



STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF WATER RESOURCES

Davy Crockett Tower
500 James Robertson Parkway, 9th Floor
Nashville, Tennessee 37243

April 4, 2024

Mr. Johnny Moore
Manager, ORNL Site Office
US Department of Energy
e-copy: moorejo@ornl.gov
Oak Ridge, TN 37831

Subject: **State Operating Permit No. SOP-23032**
U.S. Department of Energy (DOE)
ORNL
Oak Ridge, Roane County, Tennessee

Dear Mr. Moore:

In accordance with the provisions of the Tennessee Water Quality Control Act, Tennessee Code Annotated (T.C.A.), Sections 69-3-101 through 69-3-120, the Division of Water Resources hereby issues the enclosed State Operating Permit. The continuance and/or reissuance of this Permit is contingent upon your meeting the conditions and requirements as stated therein.

Please be advised that a petition for permit appeal may be filed, pursuant to T.C.A. Section 69-3-105, subsection (i), by the permit applicant or by any aggrieved person who participated in the public comment period or gave testimony at a formal public hearing whose appeal is based upon any of the issues that were provided to the commissioner in writing during the public comment period or in testimony at a formal public hearing on the permit application.

Additionally, for those permits for which the department gives public notice of a draft permit, any permit applicant or aggrieved person may base a permit appeal on any material change to conditions in the final permit from those in the draft, unless the material change has been subject to additional opportunity for public comment.

Any petition for permit appeal under this subsection (i) shall be filed with the technical secretary of the Water Resources Board within thirty (30) days after public notice of the commissioner's decision to issue or deny the permit. A copy of the filing should also be sent to TDEC's Office of General Counsel.

TDEC has activated a new email address to accept appeals electronically. If you wish to file an appeal, you may do so by emailing the appeal and any attachments to TDEC.Appeals@tn.gov. If you file an appeal electronically, you do not have to send a paper copy. If you have questions about your electronic filing, you can call 615-532-0131. Electronic filing is encouraged, but not required.

If you have questions, please contact the Knoxville EFO at 1-888-891-TDEC; or, at this office, please contact Mr. Wade Murphy at (615) 532-0666 or by E-mail at Wade.Murphy@tn.gov.

Sincerely,



Vojin Janjić
Manager, Water-Based Systems

Enclosure

cc: Mr. Thomas Doty, Operations and Oversight, US Department of Energy, dotytw@ornl.gov
Other ORNL Staff (via email) – Todd North, Lori Muhs, Jessica Langstaff, Debbie McCarter
Mr. Jerry Lindsay, Chickasaw Mgmt. Svcs, LLC, jerry.lindsay@science.doe.gov
Mr. Patrick Berge, P.E., Public Works Director, Oak Ridge, pberge@oakridgetn.gov
EFO-Knoxville-DWR, robert.ramsey@tn.gov
TDEC-DWR-Engineering Services Unit, timothy.hill@tn.gov
Permit File



**State of Tennessee Operating Permit
Permit Number SOP-23032**

Issued by
**State of Tennessee
Department of Environment and Conservation
Division of Water Resources
Davy Crockett Tower
500 James Robertson Parkway
Nashville, TN 37243**

In accordance with the provisions of Tennessee Code Annotated Section §69-3-108 and regulations promulgated pursuant thereto, permission is hereby granted to:

Permittee: **U.S. Department of Energy
Oak Ridge National Laboratory (ORNL)**

for the operation of: single vault toilet systems at two security portals

from a facility located at: 1 Bethel Valley Rd., Oak Ridge, Anderson and Roane Counties, Tennessee

and located in: the Clinch River Watershed.

This permit shall become effective on: **May 01, 2024**

This permit shall expire on: **April 30, 2029**

Issuance date: **April 4, 2024**



for Jennifer Dodd
Director

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PART 1

The U.S. Department of Energy, doing business as Oak Ridge National Laboratory (ORNL), at 1 Bethel Valley Rd, in Oak Ridge, Anderson and Roane Counties, is hereby only authorized to operate single vault toilets at locations on the site without water service. The system shall be operated so that there is no discharge of any wastewater to any surface or subsurface stream, watercourse, or drainage ditch.

