

DOE Order 435.1 Exemption Requests

HOW THE DOECAP REPORT
CAN ASSIST WITH
EXEMPTION PACKAGE
DEVELOPMENT , DOE FEM
ANNUAL REVIEWS AND
SUPPLIER LIST REVIEWS.

HOW THEY COME
TOGETHER!



Background

1992 -The Federal Facilities Compliance Act (FFCA) enacted

Post 1992 DOE implements FFCA

Inventory reports and Site Treatment Plans

The commercial marketplace responds offering low-level radioactive waste (LLW) and mixed LLW (MLLW) treatment, storage, and disposal (TSD) services

DOE avoids the need for new treatment facilities.

All DOE sites have access to nationwide contracts for TSD services

Commercial LLW/MLLW disposal facilities are licensed and available, including disposal of DOE waste.



DOE's Radioactive Waste Management Manual (M435.1-1) summarizes the current policy on use of non-DOE (commercial) TSD in Chapter I .2. F. (4) .



*DOE waste shall be treated, stored, and in the case of low-level waste, disposed of at the site where the waste is generated, if practical, or at another DOE facility. **If DOE capabilities are not practical or cost effective, exemptions may be approved to allow use of non-DOE facilities for the storage, treatment, or disposal of DOE radioactive waste ...***



DOE Field Element Managers (FEM) are responsible for approving exemptions to use non-DOE facilities.



Copies of FM-approved exemptions are sent to DOE-headquarters (EM-4.22, EHSS-22, and the program organization).

Exemption Requirement

Exemption Requirements

Such non-DOE facilities shall:

1

Comply with applicable Federal, State, and local requirements;

2

Have the necessary permit(s), license(s), and approval(s) for the specific waste(s); and

3

Be determined by the FEM to be acceptable based on a review conducted annually by DOE.

Exemption Requirements

Exemptions shall be documented to be cost effective and in the best interest of DOE, considering:

Alternatives for on-site disposal, an alternative DOE site, and available non-DOE facilities

- Life-cycle cost and potential liability

Protective of public health and the environment.

Waste characterized and certified to meet waste acceptance criteria.

Environmental compliance documented.

- Consultation and notification
- required.



What DOECAP Can Do for You

In order to comply with the requirements, DOE FEMs must complete an annual review

Multiple reviews are costly and time-consuming to both DOE and commercial facilities.

DOECAP's work streamlines this by providing a single point source for annual reviews (one vs. many) resulting in time and cost savings to DOE and the service provider.

One Stop Shopping!!!!

Ms. DR
 U.S. Department of Energy
 DRF Project Office
 Red Line Avenue
 Anytown, PA

Prime Contract Number, SCAC Project: Department of Energy Manual 435.1-1 Exemption Continuation Request

- References:
1. Letter from DOE Field Element Manager to Prime Contractor, "Approval of Department of Energy Manual 435.1-1 Exemption Request for Use of Non-Department of Energy Facilities for Treatment and Disposal", dated xxxx xx, 2021
 2. Letter from Prime Contractor to DOE Field Element Manager, "Department of Energy Manual 435.1-1 Exemption Request," dated xxxx xx, 2021

Dear Ms. DR:

On xxxx xx, 2021, the Department of Energy (DOE) approved a **one-year** exemption to allow SCAC to use non-DOE facilities (Outlander 1 in Utah; Outlander 2 in Tennessee; Outlander 3 in Texas; and Outlander 4 in Pennsylvania) for Low-Level Waste (LLW) and Mixed Low-Level Waste (MLLW) treatment and/or disposal as required by DOE Manual (M) 435.1-1, *Radioactive Waste Management Manual*. SCAC is requesting **continuation** of the existing exemption to continue shipping the approved waste streams to the aforementioned authorized commercial facilities for treatment and/or disposal. Additionally, SCAC is requesting DOE approve use of the authorized commercial disposal facilities for **two additional** low-level radioactive waste streams: LLW Solids – Uranium; and LLW Solids – New Waste Stream.

Other than the addition of these two new waste streams, there have not been any significant changes to the conditions/requirements or the previously approved waste streams, and the approved exemption will continue to be used for processing, treatment and/or disposal of previously identified LLW, Toxic Substance Control Act (TSCA) LLW and MLLW streams at previously approved non- DOE facilities identified herein. SCAC cannot self-perform the required work and DOE capabilities do not exist, are not practical, or are not cost effective for the storage, treatment, and/or disposal of these waste streams.

SCAC will continue to maximize utilization of the on-site landfill for disposition of approved secondary waste streams. The continued utilization of the on-site landfill will reduce transportation and disposal costs, and the transportation risks associated with off-site transportation and waste disposal associated with commercial facilities.

