



DEPARTMENT OF THE AIR FORCE  
HEADQUARTERS 377TH AIR BASE WING (AFMC)

 ENTERED

19 Nov 99

MEMORANDUM FOR MS. JENNIFER PARKER  
NEW MEXICO ENVIRONMENT DEPARTMENT  
GROUND WATER QUALITY BUREAU  
HAROLD RUNNELS BUILDING  
P.O. BOX 26110  
1190 ST. FRANCIS DRIVE  
SANTA FE NM 87502

RECEIVED

NOV 24 1999

FROM: 377 ABW/EMC  
2050 Wyoming Blvd SE, Suite 120  
Kirtland AFB NM 87117-5270

GROUND WATER BUREAU

SUBJECT: 7-Day Notification of Discharge, Kirtland Air Force Base Bulk Fuels Facility

1. Pursuant to section 1203.A.3 of the New Mexico Water Quality Control Commission Regulations, we are submitting the attached 7-day Notification of Discharge. The initial 24-hour verbal notification of this discharge was provided to Mr. Norman Pricer on 12 Nov 99. Subsequent verbal notification was provided to Mr. Ray Montes of the New Mexico Environment Department Groundwater Bureau on 15 Nov 99. This correspondence is being addressed to you at the direction of Mr. Montes.
3. If you have any questions on the information provided, please contact me at (505) 846-2751 or Mr. Patrick Montaña at (505) 846-8577.

  
CHRISTOPHER B. DEWITT, RPG, GS-14  
Director  
Environmental Management Division

Attachment:  
7-Day Notification of Discharge

cc: See Distribution

KAFB3558



**DISTRIBUTION**

Ms. Angela Cross  
New Mexico Environment Department  
Drinking Water Bureau  
4131 Montgomery Blvd. NE  
Albuquerque, NM 87109

Mr. Nelson Payne  
Trend Western Technical Corporation  
3303 Lowery Avenue SE  
Kirtland AFB, NM 87117

377 ABW/JA  
MAJOR PAT TOLAN

377 AMDS/SGPB  
LT. HAINES

377 ABW/EMR  
JEROLD SILLERUD

377 CEG/CEOI  
CMSGT REINHARD

**New Mexico Water Quality  
Control Commission  
Regulations (20 NMAC 6.2)  
1203. Notification of Discharge - - Removal**

**This notification deals with three separate discharge events at the same facility.**

**General description of Kirtland Air Force Base (KAFB) Bulk Fuels Facility:**

1. Fuel Off-Loading Rack (Building 2405)
2. 2 each – 14” underground pipelines from off-loading rack to pump house
3. Pump House (Building 1033)
4. Aboveground Storage Tanks (Tank 2422 – 4,200,000 gal. capacity), (Tank 2420 – 2,100,000 gal. capacity)
5. Two each - Tanker Loading Stands
6. Underground and aboveground piping of various sizes from pump house to storage tanks and to tanker loading stands
7. Annual through-put = 20 to 25 million gallons, JP-8

***1203.A.1.a. the name, address, and telephone number of the person or persons in charge of the facility, as well as of the owner and/or operator of the facility;***

Facility Owner

Department of the Air Force

Installation Commander

Polly A. Peyer, Colonel, USAF  
Commander  
377 ABW/CC  
2000 Wyoming Blvd SE  
Kirtland AFB, NM 87117-5606  
(505) 846-7377

Organization Making Report

Mr. Terry W. Cooper, GS-12  
Chief, Compliance  
Environmental Management Division  
377 ABW/EMC  
2050 Wyoming Blvd SE, Suite 120  
Kirtland AFB, NM 87117-5270  
(505) 846-8546

Facility Operator

Trend Western Technical Corporation  
Mr. Ernie Marquez  
Building 1032, Bulk Fuels Office  
Kirtland AFB, NM 87117  
(505) 846-0944

***1203.A.1.b. the name and address of the facility;***

Bulk Fuels Off-Loading Rack, Building 2405  
400 Ft. NW of Building 1033  
West side of Kirtland AFB  
Kirtland AFB, NM 87117

***1203.A.1.c. the date, time, location, and duration of the discharge;***

Discharge #1:

11 Nov 99; 10:00 am; Kirtland Air Force Base Bulk Fuels Facility – JP-8 off-loading rack, 14” diameter underground pipeline #22 hydrostatic pressure test failure; duration of the discharge is unknown, duration of the test was 11 minutes

Discharge #2:

