54-179

Public Service®

Public Service
Company of Colorado
P.O. Box 840
Denver, CO 80201-0840

RANDY LINNEN
2005 LIME RD.
PUEBLO, COLO. 81006

OSHA
DOCKET OFFICER
DATE MAR 24 1995
TIME

March 24, 1995

THE DOCKET OFFICE
DOCKET H-049
OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
ROOM N 2625
WASHINGTON, D.C. 20210

I have the following comments on the proposed respirator standard.

1910.134 (e) MEDICAL EVALUATION
This paragraph should include "what" medical evaluation is required, if any, if employees wear a respirator for LESS than 5 hours during any workweek.

(f) FIT TESTING
(2) Should include; "Annual fit testing shall supersede all specific substance standards fit testing requirements or state why semi-annual fit testing is better than annual fit testing.

(ii)(B) QUANTITATIVE FIT TESTING
This paragraph should state; the minimum fit factor for half face respirators shall be 2000. the minimum fit factor for full face respirators shall be 5000.(Porta Count QNFT). (This is based on the 1986 lead standard data.)

(g)(iv) The emergency assistance personnel present shall be equipped with a positive pressure self-contained breathing apparatus (SCBA) or combination full facepiece pressure demand supplied air respirator with auxiliary self contained air supply (egress bottle) from a compressed breathing air cylinder independent from the workers air supply.

(f)(6)(iii) PAPR's shall not be required until further field testing validates the protection higher than the referenced NIOSH Letters.

(h)(iv) MAINTENANCE AND CARE
Respirators shall be cleaned and disinfected after each fit test.

(h)(v) The use of Alcohol and or solvents shall not be used to clean or sanitize respirators or respirator parts.

APPENDIX A
II CURRENT FIT TEST PROTOCOLS

(F) GRIMACE Eliminate, as it is impossible to duplicate a grimace.

B. QUALITATIVE FIT TEST (QLFT) PROTOCOLS
3. Saccharin Solution Aerosol protocol
NIOSH has found saccharin to be a carcinogen and does not recommend saccharin as a fit test method. (See enclosed letter.)

4. IRRITANT FUME PROTOCOL
NIOSH has found the irritant fume fit test method to be hazardous and has recommended it not be used as a fit test method. (See HETA 93-040-2315)

5. ADD FIT TEST PROTOCOL FOR THE PORTA COUNT FIT TEST METHOD.

SUBPART Z [AMENDED]

1910.1001 ASBESTOS
(g)(ii) should state annually, not every 6 mos. or explain why semi annual fit testing is superior.

1910.1018
(h)(3)(iii) Annually,not semiannually or explain why.

1910.1025 LEAD
(F)(3)(ii) Annually, not at least every six months or explain why every six months is superior to annual fit testing.

1910.1045 ACRYLONITRILE
(h)(A)(B) TESTING- annually, not semiannually or explain why semi-annual is superior.

1926.1101 ASBESTOS
(h)(4)(ii) fit test annually, not at least every six months or explain why every six months is superior.

DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Centers for Disease Control
National Institute for Occupational
Safety and Health - ALOSH
944 Chestnut Ridge Road
Morgantown, WV 26505

April 24, 1981

RESPIRATOR INFORMATION NOTICE

ON

Mine Safety Appliances Company, Pittsburgh, Pennsylvania
MSA Powered Air Purifying Respirator (PAPR)
Models 463353, 463354, 463355, 466607, 466608
NIOSH/MSHA Approval TC-21C-186

In July, 1980, the Mine Safety and Health Administration informed the National Institute for Occupational Safety and Health that they had received complaints of problems involving respirators being used to protect workers from high concentrations of airborne silica flour. Upon investigation, NIOSH learned that the manufacturer, Mine Safety Appliances Company, was aware of a problem with the grommets between the filter cartridge and the blower unit of the Powered Air-Purifying Respirator (PAPR) in question. During the period of August-November, 1980, MSA in conjunction with NIOSH undertook a program to replace the defective grommets. In order to determine whether or not the defective grommets were the sole cause of the problem reported earlier by MSHA, NIOSH conducted a field research investigation on the MSA PAPR to ascertain the level of respiratory protection it provided workers in a silica flour mill. On March 24, 1981, NIOSH completed the field study and issued a report. NIOSH concluded from this field investigation that during the bagging of silica dust, the MSA PAPR provided protection factors (PF) significantly less than the expected 1000 (observed PF range of 8-182). These results indicate that any worker wearing the MSA PAPR may not receive the anticipated protection. NIOSH met with MSA to review these findings and as a result, MSA is investigating this situation. At the present time, NIOSH has no evidence that this problem exists in other industries or use situations. Therefore, NIOSH will conduct, in the near term, further studies in other industries to evaluate the performance of the MSA PAPR against particulate aerosols physically and chemically different from silica flour. These results will aid NIOSH in determining whether or not the silica flour results are indicative of a specific problem related to exposure conditions or a generic problem related to equipment malfunction. NIOSH will continue to keep the user and occupational health and safety community appraised of further developments.

