

Consent Order Overview

INTRODUCTION

1.1. Parties.

DTSC, DOE and NASA

1.2. Background.

Background information related to the site that sets the context for the agreement.

1.3. Authorities.

1.3.1 DTSC Authority

1.3.2. NASA and DOE Authority **

1.3.3. DOE's Additional Statement of Authorities. **

v.1.9

DOE agrees to cooperate with implementation of this amended Consent Order. Therefore, DOE agrees to comply with and be bound by the terms and conditions of this Order

v.2.0

- **DOE to provide DTSC with information required by this Consent Order in a timely manner, including information concerning radioactive contamination in Area IV, the northern undeveloped land, and any other radioactive contamination at the site that originated from DOE operations in Area IV**
- **DOE shall also provide all information developed in its preparation of the Environmental Impact Statement for Area IV**
- **DOE to exercise its CERCLA and AEA authorities through a process to determine an appropriate remedy to clean up radioactive contamination in Area IV, the northern undeveloped land, and any other radioactive contamination at the site that originated from DOE operations in Area IV**
- **This process is to include the rural and suburban residential future land use scenario consistent with SB 990. DOE will involve the public in that process.**

1.3.4. No interference with other authorities (Regional Board, local agencies)

1.4. Definitions

1.5. Attachments (considered part of the order)

1.6. Denial of Liability; Reservation of Rights; No Admissions **

DTSC does not waive the right to take further enforcement actions

**Respondents do not admit or consent to the constitutionality, legality, enforceability, or validity of SB 990
DTSC asserts that SB 990 is constitutional, legal, enforceable and valid**

FINDINGS OF FACT

- 2.1. U.S.EPA RCRA Activities
- 2.2. DTSC RCRA Activities
- 2.3. Site Characterization on two paths: Soils/Surface and Groundwater
- 2.4. Boeing required to implement a DTSC-approved Site Characterization Plan
 - 2.4.1 DOE enjoined until completion of EIS
 - 2.4.2. Sage Ranch I&SE order
 - 2.4.3. U.S. EPA PA/SI and recommendation for listing
 - 2.4.4. 2007 DTSC/Boeing/DOE/NASA Consent Order for Corrective Action
 - 2.4.5. DOE and U.S. EPA signed an interagency agreement to conduct a comprehensive radiological site characterization for Area IV.
 - 2.4.6. DOE's completion of the EIS is dependent on U.S.EPA's completion of the radiological survey of Area IV
 - 2.4.7. SB 990 – Restatement of provisions in SB 990
- 2.5. Acknowledgement that human and ecologic exposures to chemicals and radionuclides may exist either onsite or offsite - Conceptual site model and Standardized Risk Assessment Methodology.
- 2.6. Types of chemicals expected
 - 2.6.1. COCs for the nine closed surface impoundments
- 2.7. Numerous groundwater investigations - Trichloroethylene (TCE) and radionuclides in groundwater.
- 2.8. The SSFL geographic setting
- 2.9. Surface water drainage
- 2.10. Drinking water supply at the SSFL provided by the Calleguas Water Company.
- 2.11. Site conditions
 - Hazardous substances released from operations at the SSFL have migrated or may migrate into soil, surface water, air, and groundwater.
 - Potential exposures to hazardous substances can occur from direct contact with soils, sediments, weathered bedrock, surface water, air, and groundwater, and by ingestion of plants and animals if any were grown or raised on the Site.
 - **The Site is currently not used for growing or raising plants or animals.**

WORK TO BE PERFORMED

- 3.1.
 - DTSC to require and oversee site investigation and remediation under the State Superfund requirements.

- The processes and terminology of Chapter 6.5 and Chapter 6.8 shall be deemed functionally equivalent under this Consent Order.
- All corrective action work for the Site performed prior to the Effective Date shall be deemed sufficient under this Consent Order
- **No modifications of any submittals under the prior Consent Order shall be required, except and only to the extent that modifications are required by SB 990, or to the extent that new information indicates that modifications are necessary.**
- Except as specified in this Order, Respondents shall perform the work required by this Order **in a manner consistent with** the DTSC-approved workplans (RI and RFI, Feasibility Study, Response Action Implementation Plan, any other DTSC approved workplans), **SB 990**, other applicable State and federal laws and their implementing regulations, and applicable DTSC and U.S. EPA guidance documents, to the extent the guidance documents are consistent with SB 990 as spelled out under this Order.