12 Nov 99; 11:45 am; Kirtland Air Force Base Bulk Fuels Facility – JP-8 off-loading rack, cam-lock coupling failure during 14” diameter underground pipeline #23 hydrostatic pressure test; duration of the discharge - 2 to 3 minutes

Discharge #3:

13 Nov 99; 10:00 am; Kirtland Air Force Base Bulk Fuels Facility – JP-8 off-loading rack, 14” diameter underground pipeline #23 hydrostatic pressure test failure; duration of the discharge – 30 seconds during the test

***1203.A.1.d. the source and cause of discharge;***

Discharge #1:

The source of the discharge was from the JP-8 off-loading rack, 14” diameter underground pipeline #22. The cause of the discharge was loss of pipeline integrity.

Discharge #2:

The source of the discharge was from the cam-lock coupling which failed during hydrostatic pressure testing of the JP-8 off-loading rack, 14” diameter underground pipeline #23. The cause of the discharge was a result of a faulty cam-lock coupling.

Discharge #3:

The source of the discharge was from the JP-8 off-loading rack, 14” diameter underground pipeline #23. The cause of the discharge was a result of loss of pipeline integrity.

***1203.A.1.e. description of the discharge, including its chemical composition;***

Discharge #1:

On 11 Nov 99, KAFB fuels maintenance personnel conducted hydrostatic pressure testing of underground pipeline #22 which runs from the fuel off-loading rack to the pump house. The test failed, showing a loss of 70 PSI (100 PSI to 30 PSI in 30 seconds). It is not known how long this pipeline has been in a state of failure. The chemical composition of the discharge is JP-8 aircraft fuel (see attached MSDS).

Discharge #2:

On 12 Nov 99, following the failure of pipeline #22, KAFB fuels maintenance personnel conducted hydrostatic pressure testing of secondary underground pipeline #23 which runs from the fuel off-loading rack to the pump house. It is believed this line has not been used at the facility since the 1980s. During the test, fuel was observed flowing out of a cam-lock coupling onto the ground surface. Surface soils, in the immediate area of the off-loading rack, and an area north of the off-loading rack measuring approximately 25 ft. by 75 ft. were affected by the spill. The chemical composition of the discharge is JP-8 aircraft fuel (see attached MSDS).

Discharge #3:

On 13 Nov 99, following repair of the cam-lock coupling, KAFB fuels maintenance personnel again initiated hydrostatic pressure testing of underground pipeline #23. The test failed, showing a loss of 100 PSI (100 PSI to 0 PSI in 30 seconds). Fuel was observed flowing up through the ground surface adjacent to the off-loading rack. Testing was immediately discontinued. It is not known how long this pipeline has been in a state of failure, however, it is believed pipeline #23 has not been used since the 1980s. The chemical composition of the discharge is JP-8 aircraft fuel (see attached MSDS).

***1203.A.1.f. the estimated volume of the discharge;***

Discharge #1:

Unknown. Fuel inventory records indicate a loss of approximately 97,171 gallons (0.36% of total handled ) over the past 12 months. Some of the loss can be attributed to variation of fuel temperature and density readings during measurements, malfunctions of the automatic tank gauging system, line displacement occurrences during receipt and transfer operations, and vapor losses occurring during receipts and transfers through the floating roofs of the two large storage tanks.

Discharge #2:

Approximately 200 to 400 gallons

Discharge #3:

Approximately 30 gallons

***1203.A.1.g. any actions taken to mitigate immediate damage from the discharge.***

Discharge #1, 2, and 3:

Following the line testing, the remaining fuel contained in underground pipelines #22 and #23 was evacuated. Both lines have been isolated to prohibit their use until repairs or new line installation is completed. A temporary off-loading area has been constructed. The stained surface soils (approximately 60 cubic yards) north of the off-loading rack have been removed and will be disposed of in accordance with applicable laws and regulations. The remaining stained surface soils in the immediate area of the off-loading rack will be removed as soon as possible following resolution of safety concerns. KAFB fuels maintenance personnel are currently in the process of testing all remaining active underground lines at the bulk fuels facility. If any line fails the testing, all fuel from the line will be removed and the line placed out of service until it is replaced or repaired.

***Supplemental Information.***

1. Depth to ground water at the site is approximately 450 to 500 feet below ground level.
2. The nearest KAFB drinking water production well #15 is approximately 1,830-ft northwest of the site (cross gradient).
3. Safe Drinking Water Act Compliance sampling from well #15 has not shown the presence of any volatile organic compounds.
4. Ms. Angela Cross of the New Mexico Environment Department Drinking Water Bureau has been verbally notified of this issue.