Questions or comments regarding this issue should be brought to the attention of NIOSH by contacting Mr. Warren R. Myers, Field Investigations Group, Testing and Certification Branch, Division of Safety Research, 944 Chestnut Ridge Road, Morgantown, West Virginia 26505, phone number: 304-599-7331.

James A. Oppold, Ph.D., PE, CSP
Director
Division of Safety Research

DEPARTMENT OF HEALTH & HUMAN SERVICES
Public Health Service

Centers for Disease Control
National Institute for Occupational
Safety and Health – ALOSH
944 Chestnut Ridge Road
Morgantown, WV 26505

November 15, 1982

RESPIRATOR INFORMATION NOTICE
ON
MSA Powered Air Purifying Respirator
Mine Safety Appliance Company, Pittsburgh, PA
Model Numbers: 463354, 466607, 466608
Approval Number: TC-21C-186

On April 24, 1981, NIOSH issued a Respirator Information Notice which described the results of a NIOSH study of the MSA high efficiency powered air purifying respirator (PAPR) during use in a silica flour mill. The observed workplace protection factors (defined as the ratio of the concentration of contaminant outside the facepiece to the concentration of contaminant inside the facepiece measured while the respirator is worn) were significantly below the anticipated workplace protection factor of 1000. As a result, NIOSH stated that workers wearing the MSA PAPR may not receive the protection they anticipated. NIOSH stated further than the Institute had no evidence that the problem discovered in that study existed in other industries or situations of use. NIOSH also stated that the Institute would conduct further studies to evaluate the performance of the MSA PAPR against substances physically and chemically different from silica flour to determine whether results with silica flour were indicative of a problem associated with conditions of exposure or related to the malfunction of equipment.

Staff of NIOSH subsequently conducted a field evaluation of the half-mask MSA high efficiency PAPR at a primary lead smelter. The challenge aerosols contained predominantly lead dust and or lead fume. From this and other NIOSH studies, additional information has been developed and this Notice supersedes the Notice of April 24, 1981.

This field evaluation of the MSA PAPR produced the following preliminary results. The workplace protection factors associated with the respirator was found to be approximately lognormally distributed. The MSA PAPR produced a geometric mean workplace protection factor of 376 with a geometric standard deviation of 2.64 against lead fume and lead dust. Approximately 95% of the observed workplace protection factors for the MSA PAPR exceeded 77 while 84% of the observed workplace protection factors were below 1000. During this study no wearer of the MSA PAPR was exposed to concentrations of lead exceeding the permissible exposure limit (PEL).

Subsequent to issuance of the Respirator Information Notice of April 24, 1981, NIOSH and MSHA commenced proceedings to withdraw the certification of the MSA PAPR. That action was predicated upon the determination by

DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Centers for Disease Control
National Institute for Occupa
Safety and Health – ALOSH
944 Chestnut Ridge Road
Morgantown, WV 26505

March 3, 1983

RESPIRATOR INFORMATION NOTICE

ON

3M Powered Air Purifying Respirator
3M, St. Paul, Minnesota
Model Number: W-344
Approval Number: TC-21C-246

Racal Powered Air Purifying Respirator
Racal Airstream, Inc., Frederick, Maryland
Model Number: AH3
Approval Number: TC-21C-212

In a Respirator Information Notice dated November 15, 1982, NIOSH recommended that powered air purifying respirators (PAPRs) with high efficiency filters not be relied upon to consistently provide a workplace protection factor of 1000. That recommendation was based upon the results of the two studies of PAPRs with tight fitting facepieces described in that Notice as well as the additional NIOSH study of helmeted PAPRs described in this Notice.

The NIOSH study of helmeted PAPRs with high efficiency filters was conducted by NIOSH on the 3M W-344 PAPR and the Racal AH3 PAPR at a secondary lead smelter. In this study the challenge aerosols contained lead dust and/or lead fume.

This study produced the following preliminary results. The workplace protection factors associated with both respirator models were found to be approximately lognormally distributed. The results of the t-tests indicate that there is no significant difference ($P < .05$) between the mean workplace protection factors of the 3M and Racal PAPRs under the particular circumstances of these studies. For both the 3M and Racal PAPRs, approximately 98% of the observed workplace protection factors were below 1000. Approximately 95% of the observed workplace protection factors for both the 3M and Racal PAPRs exceeded 33. The geometric mean workplace protection factor for 3M and Racal PAPRs was 182 with a geometric standard deviation of 3.2.

