Project Overview

- Stakeholder engagement, outreach, and collaboration has been extensive throughout all project phases.
- Numerous alternatives were considered, and included SME and regulator input and consultation.
- All aspects of this operation have been specifically designed to prioritize the protection of our workers, the public, and the environment.
- This project is a one-time effort to prepare four (4) unique waste containers for permanent offsite disposal.
Planned Controlled Venting

- **Project Purpose:** Render FTWCs safe for transport for off-site disposal
  - Proven controlled venting technology successfully used before at LANL’s Tritium Facility.
  - Operation is intentionally designed to prevent exceeding release limits.
    - One container at a time will be vented, with conservative hold points throughout the process. Process can be safely paused at any time.
  - Established process for the capture of Tritium/RadNESHAPs.
    - Experienced operations personnel conducting routine operations.
    - Existing, proven equipment used for the operation.
  - Only the minimum activities necessary to prepare the four containers for safe transportation will be performed at Area G.
Operational Requirements

- Operational Approvals
  - DOE Readiness Review (complete) and Formal Approval
  - EPA R6 RadNESHAPS Authorization per 40CFR61, Subpart H
  - NMED RCRA Temporary Authorization per LANL RCRA HWFP

- Climate Conditions
  - Greater than 40°F (for instrumentation).
  - Weather safe for workers (no excessive winds, no snow or ice).

- Timeline: Venting planned for spring 2023 (late March/April)
  - ~10 days of field operations planned to prepare for transport
Area G FTWCs
Controlled Venting Operational Sequence

Step 1 – Prepare the four (4) unvented FTWCs

Step 2 – Install Controlled Venting Fixture on FTWC

Step 3 – Connect Controlled Venting Fixture to Capture System and vent FTWC

Step 4 – Install Pressure Monitoring Manifold on FTWC

Safe Configuration

FTWC
Controlled Venting Fixture
Capture System
Pressure Monitoring Manifold
Area G FTWCs Summary

- This is a one-time project to process and disposition four containers stored at Area G.
- Only the headspace gas will be vented to ensure safe pressure for compliant transportation.
- Multiple layers of controls and conservative modeling will protect the workers and the public.
- Once safe for transport, the containers will be taken to the LANL Tritium Facility for packaging and offsite disposal.

Headspace gas will be vented

Stored radioactive material will remain

To Capture System

To Air Monitors

Capture System