# MATERIAL SAFETY DATA SHEET

## SUBSTANCE IDENTIFICATION

SUBSTANCE: JP8  
TRADE NAMES/SYNONYMS:  
STCC 499215; UN 1863; OHS 1229

CHEMICAL FAMILY: PETROLEUM HYDROCARBON

PRODUCT MANUFACTURER:  
GIANT REFINING COMPANY  
ROUTE 3 BOX 7  
GALLUP, NEW MEXICO 87301

EMERGENCY PHONE: (505) 722-3833  
INFORMATION PHONE: (505) 722-3833  
DATE PREPARED: SEPTEMBER 28, 1993  
LAST REVISION: SEPTEMBER 28, 1993

CECCLA RATINGS (SCALE 0-3): HEALTH = 3 FIRE = 3 REACTIVITY = 0 PERSISTENCE = 1  
NFPA RATINGS (SCALE 0-4): HEALTH = 1 FIRE = 3 REACTIVITY = 0

## COMPONENTS AND CONTAMINANTS

COMPONENT: JP8 PERCENT: 100

OTHER CONTAMINANTS: MAY CONTAIN TRACE AMOUNTS OF SULFUR OR BENZENE. MAY CONTAIN ADDITIVES IN CONCENTRATIONS LESS THAN 0.1%.

## EXPOSURE LIMITS:

JP8  
100 MG / M3 (KEROSENE) NIOSH RECOMMENDED 10 HOUR TWA

## PHYSICAL DATA

DESCRIPTION: CLEAR, WHITE OR LIGHT STRAW-COLORED LIQUID WITH AN ODOR LIKE KEROSENE. BOILING POINT: 302-572 F (150-300 C) MELTING POINT: -63 F (-47 C)  
SPECIFIC GRAVITY: 0.77-0.84 VOLATILITY: NIL VAPOR PRESSURE: 2 MMHG @ 68 F SOLUBILITY IN WATER: INSOLUBLE VAPOR DENSITY: > 1 VISCOSITY: 8.0 CST @ -20 C

## FIRE AND EXPLOSION DATA

FIRE AND EXPLOSION HAZARD: SEVERE FIRE HAZARD WHEN EXPOSED TO HEAT OR FLAME.

VAPORS ARE HEAVIER THAN AIR AND MAY TRAVEL A CONSIDERABLE DISTANCE TO A SOURCE OF IGNITION AND FLASH BACK.

VAPOR-AIR MIXTURES ARE EXPLOSIVE ABOVE FLASH POINT.

FLASH POINT: 100-150 F (38-66 C) (CC) UPPER EXPLOSIVE LIMIT: 5.0% LOWER EXPLOSIVE LIMIT: 0.7% AUTOIGNITION TEMP.: 475-500 F (246-260 C) FLAMMABILITY CLASS (OSHA): II

FIREFIGHTING MEDIA: DRY CHEMICAL, CARBON DIOXIDE, HALON, WATER SPRAY OR STANDARD FOAM (1987 EMERGENCY RESPONSE GUIDEBOOK, DOT P 5800.4).

FOR LARGER FIRES, USE WATER SPRAY, FOG OR STANDARD FOAM (1987 EMERGENCY RESPONSE GUIDEBOOK, DOT P 5800.4)

FIREFIGHTING: MOVE CONTAINER FROM FIRE AREA IF POSSIBLE. COOL FIRE-EXPOSED CONTAINERS WITH WATER FROM SIDE UNTIL WELL AFTER FIRE IS OUT. STAY AWAY FROM STORAGE TANK ENDS FOR MASSIVE FIRE IN STORAGE AREA. USE UNMANNED ROSE HOLDER OR MONITOR NOZZLES. ELSE WITHDRAW FROM AREA AND LET FIRE BURN. WITHDRAW IMMEDIATELY IN CASE OF RISING SOUND FROM VENTING SAFETY DEVICE OR ANY DISCOLORATION OF STORAGE TANK DUE TO FIRE (1987 EMERGENCY RESPONSE GUIDEBOOK, DOT P 5800.4, GUIDE PAGE 27)

EXTINGUISH ONLY IF FLOW CAN BE STOPPED; USE WATER IN FLOODING AMOUNTS AS FOG. SOLID STREAMS MAY SPREAD FIRE. COOL CONTAINERS WITH FLOODING AMOUNTS OF WATER, APPLY FROM AS FARE A DISTANCE AS POSSIBLE. AVOID BREATHING VAPORS. KEEP UPWIND

