

STATE OF CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY
DEPARTMENT OF TOXIC SUBSTANCES CONTROL

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| In the Matter of: |) | Docket No. XXXXXXXXXXXX |
| Santa Susana Field Laboratory |) | |
| Simi Hills |) | ORDER ON CONSENT FOR INTERIM |
| Ventura County, California |) | RESPONSE ACTION AT THE |
| |) | RADIOACTIVE MATERIALS HANDLING |
| CA3890090001 (North Wind Inc./DOE) |) | FACILITY (RMHF) COMPLEX |
| |) | |
| |) | |
| The United States Department of Energy) |) | Health and Safety Code Sections 25100 et |
| (Respondent) |) | seq., 25358.3(a),25355.5(a)(1)(B), 58009, |
| |) | 58010 |

1.0. INTRODUCTION

1.1. Parties. The California Department of Toxic Substances Control (DTSC) and the United States Department of Energy (DOE or “Respondent”) (collectively, “the Parties”; individually, “Party”) enter into this Order on Consent for Interim Response Action at the Radioactive Materials Handling Facility (RMHF) Complex (“Order”).

1.2. Purpose. This Order outlines the interim response action at the former Energy Technology Engineering Center and Radioactive Materials Handling Facility Complex (referred to herein as the “RMHF Complex”) located at the Santa Susana Field Laboratory site (SSFL) in Ventura County, California, to be conducted by DOE under DTSC oversight. Specifically, this Order covers and includes building demolition and disposal of building debris. It does not apply to soil cleanup activities at SSFL pursuant to the Administrative Order on Consent for Remedial Action, Docket No. HSA-CO 10/11-037 (2010 AOC), or to groundwater. This Order memorializes the Parties’ agreement that DOE will conduct building demolition activities under DTSC oversight and will dispose of the resulting building demolition debris offsite, out of the State of California, at a licensed commercial low-level or mixed low-level radioactive waste disposal facility or at an authorized low-level or mixed low-level radioactive waste disposal facility at a DOE site, in a manner that is protective of human health and the environment.

Nothing in this Order is intended to modify, amend, or reduce the rights and obligations of the Parties pursuant to the 2010 AOC or the Consent Order for Corrective

Action, Docket No. P3-07/08-003, issued by DTSC to DOE, The Boeing Company, and the National Aeronautics & Space Administration on August 16, 2007 (“2007 Consent Order”). Nothing in this Order releases DOE from any of its obligations under the 2007 Consent Order or the 2010 AOC or waives DTSC’s or DOE’s rights under the 2007 Consent Order or the 2010 AOC. The purpose of this Order is to define and make more specific DOE’s obligations with respect to interim remedies at the RMHF Complex necessitated by previously unanticipated emergency fire and erosion risk. All other provisions of the 2010 AOC and 2007 Consent Order remain in effect as to the Parties. If there are conflicts between this Order and the 2010 AOC, the 2010 AOC shall control.

1.3. RMHF Complex. SSFL is comprised of 2,850 acres and is located in the Simi Hills in southeastern Ventura County (See Exhibit A). This Order applies to the buildings within SSFL encompassing the RMHF Complex. The RMHF Complex is within an area of approximately 1.5 acres and is located within Administrative Area IV of SSFL. The RMHF was constructed in 1959 and consists of a group of 10 buildings with ancillary structures (Buildings 4021, 4022, 4621, 4034, 4044, 4075, 4563, 4658, 4665, and 4688), which were built to handle new and spent (i.e., irradiated) nuclear fuel. In 1989, the RMHF Complex was authorized for the storage and treatment of radioactive waste having a hazardous chemical component. Comprehensive history for the RMHF Complex is incorporated into this Order by reference and can be found in the “Draft RCRA Closure Plan Radioactive Materials Handling Facility Buildings 4021, 4022, and 4621 ETEC Santa Susana Field Laboratory, Area IV, Ventura County, California, Revision 0.” Maps and figures showing the RMHF Complex are attached as Exhibits B, C, and D. More extensive site history of the RMHF can be found on DTSC’s SSFL website at https://dtsc.ca.gov/sitecleanup/santa_susana_field_lab, “Final Historical Site Assessment”, and “Final HSA-7-3 NBZ” files, and is fully incorporated into this Order.

