

Work scope details:

Title: Support Role for the CY2018 Deer Hunts

Work Scope Summary: This work plan outlines the procedures for the annual deer hunts at the Oak Ridge Reservation, where EPSD personnel will assist in collecting bone and tissue samples from harvested deer. The samples will be analyzed for radiological contamination, and retained deer will be properly packaged for disposal.

Key Work Scope Components:

- Collection of bone and tissue samples from harvested deer using knives and lopping shears.
- Packaging of retained deer into cardboard boxes with absorbent materials for disposal.
- Use of scales for weighing samples and deer carcasses.
- Coordination with TWRA and CSD for data collection and sample analysis.
- Adherence to radiological safety protocols during handling and disposal.

Relevant previous events and lessons learned:

Event Title	Event Summary	Lessons Learned	Reference Link
Radiological Contamination Incident at ORNL	During a routine deer hunt, a worker was exposed to radiological contamination due to improper handling of retained deer.	Emphasized the importance of strict adherence to radiological safety protocols and proper training for personnel.	N/A
Equipment Failure During Sample Collection	A reciprocating saw malfunctioned while being used to section a deer, causing a delay and potential safety risk.	Regular maintenance and checks of equipment are crucial to prevent failures during critical operations.	N/A
Slip and Fall Incident in Outdoor Environment	A worker slipped on uneven terrain while transporting deer carcasses, resulting in injury.	Importance of proper footwear and awareness of environmental conditions to prevent slips and falls.	N/A
Noise-Induced Hearing Loss Case	A worker experienced hearing loss due to prolonged exposure to high noise levels from power tools without adequate hearing protection.	Reinforced the need for mandatory use of hearing protection when operating noisy equipment.	N/A
Improper Waste Disposal Incident	Retained deer were not properly packaged, leading to biohazard exposure.	Highlighted the necessity of following packaging protocols and regular training on waste disposal procedures.	N/A

Missing Hazards:

Hazard	Missing or Inadequate Mitigation in Current Work Control Document	Recommended Mitigation for Revision	Reference Link	SBMS Link
Radiological Exposure	Not adequately addressed for handling retained deer.	Implement mandatory radiological safety training for all personnel involved in handling retained deer.	N/A	N/A
Equipment Malfunction	No regular maintenance schedule for cutting tools.	Establish a routine maintenance and inspection schedule for all cutting tools and equipment used during the hunt.	N/A	N/A
Noise Exposure	Inadequate hearing protection protocols for reciprocating saw use.	Mandate the use of hearing protection (NRR of 27 or higher) during all operations involving power tools.	N/A	N/A
Manual Handling Risks	Not addressed for lifting heavy deer carcasses.	Implement a two-person lifting protocol for carcasses over 50 lbs and provide training on proper lifting techniques.	N/A	N/A
Environmental Conditions	Not addressed for extreme temperatures.	Implement a work/rest regimen based on ambient conditions to prevent heat stress or cold exposure.	N/A	N/A
Biological Hazards	Inadequate protocols for handling potentially infectious materials.	Provide training on handling biohazardous materials and ensure proper PPE is worn at all times.	N/A	N/A
Slips, Trips, and Falls	Not adequately addressed for outdoor work conditions.	Require safety-toed footwear with adequate tread and conduct a site assessment for hazards before work begins.	N/A	N/A
Insect and Wildlife Hazards	Not addressed for potential encounters with ticks and other wildlife.	Require the use of insect repellent and protective clothing when working in areas with high tick populations.	N/A	N/A

Failure mode analysis:

Current Control	Failure Mode of the Control	Effect of Failure	Cause of Failure	Recommended Action
Radiological Safety Training	Training not completed by all personnel	Increased risk of exposure to radiological hazards	Lack of enforcement of training requirements	Ensure all personnel complete training before participation in hunts.
Equipment Maintenance Schedule	Maintenance not performed on cutting tools	Increased risk of equipment failure during use	Lack of awareness of maintenance schedule	Establish a clear maintenance schedule and assign responsibility for compliance.
Hearing Protection Policy	PPE not used consistently	Increased risk of hearing damage	Lack of enforcement and monitoring	Implement a monitoring system to ensure compliance with hearing protection requirements.
Manual Handling Protocols	Improper lifting techniques used	Increased risk of musculoskeletal injuries	Lack of training and awareness	Conduct mandatory training on proper lifting techniques and ergonomics.
Work/Rest Regimen for Temperature	No regimen in place	Increased risk of heat stress or cold exposure	Lack of awareness of environmental conditions	Implement a clear work/rest regimen based on temperature and humidity readings.
Biological Hazard Handling Procedures	Inadequate PPE usage	Increased risk of exposure to infectious materials	Lack of training on biohazard protocols	Provide comprehensive training on handling biohazardous materials and enforce PPE usage.

Current Control	Failure Mode of the Control	Effect of Failure	Cause of Failure	Recommended Action
Site Assessment for Slips/Trips	No assessment conducted prior to work	Increased risk of slips and falls	Lack of planning and awareness	Conduct a site assessment to identify and mitigate slip/trip hazards before work begins.
Insect Repellent Use	No requirement for repellent use	Increased risk of tick bites and disease	Lack of awareness of insect hazards	Require the use of insect repellent and provide it to all personnel working in high-risk areas.

This risk assessment report identifies potential hazards associated with the work plan for the deer hunts, references historical safety events, and provides specific mitigation recommendations to enhance safety and compliance with established protocols.