## TRANSPORTATION DATA

DEPARTMENT OF TRANSPORTATION HAZARD CLASSIFICATION 49 CFR 172.101: FLAMMABLE LIQUID

DEPARTMENT OF TRANSPORTATION LABELING REQUIREMENTS 49 CFR 172.101 AND 172.402: FLAMMABLE PLACARD-UN-1863

DEPARTMENT OF TRANSPORTATION PACKAGING REQUIREMENTS: GROUP III EXCEPTION: 49 CFR 173.118A

## TOXICITY

JP8:  
400 MG/24 HOURS SKIN-RABBIT MILD IRRITATION; 100 MG/30 SECONDS EYE-RABBIT MILD IRRITATION; > 20 GM/KG ORAL-RAT LD50 (AETODY); > 5 ML/KG SKIN-RABBIT LD50 (AETODY); MUTAGENIC DATA (BEH1-1279-0323).

CARCINOGEN STATUS: NONE.

JP8 IS A CENTRAL NERVOUS SYSTEM DEPRESSANT. PERSONS WITH CHRONIC SKIN OR RESPIRATORY DISEASE MAY BE AT AN INCREASED RISK FROM EXPOSURE.

EPIDEMIOLOGICAL STUDIES INVOLVING PETROLEUM REFINERY WORKERS INDICATED PERSONS WITH ROUTINE EXPOSURE TO PETROLEUM OR ONE OF ITS CONSTITUENTS MAY BE AT AN INCREASED RISK TO THE DEVELOPMENT OF BENIGN NEOPLASMS, DIGESTIVE SYSTEM CANCERS, AND SKIN CANCER, PARTICULARLY MELANOMA.

## HEALTH EFFECTS AND FIRST AID

### INHALATION:

JP8: NARCOTIC

ACUTE EXPOSURE - MISTS MAY BE IRRITATING TO THE UPPER RESPIRATORY TRACT. HIGH CONCENTRATIONS MAY CAUSE CHEMICAL PNEUMONITIS AND SYMPTOMS OF CENTRAL NERVOUS SYSTEM DEPRESSION SUCH AS HEADACHE, DIZZINESS, GIDDINESS, NAUSEA, ANOREXIA, WEAKNESS AND IN SEVERE CASES, UNCONSCIOUSNESS AND DEATH.

CHRONIC EXPOSURE - REPEATED OR PROLONGED EXPOSURE MAY CAUSE RESPIRATORY IRRITATION. A GROUP OF WORKERS WITH LONGTERM EXPOSURE TO JP8 VAPORS EXPERIENCED DIZZINESS, HEADACHE, NAUSEA, PALPITATIONS, PRESSURE IN THE CHEST, POLYNEUROPATHY, NEURASTHENIA, AND PSYCHIATRIC SYMPTOMS SUCH AS ANXIETY AND DEPRESSION. REPEATED INHALATION EXPOSURE OF ANIMALS TO SEVERAL TYPES OF JP8 VAPORS RESULTED IN TOXIC NEPHROPATHY IN MALE RATS AND HEPATOCELLULAR FATTY CHANGE IN FEMALE MICE.

FIRST AID - REMOVE FROM EXPOSURE AREA TO FRESH AIR IMMEDIATELY. IF BREATHING HAS STOPPED, PERFORM ARTIFICIAL RESPIRATION. MAINTAIN AIRWAY AND BLOOD PRESSURE AND ADMINISTER OXYGEN IF AVAILABLE. KEEP AFFECTED PERSON WARM AND AT REST. ADMINISTRATION OF OXYGEN SHOULD BE PERFORMED BY QUALIFIED PERSONNEL. GET MEDICAL ATTENTION IMMEDIATELY.

### SKIN CONTACT:

JP8:

ACUTE EXPOSURE - WHEN TESTED ON RABBITS, IRRITATION WAS REPORTED AS MILD AND NO MORTALITIES OCCURRED WITH APPLICATION OF 5 ML/KG.

