

OSHA RCS Standard What's Happening?

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Overview

- Final OSHA rule: March 25, 2016 Fed Reg 606 pp long!
 - 30 pages of actual reg text – the rest is preamble / explanation
 - Draft enforcement guidance 9/27/16 was 100+ pages long – GONE from the OSHA website
 - Revised Interim Compliance Guidance issued 10/19/17 to under 10 pages
 - FAQs Interpretative Guidance (53 FAQs) issued 8/22/2018




Litigation Outcome: Rule Upheld!

- Industry challenged rule on 5 grounds: Court found OSHA provided “substantial evidence” that the rule:
 - 1) would reduce a “significant risk of material impairment or harm”;
 - 2) is technologically feasible for the foundry, hydraulic fracturing, and construction industries;
 - 3) is economically feasible for the foundry, hydraulic fracturing, and construction industries;
 - 4) OSHA can prohibit housekeeping methods that cause silica exposure, such as dry sweeping or using compressed air; and
 - 5) OSHA complied with the Administrative Procedure Act
- Court panel (led by M. Garland) rejected all, and remanded rule, at Union request, for consideration of “medical removal” provision



Health Findings in OSHA Rule

- ❑ Over 600 deaths/yr and 900 new silicosis cases prevented by rule
- ❑ Rule states more than 50 peer-reviewed studies were evaluated and found links between silica exposure and lung cancer in at least 10 industries
- ❑ Will these findings ever be challenged? Are any industries conducting or planning additional studies or research?
- ❑ Worker's comp cases already being filed by current & retired workers based on “findings” in OSHA final rule – in both OSHA and MSHA-regulated sectors!



Highlights of the Interim Compliance Guidance Issued 10/19/2017

- ❑ Provided guidance on how to characterize objective data (i.e. between the AL and PEL)
- ❑ Provided for operator rotation to comply with the PEL which was not prohibited in the rule but discouraged in the preamble.
- ❑ Defines “feasibility” wrt to Housekeeping – (i.e., the other cleaning methods would not be effective, would cause damage, or would create a hazard in the workplace).



Highlights of the FAQs Issued 8/22/2018

- ❑ Q1. List tasks that are likely to be outside the scope of the Standard.
- ❑ Q10. Employer does not have to follow mfg recommendations for respirator use – follow the Standard’s requirements – Table 1.
- ❑ Q13. Gives more examples of enclosed area for purposes of Table 1.
- ❑ Q14. When determining whether a task will take < or > 4 hours, “make good faith judgment.”



Highlights of the FAQs Issued 8/22/2018

- ❑ Q15. Minimize dust – a small amount of dust can be expected when operating according to mfg instructions, but noticeable increase in dust indicates dust collection system is not operating properly.
- ❑ Q23. Compressed air may be used “if, without implementing any engineering controls, exposures will remain below the AL under any foreseeable circumstances.”
- ❑ Q25. Employer may establish infeasibility for HK purposes by showing control “methods would negatively impact the quality of the work being done.”



Highlights of the FAQs Issued 8/22/2018

- ❑ Q27. Expanded floor sweeping compound to include crystalline silica based compounds.
- ❑ Q29. How an employer handles disposal of dust filters and dust disposal must be in the WECP.
- ❑ Q31. If the task will not exceed AL under any foreseeable circumstances, then no WECP required.
- ❑ Q49. Voluntary use of respirator does not count towards the 30-day trigger for medical surveillance.
- ❑ Q51. Proof of employee training is performance-based.



How are Employers' Managing Silica Dust at a Multi-Employer Construction Job Site

- ❑ **How is the General Contractor Managing Silica Compliance?**
 - Are they requiring Written Exposure Control Plans from subcontractors before they show up?
 - Are they assigning Competent Persons on job sites?
 - Are they conducting air monitoring to ensure overexposures are not occurring due to common area dust?



How are Employers' Managing Silica Dust at a Multi-Employer Construction Job Site

- **How are Subcontractors Managing Silica Compliance?**
 - Are you seeing Written Exposure Control Plans on the job site?
 - In what form?
 - How do you identify the competent person on your job site?
 - How many construction companies are using Table 1? Entirely?
 - Are your competent persons coordinating with other subcontractors?



Multi-Employer Responsibilities continued...

