| | |
|---|---|
| **From:** | Christine Rowe |
| **To:** | MSFC-SSFL-EIS |
| **Cc:** | Elliott, Allen (MSFC-AS01); Fellows, Merrilee (HQ-LD000) |
| **Subject:** | Agreement in Principle between the DOE and DTSC |
| **Date:** | Saturday, September 28, 2013 6:12:01 AM |
| **Attachments:** | Nine Balancing Criteria in the AOC.pdf |

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Dear Mr. Elliott,

One issue related to the Administrative Order on Consent, and therefore there is concern related to the cultural / archaeological aspects of the SSFL site is addressed on this DTSC power point which I have named the Nine Balancing Criteria of the AOC.

Please see page 6 adobe - am I correct in interpreting this as - under exceptions -

There is: "No cap on exceptions on detection limits, **Native American artifacts / sites, or endangered species?**

**How does NASA interpret this slide and language related to artifacts and sites? Was this just a community recommendation - or did DTSC accept this in their responses?**

Respectfully submitted,

*Christine L. Rowe*

# Administrative Order on Consent

**between**

**The State of California**
**and**
**The U.S. Department of Energy**

**November 2010**

# Agreements in Principle
# A Path Forward

- Resolve disagreements over interpretations and implementation of SB 990 (Kuehl, 2007)

- Fast forwards the process to where it will likely end up (years from now)

- Provide certainty and eliminates concerns about the unknown outcome of “process”

- Take advantage of U.S.EPA’s ongoing site survey and soil sampling work ***and*** U.S.EPA’s expertise on radiological contamination

# What is the Administrative Order on Consent?

- The final agreement between DOE and DTSC
- Integrates the Agreement in Principle with cleanup and environmental review procedures
- Includes key elements that govern the relationship between DOE and DTSC
- Establishes the requirements as binding and enforceable

# Agreements in Principle
# Public Comments

- Public comment period September 3 – October 1
- Overwhelmingly positive
- Questions and concerns expressed

# Public Comments
# Suggested Additions

- Include groundwater
  - Groundwater is already part of 2007 agreement
- Radioactive contamination outside of Area IV
  - Still negotiating with NASA (and Boeing)
- Need a Confirmation Protocol for NASA
  - Will be negotiated with NASA
- Boeing not included
- Sign final agreements as soon as possible

# Public Comments

## Concerns about Possible Consequences

- Impacts on habitat and ecosystems and the surrounding community
  - Impacts will need to be estimated, and mitigation proposed, as part of Remedial Action Implementation Plan
- Exceptions – limitations
  - No cap on exceptions for detection limits, Native American artifacts/sites, or endangered species

# Public Comments
## Concerns about Possible Consequences

- Amount of soil to be removed
  - There's no way to estimate until characterization complete - Estimates based on assumptions
- CEQA Compliance
  - CEQA documents will be prepared and available for public review when the Remedial Action Implementation Plan is made available (combined with NEPA if needed)

# Public Comments

## Concerns about Implementation Procedures

- Onsite treatment
  - Onsite/in situ treatment of soils is allowed – AOC makes it clear
- Role of other State and Federal regulatory agencies
  - All agencies will be consulted, and requirements integrated into cleanup plan
- How background is determined
  - Background to be determined by EPA (rad) and DTSC (chem) - in process
- Unknown details of cleanup plan
  - Remedial Action Implementation Plan with specific details will be available for review after characterization

# Public Comments
## Concerns about Implementation Procedures

- Use of “Not to exceed” cleanup standards
  - EPA confirms that this is an acceptable method of verifying cleanup
- Disposal of Contaminated Soils
  - DTSC has worked with NRC and others to verify classification and disposal requirements
- Backfill soils from “Southern Buffer Zone”
  - Any use of onsite soils requires approval of appropriate agencies

# Public Comments
## Concerns about Implementation Procedures

- 2017 cleanup date
  - Recognize this date is aggressive – important to keep it to quicken the pace - approach in the AIP may be the only possible way to achieve it
- Public comment for final orders
  - Public comment period now (10/27 – 11/22)
- Stricter than SB 990
- Cleanup Process and “balancing criteria”