The SCAC Quality Assurance Department has completed an annual review of the Approved Supplier List, and the SCAC Waste Management and Transportation Department has completed a review of the DOE Consolidated Audit Program audit results, verifying potential use of the disposal facilities continues to be acceptable for disposal of DOE waste.

Table 1, *Waste Volumes for Commercial Off-Site Disposition*, provides waste stream information for the approved waste streams (unchanged) with the exception of the addition of LLW Solids – Uranium; and LLW Solids – New Waste Stream. The LLW Solids will only be offered for disposal once it has been deemed a waste and disposal approval has been granted by DOE. SCAC will also only initiate disposal actions for the LLW Solids following DOE direction. The attached exemption request for the approved disposal facilities (Outlander 1, Outlander 2, Outlander 3, and Outlander 4) preferred c

Table 1. Waste Volumes for Commercial Off-Site Disposition

Waste Stream	Volume	Description
Low-Level Waste (LLW)		
LLW Debris	100 m ³	Consumable, dry activated waste, personal protective equipment (PPE), plastic, paper, smears, and filters
LLW Soil-Like Material	50 m ³	Waste evaporator sludge, floor sweepings/paint fines
LLW TSCA Soil-Like Material	5 m ³	Paint Chips containing polychlorinated biphenyl
LLW Solids - Uranium New Stream	~5,000 containers	Uranium waste filled containers from new operation
LLW Solids – New Waste Stream	~5,000 cylinders	Empty containers with heels from new project
LLW Liquids	1000 gal	Liquid from various operations at site including evaporator water source, neutralized rinse water, laundry water.
Mixed Low-Level Waste (MLLW)		
MLLW Debris	50 m ³	Consumables (PPE, rags, small used parts) from process Area X, spill/leak cleanup solids
MLLW Soil-Like Material	5 m ³	Spill/leak cleanup, absorbent, maintenance solids
MLLW Liquids	104 gal	Process Area X maintenance, system flushing, spill clean-up liquids (not neutralized)

The primary commercial treatment and disposal facilities evaluated for these streams include Outlander 1 in Utah; Outlander 2 in Tennessee; Outlander 3 in Texas; and Outlander 4 in Pennsylvania. These commercial sites are available to this Project through Indefinite Delivery/Indefinite Quantity contracts already in place, in process, or through SCAC procurement actions. Attached are the updated exemption requests for the commercial facilities.

SCAC will continue to evaluate lifecycle costs based on the most up-to-date information available. Lifecycle costs included in this comparison are processing, transporting, disposing, and miscellaneous one-time costs. Miscellaneous one-time costs may include variables such as storing and shipping container costs, treatability sample costs, state processing fees, etc.

Selection and use of defined commercial treatment, storage, and disposal facilities for the treatment and/or disposal of SCAC project waste will be based on what is in the best interest of the Government. SCAC will execute this work scope within funding profiles as established in the baseline project budget.

If you have any questions, please contact me at (xxx) xxx-xxxx.

Sincerely,

Mr. Sam H
President and Project Manager
SCAC

Attachments:

1. Department of Energy Order 435.1-1 Exemption Request for Commercial Treatment and/or Disposal of Low-Level Waste and Mixed Low-Level Waste from the DOE SCAC Project at Outlander TSDF 1
2. Department of Energy Order 435.1-1 Exemption Request for Commercial Treatment and Disposal of Low-Level Waste, and Mixed Low-Level Waste from the DOE SCAC Project at Outlander TSDF 2
3. Department of Energy Order 435.1-1 Exemption Request for Commercial Treatment and/or Disposal of Low-Level Waste, Mixed Low-Level Waste, and Low Activity Waste from the DOE SCAC Project at Outlander TSDF 3
4. Department of Energy Order 435.1-1 Exemption Request for Commercial Treatment and/or Disposal of Low-Level Waste, Mixed Low-Level Waste, and Low Activity Waste from the DOE SCAC Project at Outlander TSDF 4

Department of Energy

Address

Xxxx xx, 2022

Mr. Sam H
President and Project Manager
SCAC
Street
Anytown, USA 12345

DRF-00000-22

Dear Mr. H:

APPROVAL OF DEPARTMENT OF ENERGY MANUAL 435.1-1 EXEMPTION REQUEST FOR USE OF NON-DEPARTMENT OF ENERGY FACILITIES FOR TREATMENT AND DISPOSAL

References:

1. Letter from Prime Contractor to DOE Field Element Manager, "Department of Energy Manual 435.1-1 Exemption Continuation Request" dated xxx xx, 2022
2. Letter from DOE Field Element Manager to Prime Contractor, "Approval of Department of Energy Manual 435.1-1 Exemption Request for Use of Non-Department of Energy Facilities for Treatment and Disposal" dated xxx xx, 2021
3. Letter from Prime Contractor to DOE Field Element Manager, "Department of Energy Manual 435.1-1 Exemption Request" dated xxx xx, 2021

SCAC requested and was granted an approval of an exemption to the Department of Energy (DOE) Manual 435.1-1 and Guide 435.1-1 for use of non-DOE facilities for treatment and/or disposal of Low-Level Waste (LLW) and Mixed Low-Level Waste (MLLW) generated by the SCAC Project Facility in xxxx 2021 (References 2 and 3).