3.1.1. Chemicals of human and ecological concern, and radionuclides of human and ecological concern for input into human health and the ecologic risk assessments shall be determined following methods outlined in the SRAM (Rev. 3).

3.2. Response Action Schedule.

3.2.1. All parties desire to expedite the completion of the investigation and implementation of the final remedy **so that the Site can be returned to beneficial use as soon as practicable** - critical objective of the schedule is to remediate contaminated soils by 2017. Within 90 days of the effective date of the Order, Respondents to submit a revised schedule for completion of all of the the following by June 30, 2017:

- Completion of DTSC-approved remedies for contaminated soils and weathered bedrock.
- Completion of construction of DTSC-approved groundwater cleanup remedies in the Chatsworth Formation OU and Surficial Media OU.
- Completion of construction of any DTSC-approved **long-term soil and weathered bedrock cleanup remedy in the Surficial Media OU and unweathered bedrock cleanup remedy in the Chatsworth Formation OU.**

Upon approval by DTSC, all parties to the Order to comply with the approved schedule.

3.2.2. Historical Site Assessment (Review)

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Respondents to prepare and submit to DTSC for review and approval a comprehensive historical site assessment (HSA) of all operations in Areas I and II involving the management of radioactive materials

v.2.0

Respondents to conduct a review regarding use and management of radioactive materials in Areas I and II

3.2.3. Workplan for Preliminary Assessment of Presence of Radionuclides

NASA to prepare and submit a preliminary assessment workplan to determine if radionuclide contamination is present in **Areas I and II**

- 3.2.3.1. The workplan shall provide information on the scope, type, quantity and location of use of radioactive materials in Areas I and II to classify areas **as either Class 1, Class 2, Class 3 or non-impacted according to Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM)**
- 3.2.3.2. Much of Areas I and II is either precipitous, rocky cliffs, steep hillsides or dense vegetation with no ready access.

3.2.4. Standardized Risk Assessment Methodology for Radionuclides and Chemicals.

Respondents to prepare a Standardized Risk Assessment Methodology for Radionuclides and Chemicals (SRAM (Rev. 3))

- To incorporate the suburban residential **(and open space (recreational))** and ecological exposure evaluations of SRAM (Rev. 2).
 - **To identify and quantify estimated ecological and cumulative human risks associated with both chemicals and radionuclides at the Site, consistent with the requirements of SB 990.**
 - **To include suburban residential (and open space (recreational)) from SRAM (Rev. 2) as well as the rural residential (agricultural) land use scenarios.**
 - **To estimate chemical risk- based screening levels (RBSLs) and cumulative radionuclide and chemical risk for human receptor**
 - **May incorporate the open space (recreational) exposure evaluations since the Respondents may elect to perform this evaluation for comparison purposes.**
 - **Subject to public review and comment before approval by DTSC.**
- 3.2.4.1. Respondents to submit a revised Site Conceptual Model (SCM) of potential exposure pathways to **include potential exposures to radionuclides and chemicals.**
- 3.2.4.2. Consideration of Background
If the concentrations chemical or radionuclides are consistent with background concentrations, those chemicals and radionuclides are to be excluded from further evaluation.

3.2.5. Compliance with SB 990

- **SB 990 specifies a risk based approach to remediation.**
- Risk calculations shall be used to determine the response action necessary to achieve acceptable risk levels
- SRAM (Rev. 3) shall be used to calculate risk
- **Declares that the standards and approach set forth in sections 3.2.5 through 3.2.5.6 ARE CONSISTENT AND COMPLIANT with the requirements of SB 990**
- **Sections 3.2.5.1 through 3.2.5.6 outline elements of SRAM (Rev. 3), specify the standards governing the application of SRAM (Rev. 3), and cite guidance documents that Respondents shall use in meeting the requirements of SB 990.**