1.4. Authority of DTSC. This Order is entered into by DTSC pursuant to DTSC’s authority under Health and Safety Code sections 25100, 25355.5(a)(1)(B), 25358.3(a)(1), 58009 and 58010, 25358.3(a), 25355.5(a)(1)(B), and 5800.

1.5. Authority of the Respondent. DOE is entering into its obligations in this Order pursuant to its authority under the Atomic Energy Act of 1954, as amended, 42 U.S.C. §§ 2011 *et seq.* DOE has conducted an analysis of building demolition under the National Environmental Policy Act (NEPA) and issued a Record of Decision on September 23, 2019.

2.0. STATEMENT OF FACTS

2.1. Permitting Status. As identified in Section 1.3, there are 10 buildings in the RMHF Complex. DOE is one of the owners and operators of the RMHF Complex, at which three buildings were authorized as Interim Status by DTSC in 1997 for the operation of mixed waste storage and treatment. The Interim Status Resource Conservation and Recovery Act (RCRA) permitted buildings include:

- Buildings 4021 – Decontamination and Packaging Facility (permitted for mixed waste storage and treatment) currently not used;
- Building 4022 – Radioactive Storage Building (previously used for reactor fuel storage and currently used for storage). This building includes seven below grade concrete vaults for radioactive materials storage and currently is used for storage; and
- Building 4621 – Interim storage facility for contaminated equipment and source materials (currently used for storage), including its associated outdoor asphalt-paved mixed waste storage yard.

The RMHF Complex is located within the RMHF RCRA Facility Investigation Site and is referred to as RMHF Solid Waste Management Unit 7.6.

The remaining seven non-RCRA permitted buildings within the RMHF Complex include:

- Building 4034 – RMHF office building;
- Building 4044 – RMHF clean shop;
- Building 4075 – RMHF radioactive waste storage area;
- Building 4563 – RMHF radioactive waste storage area;
- Building 4658 – RMHF guard shack;
- Building 4665 – RMHF oxidation facility; and
- Building 4688 – RMHF storage shed.

2.2. Radioactive Material, Hazardous Waste, Hazardous Waste Constituents and Hazardous Substances (i.e., Hazardous Substances) Found at the RMHF. The following hazardous substances are identified in the Draft RCRA RMHF Closure Plans as being present in Buildings 4021, 4022, and 4621: heavy metals, solvents, oils and greases, lead-based paint, and asbestos containing materials. In addition, there are radionuclides present, as some buildings still contain radionuclides embedded in building material. An electrical substation was present at the RMHF Complex and as a result, polychlorinated biphenyls (PCBs) should be considered as well. These hazardous substances are considered applicable to the entire RMHF Complex. The observed hazardous substances may represent a threat to human health through ingestion, inhalation, and dermal contact exposure pathways.

2.3. Exigent Circumstances. In the past, the SSFL, among other areas, has been subject to extensive wildfires that have been, to a large extent, uncontrollable. In the recent past, these fires have reached near proximity to buildings within Area IV, scorching one of the structures. Out of an abundance of caution, the Parties agree that response action is necessary to protect public health and the environment from potential exposures to radioactive and hazardous substances identified in Section 2.2 of this Order, and is necessary to abate radioactive and hazardous substances from the existing RMHF buildings.

Wildfires that have impacted Area IV at SSFL include the 2005 Topanga Fire and the 2018 Woolsey Fire. While it did not reach the site, the Easy Fire in 2019 occurred nearby, and other spot fires near SSFL create the ongoing potential threat from wildfires. The Topanga Fire ignited on September 28, 2005, in the Chatsworth area (a City of Los Angeles neighborhood) and spread to brush in neighboring areas, ultimately affecting 24,000 acres, including 2,000 of the 2,850 acres of the SSFL. The 2018 Woolsey Fire affected up to 80 percent (about 2,280 acres) of SSFL's 2,850 acres, including about 39 percent (about 112.5 acres) of the 290 acres comprising Area IV.

During the Woolsey Fire, one of the DOE RCRA buildings (Building 4029) was in the burn area but was undamaged except for scorch marks. Outside of disturbed areas, the vegetation plant communities at SSFL include plants that are adaptable for regrowth after fire. After both fires, recovery of vegetation occurred. After the rainy season, as the dry season progresses, post-fire vegetation regrowth will dry out and will become fuel that could seed subsequent wildfires.

