April 6, 2026

Online: Letter to Wright and Butler
Via Email: Email to Wright and Butler

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The Honorable Chris Wright
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Subject: Open Letter to Energy Secretary Wright & DTSC Director Butler - DOE and DTSC Should Agree to Terminate the 2010 AOC

Dear Secretary Wright and Director Butler,

I write to you today to raise your awareness of the unacceptable conflict between the State of California and the federal government over radiologic cleanup requirements for the DOE's Energy Technology Engineering Center (ETEC) at the Santa Susana Field Laboratory (SSFL) in Ventura County, California.

For over 15 years ETEC has conducted environmental remediation and nuclear decommissioning under a state-ordered Administrative Order on Consent (2010 AOC). This AOC is in clear conflict with both past federal practice and with current federal actions resulting from Presidential Executive Order 14300.

I respectfully request that DTSC and DOE agree to terminate the 2010 AOC and replace it with more conventional remedies in line with the rest of the U.S.

Presidential Executive Order 14300, Section 5(b)

Executive Order 14300[1] was signed by President Trump on May 23, 2025. EO 14300 requires the Nuclear Regulatory Commission (NRC), among other actions, to revisit the basis for, and use of, the linear no-threshold (LNT) theory of radiation risk and the associated principle of "as low as reasonably achievable (ALARA)." Section 5(b) of EO 14300 states,

- *"Adopt science-based radiation limits. In particular, the NRC shall reconsider reliance on the linear no-threshold (LNT) model for radiation exposure and the "as low as reasonably achievable" standard, which is predicated on LNT. Those models are flawed, as discussed in section 1 of this order. In reconsidering those limits, the NRC shall specifically consider adopting determinate radiation limits, and in doing so shall consult with the Department of Defense (DOD), the Department of Energy (DOE), and the Environmental Protection Agency."*

NRC Response to Executive Orders

In response to EO 14300 and other executive orders designed to re-invigorate the U.S. nuclear industry, the NRC has initiated implementation of wholesale changes to 10 CFR during 2025-2026.[2] One of the 28 separate areas that NRC envisions revising is *"Reforming and Modernizing the NRC's Radiation Protection Framework."*[3] NRC defines this one objective as,

- *"This rulemaking would amend the NRC's regulations to revise the NRC's radiation protection regulatory framework to support the national policy statements of Executive Order (EO) 14300 and EO 14154. This rulemaking is responsive to directives in Section 5(b) of EO 14300 and Section 3(a) of EO 14154. In particular, the NRC shall reconsider reliance on the linear no-threshold (LNT) model for radiation exposure and the "as low as reasonably achievable" standard."*

[1] Executive Order 14300. Ordering the Reform of the Nuclear Regulatory Commission. May 23, 2025. https://www.federalregister.gov/documents/2025/05/29/2025-09798/ordering-the-reform-of-the-nuclear-regulatory-commission

[2] NRC. Wholesale Revision of Regulations Under Executive Order 14300. https://www.nrc.gov/about-nrc/governing-laws/advance-act/wholesale-revision-regs

[3] NRC. https://www.nrc.gov/reading-rm/doc-collections/rulemaking-ruleforum/active/ruledetails?id=2239

The projected date for issuance of draft regulatory changes affecting this one objective is June 3, 2026.

DOE Response to Executive Orders

A variety of Executive Orders require DOE to support the re-invigoration of the U.S. nuclear industry to which it is responding appropriately.

DOE's initial specific response to EO 14300 Section 5(b) has been the removal of ALARA from DOE orders and directives. An internal memo dated January 9, 2026, and titled *"Action: Approval to Eliminate ALARA from All Department of Energy (DOE) Directives and Regulations"* was initialed as approved by Energy Secretary, Chris Wright.[4]

Cited in the memo was a DOE-funded, Idaho National Laboratory (INL) report[5] recommending elimination of ALARA.

Although not a direct result of EO 14300, the DOE had issued in 2023, DOE-STD-1241-2023, "Implementing Release and Clearance of Property Requirements."[6] The DOE standard is required to be implemented throughout the DOE complex. The standard utilizes existing DOE and NRC dose limits, makes no mention of risk assessments or CERCLA risk limits based on LNT, and makes no mention of cleanup-to-background (equivalent to an incremental risk goal of ZERO), the central mandate of the 2010 AOC.

