

EQUIPMENT AND PIPING LABELING

1.0 Objective

The objective of this surveillance is to verify that laboratory equipment and piping is labeled in a manner such that laboratory personnel are able to positively identify equipment they operate. This surveillance provides a basis for evaluating the effectiveness of the laboratory's program for labeling equipment and piping and for establishing compliance with DOE requirements.

2.0 References

- 2.1 DOE 5480.19, *Conduct of Operations Requirements for DOE Facilities*
- 2.2 DOE-STD-1044-93, *Guide to Good Practices for Equipment and Piping Labeling*
- 2.3 INPO 85-017 Rev 2, *Guidelines for the Conduct of Operations at Nuclear Power Stations*
- 2.4 INPO 88-009, *Good Practice, System and Component Labeling*

3.0 Surveillance Activities

For this surveillance, the Facility Representative or Environmental, Safety, and Health Support Specialist inspects various areas of the laboratory and examines the labeling of equipment and piping.

**Surveillance Guideline
 EQUIPMENT AND PIPING LABELING**

Surveillance No.: _____

Facility: _____

Date Completed: _____

		<u>YES</u>	<u>NO</u>	<u>N/A</u>
1.	Are the following items labeled?			
	a. Valves and dampers?	_____	_____	_____
	b. Major equipment and components?	_____	_____	_____
	c. Pipes and ventilation ducts?	_____	_____	_____
	d. Gloveboxes?	_____	_____	_____
	e. Switches?	_____	_____	_____
	f. Circuit breakers?	_____	_____	_____
	g. Fuse blocks, relays, and other components inside electrical panels?	_____	_____	_____
	h. Buses, motor control centers, power panels, and instrument panel doors?	_____	_____	_____
	i. Instruments, gauges, and meters?	_____	_____	_____
	j. Room doors (listing major equipment in room)?	_____	_____	_____
	k. Emergency equipment (fire alarm stations, eye wash stations, etc.)?	_____	_____	_____
	l. Exits, evacuation routes?	_____	_____	_____
	m. Facility location codes (buildings, columns/rows, floors/elevations)?	_____	_____	_____
	n. Floor drains?	_____	_____	_____
	o. Protective equipment, first aid equipment, safety devices?	_____	_____	_____
	p. Safety hazards and warnings?	_____	_____	_____
	q. Storage containers, cabinets, storage spaces?	_____	_____	_____
	r. Test equipment, special tools?	_____	_____	_____
2.	Are equipment labels standardized with regard to label content, format, and use?	_____	_____	_____
3.	Is information on component labels consistent with	i	n	f

ormation found in facility procedures, valve lineup
~~sheets, and piping and instrument drawings and~~
 diagrams?

Surveillance Guideline		<u>YES</u>	<u>NO</u>	<u>N/A</u>
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4.	Do labels use standardized abbreviations and provide a unique component number and name?	_____	_____	_____
5.	Are labels placed so that they do not interfere with equipment operation or obscure indicators?	_____	_____	_____
6.	Are labels permanent, secured, attached, and do they have distinguishable, easy to read information?	_____	_____	_____
7.	Are labels oriented so that they are easy to read and so that the correct component or material is easy to identify?	_____	_____	_____
8.	Can labels be read from the normal operating location or position?	_____	_____	_____
9.	Are labeling deficiencies promptly corrected? Are approved temporary labels used until replacement labels can be made and permanently attached?	_____	_____	_____
10.	Is piping labeled to indicate the fluid contained and the normal flow direction?	_____	_____	_____
11.	Are pipes containing potentially radioactive fluids, toxic fluids, or explosive gases uniquely marked?	_____	_____	_____
12.	Are piping and ventilation duct labels and flow directional arrows used on pipes and ducts just before and after entering a pipe chase or wall, and adjacent to major components?	_____	_____	_____
13.	Do labels for electric motors and other electrical equipment identify the power supply (e.g., distribution panel, circuit breaker, etc.)?	_____	_____	_____
14.	Do labels for pneumatic actuators identify the respective isolation valves?	_____	_____	_____

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YES NO N/A

15. Are labels made from materials that are compatible with their particular application? For example, chloride-free labels should be used on stainless steel piping, and temperature-tolerant labels should be used on hot components. Are adhesives used for label attachments verified for compatibility?

16. Where color coding is used, are colors applied consistently, with only one meaning per color or combination?

OTHER:

NOTES/COMMENTS:

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PERSONNEL CONTACTED: _____

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

FINDINGS:

Finding No.: _____

Description: _____

Finding No.: _____

Description: _____

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Finding No.: _____

Description: _____

OBSERVATIONS:

Observation No.: _____

Description: _____

Observation No.: _____

Description: _____

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Observation No.: _____

Description: _____

FOLLOWUP ITEMS:

Followup Item No.: _____

Description: _____

Followup Item No.: _____

Description: _____

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Followup Item No.: _____

Description: _____

LABORATORY MANAGEMENT DEBRIEFED AND RESULTS: _____

Signature: _____ Date: _____

Facility Representative or
Environmental, Safety, and Health Support Specialist