

DEPARTMENT OF THE AIR FORCE
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AIR FORCE SPECIALTY CODE 4B071 BIOENVIRONMENTAL ENGINEERING

Chemical Health Hazards



QUALIFICATION TRAINING PACKAGE

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STS Line Item 4.6.3.1: Determine substance-specific standard compliance

TRAINER GUIDANCE

Proficiency Code:	3c
PC Definition:	Can do all parts of the task. Needs only a spot check of completed work. Can identify why and when the task must be done and why each step is needed.
Prerequisites:	None
Training References:	<ul style="list-style-type: none">• OSHA 29 CFR 1910 Subpart Z• ACGIH Threshold Limit Values (TLVs) for Chemical Substances and Physical Agents in the Work Environment• NIOSH Pocket Guide
Additional Supporting References:	NIOSH Pocket Guide Occupational and Environmental Health Readiness System (DOEHRS). Computer access
CDC Reference:	4B051
Training Support Material:	None
Specific Techniques:	Conduct hands-on training and evaluation.
Criterion Objective:	Given a casefile, determine if the workplace is in compliance IAW the appropriate substance-specific standard, successfully completing all checklist items with NO trainer assistance.

TASK STEPS

1. Determine if the workplace uses any chemicals regulated by OSHA's substance-specific standards.
2. Research applicable standard.
3. Identify which portion of the substance-specific standard applies to the workplace activity.
4. Determine if the workplace is in compliance with the substance-specific standard.
5. Enter acquired information into OEHMIS/DOEHRS.

LOCAL REQUIREMENTS:

Trainee should be provided a case file that has an OSHA substance-specific standard requirement.

NOTES:

TRAINEE REVIEW QUESTIONS

STS Line Item 4.6.3.1: Determine substance-specific standard compliance

1. You are visiting a workplace that has a regulated area for Chromium VI. During your visit, you observe three workers leaving the regulated area in coveralls after just finishing a sanding activity. They remove their coveralls and simply shake off the dust, roll them up and put them in a trash can. Is this a problem? Why?

2. Your Aircraft Structural maintenance shop is performing a cadmium brush plating activity. Your shop conducted air sampling and results came back at $25 \mu\text{g}/\text{m}^3$. Is the maintenance shop in compliance with the OSHA PEL? Why or why not?

PERFORMANCE CHECKLIST

STS Line Item 4.6.3.1: Determine substance-specific standard compliance

Proficiency Code:	3c
PC Definition:	Can do all parts of the task. Needs only a spot check of completed work. Can identify why and when the task must be done and why each step is needed.

DID THE TRAINEE...		YES	NO
1. Determine if the workplace uses chemicals regulated by OSHA's substance-specific standards?			
2. Research the applicable standard?			
3. Identify which portion of the substance-specific standard applies to the workplace activity?			
4. Determine if the workplace is in compliance with the substance-specific standard?			
5. Enter acquired information into OEHMIS/DOEHRS?			
Did the trainee successfully complete the task?			

TRAINEE NAME (PRINT)

TRAINER NAME (PRINT)

ANSWERS

1. You are visiting a workplace that has a regulated area for Chromium VI. During your visit, you observe three workers leaving the regulated area in coveralls after just finishing a sanding activity. They remove their coveralls and simply shake off the dust, roll them up and put them in a trash can. Is this a problem? Why?

A: Yes. **1910.1026(h)(2)(iii)**

When contaminated protective clothing or equipment is removed for laundering, cleaning, maintenance, or disposal, the employer shall ensure that it is stored and transported in sealed, impermeable bags or other closed, impermeable containers.

1910.1026(h)(3)(ii)

The employer shall prohibit the removal of chromium (VI) from protective clothing and equipment by blowing, shaking, or any other means that disperses chromium (VI) into the air or onto an employee's body.

(Source: 29 CFR 1910.1026 paragraphs listed in bold above)

2. Your Aircraft Structural maintenance shop is performing a cadmium brush plating activity. Your shop conducted air sampling and results came back at $25 \mu\text{g}/\text{m}^3$. Is the maintenance shop in compliance with the OSHA PEL? Why or why not?

A: No. TWA PEL: Five micrograms of cadmium per cubic meter of air $5 \mu\text{g}/\text{m}^3$, time-weighted average (TWA) for an 8-hour workday.

(Source: 29 CFR 1910.1027 Appendix A, Section I)