CHRONIC EXPOSURE - REPEATED OR PROLONGED EXPOSURE MAY CAUSE DEFATTING AND DRYNESS WITH SEVERE IRRITATION AND DERMATITIS. REPEATED APPLICATIONS OF 8 ML/KG TO THE SKIN OF RABBITS RESULTED IN 75% MORTALITY. THE PRIMARY CAUSES OF DEATH WERE DEPRESSION AND ANOREXIA INDUCED BY SEVERE DERMAL IRRITATION WITH INFECTION. RATHER THAN SYSTEMIC TOXICITY, NECROSIS REVEALED PALE LIVERS AND KIDNEYS. HISTOPATHOLOGY REVEALED MULTIFOCAL NECROSIS AND CENTROLOBULAR VACUOLAR DEGENERATION OF THE LIVER.

AN EPIDEMIOLOGICAL STUDY OF PETROLEUM REFINERY WORKERS HAS REPORTED ELEVATION IN STANDARD MORTALITY RATIOS FOR SKIN CANCER ALONG WITH A DOSE RESPONSE RELATIONSHIP WHICH INDICATES AN ASSOCIATION BETWEEN HOURLY WORKPLACE EXPOSURE TO PETROLEUM OR ONE OF ITS CONSTITUENTS AND SKIN CANCER, PARTICULARLY MELANOMA.

FIRST AID - REMOVE CONTAMINATED CLOTHING AND SHOES IMMEDIATELY. WASH AFFECTED AREA WITH SOAP OR MILD DETERGENT AND LARGE AMOUNTS OF WATER UNTIL NO EVIDENCE OF CHEMICAL REMAINS (APPROXIMATELY 15-20 MINUTES). GET MEDICAL ATTENTION IMMEDIATELY.

### EYE CONTACT:

JP8:

ACUTE EXPOSURE - HIGH VAPOR CONCENTRATIONS OR CONTACT WITH THE LIQUID MAY RESULT IN IRRITATION, PROBABLY MILD.

CHRONIC EXPOSURE - REPEATED OR PROLONGED EXPOSURE MAY CAUSE IRRITATION.

FIRST AID - WASH EYES IMMEDIATELY WITH LARGE AMOUNTS OF WATER, OCCASIONALLY LIFTING UPPER AND LOWER LIDS, UNTIL NO EVIDENCE OF CHEMICAL REMAINS (APPROXIMATELY 15-20 MINUTES). GET MEDICAL ATTENTION IMMEDIATELY.

### INGESTION:

JP8:

ACUTE EXPOSURE - IN ACUTE TOXICITY STUDIES, INGESTION OF 20 GM/KG RESULTED IN NO MORTALITIES IN RATS. DIARRHEA WAS THE ONLY SYMPTOM REPORTED. SIMILAR KEROSENE-TYPE PETROLEUM FRACTIONS CAUSE IRRITATION OF THE MOUTH, THROAT AND STOMACH WITH NAUSEA AND VOMITING. IF SUFFICIENT AMOUNTS ARE INGESTED AND RETAINED CENTRAL NERVOUS SYSTEM DEPRESSION MAY BE POSSIBLE. ASPIRATION MAY OCCUR ON INGESTION OR DURING SUBSEQUENT VOMITING, AND EVEN SMALL AMOUNTS CAN RESULT IN PNEUMONITIS AND PULMONARY EDEMA. SIGNS AND SYMPTOMS MAY INCLUDE COUGHING, DYSPNEA, CYANOSIS, AND DELAYED KIDNEY DAMAGE. SEVERE CASES MAY BE FATAL.

CHRONIC EXPOSURE - NO DATA AVAILABLE.

FIRST AID - EXTREME CARE MUST BE USED TO PREVENT ASPIRATION. IF MORE THAN 1 ML/KG IS INGESTED AND RETAINED, OR IF A TOXIC INGREDIENT IS PRESENT, USE GASTRIC LAVAGE WITH ACTIVATED CHARCOAL AND A CUFFED ENDOTRACHEAL TUBE WITHIN 15 MINUTES. IN THE ABSENCE OF DEPRESSION OR CONVULSIONS OR IMPAIRED GAG REFLEX, IPECAC EMESIS CAN BE DONE WHEN VOMITING BEGINS. KEEP HEAD BELOW THE HIPS TO PREVENT ASPIRATION. AFTER VOMITING STOPS, GIVE 30-60 MILLILITERS OF FLEET'S PHOSPHO-SODA DILUTED 1:4 IN WATER. MAINTAIN AIRWAY AND BLOOD PRESSURE. GIVE ARTIFICIAL RESPIRATION WITH OXYGEN IF RESPIRATION IS DEPRESSED. (DREISBACH, HANDBOOK OF POISONING, 11TH ED.) TREATMENT MUST BE ADMINISTERED BY QUALIFIED MEDICAL PERSONNEL. GET MEDICAL ATTENTION.