Overflows, releases, spills, or the occurrence of any other condition that causes a discharge to any surface or subsurface stream, watercourse, or drainage ditch is a violation of this permit. In addition, this system must be operated in a manner preventing the creation of a public health hazard.

This authorization is consistent with approved plans, specifications, and other data submitted to the Division of Water Resources (Division) in support of the complete application, all of which are filed with and considered as a part of this permit, together with the following named conditions and requirements.

1. PERMIT CONDITIONS AND REQUIREMENTS

1.1. GENERAL PROVISIONS

The system must be operated, and maintained in accordance with plans and specifications approved by the Division and in a manner which will ensure that the system does not cause any violations of the conditions or requirements of this permit.

The discharge of wastewater in any way to waters of the state from any portion of the facility constitutes a violation of this permit.

The permittee must provide for wastes to be pumped from this system on a regular schedule sufficient to ensure that a reasonable margin of safety is provided against the possibility of an overflow. Pumping frequencies should be sufficient to ensure that the tank remains below $\frac{3}{4}$ full, in terms of volume capacity, at all times.

The following conditions shall be followed:

- 1) In the event of an accidental spill of wastes, wastes shall be removed and disposed of with the vault toilet wastes.



- 2) The permittee or the waste hauling contractor must clean up any spillage of waste that results from the operation of this vault toilet system.
- 3) It is the permittee's responsibility to ensure that the waste removal contractor performs all work relative to this system in accordance with this permit and good operating procedures.
- 4) The wastewater must be disposed of at a publicly owned treatment works or other facility in the lawful business of receiving wastes for treatment and disposal. The transport and ultimate disposal of the wastes must be documented by a manifest system on forms approved by the Division. The permittee shall also record on the manifest forms the number of loads hauled, the volume of each load, and the dates of hauling. A copy of the manifest must be submitted to the EFO on a quarterly basis. If there is no waste disposed of during any given month, this shall be documented and submitted to the EFO as well.

Notwithstanding this permit, the permittee shall remain liable for any damages sustained by the State of Tennessee, including but not limited to fish kills and losses of aquatic life and/or wildlife, as a result of the discharge or spill of wastewater to any surface or subsurface waters. Additionally, it shall be the responsibility of the permittee to conduct its sewage disposal activities in a manner such that public or private health hazards or nuisances will not be created.

Sludge or any other material removed by the wastewater treatment system must be disposed of in a manner which prevents its entrance into or pollution of any surface or subsurface waters. Additionally, the disposal of such sludge or other material must be in compliance with the Tennessee Solid Waste Disposal Act, TCA 68-31-101 et seq. and the Tennessee Hazardous Waste Management Act, TCA 68-46-101 et seq. The permittee must keep records of the Publicly Owned Treatment Works (POTW) or treatment facility that receives the wastewater discharge.

This permit is subject, at any time, to review by the Division.

1.2. RECORD-KEEPING AND REPORTING REQUIREMENTS

Records of when pumping takes place must be kept at the facility. Quarterly Operational Reports (QORs) will include pumping dates and volume of waste pumped on each trip.

The MORs shall be submitted by the 15th day of the month following data collection. Reports shall be submitted by one of the following methods, presented below in order of preference:

- 1) Use [MyTDEC Forms](#), if available.
- 2) Email a signed and certified copy in pdf format to the «Efo_Name» EFO:

Chattanooga	TDEC.Chattanooga.EFO@tn.gov
Columbia	TDEC.Columbia.EFO@tn.gov
Cookeville	TDEC.Cookeville.EFO@tn.gov
Jackson	TDEC.Jackson@tn.gov
Johnson City	TDEC.JohnsonCity.EFO@tn.gov
Knoxville	TDEC.KEFO.DWRPermits@tn.gov
Memphis	TDEC.Memphis.EFO@tn.gov
Nashville	DWR.NEFO@tn.gov

- 3) Submit signed and certified forms to the EFO at the following address:

*STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF WATER RESOURCES
Knoxville Environmental Field Office
3711 Middlebrook Pike
Knoxville, Tennessee 37921*

Additionally, the permittee must keep a log of the following:

- Date of sewage removal;
- Facility name and address where wastewater is disposed/hailed;
- Amount of waste hauled;
- Any operational problems encountered during pump and haul.

All records and information resulting from the monitoring activities required by this permit shall be retained for a minimum of three (3) years, or longer if requested by the Division. A copy of these records must be sent to the Knoxville EFO within 15 days of a request.