# SB 990

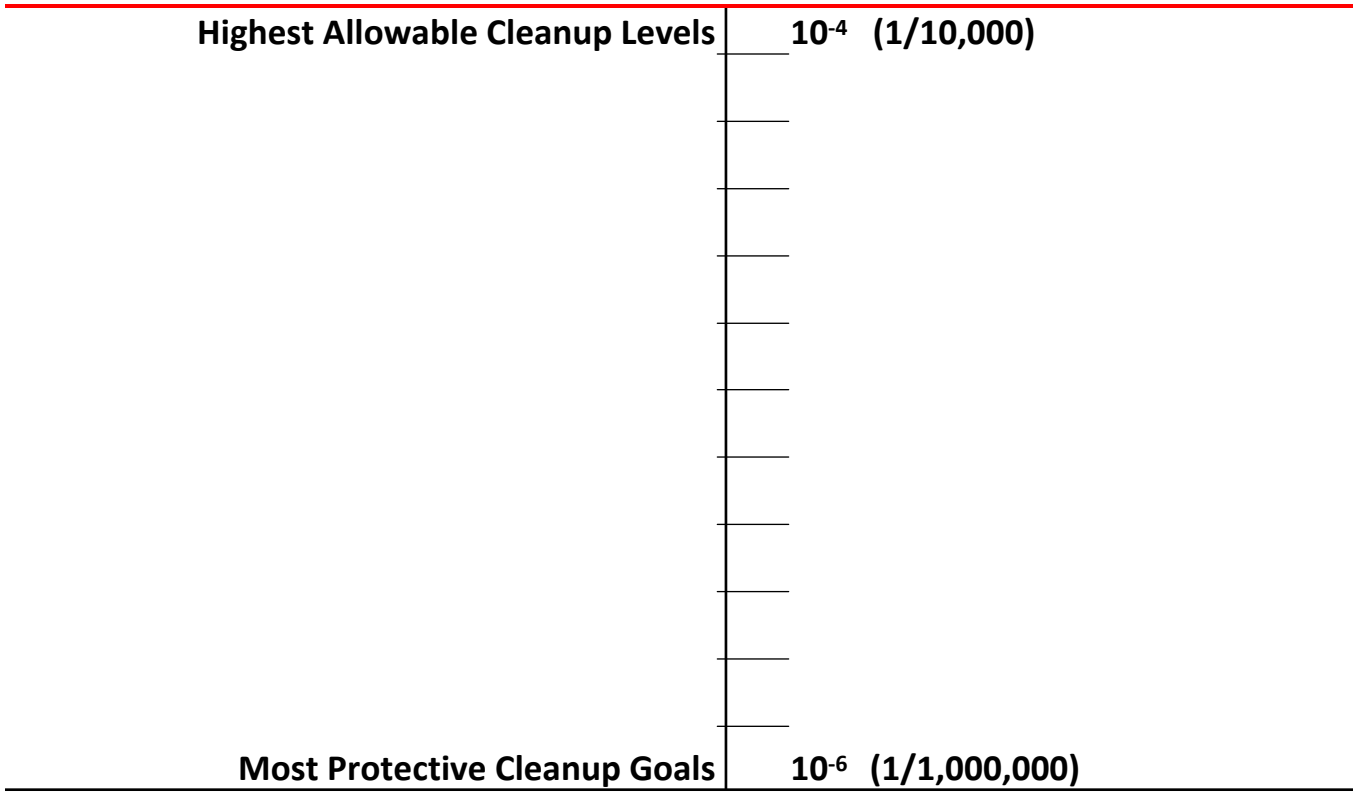
- What it says:
  - Requires cleanup standards for radioactive and chemical contaminants based on “rural residential” land use assumptions
  - Requires the use of EPA’s radiologic Preliminary Remediation Goals as the “point of departure”
  - Clarifies that risks due to ***both*** radioactive and chemical contaminants must be added
  - Requires use of the State Superfund process

# Superfund

- Cleanup goal (for carcinogens) of one or less excess cancer risks in one million ($10^{-6}$)

- Allows departure from the $10^{-6}$ goal to a maximum of one excess cancer risk in 10,000 ($10^{-4}$)

