

<b>Management System:</b> <a href="#">Environmental Management</a>		
<b>Subject Area: Water Quality Impacts from ORNL Activities, Preventing</b>		
 <a href="#">View All (Procedures and Exhibits)</a>		
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## 1.0 Introduction

This subject area addresses state and federal environmental requirements and best management practices that may be triggered by ORNL activities that have or could have a direct, physical impact on waters of the state **or on riparian zones adjacent to those waters**. These activities include tank storage operations, bulk material storage, facility maintenance, **infrastructure, installation, and upgrade**, and new construction.

In accordance with the ORNL Environmental Management System, **ORNL will show environmental leadership in planning** to prevent pollution, minimize waste, conserve resources, **and encourage reuse**. Activities will be conducted in a cost-effective manner that eliminates or minimizes environmental impact [e.g., effluents, emissions, and wastes kept as low as reasonably achievable (ALARA)]. Before wastes are generated, staff shall ensure that a funded and available disposition pathway exists. Staff shall ensure that all hazardous materials and waste have an identified owner who is accountable for its proper disposition.

Waters (**streams, wetlands, and groundwater**) of the state of Tennessee are impacted by ORNL activities other than wastewater treatment and disposal. These activities can include petroleum, toxic, and hazardous material **use**, storage, and handling (including portable container storage areas), vehicle parking and operation, construction activities and infrastructure maintenance activities. This subject area provides guidance for specific concerns and requirements associated with a number of these activities, and identifies ORNL staff who are able to provide further assistance or guidance and who are responsible for facilitating any regulatory permitting or notifications that may be required in order **for appropriate activities to be located and** to proceed. For proper planning, use, storage, and handling of hazardous and toxic chemicals, see also the [Chemical Safety](#) subject area.

## 2.0 Contents

Procedures/Guidelines	Procedure/Guideline Content

<p>1. <a href="#">Planning and Conducting ORNL Activities that may Directly or Indirectly Impact Streams, Wetlands, Lakes, Ponds, Riparian Areas, or Groundwater</a></p>	<ul style="list-style-type: none"> <li>● Review project with Site Use and Planning Committee</li> <li>● Notify ECR/EPO</li> <li>● Assess proposed activity for impacts to water resources</li> <li>● Consult Water Quality Protection Plan or contact Water Quality point-of-contact (WQPOC) if other impacts may occur</li> <li>● Plan project allowing time for permitting and/or Notice of Intent (NOI) process</li> <li>● Complete regulatory permit application(s) if necessary</li> <li>● Commence work after permit issuance</li> <li>● Ensure permit conditions are met</li> </ul>
<p>2. <a href="#">Planning and Installing New Underground/Aboveground Bulk Material Storage Facilities, Including Storage Tanks and Portable Container Storage Areas</a></p>	<ul style="list-style-type: none"> <li>● Notify appropriate personnel of need to install tank</li> <li>● Plan project in accordance with design and installation requirements</li> <li>● Obtain approval of preliminary and final engineering plans</li> <li>● Install tank/piping (by certified installer if required)</li> <li>● Complete final inspection/testing</li> <li>● Update tank database</li> <li>● Provide as-built drawings to Complex Manager</li> </ul>
<p>3. <a href="#">Planning and Installing New or Upgrading Existing Piping Systems</a></p>	<ul style="list-style-type: none"> <li>● Notify ECR/EPO of need to install or upgrade piping</li> <li>● Plan project in accordance with design and installation requirements</li> <li>● Obtain approval of engineering plans</li> <li>● Install or upgrade piping</li> <li>● Complete final inspection/testing</li> <li>● Update tank database and/or drain survey</li> <li>● Provide as-built drawing to Complex Manager</li> </ul>
<p>4. <a href="#">Operating Requirements for Bulk Materials Storage Facilities, Including Storage Tanks and Portable Container Storage Areas</a></p>	<ul style="list-style-type: none"> <li>● Register underground tank</li> <li>● Ensure training</li> <li>● Label tanks/piping</li> <li>● Store material</li> <li>● Maintain storage areas/units and associated records</li> <li>● Conduct monitoring/testing and inspections</li> <li>● Maintain diking</li> <li>● Report and clean up spills</li> <li>● Make hazardous waste determination within 90 days if process is discontinued</li> </ul>

### 3.0 Deployment Tools (Exhibits)

- Required Deployment Tools (Mandatory)
  - Forms
    - [ORNL-AST-INSPECTION, Aboveground Storage Tank \(AST\) and Drum Storage Area Quarterly Inspection Form](#)
  - Instruction
    - [Aquatic Impacts Permitting Decision Tree \(PDF format\)](#)
    - [Federal Facilities Agreement for the Oak Ridge Reservation](#)
    - [ORNL Approval Requirements for Modification and Construction of Bulk Storage, Water Supply, and Wastewater Systems \(Decision Tree\) \(PDF format\)](#)
    - [ORNL Site-Wide Stormwater Pollution Prevention Plan for Construction Activities Greater than or Equal to One Acre](#)
    - [ORNL Spill Prevention, Control, and Countermeasures Plan](#)
    - [Table 1. Bulk Chemical Storage Design/Testing Requirements](#)
    - [Table 2. Bulk Chemical Storage Operating Requirements](#)
    - [Water Quality Protection Plan](#)
  - Training
    - [Walk Your Drainage Area Training](#)

## 4.0 Related Information

[Chemical Safety](#) subject area

[Hazardous and Mixed Waste Management](#) subject area

[Clean Air Compliance](#) subject area

[Safety Services Division](#)

[Event Reporting and Follow-Up](#) subject area

[Clean Water Act and Tennessee Water Quality Act](#) program description

[Excavation/Penetration](#) subject area

[TN Sediment Control Handbook](#)

## 5.0 External/Internal Requirements

[10 CFR 1022](#)

[16 USC 831 et seq](#)

[18 CFR 1304](#)

[33 CFR 320-323](#)

[33 CFR 328-330](#)

[33 USCA 1251-1387](#)

[40 CFR 104-149](#)

[40 CFR 232-404](#)

[40 CFR 255](#)

[40 CFR 403](#)

[American Water Works Association Standard D100](#)

[DOE O 430.2B](#)

[DOE O 5400.5; Chapter 2, Section 1.d.\(3\)](#)

[EM Internal # 2 \(Water Quality\)](#)

[Executive Order 11988](#)

[Executive Order 11990](#)

[Permit No. TN0002941](#)

[Permit No. TNR057336](#)

[Permit No. TNR139975](#)

[Tenn. Code 1200-5-1](#)

[Tenn. Code Ann. 68-215-101 et seq](#)

[Tenn. Code Ann. 68-221-101 et seq](#)

[Tenn. Code Ann. 68-221-901 et seq](#)

[Tenn. Code Ann. 69-3-101 et seq](#)

[Tenn. R. & Reg. 1200-1-15](#)

[Tenn. R. & Reg. 1200-1-6](#)

[Tenn. R. & Reg. 1200-4-1](#)

[Tenn. R. & Reg. 1200-5-1](#)

List Parsed Units

## 6.0 Records Managed by UT-Battelle R&D and Support Organizations

Show Record Series

## 7.0 Division Specific Procedures

Show Internal Procedures

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