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Interoffice Communication

To Jerald Uptain

From Owen Tubb

Date March 9, 1976

Subject RESPIRATORY PROTECTION PROGRAM

Attached is the proposed Respiratory Protection Program for the Aberdeen Plant.

OTV

Owen Tubb

Owen Tubb
Industrial Hygienist

smp

Con. Gas masks — location + numbers
D.B. Cont. Room

c: R. A. Darling
R. W. Seymour
J. W. Harpring
G. G. Draper
K. W. Couch
D. E. Michels
R. F. Hoffine
F. J. Scott
D. M. Lewis
D. L. Honeycutt

CONOCO CHEMICALS

RESPIRATORY PROTECTION PROGRAM

March 9, 1976

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I. PURPOSE

The purpose of the Aberdeen Plant Respiratory Protection program is to insure that all employees are provided with the proper respiratory equipment and to insure that they are trained in the selection, use, cleaning, and storage of such respirators.

II. SELECTION AND USE OF RESPIRATORS

A. Selection

1. All respiratory equipment used in the plant must be NIOSH approved. ? variance

2. The Plant Industrial Hygienist must approve all respiratory equipment purchases before use of such equipment is allowed.

B. Use

See Table I (attached) for approved respiratory equipment and the limitations of the equipment.

III. TRAINING

A. New Employees

All new plant employees will be instructed in the selection, use, and maintenance of respiratory equipment during their initial doctrination. The Plant Training Supervisor will conduct the instruction.

B. All Employees

All employees will be instructed in the selection, use, and maintenance of respiratory equipment. This training will be conducted by either the Plant Training Supervisor or the employee's immediate Supervisor, on an annual basis.

C. Training Requirements

The Respiratory Equipment Training Program shall consist of each employee being trained in the following:

1. Proper selection of equipment (See Table I)

2. Proper use of equipment which includes:

a) How respirator should be worn

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b) How to adjust respirator
c) How to check for a proper fit
d) How to check for face-piece to face seal
e) Actually wearing the equipment for a familiarity period
f) Wearing the respirator in a test atmosphere

3. Proper maintenance and care of equipment which includes:
   a) Daily inspection for defects (before use)
   b) Cleaning and disinfecting
   c) Storage

IV. RESPIRATOR ASSIGNMENTS

Respiratory equipment will not be assigned to individual employees. However, the plant will provide a clean, individually packaged respirator, each day, for every employee who is required to wear such equipment.

V. RESPIRATOR CLEANING AND STORAGE

A. Cleaning and storage of respiratory equipment will be handled by an individual that has been assigned this specific task. The job duties included in this task are as follows:

1. Cleaning and disinfecting all dirty respirators
2. Placing clean respirators in plastic bags for re-issue
3. Distribution of clean respirators to designated plant areas.
4. Retrieval of dirty respirators from designated plant areas
5. Cleaning of emergency (stand-by) equipment on a monthly basis, and immediately after each use
6. Routine inspection of equipment for obvious defects such as:
   a) Condition of breathing tube
   b) Condition of head bands

B. The cleaned respirators will be placed at designated plant areas in compartments that will protect the equipment from dust, sunlight, heat, extreme cold, excessive moisture, or damaging chemicals. The designated plant areas are as follows:

1. Large Reactor area ← Pyer area (Shift Supv. Area)
2. Main Maintenance Shop
3. Compound area

4. Vinyl Dryer area
5. Yard area

VI. INSPECTIONS

A. Routinely Used Respirators

1. The person assigned to cleaning respiratory equipment will make a routine inspection of each respirator for worn or defective parts as it is being cleaned.