The current SCAC request is for DOE to allow continued use of the 2021 subject exemption for existing waste streams, and obtain DOE approval of adding two additional low-level radioactive waste streams: LLW Solids-Uranium and LLW Solids-New Waste Stream.

Effective upon receipt of this letter, DOE hereby approves the exemption for SCAC to send LLW and MLLW identified in Table 1 of the referenced letter (Reference 1) to:

SCAC requested and was granted an approval of an exemption to the Department of Energy (DOE) Manual 435.1-1 and Guide 435.1-1 for use of non-DOE facilities for treatment and/or disposal of Low-Level Waste (LLW) and Mixed Low-Level Waste (MLLW) generated by the SCAC Project Facility in xxxx 2021 (References 2 and 3).

The current SCAC request is for DOE to allow continued use of the 2021 subject exemption for existing waste streams, and obtain DOE approval of adding two additional low-level radioactive waste streams: LLW Solids-Uranium and LLW Solids-New Waste Stream.

Effective upon receipt of this letter, DOE hereby approves the exemption for SCAC to send LLW and MLLW identified in Table 1 of the referenced letter (Reference 1) to:

- Outlander 1, Utah;
- Outlander 2, Tennessee;
- Outlander 3, Texas; and
- Outlander 4, Pennsylvania

Mr. H

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DRF-00000-22

SCAC is required to verify that annual audit reports find these facilities acceptable for treatment and/or disposal of DOE waste.

If you have any comments or require additional information, please contact me at (222) 222-2222.

Sincerely,

Ms. DR
U.S. DOE
DRF Project Office

cc:

ATTACHMENT 1

United States Department of Energy Order 435.1-1 Exemption Request for Commercial Treatment and/or Disposal of Low-Level Waste and Mixed Low-Level Waste from the United States Department of Energy SCAC Project Site at Outlander TSDF 1

SCAC Project requests an exemption to DOE Manual (M) 435.1-1 as required by United States Department of Energy (DOE) Order (O) 435.1-1 for the commercial treatment and/or disposal of Low-Level Waste (LLW) and Mixed Low-Level Waste (MLLW) at Outlander 1.

Waste Stream Description and Project Management

The waste streams covered by this exemption request include all DOE LLW and MLLW waste currently stored at the DOE SCAC Project facilities and any future LLW and MLLW waste generated during the operation of the SCAC operation and maintenance activities at the facilities.

SCAC manages the project at the DOE site. The process used by SCAC is based upon technical acceptability, schedule, and cost. Technical acceptability means the waste meets the disposal facility Waste Acceptance Criteria (WAC) and that the disposal facility can treat and/or disposition the waste compliantly (including Comprehensive Environmental Response, Compensation, and Liability Act waste). SCAC will choose the least cost alternative for waste disposal provided this determination meets schedules and the goals of DOE. Waste disposition determinations include consideration of disposal fees, transportation, characterization, certification, packaging, etc.

Use of Off-Site Treatment and Disposal Facilities

The DOE site does not have the capability for on-site disposal of LLW and MLLW; thus, DOE LLW and MLLW typically are disposed of at off-site disposal facilities. While Nevada National Security Site (NNSS) may be the preferred disposal facility due to cost for the majority of DOE LLW and MLLW, it is SCAC's intention to utilize commercial treatment and/or disposal at Outlander 1 as a contingency to disposal at NNSS for added flexibility to dispose of as much waste as possible as quickly as possible to meet schedules for cost avoidance that may be realized due to repackaging, transportation, or disposal factors.

Several conditions warrant the use of Outlander 1 over disposal at NNSS, including the following:

1. The waste can be transported more cost-effectively by rail and/or truck with no appreciable increase in disposal cost.
2. The waste requires treatment prior to disposal.
3. The waste is determined to meet the WAC of the commercial facility without repackaging or further handling of the waste when compared to NNSS requirements, thereby eliminating unnecessary exposure to SCAC personnel to radioactivity, industrial safety hazards, or other hazards associated with repackaging waste.

Selection of Existing Contracts

SCAC will use the DOE Indefinite Deliverable/Indefinite Quantity contract, 12345678DOE000000, for disposal of LLW and MLLW at Outlander 1 and DOE Basic Ordering Agreement, contract 12345678DOE111111, for treatment of LLW and MLLW.