3.2.5.1. Human Health Risk Range and Point of Departure.

- According to the NCP, acceptable exposure levels are generally concentration levels that represent an excess upper bound lifetime cancer risk to an individual of between 10^{-4} and 10^{-6} .
- The 10^{-6} risk level shall be used as the point of departure for determining cleanup goals
- Respondents shall use the 10^{-6} cumulative risk level as the point of departure for determining remediation goals for cancer causing chemicals and radionuclides
- **RBSLs for chemicals and the Preliminary Remediation Goals specified in SB 990 for radionuclides will be used as SCREENING levels**

3.2.5.2. Human Health Risks Incremental to Background

- **The estimated chemical and radionuclide cumulative cancer risk shall be compared to cumulative risk at background levels.**
- **Cleanup of chemicals and radionuclides at or below background concentrations shall not be required.**
- **Risk management decisions shall be determined by comparison of site cumulative risk to background cumulative risk.**

3.2.5.3. Detection Limits.

- **Use detection limits for radiologic constituents used by U.S.EPA in their background study.**
- **Reporting limits for chemicals shall be the lowest reasonably attainable**
- Detection limits and (chemical) reporting limits will be specified in SRAM (Rev. 3)
- **If a PRG or RBSL is below the limit of detection (for radionuclides) or the reporting limit (for chemicals), cleanup below that is not required.**

3.2.5.4 Reasonable Maximum Exposure

(v. 1.9)

- **For the rural residential (agricultural), RME conditions shall be the exposure assumptions used in the derivation of the PRGs specified in section 2.4.7 of this Order.**
- **The evaluation of the suburban residential and recreational scenario shall be consistent with procedures in the SRAM (Rev. 2)/to be incorporated into SRAM (Rev. 3).**

(v. 2.0)

- **Reasonable maximum exposure (RME) shall be calculated as described in USEPA Risk Assessment Guidance for Superfund, Volume 1, Part A, Chapter 6, Section 6.4.1, "Quantifying the Reasonable Maximum Exposure" (EPA/540/1-89/002).**
- **RMEs shall be calculated using exposure point concentrations. Exposure point concentrations shall be calculated, as specified in SRAM Rev. 3, and shall consider, as a minimum, the 95% UCL (upper confidence level) of the mean concentrations using U.S.EPA's statistical software program "Scout Version 1.00.01".**

3.2.5.5. Exposure Point Concentrations.

- **Risk assessments performed for both radionuclides and chemicals shall be based on exposure point concentrations**
- **Estimated using U.S.EPA's statistical software program "Scout Version 1.00.01"**
- **Potential hotspots to be evaluated as described in SRAM (Rev. 3)**
- **"Hot spot" evaluation to be presented in each RFI/RI report.**

3.2.5.6. Human Exposure Pathways and Parameters

- **Exposure pathways and parameters for both chemicals and radionuclides used in the development of the rural residential (agricultural) exposure scenarios shall be those used by U.S. EPA in the derivation of the rad PRGs specified in SB 990, except that chemical-specific exposure pathways and parameters shall be added or modified WHERE APPROPRIATE**

- **The evaluation of the suburban residential scenario for radionuclides and cumulative risk shall be consistent with methods to be specified in SRAM Rev. 3.**
- **Evaluation of the open space (recreational) exposures may be performed by the Respondents for comparison purposes**
- **Risks due to surface soils using top two feet of soil**
- **Risks due to subsurface soils using top 10 feet of soil**
- The use of groundwater from beneath the SSFL shall be considered an incomplete exposure pathway if groundwater use is restricted through institutional controls
- **An appropriate remedy to address groundwater contamination shall be approved by DTSC.**
- **Direct exposures via seeps and springs, and indirect exposures via plant uptake and soil vapor at locations where the depth to groundwater is less than six feet shall be considered completed exposures pathways.**

3.3. Interim Response Actions (IRAs).

3.3.1

- List of IRAs already completed
- Respondents shall assess the need for additional IRAs
- IRAs are used to control or abate immediate threats to human health or the environment and to prevent or minimize the spread of contaminants while long-term response action alternatives are being evaluated.
- The completion of an IRA does not eliminate the area from further assessment

3.3.2. If Respondents discover an immediate or potential threat to human health or the environment, notify DTSC within 48 hours of discovery

3.3.3. If DTSC discovers an immediate or potential threat to human health or the environment, to notify Respondents in writing.