# Superfund Risk Range



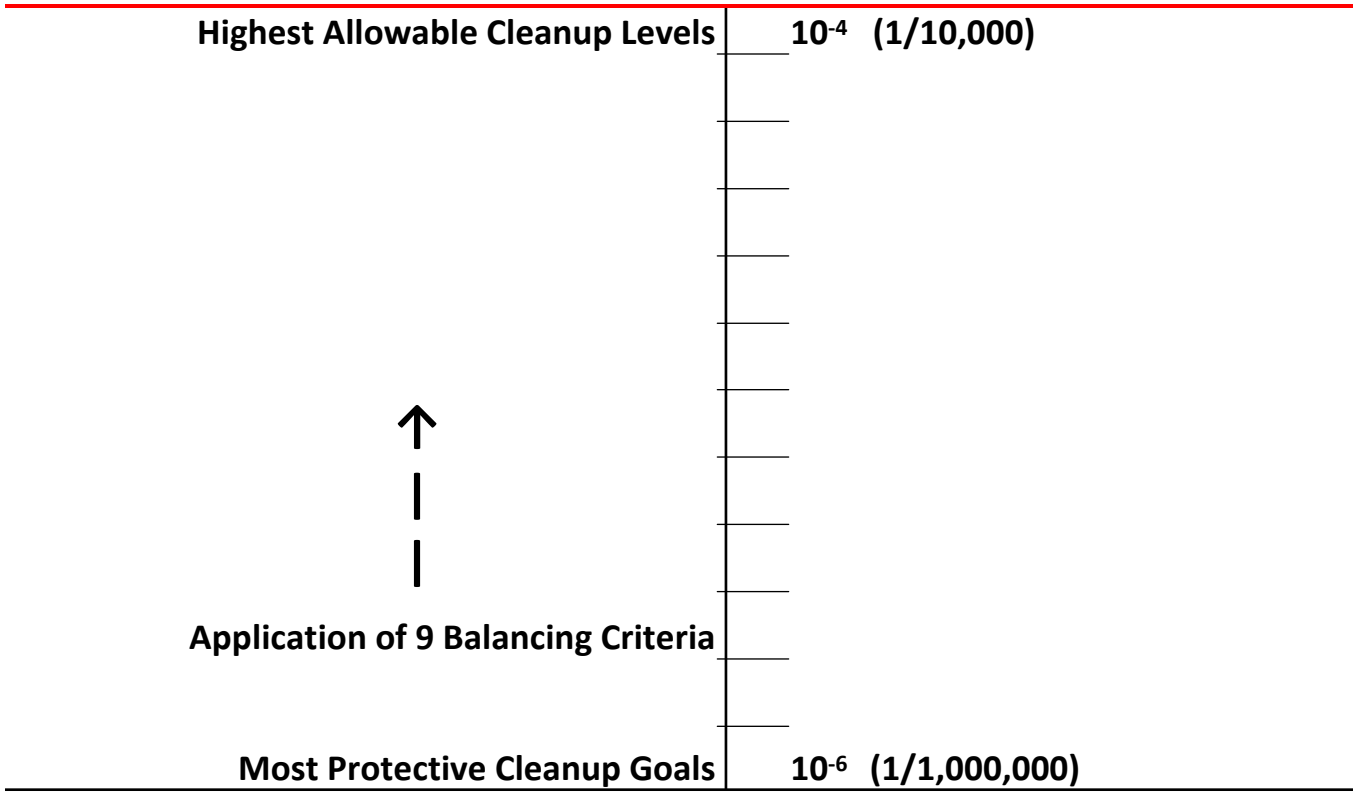
# Superfund

- Requires consideration and balancing through a set of 9 criteria to adjust the goal

# Nine Balancing Criteria

1. Overall protection of human health and the environment
2. Compliance with Applicable, Relevant and Appropriate Requirements
3. Long-term effectiveness and permanence
4. Reduction of toxicity, mobility, or volume
5. Short-term effectiveness
6. Implementability
7. Cost
8. State acceptance
9. Community acceptance

# Superfund Risk Range



# Superfund

- Recognizes:
  - Cannot clean up what is below “background”
  - Cannot clean up what you cannot measure (below “detection limits”)

## Cesium 137

| | | |
|---|---|---|
| 0.21 pCi/g | 95% UCL background (McLaren Hart) | 2/10,000 excess cancer risk |
| 0.12 pCi/g | Upper limit SB 990 | 1/10,000 ($10^{-4}$) excess cancer risk |
| 0.0012 pCi/g | EPA Preliminary Remedial Goal for Rural Residential (SB 990) | 1/1,000,000 ($10^{-6}$) excess cancer risk |