As long as buildings exist in Area IV that have hazardous and radiological contamination, future fires have the potential to damage the existing buildings, potentially resulting in a release of radioactive and hazardous substances. Due to the vagaries of wind and weather, these radioactive and hazardous substances could migrate to air, soil, and sediments, potentially posing a threat to surrounding communities. California has begun to recognize the real and ongoing emergency of more severe and longer fire seasons in recent years, dedicating significant resources to what has become a persistent and significant problem of statewide concern. (See, e.g., [https://www.gov.ca.gov/2019/10/02/governor-newsom-signs-bills-to-enhance-wildfire-mitigation-preparedness-and-response-efforts/.](https://www.gov.ca.gov/2019/10/02/governor-newsom-signs-bills-to-enhance-wildfire-mitigation-preparedness-and-response-efforts/))

In view of these exigent circumstances and the risk posed by these buildings, in issuing this Order, DTSC has and continues to comply with California Environmental Quality Act (CEQA), Calif. Public Resources Code Sections 21000 *et seq.* with respect to building demolition activities at the RMHF Complex and disposal of building demolition debris. Due to the inability to predict the timing, extent, or risks involved in a

future wildfire, or significant storm events, the Parties conclude it is necessary to remove this potential hazard.

Out of an abundance of caution, complete removal of the buildings is necessary, as the deteriorating buildings have the potential to release radioactive and hazardous substances in the event of a wildfire. The buildings require removal, as they are in the vicinity of vegetated areas that either have been directly impacted by wildfires or continue to be threatened by the occurrence of wildfire, which could result in impacts to the structures resulting in release of radioactive and hazardous substances that may migrate to soils, sediments, and air, and potentially pose a risk to the public, the environment, and on-site workers.

3.0. CONCLUSIONS OF LAW AND FACT

3.1. DOE is a "responsible party" or "liable person" as defined by Health and Safety Code section 25323.5 and pursuant to the 2007 Consent Order, and the substances listed in sections 2.2 and 2.3 are hazardous as defined in Health and Safety Code section 25316 or otherwise subject to DTSC oversight.

3.2. There could be a "release" at the RMHF Complex, as defined in Health and Safety Code section 25320, and subject to DTSC's oversight authority as described in this Order; DTSC believes response is necessary to protect the public and the environment.

4.0. RESPONSE ACTIONS RELATED TO THE RMHF COMPLEX

DOE agrees to conduct the following response actions in the manner specified herein as follows:

4.1. Disposal. DOE will conduct building demolition activities under DTSC oversight and will dispose of the resulting building demolition debris out of the State of California, at a licensed commercial low-level or mixed low-level radioactive waste disposal facility or at an authorized low-level or mixed low-level radioactive waste disposal facility at a DOE site, in a manner that is protective of human health and the environment.

4.2. Response Action Standard. All response actions taken pursuant to this Order shall be consistent with the requirements of Chapters 6.8 (commencing with section 25300), Division 20 of the Health and Safety Code, and 6.5 (commencing with section 25100), Division 20, and any other applicable state or federal statutes and regulations.

4.3. Response Action Sequencing and RCRA Closure. There are 10 buildings located in the RMHF Complex. Three of these buildings have a RCRA permit in place.

- a) For RCRA Interim Status Facilities undergoing closure (Buildings 4021, 4022, and 4621), such closure shall be conducted in accordance with a DTSC-approved RCRA facility Closure Plan and SOP, and shall achieve RCRA Closure Performance Standards by demonstrating that hazardous substances have been removed or are left in place at levels that are protective of public health and the environment, so that future characterization and remedial activities associated with the soil and groundwater programs can be performed. For the remaining seven buildings and ancillary structures, demolition and disposal shall be undertaken in accordance with this Order and such closure shall be conducted in accordance with a DTSC-approved SOP, and demonstrate that hazardous substances have been removed or are left in place at levels that are protective of public health and the environment, so that future characterization and remedial activities associated with the soil and groundwater programs can be continued.
- b) Demolition of all 10 buildings and ancillary structures and management and offsite disposal of the waste shall be conducted in a manner that is protective of human health and the environment. Demolition and disposition of waste will be in accordance with requirements for demolition and disposition of waste as contained in this Order. All RMHF debris and waste will be disposed of out of the State of California, at a licensed commercial low-level or mixed low-level radioactive waste disposal facility or at an authorized low-level or mixed low-level radioactive waste disposal facility at a DOE site, in a manner that is protective of human health and the environment.
- c) Above grade structures will be removed to a condition of slab-on-grade where the above grade portions of the structures are removed but the slabs and the foundations are left in place to provide a barrier to the soil and/or subsurface structures. If the structures have below grade structures, the below grade foundation and walls will be left in place. Asphalt surfaces inside RMHF will also be left in place. The demolition plan will include pre- and post-demolition inspections and will identify and appropriately address issues such as potential for water intrusion and fixed contamination remaining on a slab that is exposed to the weather. A suitable material to prevent water accumulation on the slab will be added after demolition. Additionally, all penetrations, vaults, and entries to basements will be sealed and protected to prevent water

