to the Water Board by October 20, 2009.</p>	
18	<p>Table 5, Note 1</p>	<p>The due dates should be based on the initial submittal by the Dischargers instead of a final document ready for approval. The process for ensuring the final document is outside of the Dischargers control since it requires Water Board reviews and agreement with comment resolution. This is especially important with the development of the new Time Schedule Order. The level of potential fines and penalties are substantial and should not apply to deliverables which are partially outside of the control of the Dischargers.</p>
19	<p>Time Schedule Order</p>	<p>There is no mention of the primary reason that this Order was being changed which was to fix the inconsistencies in the compliance schedule (see new Finding 16). DOE and Stanford have been working collaboratively with RWQCB staff through the monthly Core Team meetings to clarify these inconsistencies in the implementation schedule and deliverables; therefore, DOE and Stanford believe that the \$10,000/day maximum penalty should be applied only in cases of egregious non-compliance by the parties. Additionally a process should be developed to address those times when a deadline is missed based on a reasonable cause or where good progress has been achieved.</p>

APPENDIX C

Water Board staff responses to comments submitted by Stanford University and the U.S. Department of Energy (DoE) on the draft Tentative Time Schedule Order for the SLAC-National Accelerator Laboratory - October 6, 2009

From	Date	#	Location/ Description	Text	Responses
Annette Walton - Stanford	9/3/2009	1	TSO	The official name of the facility is called the SLAC National Accelerator Laboratory, the name was changed 2008. Both Orders should be changed to reflect the new name.	Acknowledged. Name has been changed accordingly.
Annette Walton - Stanford	9/3/2009	2	TSO	Stanford and DOE have worked with the Water Board through our Core Team, which is a collaborative process that has kept the Water Board fully abreast of all issues since the issuance of the original order in May 2005. Because of our past efforts which have included the Board along every step of the way, we believe that the Time Schedule Order is not necessary.	Comment acknowledged. We have revised the purpose of the order to acknowledge the active cooperative process that the Dischargers and Regional Water Board staff are engaged in. However, to ensure timely compliance with cleanup requirements for this facility, which has both private and federal entities as co-dischargers, we have determined there is a need for a Time Schedule Order.
Annette Walton - Stanford	9/3/2009	3	TSO	The establishment of Task deliverable due dates based on the Water Board approval of the final reports places Stanford University and DOE at risk since neither Stanford University nor DOE has control over the timing of the Water Board deliverable review cycle (and public review cycle as applicable) and the final approval process once the deliverable is submitted. For this reason, we respectfully request that the deliverable due dates be revised based on the initial deliverable submittal dates to the Water Board.	Acknowledged. However, it is Regional Water Board practice to require tasks that are acceptable to the Assistant Executive Officer, which can only be determined after staff has reviewed the required submittal. Making the approval date the date that the document is submitted by the Discharger will not ensure compliance with site cleanup requirements. Stanford and DOE are responsible for submitting a report that addresses the substantive requirements of each task. Furthermore, the due dates included in the draft Tentative Order account for a 60-day agency review period and a 46-day document revision period.
Annette Walton - Stanford	9/3/2009	4	TSO	Moreover, the proposed penalty of \$10,000 per day is excessive and we respectfully request that it be lowered to \$1,500 for each day of violation, should the Water Board feel compelled to issue the Time Schedule Order. This lower amount is much more reasonable and in line with what the Board has issued at other similar sites.	Comment acknowledged. As indicated in Finding 15 of the TSO, Section 13308(b) of the California Water Code states: "The amount of the civil penalty [in a Section 13308 Order] shall be based upon the amount reasonably necessary to achieve compliance , and may not include any amount intended to punish or redress previous violations. The amount of penalty may not exceed ten thousand dollars (\$10,000) for each day in which the violation occurs." Additional language was added to Finding 16 to clarify the determination of civil liabilities. Furthermore, the words "up to" were added to the Maximum \$10,000 per day civil liability for each Task.

Water Board staff responses to comments submitted by Stanford University and the U.S. Department of Energy (DoE) on the draft Tentative Time Schedule Order for the SLAC-National Accelerator Laboratory - October 6, 2009

From	Date	#	Location/ Description	Text	Responses
Annette Walton - Stanford	9/3/2009	5	TSO	We've also made a minor text edit on page 3, Regulatory History, item 9, within the Table. We've deleted the words "Tritium OU" within the description of RI for the West SLAC/Campus Area/IR-8 Drainage Channel. We believe this was a typo and inadvertently placed within this section A copy of this order with our comments are attached.	Agreed. The words "Tritium OU" have been removed from the requested section.
DOE	9/8/2009	1	TSO	There is no mention of the primary reason that this Order was being changed which was to fix the inconsistencies in the compliance schedule (see new Finding 16). DOE and Stanford have been working collaboratively with RWQCB staff through the monthly Core Team meetings to clarify these inconsistencies in the implementation schedule and deliverables; therefore, DOE and Stanford believe that the \$10,000/day maximum penalty should be applied only in cases of egregious non-compliance by the parties. Additionally, a process should be developed to address those times when a deadline is missed based on a reasonable cause or where good progress has been achieved.	Acknowledged. Finding 1 (purpose) of the tentative order has been revised accordingly. Regarding the maximum penalty, as indicated in Finding 15 of the TSO, Section 13308(b) of the California Water Code states: "The amount of the civil penalty [in a Section 13308 Order] shall be based upon the amount reasonably necessary to achieve compliance , and may not include any amount intended to punish or redress previous violations. The amount of penalty may not exceed ten thousand dollars (\$10,000) for each day in which the violation occurs." See additional language added to Task 16 regarding delayed compliance and assessment of civil liabilities. Language addressing delays for good cause is more appropriately included in Task 20 of the Revised Tentative Order. See also response to Stanford's Comments #2 and #4 on the TSO, and Response to DOE comments #2 and #18 on the Tentative Order.