1.3. ADDITION OF WASTE LOADS

The permittee shall not add waste loads from other sources without approval by the Division.



1.4. ELECTRONIC REPORTING

This permit requires the submission of forms developed by the Director in order for a person to comply with certain requirements, including, but not limited to, making reports, submitting monitoring results, and applying for permits. The Director may make these forms available electronically and, if submitted electronically, then that electronic submission shall comply with the requirements of Chapter [0400-01-40](#). Electronic submission is required when available unless waived by the Commissioner in accordance with 40 C.F.R. § 127.15.

In the event of large-scale emergencies and/or prolonged electronic reporting system outages, an episodic electronic reporting waiver may be granted by the Commissioner in accordance with 40 CFR § 127.15. A request for a deadline extension or episodic electronic reporting waiver should be submitted to DWRWater.Compliance@tn.gov, in compliance with the Federal NPDES Electronic Reporting Rule.

If an episodic electronic reporting waiver is granted, reports with wet-ink original signatures shall be mailed to the following address:

*STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF WATER RESOURCES
COMPLIANCE & ENFORCEMENT UNIT
Davy Crockett Tower
500 James Robertson Parkway, 9th Floor
Nashville, Tennessee 37243*

For purposes of determining compliance with this permit, data provided to the Division electronically is legally equivalent to data submitted on signed and certified forms. A copy must be retained for the permittee's files.

PART 2

2. STANDARD CONDITIONS

2.1. GENERAL PROVISIONS

2.1.1. Duty to Comply

The permittee shall comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Water Quality Control Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

2.1.2. Duty to Reapply

The permittee is not authorized to discharge after the expiration date of this permit. In order to receive authorization to discharge beyond the expiration date, the permittee shall submit such information and forms as are required to the Division Director no later than 180 days prior to the expiration date. Such forms shall be properly signed and certified.

2.1.3. Proper Operation and Maintenance

The permittee shall, at all times, properly operate and maintain all facilities and systems (and related appurtenances) for collection and treatment which are installed or used by the permittee to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance also includes adequate laboratory and process controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems, which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

2.1.4. Right of Entry

The permittee shall allow the Director, the Regional Administrator of the U.S. Environmental Protection Agency, or their authorized representatives, upon the presentation of credentials, to:

- a) Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records shall be kept under the conditions of this permit;
- b) Have access to and copy, at reasonable times, any records that shall be kept under the conditions of this permit;

- c) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
- d) Sample or monitor at reasonable times for the purposes of assuring permit compliance or as otherwise authorized by the Director.

2.1.5. Availability of Reports

All reports and data shall be kept for a minimum of three years.

2.1.6. Property Rights

This permit does not convey property rights of any sort, or any exclusive privilege.

2.1.7. Severability

The provisions of this permit are severable. If any provision of this permit due to any circumstance is held invalid, then the application of such provision to other circumstances and to the remainder of this permit shall not be affected thereby.

2.1.8. Other Information

If the permittee becomes aware of failure to submit any relevant facts in a permit application, or of submission of incorrect information in a permit application or in any report to the Director, then the permittee shall promptly submit such facts or information.

2.2. CHANGES AFFECTING THE PERMIT

2.2.1. Permit Modification, Revocation, or Termination

- a) This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition. Causes for such permit action include but are not limited to the following:
 - i. Violation of any terms or conditions of the permit;
 - ii. Obtaining a permit by misrepresentation or failure to disclose fully all relevant facts; and
 - iii. A change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge.



- b) The permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.

2.2.2. Change of Ownership

Individual permits are not transferable to any person except after notice to the Commissioner, as specified below. The Commissioner may require modification or revocation and reissuance of the permit to change the name of the permittee.