EPA Response to Executive Orders

Although EO 14300 Section 5(b) expressly calls for collaboration between NRC, DOE, DOD and EPA in *"reconsidering reliance on LNT and ALARA"*, the EPA has been mute, as of the date of this letter.

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[4] DOE. Memorandum for the secretary. EXEC-2025-013258. Approval to Eliminate ALARA from All Department of Energy (DOE) Directives and Regulations. January 9, 2026.
https://philrutherford.com/EO_14300/DOE_ALARA_Memo.pdf

[5] INL. Reevaluation of Radiation Protection Standards for Workers and the Public Based on Current Scientific Evidence. July 2025.
https://inl.gov/content/uploads/2023/07/INLRPT-25-85463_Reevaluation-of-Radiation-Protection-Standards-R0-Final.pdf

[6] DOE. DOE-STD-1241-2023. Implementing Release and Clearance Property Requirements. March 2023.
https://www.standards.doe.gov/standards-documents/1200/1241-AStd-2023/@@images/file

Government Accountability Office (GAO)

On September 26, 2025, the independent, non-partisan, Government Accountability Office (GAO) issued a report GAO-25-107565, "Nuclear Waste Cleanup." [7]

GAO-25-107565 investigates eight DOE-EM sites undergoing remediation, quantifying schedule, cost, and performance, including federal and state regulatory framework. The eight sites are Hanford, Los Alamos, Oak Ridge, Savannah River, Idaho, Livermore, Nevada, and the Energy Technology Engineering Center (ETEC).

Five sites, Hanford, Idaho, Livermore, Oak Ridge, and Savannah River are on the National Priorities List (NPL) and DOE has entered into an interagency agreement with EPA whereby remediation under EPA CERCLA risk assessment guidance is implemented.

It should come as no surprise that the only DOE site where "cleanup to background" is a mandated goal is ETEC. No other discussions of the other seven sites mentioned background once as a cleanup goal.

2010 Administrative Order on Consent[8]

On December 6, 2010, DTSC and DOE signed an Administrative Order on Consent for Remedial Action (2010 AOC). The AOC mandates that soils under the responsibility of DOE should be cleaned up to background levels. The 2010 AOC violated NEPA in that it predetermined a cleanup remedy prior to either DOE preparing its Environmental Impact Statement (EIS). Furthermore, the 2010 AOC violated California's own CEQA laws in that it predetermined a cleanup remedy prior to the Department of Toxic Substances Control (DTSC) preparing its Programmatic Environmental Impact Report (PEIR).

The 2010 AOC mandated the following requirements that deviate from established industry standard guidance,

- Forbade the use of risk assessment and US EPA CERCLA risk assessment guidance.

[7] GAO, GAO-25-107565, Nuclear Waste Cleanup. September 26, 2025. https://files.gao.gov/reports/GAO-25-107565/index.html?_gl=1*1wxgukd*_ga*Mjc4ODQ0NjE2LjE3NTkxMjU0Mjc.*_ga_V393SNS3SR*czE3NTkxODUwNjUkbzEkZzEkdDE3NTkxODUxMDgkajE3JGwwJGgw

[8] DTSC. DOE Administrative Order on Consent for Remedial Action. December 6, 2010. https://www.dtsc-ssfl.com/files/lib_ceqa/ref_draft_peir/Chap3_ProjDesc/68904_DTSC_2010a_AOC_DOE.pdf