□ **Job Site Supervisor / Competent Person**

- How are employers' determining who is competent?
What is the process?

□ **Employee**

- How are employers training to ensure employees can demonstrate knowledge and understanding of WECP?



OSHA's Economic Analysis

- Total Annualized Costs: \$1.030 billion including:
 - Engineering controls: \$664.5MM
 - Respirators: \$32.9MM
 - Medical surveillance: \$96.4MM
 - Familiarization & Training: \$95.9MM
 - Regulated Area: \$2.6MM
 - Written Exposure Control Plan: \$44.3MM
- Annualized Benefits Monetized: \$8.687 billion
 - Costs of prevented fatal lung cancers, silicosis and other respiratory diseases
- Net benefits: \$7.657 billion



Silica Exposure Control Program - Culture

□ **ABC COMPANY - SILICA EXPOSURE CONTROL PROGRAM**

□ **1.0 INTRODUCTION AND PURPOSE**

It is the policy of ABC Company (“ABC”) to take precautions to eliminate potential hazards in the workplace. This Silica Exposure Control Program (“Program”) applies to ABC personnel who are potentially exposed to Respirable Crystalline Silica (“RCS”) because of their work activities or proximity to the work activities where RCS may be generated.....

(review template provided)

What Tools does an Employer have to Address Silica?

- Local Exhaust Ventilation – Negative Pressure and Blowing Ventilation
 - Tools, hoods, venturi fans
- Water, water, and more water
 - (Integrated – no water hoses or bottles/nail in the pail)
- Enclosure – HEPA intake filter and HVAC (windows and doors must remain closed)
- Barrier – physical barrier or distance



What is “Table 1” ?

Be extremely knowledgeable about Table 1.

□ 198 Equipment & Task-Specific Compliance Solutions:

- Engineering & Work Practice Control Methods, and
- Required Respiratory Protection & Minimum Assigned Protection Factor (APF) for shifts < 4 hrs & those > 4 hrs
- The 19th task is the spotter for heavy equipment if one is used.