## Strontium 90

| | | |
|---|---|---|
| 0.13 pCi/g | Upper limit SB 990 | 1/10,000 excess cancer risk |
| 0.11 pCi/g | 95% UCL background (McLaren Hart) | 1/10,000 ($10^{-4}$) excess cancer risk |
| 0.00139 pCi/g | EPA Preliminary Remedial Goal for Rural Residential (SB 990) | 1/1,000,000 ($10^{-6}$) excess cancer risk |

## Arsenic

| | | |
|---|---|---|
| 15 mg/kg | Background (2005 Background Study) | |
| 0.16 mg/kg | Upper limit - Draft SB 990 RBSLs | 1/10,000 ($10^{-4}$) excess cancer risk |
| 0.0016 mg/kg | Draft SB 990 RBSLs for Rural Residential | 1/1,000,000 ($10^{-6}$) excess cancer risk |

## 2,3,7,8 TCDD (Dioxin)

| | | |
|---|---|---|
| 5 x 10-7 mg/kg | Background (2005 Background Study) | |
| 4.7 x 10-7 mg/kg | Upper limit - Draft SB 990 RBSLs | 1/10,000 ($10^{-4}$) excess cancer risk |
| 4.7 x 10-9 mg/kg | Draft SB 990 RBSLs for Rural Residential | 1/1,000,000 ($10^{-6}$) excess cancer risk |

# Administrative Order on Consent

# What does the Administrative Order on Consent do?

**After cleanup, the site will be restored to the way it was before it was polluted**

**(“cleanup to background”)**

# Anatomy of the Administrative Order on Consent

# Introduction

- Who, what, where, authorities
- Definitions

# Key Definitions

- Cleanup of soils *doesn't include contamination from groundwater*
- Cleanup to Background Levels
  - *Includes in situ or other onsite treatment of soils*
  - Does not include onsite burial or landfilling
- Detection Limits
  - For chemicals = method reporting limit
  - For radionuclides = minimum detectable activity

# Work to be Performed

- Building demolition
  - Clear buildings first
  - Easier to characterize
  - Boeing buildings in Area IV

- Site characterization

# Site Characterization

- Characterization of radiologic contamination
  - EPA's radiologic characterization work to continue
- Characterization of chemical contamination
    - Phase I: Co-located samples
    - Phase II: Co-located random samples (& step outs?)
    - Chemical Data Gap Investigation
- Treatability Studies

# Chemical Data Summary Report

- Summary of the chemical data collection efforts
- Defines the extent of soils contamination that exceeds chemical background levels

# Site Cleanup

- Soils Remedial Action Implementation Plan
  - based on the Chemical Data Summary Report and U.S. EPA's radiologic characterization survey
  - Planned remedial action
  - Proposed use of exceptions
  - Proposed for in situ or onsite treatment
  - Proposed mitigation measures
  - Schedule for implementation
- Confirmation Sampling (protocol)

# Public Participation

- Public review and comment on ***all*** draft plans and reports

# California Environmental Quality Act

- Documents to be made available for public review and comment at the same time as the draft Soils Remedial Action Implementation Plan

# U.S. Environmental Protection Agency Activities

# Summary Judgment Order (Judge Conti)

# General operating provisions

- Project director
- Web site
- Review/approvals
- Submittals
- Contractors
- Analyses
- Availability of sampling data and documents
- Access
- Recordkeeping
- Comply with all laws and regulations.
- DOE to pay DTSC costs (and DOE cost recovery)
- Availability of Federal Funds
- Penalties for Noncompliance
- Dispute Resolution (enforcement mechanism)
- Force Majeure
- Schedule Changes
- Extension Requests

# Next Steps

- Receive public input on AOC
- Modify agreement if needed
- Sign and implement

# More information

- Comments by email to: ssfl@dtsc.ca.gov by November 22, 2010

- Copies of the AOC, Responses to Comments (Summary and Detailed) and this presentation are located on-line at http://www.dtsc.ca.gov/SiteCleanup/Santa_Susana_Field_Lab/SSFL-Cleanup.cfm