Method of Transportation

Both rail and truck may be used for the transportation of waste to Outlander 1. The decision will be based on waste type, cost, schedule, and availability.

Exemption Criteria

Each of the requirements specified in DOE O 435.1-1 dealing with approval of exemptions for use of waste disposition services at non-DOE facilities is addressed below.

The non-DOE facilities shall comply with applicable Federal, State, and Local requirements.

- Outlander 1 is in compliance with applicable Federal, state, and local requirements. The DOE Consolidated Audit Program (DOECAP) completed a two-part audit of the Outlander 1 facility in Clive, UT. A remote annual audit was conducted on xxx xx, 2022, and an on-site audit was conducted on xxx xx, 2022. No significant deficiencies were found.

The non-DOE facilities shall have the necessary permits(s), License(s), and approval(s) for the specific waste(s).

- DOECAP performs an annual audit of all radioactive waste treatment, storage, and disposal facilities that DOE offices used for disposition of radioactive waste. One of the items reviewed during the audit of commercial facility is that they possess the necessary permits and licenses. Outlander 1 is a commercial facility fully licensed to accept, treat, and dispose of LLW and MLLW.

The non-DOE facilities shall be determined by the Field Element Manager to be acceptable based on a review conducted annually by DOE.

- DOECAP performed a two-part audit of the Outlander 1 facility in Clive, UT on xxx xx, 2022, with no significant deficiencies found.

Exemptions for the use of non-DOE facilities shall be documented to be cost effective and in the best interest of DOE, including consideration for alternatives for onsite disposal, an alternative DOE site, and available non-DOE facilities; consideration of life-cycle cost and potential liability; and be protective of public health and the environment.

- Cost comparisons are part of an alternatives analysis routinely completed to determine the best disposition option. Attributes used for comparison other than cost include regulatory compliance (i.e., meeting U.S. Department of Transportation requirements, treatment/disposal capabilities, facility WAC, etc.), capability to receive waste by railcar, programmatic issues, schedule needs, and potential exposure scenarios.
- Outlander 1 currently is being used by several DOE facilities for treatment and disposal of LLW and MLLW; therefore, potential DOE liability associated with the disposition of SCAC Project LLW and MLLW at Outlander 1 will not increase.

DOE waste shall be sufficiently characterized and certified to meet the facility's WAC.

- All waste will be characterized using SCAC procedure SCAC-WASTE-007, *Waste Characterization*, and documented in the waste profile required for treatment and/or disposal at Outlander 1. SCAC will certify their waste in accordance with SCAC's Waste Certification Program.

Appropriate National Environmental Policy Act review must be completed.

- SCAC Project - DOE issued a Final Environmental Impact Statement for Construction and Operation of the SCAC Project Facility (FEIS) (DOE/EIS-1234) analyzing potential environmental impacts from construction, operation, maintenance, and Decontamination and Decommissioning (D&D) of the proposed facility. In xxx 20xx, the Record of Decision (ROD) associated with 1234 was issued. Subsequently, DOE issued the Final Supplemental Environmental Impact Statement for Disposition of Uranium Waste (DOE/EIS-1234) and associated ROD on xxx xx, 20xx for transportation and disposal of waste if beneficial reuse is not realized.

The Office of Health, Safety and Security, the Office of Environmental Management, and the Program Secretarial Officer shall be notified of the basis for using any non-DOE radioactive waste disposal facility prior to the use of such facilities.

- After approval of this request by the DRF Office Manager, DOE DRF Office will provide the approved exemption request to the Office of Health, Safety, and Security; the Office of Environmental Management; and the Program Secretarial Officer.

Host States and State Compacts where non-DOE facilities are located shall be consulted prior to approval of an exemption to use such facilities and notified prior to shipments being made.

- The State of Utah has adopted a Generator Site Access Permit Program that requires that generators obtain a permit to use Utah Radioactive Disposal Sites. DOE facilities shippers will have the required permit. The access permit will be renewed annually to ensure continued disposal of waste at Outlander 1.

ATTACHMENT 2

United States Department of Energy Order 435.1-1 Exemption Request for Commercial Treatment and Disposal of Low-Level Waste, and Mixed Low-Level Waste from the United States Department of Energy SCAC Project Site at Outlander TSDF 2

SCAC Project requests an exemption to DOE Manual (M) 435.1-1 as required by United States Department of Energy (DOE) Order (O) 435.1 for the commercial treatment of Low-Level Waste (LLW) and Mixed Low-Level Waste (MLLW) at Outlander 2.