Table 1 is based on Work Tasks & Equipment

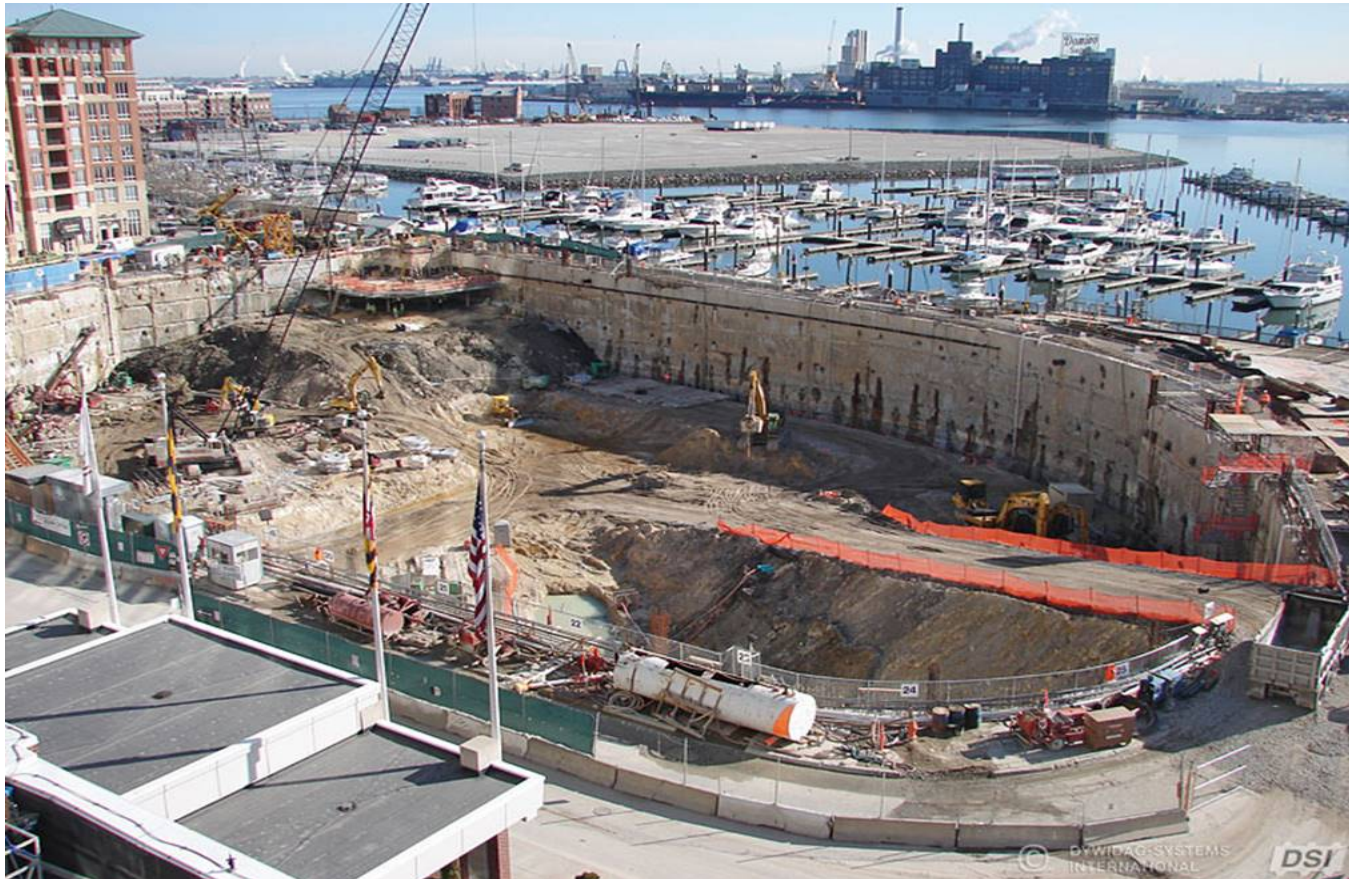
1. Stationary masonry saws
2. Handheld power saws
3. Handheld power saws for cutting fiber-cement board (blade diameter of 8” or less)
4. Walk-behind saws
5. Drivable saws
6. Rig-mounted core saws or drills
7. Handheld and stand-mounted drills
8. Dowel drilling rigs for concrete
9. Vehicle-mounted drilling rigs for rock and concrete
10. Jackhammers and handheld powered chipping tools
11. Handheld grinders for mortar removal (i.e., tuck pointing)
12. Handheld grinders for uses other than mortar removal
13. Walk-behind milling machines and floor grinders
14. Small drivable milling machines
15. Large drivable milling machines
16. Crushing machines
17. Heavy equipment and utility vehicles used during demolition
18. Heavy equipment and utility vehicles for grading & excavating

Table 1 Equipment/Task Example – *Indoor & Outdoor Use*

Equipment/Task	Engineering & Work Practice Control Methods	Required Respiratory Protection & Minimum APF
<p>(xii) Handheld grinders for uses other than mortar removal</p>	<p>For tasks performed <u>OUTDOORS</u> only:</p> <ul style="list-style-type: none"> • Use grinder equipped with integrated water delivery system that continuously feeds water to the grinding surface. • Operate and maintain tool in accordance with manufacturer’s instructions to minimize dust emissions. <p>OR</p> <ul style="list-style-type: none"> • Use grinder equipped with commercially available shroud and dust collection system. • Operate maintain tool in accordance with manufacturer's instructions to min. dust emissions • Dust collector must provide 25 cubic feet per minute (cfm) or greater of airflow per inch of wheel diameter and have a filter with 99% or greater efficiency and a cyclonic pre-separator or filter-cleaning mechanism. <p>– When used Outdoors</p> <p>– When used Indoors or in an Enclosed Area</p>	<p>Outdoors</p> <p>≤ 4 hours / shift = NONE</p> <p>≥ 4 hours / shift = NONE</p> <p>≤ 4 hours / shift = NONE</p> <p>≥ 4 hours / shift = NONE</p> <p>≤ 4 hours / shift = NONE</p> <p>≥ 4 hours / shift = APF 10</p>

Terms & Definitions of Table 1

Outdoors or Indoors? What must employer do to prove sufficient airflow?