intrusion. Any slabs with excess ionizing radiation present following building demolition will have mitigation measures (e.g., shielding) implemented to ensure that the former building areas are left in a condition that is protective of human health and the environment. The SOP, Demolition plan, or the RCRA Closure Plan will discuss the steps that DOE will take through a combination of shielding and administrative/institutional controls (e.g., surveys, postings, and controlled access) to ensure that workers or members of the public do not receive exposures above background levels.

4.4. Reports. The Respondent shall undertake removal actions because DTSC and DOE have agreed that it is necessary to mitigate the potential release of hazardous substances at or emanating from the Site in the likely event of a wildfire or a significant storm that causes erosion. DOE will demolish and remove above-grade structures to a condition of slab-on-grade for 10 buildings/structures at the RMHF, including the 3 RCRA-permitted buildings/structures as described in section 4.3. Building demolition and debris transportation shall be conducted in a manner that is protective of the local Area IV environment and populations along the transport route. Reports for implementing the following removal actions shall be submitted:

- a) Three of the buildings at the RMHF require DTSC approval of a RCRA Closure Plan (Buildings 4021, 4022, and 4621). In 2015, DOE submitted a draft “RCRA Closure Plan Radioactive Materials Handling Facility Buildings 4021, 4022, and 4621 ETEC Santa Susana Field Laboratory, Area IV, Ventura County, California, Revision 0.” (Referred to herein as the “2015 Draft Closure Plan.”)
- b) The 2015 Draft Closure Plan references an overarching “DOE Procedure for Demolition of Facilities (SOP) in Area IV” dated 2011. In August 2016, DOE submitted a “Department of Energy Standard Operating Procedure for Demolition of Facilities in Area IV at the Santa Susana Field Laboratory, Revision C.” The 2016 SOP was revised and was re-submitted for DTSC review in January 2020 to specifically narrow it to the RMHF Complex buildings only (RMHF SOP). DTSC will provide comments on the draft RMHF SOP, and approve it in a timely manner when a complete revised RMHF SOP is resubmitted. DTSC has not approved either the 2015 Draft Closure Plan or the 2016 SOP. However, the parties anticipate DTSC approval of a more narrowly tailored RMHF SOP within 5 days of the effective date of this Order that incorporates only those areas of the 2016 SOP relevant to the RMHF. The RMHF SOP will apply to the entire RMHF Complex.
- c) The 2015 Draft Closure Plan and the 2016 SOP were made available for public review, which included DTSC-hosted public hearings,

including public comment on August 30, 2018, and September 8, 2018. DTSC public comment period occurred between August 13, 2018, and October 12, 2018. DTSC is currently reviewing public comments on the 2015 Draft RCRA Closure Plan and will provide its final set of comments to DOE within sixty (60) days of the effective date of this Order as those comments pertain to the RMHF.

- d) The disposition path of all debris and waste is out of the State of California, at a licensed commercial low-level or mixed low level radioactive waste disposal facility or at an authorized low-level or mixed low-level radioactive waste disposal facility at a DOE site. Upon final approval of the RMHF SOP by DTSC, and after DTSC completes its review of DOE's Demolition Plan, DOE may proceed with removal and disposal of the non-RCRA permitted facilities, provided that the below conditions are addressed. DOE may not begin demolition of the RCRA-permitted facilities until the RMHF RCRA Closure Plan is approved.