Waste Stream Description and Project Management

The waste streams covered by this exemption request include all DOE LLW and MLLW waste currently stored at the DOE SCAC Project facilities and any future LLW and MLLW waste generated during the operation and maintenance activities at the facilities.

SCAC manages the project at the DOE site. The process used by SCAC is based upon technical acceptability, schedule, and cost. Technical acceptability means the waste meets the disposal facility Waste Acceptance Criteria (WAC) and that the disposal facility can treat and/or disposition the waste compliantly (including Comprehensive, Environmental Response, Compensation, and Liability Act waste). SCAC will choose the least cost alternative for waste disposal provided this determination meets schedules and the goals of DOE. Waste disposition determinations include consideration of disposal fees, transportation, characterization, certification, packaging, etc.

Use of Off-Site Treatment and Disposal Facilities

The DOE site does not have the capability for on-site disposal of LLW and MLLW; thus, DOE LLW and MLLW typically are disposed of at off-site disposal facilities. While Nevada National Security Site (NNSS) may be the preferred disposal facility due to cost for the majority of DOE LLW and MLLW, it is SCAC's intention to utilize commercial treatment and/or disposal at Outlander 2 as a contingency to disposal at NNSS for added flexibility to dispose of as much waste as possible as quickly as possible to meet schedules for cost avoidance that may be realized due to repackaging, transportation, or disposal factors.

Several conditions warrant the use of Outlander 2 facilities over disposal at NNSS, including the following:

1. The waste can be transported more cost-effectively by truck with no appreciable increase in disposal cost.
2. The waste requires treatment prior to disposal.
3. The waste is determined to meet the WAC of the commercial facility without repackaging or further handling of the waste when compared to NNSS requirements, thereby eliminating unnecessary exposure to SCAC personnel to radioactivity, industrial safety hazards, or other hazards associated with repackaging waste.

Selection of Existing Contracts

SCAC will use the DOE Basic Ordering Agreement, contract 12345678DOE111111, for treatment of LLW and MLLW at Outlander 2.

Method of Transportation

Trucks typically are used for transportation of waste to Outlander 2 facilities.

Exemption Criteria

Each of the requirements specified in DOE O 435.1-1 that deals with approval of exemptions for use of waste disposition services at non-DOE facilities is addressed below.

The non-DOE facilities shall comply with applicable Federal, State, and Local requirements.

- Outlander 2 facilities are in compliance with applicable Federal, state, and local requirements. DOE Consolidated Audit Program (DOECAP) performed remote annual audits of Outlander 2 on xxx xx, 2021. No significant deficiencies were found.

The non-DOE facilities shall have the necessary permits(s), License(s), and approval(s) for the specific waste(s).

- DOECAP performs an annual audit of all radioactive waste treatment, storage, and disposal facilities that DOE offices use for the disposition of radioactive waste. One of the items reviewed during the audit of commercial facilities is that they possess the necessary permits and licenses. All Outlander 2 facilities are commercial facilities fully licensed to accept, treat, and dispose of treated LLW and MLLW at either NNSS or *Outlander 1*.

The non-DOE facilities shall be determined by the Field Element Manager to be acceptable based on a review conducted annually by DOE.

- DOECAP performed remote annual audits of Outlander 2 on xxx xx, 2021. No significant deficiencies were found.

Exemptions for the use of non-DOE facilities shall be documented to be cost effective and in the best interest of DOE, including consideration for alternatives for onsite disposal, an alternative DOE site, and available non-DOE facilities; consideration of life-cycle cost and potential liability, and be protective of public health and the environment.

- Cost comparisons are part of an alternatives analysis routinely completed to determine the best disposition option. Attributes used for comparison other than cost include regulatory compliance (i.e., meeting Department of Transportation requirements, treatment/disposal capabilities, facility WAC, etc.), capability to receive waste by railcar (if applicable), programmatic issues, schedule needs, and potential exposure scenarios.
- Outlander 2 is currently being used by several DOE facilities for treatment and disposal of LLW and MLLW; therefore, potential DOE liability associated with the disposition of SCAC Project LLW and MLLW at Outlander 2 facilities will not increase.

3 of 3

DOE waste shall be sufficiently characterized and certified to meet the facility's WAC.

- All waste will be characterized using SCAC procedure SCAC-WASTE-007, Waste Characterization, and documented in the waste profile required for treatment and/or disposal. SCAC will certify their waste in accordance with SCAC's Waste Certification Program.

Appropriate National Environmental Policy Act review must be completed.

- SCAC Project – DOE issued a Final Environmental Impact Statement for Construction and Operation of the SCAC Project Facility (FEIS) (DOE/EIS-1234) analyzing potential environmental impacts from construction, operation, maintenance, and Decontamination and Decommissioning (D&D) of the proposed facility. In xxx 20xx, the Record of Decision (ROD) associated with 1234 was issued. Subsequently, DOE issued the Final Supplemental Environmental Impact Statement for Disposition of Uranium Waste (DOE/EIS-1234) and associated ROD on xxx xx, 20xx for transportation and disposal of waste if beneficial reuse is not realized.