3.3.4. All IRA workplans shall ensure that the IRAs are designed to mitigate current or potential threats to human health or the environment and be consistent with the objectives of, and contribute to the performance of, all final remedies

3.3.5. Respondents to submit Health and Safety Plans with IRA workplans.

3.4. Remedial Investigation (RI).

3.4.1.

- The Parties acknowledge that significant investigation and analysis has already occurred

- **Unless they need to be amended or modified to comply with SB 990, RFIs may be used by Respondents in their development of the RI/FS for each OU:**

3.4.2.

- Respondents shall submit RI Reports for the Surficial Media OU.
- SSFL has been divided into 11 Surficial Media OU Group Reporting Areas
- An Ecologic Large Home Range report shall also be prepared

3.4.3. The comprehensive Surficial Media OU RI Reports shall summarize the findings from all investigative phases and areas of the SSFL.

3.4.4. Each Respondent shall submit historical records and documentation along with each Surficial Media OU RI Report in searchable electronic format.

3.4.5. Respondents to submit other documents in a separate historical report

3.4.5.1. Provision for confidential business information

3.4.5.2. Order doesn't require Respondents to disclose or provide information to DTSC that is otherwise protected (attorney client)

3.4.6. Signature and Certification that a reasonable search has been conducted for historical records.

3.4.7. Reports to be submitted in electronic and hard copy

3.4.8. Respondents to index all investigative reports, workplans, technical memoranda, and supporting historical records so as to be searchable, using key words

3.4.9. Assessment of Potential Debris Areas Contiguous to SSFL

- Submit workplan for the evaluation of potential debris disposal areas outside the boundaries of the Facility
- If any wastes **from SSFL operations** are discovered outside the current boundaries of the Facility, Respondents to submit workplans for response action, and implement those workplans within 180 days of approval by DTSC.

3.4.10. If DTSC determines, based on its evaluation of the Offsite Data Evaluation Report submitted by Respondents that additional work is required, DTSC shall notify Respondents of that work.

3.4.11. Respondents to provide updates to base maps, shape files, and SSFL-related chemical and radiological data for the GIS mapping data base annually until all response actions are completed.

3.4.12. Respondents to prepare a Chemical Background Study Workplan – coordinated with U.S. EPA’s background survey of radioactive materials

3.4.13. Respondents to submit a draft Sitewide Groundwater Remedial Investigation (RI) Report for the Chatsworth Formation Operable Unit in accordance with the January 2008 Work Plan

3.4.14. Respondents to record, or cause to have recorded, a prohibition, to run with the land, on the use of the groundwater underlying the Facility

3.5. Feasibility Study (FS)

3.5.1. Respondents to prepare and submit FS workplans for the Surficial Media OU and Chatsworth Formation OU

3.5.2. The FS workplans are to detail the methodology for developing and evaluating potential response action measures to remedy chemical and radionuclide contamination at the Site utilizing the SRAM (Rev.3).

3.5.3. Respondents are to complete treatability studies for the viable potential response action technologies that involve treatment except where Respondents can demonstrate that treatability studies are not needed.

3.5.4. Respondents to submit FS Reports to DTSC for approval in accordance with the approved schedule.

- **DTSC to review and approve or disapprove within 30 days.**
- FS reports must summarize the results of the treatability studies and response action objectives
- **FS to include an evaluation of alternatives based on the nine balancing criteria (NCP), and additional State Superfund criteria**

3.5.4.1. Imported fill – If imported fill results in risks exceeding final cleanup levels, DTSC to consider feasible alternatives identified through the application of the NCP criteria

3.5.5. Impact on Resources - DTSC agrees to consider specific factors in its evaluation of Respondents’ work:

- Emissions footprint
- natural capacity conservation and restoration
- resource conservation and usage
- **In addition Respondents and DTSC shall further examine the net benefit associated with any remedies under consideration including U.S.EPA Green Remediation guidance**

3.6. Remedy Selection

3.6.1. Respondents shall prepare a draft Response Action Plan (RAP). **The draft RAP shall be consistent with the NCP and Health and Safety Code sections 25356.1 and 25356.1.5.**