- a) The permittee notifies the Director of the proposed transfer at least 30 days in advance of the proposed transfer date;
- b) The notice includes a written agreement between the existing and new permittees containing a specified date for transfer of permit responsibility, coverage, and liability between them; and
- c) The permittee shall provide the following information to the Director in their formal notice of intent to transfer ownership:
 - i. The permit number of the subject permit;
 - ii. The effective date of the proposed transfer;
 - iii. The name, address, and contact information of the transferor;
 - iv. The name, address, and contact information of the transferee;
 - v. The names of the responsible parties for both the transferor and transferee;
 - vi. A statement that the transferee assumes responsibility for the subject permit;
 - vii. A statement that the transferor relinquishes responsibility for the subject permit;
 - viii. The signatures of the responsible parties for both the transferor and transferee pursuant to the signatory requirements of subparagraph (i) of Rule [0400-40-05-.07\(2\)](#); and
 - ix. A statement regarding any proposed modifications to the facility, its operations, or any other changes, which might affect the permit, limits and conditions contained in the permit.



2.2.3. Change of Mailing Address

The permittee shall promptly provide to the Director written notice of any change of mailing address. In the absence of such notice, the original address of the permittee will be assumed to be correct.

2.3. NONCOMPLIANCE

2.3.1. Effect of Noncompliance

Any permit noncompliance constitutes a violation of applicable State and Federal laws and is grounds for enforcement action, permit termination, or denial of permit reissuance.

2.3.2. Reporting of Noncompliance

a) 24-hour Reporting:

In the case of any noncompliance, or any release (whether or not caused by improper operation and maintenance), which could cause a threat to human health or the environment, the permittee shall:

- i. Report the noncompliance to the «EFO_Name» EFO within 24 hours from the time the permittee becomes aware of the circumstances.
- ii. Submit a written report within five days of the time the permittee becomes aware of the noncompliance unless this requirement is waived by the Director on a case-by-case basis. The permittee shall provide the following information:
 1. A description of and the cause of the noncompliance or release;
 2. The period of noncompliance or release, including start and end dates and times i.e. duration or, if not corrected, the anticipated time the noncompliance or release is expected to continue;
 3. The steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance or release.

b) Scheduled Reporting:

For instances of noncompliance which are not reported under a) above, the permittee shall report the noncompliance on an annual basis. The report shall contain all information concerning the steps taken, or planned, to reduce,



eliminate, and prevent recurrence of the violation and the anticipated time the violation is expected to continue.

2.3.3. Adverse Impact

The permittee shall take all reasonable steps to minimize any adverse impact to the waters of Tennessee resulting from noncompliance with this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

2.4. LIABILITIES

2.4.1. Civil and Criminal Liability

The permittee is subject to civil and criminal liability for violation of this permit. Notwithstanding this permit, the permittee shall remain liable for any damages sustained by the State of Tennessee, including but not limited to fish kills and losses of aquatic life and/or wildlife, as a result of the discharge of wastewater to any surface or subsurface waters. Additionally, notwithstanding this Permit, it shall be the responsibility of the permittee to conduct its wastewater treatment and/or discharge activities in a manner such that public or private nuisances or health hazards will not be created.

2.4.2. Liability Under State Law

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law.

PART 3

3. PERMIT SPECIFIC REQUIREMENTS

3.1. SCHEDULE OF COMPLIANCE

Within thirty (30) days of a decision to supply water service to a toilet facility, the permittee shall initiate plans to have the toilet system connected to public sewer or otherwise initiate the engineering/planning process to reevaluate the feasibility of sewage system alternatives in consideration of life cycle costs.

ADDENDUM TO RATIONALE AT PERMIT ISSUE

**U.S. Department of Energy
Oak Ridge National Laboratory (ORNL) – Vault Toilet System
State Operating Permit No. SOP-23032
Permit Writer: Wade D. Murphy
Date: April 02, 2024**

This addendum identifies changes made to the final permit at permit issue in consideration of applicant comments on the draft permit.

Prior to detailing the comment considerations, the Division hereby notifies the permittee that the Division updated the final permit to reflect the new office location for the Division beginning April 15, 2024. The Division updated the address on the cover page and Page 4 of the final permit. On April 15, 2024, the Division is moving from the William R. Snodgrass Tower, 312 Rosa L. Parks Boulevard to the Davy Crockett Tower, 500 James Robertson Parkway, Nashville, TN.

The Division electronically received a comment letter dated March 22, 2024, on the draft permit from Johnny O. Moore, Manager, ORNL Site Office. Mr. Moore requested three changes to the permit content. The Division accommodates all three requests in the final permit. ORNL requested revisions to the permit relative to 1) ORNL staff being present during transfer of wastes from the holding tank, 2) Monthly Operation Report (MOR) submission frequency, and 3) Placement of holding tank signage.