- Eliminated the use of any risk-based or dose-based soil concentration cleanup standards.
- Required "cleanup-to-background" or zero tolerance for any residual contamination, radiological or chemical.
- Required single-sample comparison to a parametric background level for each measured radionuclide and chemical. This deviates from industry standard non-parametric hypothesis testing to compare a reference background distribution to a site distribution.
- Dismissed the use of EPA-recommended "exposure point concentrations" (EPC) to calculate "reasonable maximum exposures" (RME).
- Defined soil to include "debris, structures and other anthropogenic materials."
- Specified a process to establish soil background for radionuclides and chemicals. However, it failed to specify a process to establish radionuclide or chemical background for "debris, structures and other anthropogenic materials."
- Required all soil and structural debris that "exceeds chemical background" be sent to either a Class 1 hazardous waste facility if classified as hazardous waste, or to a Class 2 or subtitle D compliant Class 3 disposal facility if classified as non-hazardous waste, yet still chemically contaminated.
- Required all soil and structural debris that "exceeds radiological background" be sent to an NRC-licensed LLRW disposal facility or an authorized LLRW disposal facility at a DOE site outside of the State of California. Thus, radiological contaminated soil is not allowed a similar graded approach as chemicals and effectively re-defined low-level radioactive waste (LLRW) as "anything above background."
- Effectively implemented all former failed and challenged California legislation (e.g. Senate Bill 1970 (2002).
- Violated California Executive Order D-62-02 (2002) that permits disposal of "decommissioned material", either soil or building demolition debris, to California Class I or II landfills. "Decommissioned material" is waste that meets federal and State cleanup standards, has been "released for unrestricted use" by a State or federal regulator, has been removed from a State or NRC license, and is no longer considered "regulated radioactive material."[9]

[9] California Appeals Court. Case C088821. PSR-LA vs. DTSC, CDPH & Boeing. Affirmation of Superior Court's Denial of Claim. Section IIC, pages 8-9. May 2, 2023.
https://www.dtsc-

Although NASA signed a similar AOC, The Boeing Company, the third responsible party (RP) and principal landowner at SSFL declined to agree to such a draconian AOC.[10]

EO 14300 agrees with the industry-wide recognition that LNT and ALARA have resulted in,

- Radiation paranoia and fear of trivially small doses of radiation instilled into the US population.
- "Definition creep" of ALARA becoming "as low as possible (ALAP)."
- Enormous manpower and funding resources expended during decommissioning without any demonstrated additional public safety achieved.

The 2010 AOCs have taken the ALARA principal to unimaginable depths. "As low as reasonably achievable (ALARA)" is not only "as low as possible (ALAP)" but is now "as low as zero (ALAZ)" at SSFL.

California Public Records Act Request PR8-031025-02

In March 2025, DTSC was served with a California Public Records Act (CPRA) request for records relating to Senate Bill SB-990 and the 2010 AOCs.[11] Although DTSC provided numerous requested communications related to SB-990, it failed to provide any communications between Dan Hirsch and DTSC upper management (Rick Brausch and Maziar Movassaghi) and the RPs during the development of the AOCs between August 2009 and December 2010. DTSC claimed it could not locate any written records.

It is incomprehensible that DTSC cannot find any written records of negotiations during the drafting and ultimate issue of the 2010 AOCs between August 2009 and December 2010.

The 2010 AOCs are the most consequential and controversial agreements between DTSC and DOE/NASA in the history of SSFL. They have a major influence on cost and schedule for almost all of the remedial activities at SSFL.

DTSC should ask itself how and why such unique draconian "contracts" were formulated in the first place, contracts that do not exist anywhere else in California or the U.S. That

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ssfl.com/files/lib_physocrespvsdtsc/courtdocuments/69837_PSR_v_DTSC_Appeal_Decision.pdf#page=8

[10] Nevertheless, in 2022, Boeing and DTSC signed a "Settlement Agreement" in which Boeing inexplicably agreed to cleanup radionuclides (but not chemicals) in soil to background levels in its areas of responsibility. This agreement also conflicts with EO 14300 and violates CEQA.

[11] Rutherford. California Public Records Act (PRA) Request - SB-990 and 2010 AOCs. March 7, 2025. https://philrutherford.com/SSFL/hirsch_brausch_aoc.html

question was a major objective of PR8-031025-02. Apparently, DTSC has no institutional memory and no written evidence to justify how and why the AOCs were generated. Apparently DTSC has no problem with that.

Cart Before the Horse (Violation of CEQA)

The DTSC claims that its Programmatic Environmental Impact Report (PEIR) is not a decision document meaning that cleanup goals have not yet been chosen. This is patently false. The 2010 AOCs have mandated background as the soil cleanup goal without use of risk assessment. Clearly, this is in violation of CEQA. CEQA-required EIRs are intended to assess the environmental impacts and mitigation options of a variety of remedy alternatives, after which an optimal cleanup goal and remedy is chosen. The Draft and Final PEIRs were wasted efforts since DTSC had already chosen background as a cleanup goal in the 2010 AOCs, and for Boeing radionuclides in the 2022 Settlement Agreement.