Proving Compliance using Table 1

- Per 1926.1153(c), “fully and properly implement” you cannot be cited by OSHA - (81 FR 16702)
 - Not fully & properly complying with Table 1 removes contractor from Table 1.....Can be cited if > PEL and all feasible controls have not been implemented

Example:

- Contractor uses a hammer drill equipped with a shroud and dust collection system to drill anchors in the ceiling and, at times, there is some dust.
 - Assume everything is done correct, fully & properly implemented

Question: *Is the Contractor in compliance?*

Answer: *YES, check controls*



Table 1 and Dust is Produced

True or False: *When a contractor uses Table 1 and dust is produced is the contractor in compliance?*

Answer = True

- ❑ OSHA recognizes that small amounts of dust can be expected from equipment that is operated according to manufacturer's recommendations, however a noticeable increase in dust generation during operation of the tool is an indication that the dust controls are not operating correctly – employee and/or competent person should be able to observe this
- ❑ In cases where Respiratory Protection is required, OSHA assumes exposures are above the PEL



Exposure Monitoring Must be Performed

- Exposures must be determined when:
 1. Equipment/Tasks not listed in Table 1, or
 2. Employer does not fully implement controls and PPE required by Table 1

- Prove compliance by exposure monitoring:
 1. **Performance** option (*Air Monitoring or Objective Data*),
or
 2. **Scheduled Monitoring** option

Goal = verify no equipment/task exposes employees above PEL of $50 \mu\text{g}/\text{m}^3$ 8-hour TWA

Performance Option

aka “Air Monitoring” or “Objective Data”

1926.1153(d)(2)(ii) – The employer shall assess the 8-hour TWA exposure for each employee on the basis of any combination of air monitoring data or objective data sufficient to accurately characterize employee exposures to respirable crystalline silica. Burden is on employer. (81 FR 16763)

- 1. “Air Monitoring Data”** is not well-defined, but could include historical data provided tasks are the same. Employer has flexibility.
- 2. “Objective Data”** could include industry-wide surveys, NIOSH surveys, OSHA data, use of direct read instruments or other methodologies. Must reflect workplace conditions closely resembling or with a higher exposure potential than the processes, types of material, control methods, work practices, and environmental conditions in the employer's current operations.

Scheduled Monitoring Option

1926.1153(d)(2)(ii)(A)

- Initial monitoring to assess the 8-hour TWA exposure for each employee on the basis of one or more personal breathing zone samples that reflect the exposure of employees on each shift, for each job classification, in each work area. Sample employees expected to have the highest exposure to silica.
- The employer may rely on existing data to satisfy this initial monitoring requirement. Preamble mentions 12 months look back. (81 FR 16759).
- Employers will have to conduct some level of monitoring in the early stages of implementation of the rule because sufficient data to fall under the Performance Option does not exist.



What Are Your Objectives for Any Exposure Assessment?

- ❑ Protect the Health of the Employee
- ❑ Minimize/Eliminate ongoing sampling
- ❑ Minimize/Eliminate the mandatory use of respirators
- ❑ Minimize/Eliminate the need for ongoing medical surveillance
- ❑ Create an efficient and manageable process thru WECs



Who can Conduct Sampling?

- Contractors? Yes, however
 - Trained & qualified individuals following AIHA/NIOSH guidelines for sampling can perform exposure monitoring
 - If performing sampling in house, provide adequate training provided by CIH to ensure sampling accuracy and have competent person available to assist if it becomes necessary.
 - Employee representative has right to observe air monitoring and must be provided with appropriate PPE at no cost.
- Sample analysis must be performed by certified lab per Appendix A of the rule
 - OSHA has identified 40 certified labs in the US



“Objective Data” Project – Objective Data Workbook

- ❑ General Information / Project Description
- ❑ Single Monitored Task Performed for 8 hours
- ❑ Multiple Monitored Task Performed for 8 hours
- ❑ Environmental Conditions during Sampling and attached Respiratory Protection
- ❑ Openness of Structure and Mechanical Ventilation
- ❑ Sampling Method and Results and Lab Analysis
- ❑ Employee Notification and affected employees

“Objective Data” Project – Main Data Input Form

PCI Objective Data

General Information:

Employee Information

<small>First Name</small> Jim	<small>Last Name</small> Doe	<small>Social Security Number</small> 555-11-6666	<small>Sample Date MM/DD/YYYY</small> 12/13/2017	<small>Sample ID</small> 123658978
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Contact Person for Data