The draft RAP to be based on and summarize the approved RI/FS reports, and include:

- (a) health and safety risks posed by the conditions at the Site;**
- (b) the effect of contamination or pollution levels upon present, future, and probable beneficial uses of contaminated, polluted, or threatened resources**
- (c) the effect of alternative response action measures on the reasonable availability of groundwater resources for present, future, and probable beneficial uses;**
- (d) site-specific characteristics, including the potential for offsite migration of hazardous substances, the surface or subsurface soil, and the hydrogeologic conditions, as well as preexisting background contamination levels**
- (e) cost-effectiveness of alternative response action measures. Land disposal shall not be deemed the most cost-effective measure merely on the basis of lower short-term cost.**
- (f) the potential environmental impacts of alternative response action measures;**
- (g) a statement of reasons setting forth the basis for the response actions selected**
- (h) a schedule for implementation of all proposed response actions.**

The selection of the remedy from the potential response alternatives established during the FS shall consider: (1) overall protection of human health and the environment; and (2) the impact of the remedy on resources values including emission footprint, natural capacity conservation and restoration, and resource conservation and use.

3.6.2. Following the public comment period, DTSC shall approve the final RAP, identify issues, or provide comments to be added by Respondents to the RAP.

3.6.3. DTSC to notify Respondents of its approval of the final RAP - to include DTSC's reasons for selecting the response action(s).

- In selecting the response action, DTSC is to apply the NCP evaluation criteria and the additional State Superfund requirements.**
- DTSC's decision subject to State Superfund dispute resolution, not the dispute resolution provisions in the Order.**

3.7. CEQA. DTSC to prepare a CEQA analysis, including a Site-wide Environmental Impact Report (EIR).

3.8. Remedial Design/Response Action Implementation Workplan (RD/RA Work plan)

3.8.1. Respondents to submit a RD/RA workplan for the Surficial Medial OU and the Chatsworth Formation OU

The RD/RA workplan to include the schedule for submitting the following:

- Health and Safety Plan
- Draft Plans and Specifications
- Final Plans and Specifications
- Construction workplan
- Construction Completion Report
- Operation and Maintenance Plan; and
- Final Completion Report

3.8.2 Financial Assurance - The Operation and Maintenance Plan to include establishment of a financial assurance mechanism for operation and maintenance of the response action(s).

3.9. Land Use Covenants.

- Necessary if residual hazardous materials, hazardous wastes or constituents, or hazardous substances remain at the property or in the groundwater
- Use of Land Use Covenants that prohibit use of groundwater
 - (v.1.9)
Shall not constitute a remedy or sole justification for a remedy
 - (v.2.0)
Shall not be a sole determining factor for any groundwater remedy decisions
 - **Shall not prevent the transfer of land under SB 990**

3.10. Site Access.

Respondents to maintain reasonable precautions to prevent unknowing or unauthorized entry of persons or livestock onto the Site.

3.11. Public participation

- Activities to be conducted in accordance with State Superfund public participation requirements
- March 27, 2009 Public Participation Plan

OTHER REQUIREMENTS AND PROVISIONS

4.1. Project Directors

- All communications via respective Project Directors

4.2. Web Site

- Respondents to establish and maintain a web site for posting SSFL documents and information
- The content of the website shall be solely under the control of DTSC.
- No changes to the website shall be made without prior DTSC approval.

4.3. DTSC Approval

- 4.3.1. Respondents are required to revise any workplan, report, specification, or schedule in accordance with DTSC's written comments. If DTSC disapproves of any submittal it must explain in writing the reason(s) for its disapproval.
- 4.3.2. Respondents to implement any approved workplan when approved by DTSC
- 4.3.3. Any DTSC approved workplan, report, specification, or schedule is incorporated into the Order
- 4.3.4. Any requests for revisions of an approved workplan requirement must be in writing. **DTSC must approve proposed revisions absent good cause not to do so.**
- 4.3.5. Verbal advice, suggestions, or comments by DTSC representatives are not considered official approval or disapproval

4.4. Submittals.

- 4.4.1. Quarterly progress reports
- 4.4.2. All reports or other documents must be signed and certified
- 4.4.3. Certification statement specified
- 4.4.4. All reports and other documents submitted in both hard copy and electronically
- 4.4.5. All reports, correspondence, approvals, disapprovals, notices, or other submissions to be in writing and sent to the current Project Directors.