Follow The Money

One of the key balancing criteria in CERCLA, NEPA and CEQA evaluation of remedial alternatives is cost. Typically a cost-benefit analysis is performed in any NEPA EIS or CEQA EIR to compare cleanup costs to costs of person-rem averted or individual cancer risk reduction for each proposed remedial alternative.

The DOE EIS calculated that compliance to the 2010 AOCs would cost upwards of $800 million for Area IV.[12]

The DTSC, in its draft and final PEIRs, is relatively opaque when it comes to cost-benefit and cost comparisons of various remedial alternatives. DTSC does not consider costs as important since it does not pay for any remediation itself, and is paid by Boeing, DOE and NASA for every hour it spends overseeing SSFL environmental remediation.

Conclusions

The DTSC and DOE have recently recognized that the 2010 AOCs are unimplementable as written. DTSC is now proposing "multiple lines of evidence (MLE)" in an effort to implement

[12] DOE. Final Environmental Impact Statement for Area IV. DOE/EIS-0402. Volume 2. Appendix K. Cost Benefit Analysis. November 2018.
https://www.energy.gov/sites/prod/files/2018/12/f58/final-eis-0402-etec-2018-12-volume-2-appendices.pdf#page=691

the AOCs.[13] A plan that the activist "stakeholders" regard as reneging on DTSC's promise of "cleanup-to-background." Likewise, DOE itself is proposing a supplemental EIS based on MLE, or revised background thresholds, or a resident-with-garden risk-based alternative.[14]

The DOE AOC, in requiring a zero-dose, zero-risk remedial goal at SSFL, is a clear demonstration of how an activist California regulator (DTSC) has used LNT/ALARA induced radiation paranoia to usurp DOE's Atomic Energy Act (AEA) rights. The DOE AOC embodies exactly the kind of no-safe-radiation-dose / as-low-as-possible philosophy that EO 14300 is seeking to reconsider.

This is the time for the DTSC and DOE to walk away from the 2010 AOC that is not imposed on any other single remedial site in California or in the United States and is in conflict with the goals of EO 14300.

Postscript

The focus of this communication is the conflict between the DOE AOC and ongoing changes in the federal radiation protection framework, including LNT and ALARA, initiated by EO 14300. However, the same philosophical conflict also applies to the chemical remediation at SSFL controlled by both the DOE and NASA AOCs and the DTSC/Boeing Settlement Agreement.

Sincerely,

Phil Rutherford
President: Phil Rutherford *Consulting*
https://philrutherford.com/ssfl.html

[13] DTSC. DTSC Background Cleanup Approach Proposal – Multiple Lines of Evidence – Technical Memorandum. August 2025.
https://dtsc.ca.gov/wp-content/uploads/sites/31/2025/08/Revised-MLE-Background-Cleanup-Approach-Tech-memo.pdf

[14] DOE. Supplemental Environmental Impact Statement for Remediation of Area IV and the Northern Buffer Zone of the Santa Susana Field Laboratory. December 2024.
https://www.energy.gov/nepa/doeeis-0402-s1-supplemental-environmental-impact-statement-remediation-area-iv-and-northern

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Additional Supporting Material

- Phil Rutherford *Consulting*
  https://philrutherford.com/
- Radiation Cleanup Standards
  https://philrutherford.com/radiation_cleanup_standards.html
- Radiation Risk
  https://philrutherford.com/radiation_risk.html
- Santa Susana Field Laboratory
  https://philrutherford.com/ssfl.html
- Offsite Impact of the Santa Susana Field Laboratory
  https://philrutherford.com/SSFL/Offsite_Impact_of_SSFL.pdf
- Nuclear Decommissioning at the Santa Susana Field Laboratory:
  20+ Years of Politics vs. Science
  https://philrutherford.com/SSFL/Nuclear_Decommissioning_at_SSFL.pdf
- Radiation Dose, Risk and Cleanup Standards
  https://philrutherford.com/SSFL/Cleanup_Standards/Radiation_Dose_Risk_and_Cleanup_Standards.pdf