<small>First Name</small> Peter	<small>Last Name</small> Rock	<small>Email</small> rock.p@gmail.com	<small>Phone</small> (757) 603-4571
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Project Description:

Company Name Titan Cement	PCI Member # 12598634	Project City Norfolk	Project State <small>Select State</small> Virginia
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Project Description <small>Select Project</small> Erector - Parking garage	Other Description <small>Please describe if no match to your process</small>	Job Classification <small>Please describe</small> Supervisor	Was employee monitored/sampled? <small>Please select Yes or No</small> Yes
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- Yellow boxes are requested input box to fill manual
- White boxes are drop down boxes to pick and choose
- Gray boxes are formula boxes, no input boxes
- Project Description offers a drop down of 10 projects covering most of the members works, with direct input available.

How will OSHA prove
silica exposure?



Proving Silica Exposure on Site

- ❑ OSHA will review the employer's WECP.
- ❑ If following Table 1, OSHA will review tasks to ensure compliance with Table 1 and WECP – Will not sample.
- ❑ OSHA recognizes that small amounts of dust can be expected from equipment that is operated according to manufacturer's recommendations, however a noticeable increase in dust generation during operation of the tool is an indication that the dust controls are not operating correctly.
- ❑ If not complying with WECP, then OSHA can issue citation.



Proving Silica Exposure on Site – Cont'd

- If task not under Table 1, OSHA will conduct personal samples (8-hour TWA) of tasks they believe are exposed to respirable silica.
- If overexposure, OSHA can either issue a citation or resample depending on the body of evidence the employer is able to show that OSHA's sample was not representative – too high.



Enforcement Highlights

- CSHOs should:
 - Collect breathing zone samples on 1st day of inspection,
 - Review written exposure control plan, respiratory protection and HazCom programs,
 - Review ER's own air monitoring records (if any), and
 - Interview affected employees and the competent person to assess implementation of WECP
- Employers must use engineering and work practice controls to reduce & maintain exposures below the PEL unless ER can demonstrate not feasible ... only then can supplement with respiratory protection, or use worker rotation.