If additional modifications are needed to the RCRA Closure Plan, DTSC will review and as appropriate comment on or approve those modifications within 15 days of submission of the requested modifications. Upon receipt of the approved closure plans, DOE may proceed with removal and disposal of the RCRA-permitted buildings.

- e) As part of the RMHF Complex building and debris removal, DOE will prepare and submit a Demolition Plan for the RMHF Complex to DTSC for information purposes within 10 business days of the issuance of the Order. This demolition/disposal plan will describe processes associated with demolishing structures to slab-on-grade; steps taken to mitigate hazards associated with leaving slabs in place; a process for characterizing building materials for the presence of hazardous materials and radionuclides; processes for collecting, handling, transporting, and disposing of debris containing hazardous materials; and the identification of the facilities receiving the materials. Building demolition will be performed using standard mechanized equipment and transported using standard highway trucks. Within 15 days of this Order, DTSC will provide comments to the submitted Demolition Plan. The parties anticipate that resolution of comments will be completed within 30 days of the Order's issuance.
- f) Pursuant to the Biological Opinion that was issued in August of 2018 by the United States Department of Fish and Wildlife, DOE will coordinate with the California Department of Fish and Wildlife and the

United States Fish and Wildlife Service to ensure any demolition would avoid, minimize, or compensate for adverse effects on federally listed and proposed species and designated critical habitat. A Mitigation and Monitoring Plan shall be developed to reduce or avoid such impacts, as well as a consultation plan with applicable Tribes for purposes of ensuring appropriate Tribal monitoring and avoidance processes are established.

- g) For any deliverable that DOE submits to DTSC for review or approval, DTSC shall make every effort respond to DOE as appropriate within 30 days unless otherwise specified in this Order.

4.5. Calendar of Tasks and Schedules. DOE will provide a schedule to DTSC for the RMHF Complex. DTSC shall have five days to approve it or provide DOE with comments.

4.6. Building Demolition Coordination Meeting. Respondent's Project Director will conduct an informal pre-job meeting(s) and include DTSC in the meeting(s), to review the near-term scope of work involved in building demolition activities.

4.7. Public Participation (Community Relations). DTSC will implement its DTSC Public Participation Plan for SSFL consistent with the 2010 AOC.

4.8. California Environmental Quality Act (CEQA). In issuing this Order, DTSC has complied with the California Environmental Quality Act, Public Resource Code sections 21000 *et seq.* with respect to RMHF Complex.

4.9. One-Year Review. DOE shall review and reevaluate the building demolition site conditions after a period of one year from the completion of demolition, consistent with its oversight identified in this Order. An annual summary of findings shall be submitted for the annual evaluation of the performance of the site restorative measures for the building demolition sites. The summary shall include a signed statement certifying that each unit has been fully decommissioned and has undergone interim site restoration in accordance with the approved closure plan (for the RCRA-permitted buildings) and approved SOP and associated demolition plans for all buildings at the RMHF Complex. Since post-closure/post-demolition activities will be conducted at each site consisting of the implementation of the soil and groundwater programs, each site will be left in a safe configuration pending future soil and groundwater remediation.

4.10. Changes During Building Demolition. During the implementation of the building demolition, DTSC will address all additions, modifications, or revisions pursuant to section 6.1 hereof.

4.11. Stop Work Authority. Section 2.14 of the 2010 AOC is incorporated herein by reference.

4.12. Emergency Response Action/Notification. In the event of any action or occurrence (such as a fire, earthquake, explosion, or human exposure to hazardous substances), as defined in section 101(14) of the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. § 9601(14), (caused by the release or threatened release of a hazardous substance) during the course of this Order, DOE shall immediately take all appropriate action to prevent, abate, or minimize such emergency, release, or immediate threat of release and shall immediately notify the Project Director. DOE shall take such action in consultation with the DTSC Project Director and in accordance with all applicable provisions of this Order. Within seven days of the onset of such an event, DOE shall furnish a report to DTSC, signed by DOE's Project Director, setting forth the events which occurred and the measures taken in the response thereto. In the event that DOE fails to take appropriate response and DTSC takes the immediate action, as necessary, instead (e.g., for health and safety reasons), DOE shall be liable to DTSC for all costs of the response action, subject to the protocols in the 2010 AOC. Nothing in this Section shall be deemed to limit any other notification requirement to which DOE may be subject.