4.5. Proposed Contractor/Consultant.

All work performed by Respondents must be under the direction and supervision of a professional engineer or registered geologist, registered in California, with expertise in hazardous substance site cleanup.

4.6. Quality Assurance.

- 4.6.1. All sampling and analyses performed by Respondents to follow applicable DTSC and U.S. EPA guidance for sampling and analyses. Workplans to contain or reference a master quality assurance/quality control and chain of custody procedures. Quality Assurance Project Plans (QAPP) for SSFL soil and groundwater.
- 4.6.2. Respondents required to use California State-certified analytical laboratories for all chemical and radiological analyses. If a California State-certified laboratory is not available Respondents required to use an alternative laboratory identified by Respondents subject to approval by DTSC
- 4.6.3. All workplans to include data quality objectives for each data collection activity
- 4.6.4. Respondents to ensure that high quality data are obtained by their consultants and contract laboratories.

4.6.5. Respondents to ensure that the laboratories they use have quality assurance/quality control programs.

4.7. Sampling and Data/Document Availability.

4.7.1. Upon request

Respondents required to submit to provide DTSC with the results of all sampling or tests or other data generated by its employees, agents, consultants, or contractors.

4.7.2. DTSC retains all of its information gathering and inspection authority and rights, and related enforcement authorities

4.7.3. Respondents to notify DTSC in writing at least seven days prior to beginning each separate phase of field work approved under any workplan

4.7.4.

- At the request of DTSC, Respondents required to provide or allow DTSC or its authorized representatives to take split or duplicate samples of all samples collected by Respondents
- DTSC required to allow Respondents or their authorized representative(s) to take split or duplicate samples of all samples collected by DTSC.

4.8. Access.

4.8.1. Respondents required to provide DTSC and its representatives access at all reasonable times

4.8.2. Respondents shall use their best efforts to obtain access agreements necessary to complete work beyond the Facility boundary.

4.8.3. Nothing limits or otherwise affects DTSC's right of access and entry pursuant to any applicable State or federal law or regulation.

4.8.4. Nothing in the Order limits or affects Respondents' liability and obligation to perform response action including beyond the Facility boundary.

4.9. Record Preservation

4.9.1. Respondents to retain all data, records, and documents that relate to implementation of this Order ten years after the requirements of the order have been satisfied.

4.9.2. Respondents to require agents, consultants, or contractors to provide Respondents a copy of all documents produced pursuant to the Order.

4.9.3. All documents to be stored in a manner to afford ease of access by DTSC and its representatives

4.10. Change in Ownership.

- **No change in ownership or corporate or partnership status alters Respondents' responsibility.**
- **No conveyance of title, easement, or other interest in the Facility, or a portion of the Facility, affects Respondents' obligations.**

- **Unless DTSC agrees that such obligations may be transferred to a third party, Respondents shall be responsible for and liable for any failure to carry out all activities required of Respondents.**

4.11. Notice to Contractors and Successors

- Respondents shall provide a copy of this Order to all contractors, laboratories, and consultants
- **Each Respondent shall give written notice of this Order to any successor in interest prior to transfer of ownership or operation of any portion of the Facility**
- Respondents or their contractors to provide written notice of this Order to all subcontractors

4.12. Compliance with Applicable Laws and Regulations

Respondents must comply with all applicable local, State, and federal laws and regulations.

4.13. Costs.

Respondents are liable for all costs associated with the implementation of the Order, including all costs incurred by DTSC in overseeing Respondents' work

4.14. Endangerment During Implementation

If any circumstances or activities are creating an imminent and substantial endangerment to the health or welfare of people at the Site or in the surrounding area or to the environment, DTSC may order Respondents to stop work and abate the endangerment.

4.15. Liability.

Nothing in this Order shall constitute or be construed as a satisfaction or release from liability for any conditions or claims arising as a result of past, current, or future operations of Respondents.

