

**North Carolina Department of Labor
Occupational Safety and Health Division**

Raleigh, North Carolina

Field Information System

Operational Procedure Notice 127

Subject: Respirator Use Policy under the Cotton Dust Standard

A. Standard.

1. 29 CFR 1910.1043(f)(1): General. For employees who are required to use respirators by this section, the employer must provide respirators that comply with the requirements of this paragraph. Respirators must be used during:
 - a. Periods necessary to install or implement feasible engineering controls and work practice controls;
 - b. Maintenance and repair activities in which engineering and work practice controls are not feasible;
 - c. Work operations for which feasible engineering and work practice controls are not yet sufficient to reduce exposure to or below the permissible exposure limits;
 - d. Work operations specified under paragraph (g)(1) of this section; and
 - e. Periods for which an employee requests a respirator.

B. Discussion.

This OPN serves to establish and clarify a uniform policy that OSHNC will follow regarding enforcement of the use of respirators with respect to occupational cotton dust exposure.

On December 30, 1980, federal OSHA issued a notice of respirator-use enforcement policy under the cotton dust standard, 29 CFR 1910.1043. This policy was issued pursuant to the administrative stays of paragraphs 1910.1043(f)(1)(i) and (iii), published at 45 FR 64872 (September 30, 1980), which expired on December 15, 1980. The respirator-use enforcement policy required that respirators be worn to the extent necessary to assure that each employee's 8-hour time-weighted average exposure to cotton dust is maintained below the permissible exposure limit (PEL), thereby permitting the partial-shift wearing of respirators.

Federal OSHA amended the final standard for occupational exposure to cotton dust on December 13, 1985 (50 FR 51120-51179) with an effective date of February 11, 1986. North Carolina did not, however, adopt these changes; the State chose to continue enforcement of the 1978 standard which was felt to afford greater worker protection against cotton dust. Following a reevaluation of the efficacy of the amended standard in comparison with the 1987 standard, North Carolina adopted the amended final rule for occupational exposure to cotton dust on February 5, 1993 with an effective date of the same.

C. Policy.

1. Partial-shift respirator use on eight (8) hour shifts as a means of complying with the cotton dust PEL(s) is not allowed. If it is not feasible to reduce cotton dust

levels below the PEL(s) through engineering controls, the employee must wear an appropriate respirator for the entire work shift.

2. Where the employer can show that it is technically infeasible to implement engineering controls which reduce the cotton dust levels below the adjusted PEL(s) for twelve hour shifts, partial-shift respirator use as a means of complying with the adjusted PEL(s) is acceptable. The employee must wear an appropriate respirator in accordance with the table in Appendix A. Additionally, the employer will adhere to the other provisions of Appendix A.
3. Where an employer is normally in compliance with the adjusted PEL(s) for twelve hours shifts, as evidenced by monitoring results, but is temporarily above the PEL(s), partial-shift respirator use is allowed until the engineering controls or other control methods are adjusted to bring the area back into compliance with the adjusted PEL(s).
4. Where respiratory protection is required, the employer must establish a respiratory protection program in accordance with 29 CFR 1910.1043(f)(2).

D. **Expiration.**

SN 60 is canceled. This OPN is effective on the date of signature. It will remain in effect until revised or canceled by the Director

Signed on Original
Susan V. Haritos
Health Standards Officer

Signed on Original
John H. Johnson
Director

3/27/02
Date of Signature

Appendix A: Partial Shift Respirators Use Requirements

1. As required by North Carolina Statutes, a licensed Professional Engineer (PE) must determine that it is technically infeasible to comply with the 12-hour adjusted PEL(s) of 133, 333 or 500 ug/m³. The feasibility study must be in writing and signed by the PE. The employer must maintain the study and must be able to transmit the documentation to the worksite within four hours of request by NCDOL personnel or affected employees or their representatives.
2. In order to prevent misunderstanding and ensure expectations are communicated to NCDOL staff, employers establishing a partial-shift respirator policy must inform the OSHNC Director in writing of the specific plants where the policy has been instituted.
3. The employer must be in compliance with other applicable portions of 29 CFR 1910.1043 in order to institute and maintain a partial shift respirator use policy.
4. In each affected area, the employer must clearly post the respirator use requirements. The letters must be at least 3 inches high and must be posted at all entrances to the affected area.
5. All employees, regardless of shift or assignment, must comply with the partial-shift respirator use posting.
6. OSHNC may perform site-specific respiratory protection monitoring as frequently as annually to verify compliance. Complaints and accident investigations will be performed as required by current procedures.
7. Time periods for respirator use will be based on the following table:

Respirator Use Time vs. Allowable Cotton Dust Level			
	Adjusted Permissible Exposure Level (ug/m³)		
Assigned Time (hrs.)	133	333	500
1	136	339	508
2	140	349	524
3	144	360	541
4	149	373	559
5	154	385	579
6	160	399	599

Respirator Use Time vs. Allowable Cotton Dust Level			
	Adjusted Permissible Exposure Level (ug/m³)		
Assigned Time (hrs.)	133	333	500
7	166	414	622
8	172	430	646
9	179	447	672
10	187	466	700
11	195	487	730
12	200	500	750
*For exposures between those indicated, the longer assigned time will be used.			