The Office of Health, Safety and Security, the Office of Environmental Management, and the Program Secretarial Officer shall be notified of the basis for using any non-DOE radioactive waste disposal facility prior to the use of such facilities.

- After approval of this request by the DRF Office Manager, DOE DRF Office will provide the approved exemption request to the Office of Health, Safety, and Security; the Office of Environmental Management; and the Program Secretarial Officer.

Host States and State Compacts where non-DOE facilities are located shall be consulted prior to approval of an exemption to use such facilities and notified prior to shipments being made.

- SCAC previously has notified and will continue to notify the State of xxxxxx of shipments to Outlander 2 facilities, as appropriate.

Several conditions warrant the use of Outlander 3 over disposal at NNSS, including the following:

1. The waste can be transported more cost-effectively by rail and/or truck with no appreciable increase in disposal cost.
2. The waste requires treatment prior to disposal.
3. The waste is determined to meet WAC of the commercial facility without repackaging or further handling of the waste when compared to NNSS requirements, thereby eliminating unnecessary exposure to SCAC personnel to radioactivity, asbestos, industrial safety hazards, or other hazards associated with repackaging waste.
4. SCAC also may obtain a lower disposal cost for disposition of its low activity waste in Outlander 3 hazardous/toxic waste and radioactive waste defined as "Exempt" under Title 25, Texas Administrative Code Part 289 in lieu of NNSS.

ATTACHMENT 3

United States Department of Energy Order 435.1-1 Exemption Request for Commercial Treatment and/or Disposal of Low-Level Waste, Mixed Low-Level Waste, and Low Activity Waste from the United States Department of Energy SCAC Project Site at Outlander TSDf 3

SCAC Project requests an exemption to DOE Manual (M) 435.1-1 as required by United States Department of Energy (DOE) Order (O) 435.1-1 for the commercial treatment and/or disposal of 'Low-Level Waste (LLW), Mixed Low-Level Waste (MLLW) and low activity waste at Outlander 3.

Waste Stream Description and Project Management

The waste streams covered by this exemption request include all DOE LLW, MLLW and low activity waste currently stored at the DOE SCAC Project facilities and any future LLW, MLLW, and low activity waste generated during the operations and maintenance activities at the facilities.

SCAC manages the project at the DOE site. The process used by SCAC is based upon technical acceptability, schedule, and cost. Technical acceptability means the waste meets the disposal facility Waste Acceptance Criteria (WAC) and that the disposal facility can treat and/or disposition the waste compliantly (including Comprehensive Environmental Response, Compensation, and Liability Act waste). SCAC will choose the least cost alternative for waste disposal provided this determination meets schedules and the goals of DOE. Waste disposition determinations include consideration of disposal fees, transportation, characterization, certification, packaging, etc.

Use of Off-Site Disposal Facilities

The DOE site does not have the capability for on-site disposal of LLW, MLLW, and low activity waste; thus, DOE LLW, MLLW, and low activity waste typically is disposed of at off-site disposal facilities. While Nevada National Security Site (NNSS) may be the preferred disposal facility due to cost for the majority of DOE's LLW, MLLW, and low activity waste, it is SCAC's intention to use commercial treatment and/or disposal at Outlander 3 as a contingency to disposal at NNSS for added flexibility to dispose of as much waste as possible as quickly as possible to meet accelerated cleanup and deactivation schedules for cost avoidance that may be realized due to repackaging, transportation, or other disposal factors.

Selection of Existing Contracts

SCAC will continue to use the DOE Indefinite Deliverable/Indefinite Quantity contract, 12345678DOE000000, for the disposal of LLW and MLLW at Outlander 3 and DOE Basic Ordering Agreement, contract 12345678DOE111111, for treatment of LLW and MLLW.

Method of Transportation

Both rail and truck may be used for the transportation of waste to Outlander 3. The decision will be based on waste type, cost, schedule, and availability.

Exemption Criteria

Each of the requirements specified in DOE O 435.1 that deal with approval of exemptions for use of waste disposition services at non-DOE facilities is addressed below.

The non-DOE facilities shall comply with applicable Federal, State, and Local requirements.

- Outlander 3 is in compliance with applicable Federal, state, and local requirements. DOE Consolidated Audit Program (DOECAP) performed an annual audit of Outlander 3 on xxx xx, 2022, and no significant deficiencies were found.

The non-DOE facilities shall have the necessary permits(s), License(s), and approval(s) for the specific waste(s).