4.16. Government Liabilities.

The State of California is not held liable for injuries or damages to persons or property resulting from acts or omissions by Respondents

4.16.1. Availability of Federal Funds -- DOE and NASA.

- DTSC expects DOE and NASA to seek sufficient funding through the federal budgetary process to fulfill their responsibilities.
- If inadequate funds are appropriated, DOE and NASA shall notify DTSC immediately and develop a plan in writing to secure additional funding
- **Nothing in the Order prevents DOE and NASA from arguing that the unavailability of appropriated funds constitutes a force majeure**
- **Nothing in the Order creates an obligation on DOE or NASA to pay funds in violation of the Anti-Deficiency Act**

- **In enforcement of the order, DOE and NASA may raise as a defense that any failure or delay was caused by the unavailability of appropriated funds**

4.17. Reserved.

4.18. Incorporation of Plans and Reports.

All plans, schedules, and reports are incorporated into the Order upon approval by DTSC.

4.19. Penalties for Noncompliance.

4.19.1. Respondents shall be liable for stipulated penalties of \$15,000 per day for failure to comply with the Order, including making any false statement or representation in any submitted document.

4.19.2. Following DTSC's determination that Respondents have failed to comply with the Order, DTSC shall give Respondents written notification of the violation and describe the noncompliance

4.19.3. Simultaneous accrual of separate penalties for separate violations

4.20. Dispute Resolution.

4.20.1.

- The parties agree to use their best efforts to resolve all disputes informally.
- Each Respondent reserves its right to dispute any finding of noncompliance or written decision.
- **These procedures govern all disputes EXCEPT:**
 - cost recovery disputes
 - an action that challenges in whole or in part the validity, legality, enforceability or constitutionality of SB 990

Dispute procedures, escalating from:

4.20.2. Project Directors (informal)

4.20.3. Notify DTSC Director of dispute

4.20.4. 14 days to resolve dispute

4.20.5. DTSC Director's written decision

4.20.6. All schedules and time frames for disputed item suspended during dispute.

4.21. Force Majeure

- All work to be performed within the required time limits unless an extension is approved or performance is delayed by events that constitute an event of force majeure
- An event of force majeure is an event arising from circumstances beyond the control of the involved Respondents, provided the Respondents have undertaken all planning and prevention measures to avoid any foreseeable circumstances
- Increases in cost are not considered force majeure
- Events which constitute a force majeure include events such as

- Acts of God;
- War
- Civil commotion
- Unusually severe weather
- Labor difficulties
- Shortages of labor; materials or equipment
- Government moratorium
- **Delays in obtaining necessary permits due to action or inaction by third parties;**
- Failure to obtain access to non-SSFL properties, provided Respondents comply with section 4.8.2 (offsite access); and
- Earthquake, fire, flood or other casualty.

4.22. Schedule Changes

- Schedule automatically adjusted due to DTSC failure to review or respond in timely fashion.

4.23. Extension Requests

- Respondents must request extensions of time in writing.

4.24. Parties Bound

- The Order applies to and is binding upon Respondents, and their officers, directors, agents, employees, contractors, consultants, receivers, trustees, successors, and assignees

4.25. Compliance with Waste Discharge Requirements.

- Respondents required to comply with all applicable waste discharge requirements and other Orders issued by the State Water Resources Control Board or a California Regional Water Quality Control Board.

4.26. Time Periods.

- Time periods begin from the effective date of this Order and “days” means calendar days

MODIFICATION

5. 0. The Order can be modified by the mutual agreement of the parties

TERMINATION AND SATISFACTION

6. 0. The provisions of this Order will be considered satisfied upon the execution by the parties of an Acknowledgment of Satisfaction (Acknowledgment).

EFFECTIVE DATE

7. 0. The effective date of this Order shall be the date on which the Order is signed by DTSC.

NO THIRD PARTY BENEFICIARY

8. 0. The Parties to this Order agree that there are no third party beneficiaries to any of the terms and conditions of the Order

PREVIOUS ORDER SUPERSEDED

9.0. This Order supersedes the August 16, 2007 Consent Order for Corrective Action.

SIGNATORIES

10.0. DTSC, DOE and NASA