ANTIDOTE: NO SPECIFIC ANTIDOTE. TREAT SYMPTOMATICALLY AND SUPPORTIVELY.

"DISPOSAL"

MUST BE IN ACCORDANCE WITH STANDARDS APPLICABLE TO GENERATIONS OF HAZARDOUS WASTE, 40 CFR 252, EPA HAZARDOUS WASTE NUMBER D001

CONDITIONS TO AVOID

IGNITED BY HEAT, SPARKS OR FLAMES. VAPORS MAY TRAVEL TO A SOURCE OF IGNITION AND FLASH BACK. CONTAINER MAY EXPLODE IN HEAT OF FIRE. VAPOR EXPLOSION HAZARD INDOORS, 5 OR IN SEWERS. RUNOFF TO SEWER MAY CREATE FIRE OR EXPLOSION HAZARD

SPILL AND LEAK PROCEDURES

IMMEDIATELY REPORT SPILL TO SUPERVISOR. STOP LEAK IF YOU CAN DO IT WITHOUT RISK. USE WATER SPRAY TO REDUCE VAPORS. FOR SMALL SPILLS, TAKE UP WITH SAND OR OTHER ABSORBENT MATERIAL AND PLACE IN CONTAINERS FOR LATER DISPOSAL. FOR LARGE SPILLS, DIKE FAR AHEAD OF SPILL FOR LATER DISPOSAL. NO SMOKING, FLAMES OR FLARES IN HAZARD AREA. KEEP UNNECESSARY PEOPLE AWAY FROM HAZARD AREA AND RESTRICT ENTRY.

PROTECTIVE EQUIPMENT

USE LOCAL EXHAUST VENTILATION AND/OR GENERAL DILUTION VENTILATION TO MEET PUBLISHED EXPOSURE LIMITS.

RESPIRATORY PROTECTION: RESPIRATOR SELECTED MUST BE BASED ON THE CONTAMINATION LEVELS FOUND IN THE WORK PLACE, MUST NOT EXCEED THE WORKING LIMITS OF THE RESPIRATOR AND BE JOINTLY APPROVED BY THE NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH AND THE MINE SAFETY AND HEALTH ADMINISTRATION. RESPIRATORS ARE RECOMMENDED BASED ON THE DATA FOUND IN THE PHYSICAL DATA, HEALTH EFFECTS AND TOXICITY SECTIONS. THEY ARE RANKED IN ORDER FROM MINIMUM TO MAXIMUM RESPIRATORY PROTECTION.

1. SUPPLIED-AIR RESPIRATOR WITH A FULL FACEPIECE OPERATED IN PRESSURE-DEMAND OR OTHER POSITIVE PRESSURE MODE OR WITH A FULL FACEPIECE, HELMET OR HOOD OPERATED IN CONTINUOUS-FLOW MODE.

2. SELF-CONTAINED BREATHING APPARATUS WITH A FULL FACEPIECE OPERATED IN PRESSURE-DEMAND OR OTHER POSITIVE PRESSURE MODE.

3. SCUBA DIVING AND OTHER IMMEDIATELY DANGEROUS TO LIFE OR HEALTH CONDITIONS:

4. SELF-CONTAINED BREATHING APPARATUS WITH FULL FACEPIECE OPERATED IN PRESSURE-DEMAND OR OTHER POSITIVE PRESSURE MODE

5. SUPPLIED-AIR RESPIRATOR WITH FULL FACEPIECE AND OPERATED IN PRESSURE-DEMAND OR OTHER POSITIVE PRESSURE MODE IN COMBINATION WITH AN AUXILIARY SELF-CONTAINED BREATHING APPARATUS OPERATED IN PRESSURE-DEMAND OR OTHER POSITIVE PRESSURE MODE

6. WORKERS MUST WEAR APPROPRIATE PROTECTIVE (IMPERVIOUS) CLOTHING AND EQUIPMENT TO PREVENT REPEATED OR PROLONGED SKIN CONTACT WITH THIS SUBSTANCE.

7. WORKERS MUST WEAR APPROPRIATE PROTECTIVE GLOVES TO PREVENT CONTACT WITH THIS SUBSTANCE.

8. PROTECTIVE EQUIPMENT: WORKERS MUST WEAR SPLASH-PROOF OR DUST-RESISTANT SAFETY GOGGLES TO PREVENT EYE CONTACT WITH THIS SUBSTANCE. CONTACT LENSES SHOULD NOT BE WORN.

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