- DOECAP performs an annual audit of all radioactive waste treatment, storage, and disposal facilities that DOE offices use for the disposition of radioactive waste. One of the items reviewed during the audit of commercial facilities is that they possess the necessary permits and licenses. Outlander 3 is a commercial facility fully licensed to accept and dispose of LLW, MLLW, and low activity waste.

The non-DOE facilities shall be determined by the Field Element Manager to be acceptable based on a review conducted annually by DOE.

- DOECAP performed its annual audit of Outlander 3 on xxx xx, 2022, and no significant deficiencies were found. Each DOECAP audit is performed annually.

Exemptions for the use of non-DOE facilities shall be documented to be cost effective and in the best interest of DOE, including consideration for alternatives for onsite disposal, an alternative DOE site, and available non-DOE facilities; consideration of life-cycle cost and potential liability; and be protective of public health and the environment.

- Cost comparisons are part of an alternatives analysis routinely completed to determine the best disposition option. Attributes used for comparison other than cost include regulatory compliance (i.e., meeting U.S. Department of Transportation requirements, treatment/disposal capabilities, facility WAC, etc.), capability to receive waste by railcar, programmatic issues, schedule needs, and potential exposure scenarios.
- Outlander 3 currently is being used by several DOE facilities for the disposition of both LLW and MLLW. SCAC is using Outlander 3 for the treatment and disposal of LLW and MLLW; therefore, potential DOE liability associated with the disposition of LLW and MLLW at Outlander 3 will not increase.

DOE waste shall be sufficiently characterized and certified to meet the facility's WAC.

- All waste will be characterized using SCAC procedure SCAC-WASTE-007, Waste Characterization, and documented in the waste profile required for treatment and/or disposal at Outlander 3. SCAC will certify their waste in accordance with SCAC's Waste Certification Program.

Appropriate National Environmental Policy Act review must be completed.

- SCAC Project - DOE issued a Final Environmental Impact Statement for Construction and Operation of the SCAC Project Facility at the site (FEIS) (DOE/EIS-1234) analyzing potential environmental impacts from construction, operation, maintenance, and Decontamination and Decommissioning (D&D) of the proposed facility. In xxx 20xx, the Record of Decision (ROD) associated with 1234 was issued. Subsequently, DOE issued the Final Supplemental Environmental Impact Statement for Disposition of Uranium Waste (DOE/EIS-1234) and associated ROD on xxx xx, 20xx, for transportation and disposal of waste if beneficial reuse is not realized

The Office of Health, Safety and Security, the Office of Environmental Management, and the Program Secretarial Officer shall be notified of the basis for using any non-DOE radioactive waste disposal facility prior to the use of such facilities.

- After approval of this request by the DRF Office Manager, DOE DRF Office will provide the approved exemption request to the Office of Health, Safety, and Security; the Office of Environmental Management; and the Program Secretarial Officer.

Host States and State Compacts where non-DOE facilities are located shall be consulted prior to approval of an exemption to use such facilities and notified prior to shipments being made.

- SCAC has notified and will continue to notify the State of Texas of shipments to Outlander 3. There are no compact notification requirements for shipments to Outlander 3. There have been no expressed concerns associated with any previous waste shipments to Outlander 3.

ATTACHMENT 4

United States Department of Energy Order 435.1-1 Exemption Request for Commercial Treatment and Disposal of Low-Level Waste, and Mixed Low-Level Waste from the United States Department of Energy SCAC Project Site at Outlander TSDF 4

SCAC Project requests an exemption to DOE Manual (M) 435.1-1 as required by United States Department of Energy (DOE) Order (O) 435.1 for the commercial treatment of Low-Level Waste (LLW) and Mixed Low-Level Waste (MLLW) at Outlander 4.

Waste Stream Description and Project Management

The waste streams covered by this exemption request include all DOE LLW and MLLW waste currently stored at the DOE SCAC Project facilities and any future LLW and MLLW waste generated during the operation and maintenance activities at the facilities.

SCAC manages the project at the DOE site. The process used by SCAC is based upon technical acceptability, schedule, and cost. Technical acceptability means the waste meets the disposal facility Waste Acceptance Criteria (WAC) and that the disposal facility can treat and/or disposition the waste compliantly (including Comprehensive, Environmental Response, Compensation, and Liability Act waste). SCAC will choose the least cost alternative for waste disposal provided this determination meets schedules and the goals of DOE. Waste disposition determinations include consideration of disposal fees, transportation, characterization, certification, packaging, etc.