...LTH & HUMAN SERVICES

Public Health Service

Centers for Disease Co
and Prevention (CDC
National Institute for Occ
Safety and Health - ALO
944 Chestnut Ridge Roac
Morgantown, WV 26505-

September 12,

Mr. Randy Linnen
Public Service Company of Colorado
Hampden Park West, Building 5K
1500 West Hampden
Englewood, Colorado 80110

Dear Mr. Linnen:

Your letter of August 29, 1994, addressed to Mr. Richard Metzler, has been forwarded to me for response.

The National Institute for Occupational Safety and Health considers saccharin a potential carcinogen. Therefore, the Institute does not recommend it be used as a respirator fit-test agent.

Sincerely yours,

Barry G. Pallay

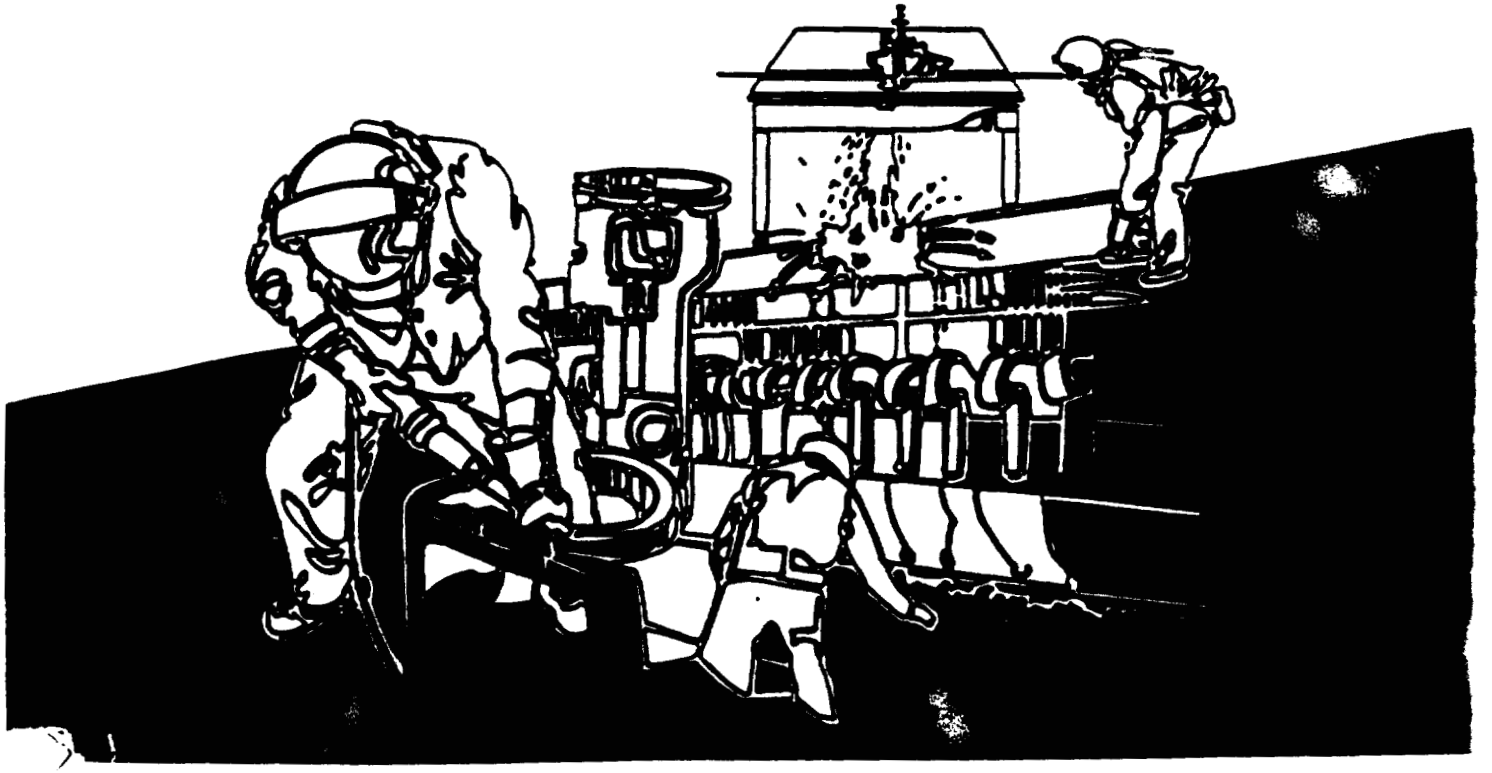
Barry G. Pallay
Chemical Engineer
Certification and Quality
Assurance Branch
Division of Safety Research

CDC

CENTERS FOR DISEASE CONTROL AND PREVENTION

NIOSH HEALTH HAZARD EVALUATION REPORT

HETA 93-040-2315
ANCHORAGE FIRE DEPARTMENT
ANCHORAGE, ALASKA



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service
Centers for Disease Control and Prevention
National Institute for Occupational Safety and Health