5.0. GENERAL PROVISIONS

5.1. Submittals. All submittals and notifications from Respondent required by this Order shall be sent simultaneously by U.S. Mail and email if desired to:

Mr. Grant Cope
SSFL Project Director
Department of Toxic Substances Control
1001 "I" Street, Room 25-46
Sacramento, CA 95814-2828
Grant.Cope@dtsc.ca.gov

Mr. Steven Becker, P.G., Chief
Northern California SSFL and LABRIC Branch
Department of Toxic Substances Control
8800 Cal Center Drive
Sacramento, CA 95826-3200
Steven.Becker@dtsc.ca.gov

Mr. Roger Paulson, P.E.
Northern California SSFL Unit
Department of Toxic Substances Control
8800 Cal Center Drive
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Roger.Paulson@dtsc.ca.gov

Ms. Laura Rainey, P.G.
Senior Engineering Geologist
Department of Toxic Substances Control
5796 Corporate Avenue
Cypress, CA 90630-4732
Laura.Rainey@dtsc.ca.gov

5.2. Preemption. DOE shall not assert any defenses based on either party's alleged lack of legal authority to agree to, or enforce, the terms herein, including, without limitation, a defense based on an alleged preemption by federal law of DTSC's authority to oversee and enforce the terms of this Order.

5.3. Availability of Federal Funds.

- a) DOE's obligations under this Order are subject to the availability of funds appropriated and legally available for such purpose. No provision of this Order shall be interpreted as or constitute a commitment or requirement that DOE obligate or pay funds in contravention of the Anti-Deficiency Act, 31 U.S.C. § 1341, or any other applicable provision of law. DOE shall use its best efforts, by means of the federal budgetary process, to obtain the funds necessary to perform its obligations under this Order. Nothing in this Order shall be construed to require disclosures related to confidential internal federal budget deliberations not otherwise authorized under federal law.
- b) It is agreed that if inadequate funds are appropriated for such purposes, DOE shall notify DTSC promptly and develop a plan in writing to endeavor to secure additional funding to carry out the requirements of this Order. Nothing herein shall be construed as precluding DOE from arguing that the unavailability of appropriated funds constitutes a force majeure event. DTSC and DOE agree that in any dispute or any proceeding to enforce the requirements of this Order, DOE may raise as a defense that any failure or delay was caused by the unavailability of appropriated funds.

6.0. MODIFICATIONS

6.1 This Order may be modified by the mutual agreement of the parties. Any agreed modifications shall be in writing, shall be signed by both Parties, shall have as their effective date the date on which they are signed by DTSC, and shall be deemed incorporated into this Order. However and notwithstanding this mutual modification, DTSC reserves all rights to issue an imminent and substantial endangerment order at

the RMHF Complex at any time should it find such order is reasonably necessary to protect the public or the environment.

7.0. TERMINATION AND SATISFACTION

7.1 DTSC shall prepare the acknowledgment for DOE's signatories. The Acknowledgment shall specify that DOE has demonstrated to the satisfaction of DTSC that the terms of this Order, including payment of DTSC's costs, have been satisfactorily completed. The Acknowledgment shall affirm DOE's continuing obligation to preserve all records after the rest of the Order is satisfactorily completed.

8.0. EFFECTIVE DATE

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

9.0 EXECUTION AND TRANSMISSION

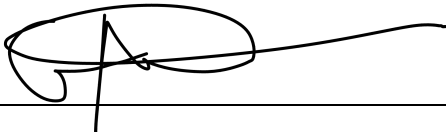
9.1 This Order may be executed and delivered in any number of counterparts, each of which when executed and delivered shall be deemed to be an original. Such counterparts shall together constitute one and the same document. This Order and documents related to it may be executed and transmitted to any other party by facsimile or pdf copy, which copies shall be deemed to be, and utilized in all respects as, an original. However, the wet-inked signed original of each counterpart must be provided to DTSC by mail within 14 calendar days of signing.

10.0 SIGNATURE BLOCKS



5/19/2020

William I. White
Senior Advisor for Environmental Management to
the Under Secretary for Science
United States Department of Energy



05/19/2020

Grant Cope
Deputy Director
Department of Toxic Substances Control