TRENCHING AND EXCAVATION

1.0 Objective

The objective of this surveillance is to ensure that trenching and excavation activities performed by the laboratory and contractors to the laboratory are performed safely and in accordance with DOE requirements. A key element is a joint walkthrough conducted with the laboratory's representative who is responsible for daily monitoring of all excavation projects.

2.0 References

2.1 DOE O 440.1A, *Worker Protection Management for DOE Federal and Contractor Employees*

2.2 29 CFR 1926, Subpart P, *Excavations*

3.0 Surveillance Activities

The Facility Representative or Environmental, Safety, and Health Support Specialist performs the following activities in completing this surveillance:

1. Accompany laboratory representative responsible for daily inspections of excavating activities.

2. Observe operations in a trench or excavation.

Surveillance Guideline
TRENCHING AND EXCAVATION

Surveillance No.: _____

Facility: _____

Date Completed: _____

		YES	NO	N/A
Activity 1 - Accompany Contractor Representative				
1.	Does the Laboratory Representative perform daily inspections of the excavation site(s) and adjacent areas?	____	____	____
2.	Does the Laboratory Representative look for the following:			
	a. Evidence of situations that could result in possible cave-ins?	____	____	____
	b. Indications of failure of protective systems?	____	____	____
	c. Hazardous atmospheres or other hazardous conditions?	____	____	____
3.	Does the Laboratory Representative conduct inspections before the start of work each day, and as needed throughout the shift?	____	____	____
4.	Does the Laboratory Representative conduct inspections after each rain?	____	____	____
5.	Does the Laboratory Representative document the results of each inspection?	____	____	____
6.	Are procedures or written instructions used for performing the required inspections?	____	____	____
7.	Does the Laboratory Representative have the authority to suspend work and ensure that employees are removed from the identified hazard until it is abated?	____	____	____

Surveillance Guideline
TRENCHING AND EXCAVATION (cont.)

		YES	NO	N/A
Activity 2 - Observe Operations at an Excavation Site				
8.	Were all above-ground features such as rocks, trees, etc., that could endanger workers in an excavation, removed before the excavation commenced?	____	____	____
9.	Was the location of each underground installation that might be encountered during excavations identified before the excavation began?	____	____	____
10.	If the excavation is four feet or more deep, is a stairway, ladder, ramp, or other safe means of egress provided? (Employees should not have to travel more than 25 feet to reach the means of egress)	____	____	____
11.	Do employees and supervisors ensure that no workers pass underneath loads that are being handled by lifting or digging equipment?	____	____	____
12.	Was an appropriate sampling of atmosphere in the excavation completed, before workers entered the excavation, if risks existed of oxygen deficient atmospheres, exposure to hazardous substances, or accumulation of flammable gas?	____	____	____
13.	If hazards were identified and appropriate protective actions were initiated, was a program to monitor conditions during work established?	____	____	____
14.	If hazardous atmosphere conditions exist or may develop, has required emergency rescue equipment such as breathing apparatus, safety harnesses and lines, or basket stretchers been provided?	____	____	____
15.	Is the excavation free from water accumulation?	____	____	____

Surveillance Guideline
TRENCHING AND EXCAVATION (cont.)

		YES	NO	N/A
16.	If the excavation is not free from water accumulation, have any of the following adequate precautions been implemented:			
	a. Are special supports or shield systems used to protect workers from cave-ins?	____	____	____
	b. Is water removal equipment used to control the level of water in the excavation?	____	____	____
	c. If water removal equipment is used, is a person capable of identifying and correcting deficiencies monitoring the use of the equipment to ensure proper operations?	____	____	____
17.	If the excavation could affect the stability of adjacent structures, are support systems such as shoring, bracing, or underpinnings provided?	____	____	____
18.	Have steps been taken to protect workers at excavation sites from loose rock or soil that could pose a hazard?	____	____	____
19.	Where employees or vehicles must pass over excavations, are guard rails provided on walkways or bridges?	____	____	____
20.	For excavations that are more than five feet deep, can the contractor demonstrate that protection systems to protect employees from cave-ins meet OSHA requirements in 29 CFR 1926.652?	____	____	____
21.	Do training records show that personnel and supervisors who are working in excavations have received training on excavation safety?	____	____	____
22.	Is training on excavation safety current for personnel and supervisors working in the excavation?	____	____	____

Surveillance Guideline
TRENCHING AND EXCAVATION (cont.)

	YES	NO	N/A
OTHER:			
_____			
_____			
_____	____	____	____
_____			
_____			
_____	____	____	____
_____			
_____			
_____	____	____	____

NOTES/COMMENTS:

_____

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_____

PERSONNEL CONTACTED: _____

_____

_____

_____

Surveillance Guideline
TRENCHING AND EXCAVATION (cont.)

IF MORE SPACE IS NEEDED FOR FINDINGS, OBSERVATIONS, AND FOLLOWUP ITEMS - USE ADDITIONAL SHEETS

FINDINGS:

Finding No.: _____

Description: _____

_____

_____

_____

Finding No.: _____

Description: _____

_____

_____

_____

_____

Finding No.: _____

Description: _____

_____

_____

_____

Surveillance Guideline
TRENCHING AND EXCAVATION (cont.)

OBSERVATIONS:

Observation No.: _____

Description: _____

_____

_____

_____

Observation No.: _____

Description: _____

_____

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_____

Observation No.: _____

Description: _____

_____

_____

_____

Surveillance Guideline
TRENCHING AND EXCAVATION (cont.)

FOLLOWUP ITEMS:

Followup Item No.: _____

Description: _____

_____

_____

_____

Followup Item No.: _____

Description: _____

_____

_____

_____

Followup Item No.: _____

Description: _____

_____

_____

_____

Surveillance Guideline
TRENCHING AND EXCAVATION (cont.)

LABORATORY MANAGEMENT DEBRIEFED AND RESULTS: _____

_____

_____

_____

Signature:_____ Date: _____
Facility Representative or
Environmental, Safety, and Health Support Specialist