Use of Off-Site Treatment and Disposal Facilities

The DOE site does not have the capability for on-site disposal of LLW and MLLW; thus, DOE LLW and MLLW typically are disposed of at off-site disposal facilities. While Nevada National Security Site (NNSS) may be the preferred disposal facility due to cost for the majority of DOE LLW and MLLW, it is SCAC's intention to utilize commercial treatment and/or disposal at Outlander 4 as a contingency to disposal at NNSS for added flexibility to dispose of as much waste as possible as quickly as possible to meet schedules for cost avoidance that may be realized due to repackaging, transportation, or disposal factors.

Several conditions warrant the use of Outlander 4 facilities over disposal at NNSS, including the following:

1. The waste can be transported more cost-effectively by truck with no appreciable increase in disposal cost.
2. The waste requires treatment prior to disposal.
3. The waste is determined to meet the WAC of the commercial facility without repackaging or further handling of the waste when compared to NNSS requirements, thereby eliminating unnecessary exposure to SCAC personnel to radioactivity, industrial safety hazards, or other hazards associated with repackaging waste.

Selection of Existing Contracts

SCAC will use the DOE Basic Ordering Agreement, contract 12345678DOE111111, for treatment of LLW and MLLW at Outlander 4.

Method of Transportation

Trucks typically are used for transportation of waste to Outlander 4 facilities.

Exemption Criteria

Each of the requirements specified in DOE O 435.1-1 that deals with approval of exemptions for use of waste disposition services at non-DOE facilities is addressed below.

The non-DOE facilities shall comply with applicable Federal, State, and Local requirements.

- Outlander 4 facilities are in compliance with applicable Federal, state, and local requirements. DOE Consolidated Audit Program (DOECAP) performed remote annual audits of Outlander 4 on xxx xx, 2021. No significant deficiencies were found.

The non-DOE facilities shall have the necessary permits(s), License(s), and approval(s) for the specific waste(s).

- DOECAP performs an annual audit of all radioactive waste treatment, storage, and disposal facilities that DOE offices use for the disposition of radioactive waste. One of the items reviewed during the audit of commercial facilities is that they possess the necessary permits and licenses. All Outlander 4 facilities are commercial facilities fully licensed to accept, treat, and dispose of treated LLW and MLLW at either NNSS or *Outlander 3*.

The non-DOE facilities shall be determined by the Field Element Manager to be acceptable based on a review conducted annually by DOE.

- DOECAP performed remote annual audits of Outlander 4 on xxx xx, 2021. No significant deficiencies were found.

Exemptions for the use of non-DOE facilities shall be documented to be cost effective and in the best interest of DOE, including consideration for alternatives for onsite disposal, an alternative DOE site, and available non-DOE facilities; consideration of life-cycle cost and potential liability, and be protective of public health and the environment.

- Cost comparisons are part of an alternatives analysis routinely completed to determine the best disposition option. Attributes used for comparison other than cost include regulatory compliance (i.e., meeting Department of Transportation requirements, treatment/disposal capabilities, facility WAC, etc.), capability to receive waste by railcar (if applicable), programmatic issues, schedule needs, and potential exposure scenarios.
- Outlander 4 is currently being used by several DOE facilities for treatment and disposal of LLW and MLLW; therefore, potential DOE liability associated with the disposition of SCAC Project LLW and MLLW at Outlander 4 facilities will not increase.

DOE waste shall be sufficiently characterized and certified to meet the facility's WAC./

- All waste will be characterized using SCAC procedure SCAC-WASTE-007, Waste Characterization, and documented in the waste profile required for treatment and/or disposal. SCAC will certify their waste in accordance with SCAC's Waste Certification Program.

Appropriate National Environmental Policy Act review must be completed.

- SCAC Project – DOE issued a Final Environmental Impact Statement for Construction and Operation of the SCAC Project Facility (FEIS) (DOE/EIS-1234) analyzing potential environmental impacts from construction, operation, maintenance, and Decontamination and Decommissioning (D&D) of the proposed facility. In xxx 20xx, the Record of Decision (ROD) associated with 1234 was issued. Subsequently, DOE issued the Final Supplemental Environmental Impact Statement for Disposition of Uranium Waste (DOE/EIS-1234) and associated ROD on xxx xx, 20xx, for transportation and disposal of waste if beneficial reuse is not realized.

The Office of Health, Safety and Security, the Office of Environmental Management, and the Program Secretarial Officer shall be notified of the basis for using any non-DOE radioactive waste disposal facility prior to the use of such facilities.

- After approval of this request by the DRF Office Manager, DOE DRF Office will provide the approved exemption request to the Office of Health, Safety, and Security; the Office of Environmental Management; and the Program Secretarial Officer.

Host States and State Compacts where non-DOE facilities are located shall be consulted prior to approval of an exemption to use such facilities and notified prior to shipments being made.

- SCAC previously has notified and will continue to notify the State of xxxxxx of shipments to Outlander 4 facilities, as appropriate.