Staff Presence At Holding Tank Pumping

In consideration of the following factors:

- That the waste hauling vendor services the holding tank at its convenience;
- That the vendor's contract requires them to notify ORNL immediately of any spill;
- That the locations have security staffed 24 hours, and;
- That the ORNL complex has utilities operations personnel, emergency responders and HAZMAT/Spill response teams staffed 24 hours;

The Division deletes from Part 1.1 1) the requirement that a representative of ORNL be present when pumping occurs and deletes from Part 1.1 4) the requirement to identify that representative by name on the manifest forms.

Monthly Operation Report Submission Frequency

In consideration that the Division set the reporting frequency at quarterly for ORNL in SOP-22033 and additionally in consideration that these facilities are waterless significantly reducing waste volume, the Division revises the reporting frequency from monthly to quarterly in Part 1.1 4) and 1.2 of the permit.

Vault Toilet Holding Tank Signage

In consideration that these vault toilets are not readily accessible by the public being located on ORNL property behind security gates staffed 24 hours, the Division deletes the sewerage system signage requirement from Part 3 of the permit.

The Division appreciates ORNL's participation in the permitting process.

RATIONALE

U.S. Department of Energy
Oak Ridge National Laboratory (ORNL) – Vault Toilet System
State Operating Permit No. SOP-23032
Permit Writer: Wade D. Murphy
Date: February 20, 2024

FACILITY CONTACT INFORMATION:

Mr. Johnny O. Moore
Manager, ORNL Site Office
Phone: (865) 576-3536
moorejo@ornl.gov
1 Bethel Valley Road, Oak Ridge

Engineering basis:

Per the meeting minutes from the preliminary project discussion held on June 1, 2022, and tracked as WPN22.0373, ORNL is looking to construct a temporary research station and another outpost outside the range of water and sewer service at the reservation. During the design of the project and investigation into environmental permitting requirements, ORNL realized that two vault toilet facilities, at the east (Anderson County) and west (Roane County) security entrances, are being operated without a permit. ORNL seeks to properly permit the two existing vault toilet facilities (and later add the two new facilities, if needed). The existing east and west security entrance vault toilet facilities were constructed around 2014/2015. They consist of 1000 gallon, precast concrete tanks with a liner, located below the buildings. There is no water service to the buildings. Utilities are reported to be approximately 3/4 mile on one side and 3 miles away for the other. Each entrance is staffed with 2-3 people per day. Using an estimate of 15 gpcd, the available storage is 22 days. ORNL has a contract with Carson Crest, LLC, dba TNT Portable Toilets and Septic Tank Services. They service the facility approximately 2 times a month in the spring and summer and 1 time a month in the winter. The contract pumping and lack of water service makes the operation and maintenance expense of audible and visual alarms

unnecessary. The Division intends to review and approve plans and specifications for the existing two vault toilets as tracking number WPN23.0521.

Facility Location:	Two locations along 1 Bethel Valley Road
Name of nearest stream:	This sewage activity is located in the Clinch River Watershed. The east security portal, located in Anderson County at 35.966727, -84.251784, is in the drainage area of Western Branch to Melton Hill Reservoir. The west security portal, located in Roane County at 35.920165, -84.331673 is located in the drainage area of White Oak Creek.
Treatment System:	None. At the time of permit application, the owner arranged with the City of Oak Ridge for the sewage to be accepted for treatment at Oak Ridge's Turtle Park POTW.
Permit Period:	This permit will be issued for a five-year period effective from the issuance date on the cover page.
Monitoring and reporting:	Record (log book) keeping only, unless noted otherwise in the permit above.
Annual Maintenance Fee:	An annual maintenance fee of \$ 350.00 applies to this non-discharging sewerage system pursuant to Rule 0400-40-11. The fee is payable upon receipt of an invoice.
Financial Security:	As a government-owned facility, it is exempted from providing financial security prior to construction and operation per Rule 0400-40-06.-11.
Permit Specific Requirements:	The permit requires that within thirty (30) days of a decision to supply water service to a toilet facility, the permittee shall initiate plans to have the toilet system connected to public sewer or otherwise initiate the engineering/planning process to reevaluate the feasibility of sewage system alternatives in consideration of life cycle costs associated with the added water demand.