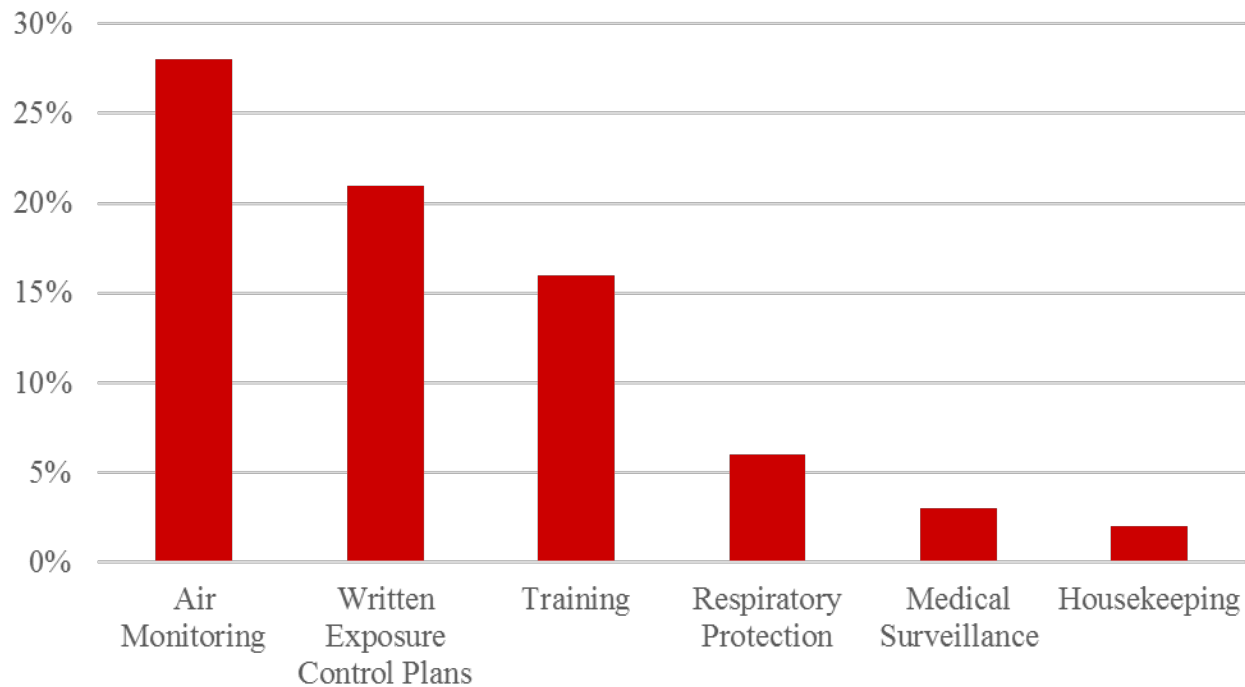


Citation Guidance

- If not following Table 1, and no exposure assessment: cite under 1926.1153(c) and 1153(d)(2) as grouped violation, plus any deficiencies in respiratory protection or haz com are to be cited separately
- If not under Table 1 and samples show overexposures, but ER had done exposure assessment:
 - If ER has not instituted all feasible eng & WP controls, or adequately protected with respirators, issue citations
 - If ER's data is not viewed as representative by CSHO, can issue citation 1926.1153(d)(2)
 - If ER has implemented all feasible controls and workers are protected adequately with respirators, NO citation for PEL violation will be issued.
 - Other situation to be cited per OSHA's Field Operations Manual

OSHA Silica Enforcement 2017/2018

Percent of all construction silica citations since
9/23/17 – by category



Housekeeping & Silica Compliance

- No compressed air or dry broom sweeping, **unless** it is foreseeable under any circumstances that without implementing any controls, the exposure will remain <AL
- What can I do?
 - Use HEPA filtered vacuum systems or wet sweeping
 - Riding and walk-behind sweepers that contain HEPA filters
 - Use a water hose – wide spray so as to not kick up dust
 - Spray area using lawn/garden sprayer, then use broom “wet sweeping”
 - Use floor sweeping compound – oil, water, or wax-based (proper disposal) and silica containing (FAQs 26/27)
 - Use rubber scrapper to push material into pile, then shovel, then wet sweep or vacuum the remaining material



Housekeeping & Silica Compliance

- What should I not do?
 - Use compressed air or dry sweep unless infeasible
 - Use compressed air to clean off equipment or tools or clothes
- Compressed air is acceptable if blowing out molds/forms or crevices – Examples:
 - Under the construction standard - 29 CFR 1926.302(b)(4)
 - For blowing out cracks if repairing roads – develop standard operating procedure
 - If blowing out “something” is part of a process and not housekeeping

Respiratory Protection is NOT Medical Surveillance

- Define the difference?
 - Respiratory Protection is triggered by employee exposure $>$ PEL, and
 - Construction - Medical Surveillance is triggered by the use of a respirator $>$ 30 days/yr.
 - General Industry – Medical Surveillance is trigger by operating in excess of the PEL for $>$ 30 days/yr.

OSHA and Facepiece Seal Protection

- OSHA will not intervene in the employer's decision making. They will enforce CPL 02-00-158E dated June 26, 2014 which states: Facepiece Seal Protection. Inspection Guidelines. "The CSHO should be alert for the presence of facial hair (more than one day's growth) that comes between the sealing surface of the respirator and the face as well as other conditions that could result in facepiece seal leakage or interfere with valve function of tight-fitting respirators, such as the presence of facial scars, the wearing of jewelry, or the use of headgear that projects under the facepiece seal. Corrective glasses or goggles or other personal protective equipment (such as faceshields, protective clothing, and helmets) must not interfere with the seal of the facepiece to the face of the user. If employees wear other safety equipment with their respirators, the employees must pass an appropriate fit test while wearing the equipment to determine if it interferes with the seal. Employees should be observed to determine if the seal check procedures are being performed each time the respirator is donned."



What a Competent Person should have at the work site?

- Create a binder that has the following documents:
 1. OSHA standard 1926.1153
 2. Silica Program and WECP for each task—use pocket cards
 3. Competent person power point
 4. Evidence of competent person training
 5. Evidence of employee training
 6. Respiratory protection program
 7. Copy of employee's fit testing record
 8. Medical restrictions for employee(s) use of respirator
 9. Audit form for competent person



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