2. Each user must make a routine inspection of the respirator before use.

3. The Plant Safety Inspector will inspect all routinely used respirators on a monthly basis. This formal inspection will include checking of:

   a) Tightness of connections
   b) Condition of face piece
   c) Condition of headbands
   d) Condition of valves
   e) Condition of connecting tubes
   f) Condition of rubber or elastomer parts

B. Respirators for Emergency Use

Respirators that are not routinely used, but are kept ready for emergency use shall be inspected as follows:

1. Self-contained breathing units (Scott Air Pak)

   These units will be inspected after each use, weekly and monthly. The inspections will be conducted by the Plant Safety Inspector and will include:

   a) Condition of cyclinder
   b) Pressure of cylinder
   c) Inspection of regulator for proper operation
   d) Inspection of warning alarm for proper operation
   e) Condition of breathing tube
   f) Condition of face piece
   g) Condition of straps
   h) Condition and cleanliness of case and respirator

2. VCM Canister Gas Masks

A. **VCM Canister Gas Masks for emergency use will be sealed and the Plant Safety Inspector will make a monthly inspection to insure that the seals are intact.**

B. VCM Canister Gas Masks for emergency use will be replaced **immediately** after each use.

VII. REPAIR OF RESPIRATORY EQUIPMENT

Part replacement and repair will be done only by the Plant Safety Inspector or his designee. No attempt will be made to replace components or make adjustments or repairs beyond the manufacturer's recommendations. Reducing or admission valves or regulators will be returned to the manufacturer for adjustment or repairs.

VIII. RESPIRATOR AVAILABILITY

A. Routinely Used Respirators

Respirators for routine use will be placed at designated plant areas as stated in Section V. B, 1-5.

B. Respirators for Emergency Use

1. Scott Air Paks

A total of eighteen (18) self-contained breathing units (Scott Air Paks) are distributed throughout the plant as indicated on Figure I, Map of SCBM locations. Spare air cylinders are located in the Maintenance Stock Room and the Safety Inspector's workshop. All such spare cylinders are to be kept full at all times.

2. Canister Gas Masks

A total of thirty-eight (38) gas masks have been distributed throughout the plant for emergency use, located as follows:

a) Guardhouse - Five Units
b) Dryer Control Room - Two Units Need more

c)	Switchboards (2)	-	Two Units each
d)	Vinyl Maintenance Shop	-	Five Units
e)	Main Maintenance Shop	-	Five Units
f)	Boiler House	-	Two Units
g)	Fire Pump House	-	Two Units
h)	Large Reactor Control Rm	-	Five Units
i)	Top of Large Reactors	-	Two Units
j)	Laboratory	-	Two Units
k)	First Aid Room	-	Two Units

IX. WORK AREA SURVEILLLANCE

Plant work area conditions and the degree of employee exposures to harmful atmospheres are to be surveyed on a continuing basis.

X. PROGRAM EFFECTIVENESS

The Plant Safety Director and Industrial Hygienist will evaluate the effectiveness of the Respiratory Protection Program on an on-going basis.

XI. EMPLOYEE FITNESS

All plant employees are required to undergo medical examinations, annually, to determine if they are physically able to perform work and to wear respiratory equipment.

XII. BREATHING AIR QUALITY

A. Compressed Air Cylinders

1. Breathing air supplied from compressed air cylinders must meet the requirements of the specification for "Grade D" breathing air.

2. Oxygen will not be used in any supplied air respiratory equipment.

B. Air Supplied by Breathing Air Compressors

Compressor systems to provide compressed air to air supplied respirators shall meet the following requirements:

1. Compressor must be a breathing air type.
2. In-line air purifying solvent beds and filters must be installed to assure breathing air quality.

3. A receiver of sufficient capacity to enable the respirator wearer to escape from a contaminated atmosphere in event of compressor failure shall be installed in the system. ?
4. Alarms to indicate compressor failure shall be installed in the system.
5. Breathing air line couplings and connections shall be incompatible with couplings and connections for all other piping.

XIII. RECORDKEEPING

A. Training Records

A record will be made of all respiratory training given to all employees. The Plant Training Supervisor will maintain all such records.

B. Records of Inspections

The Plant Safety Inspector will write and maintain respirator inspection records. These records will include:

1. Monthly inspection of self-contained breathing units.
2. Monthly inspections of emergency VCM canister gas masks.
3. Monthly inspection of routinely used respirators
4. Inspections conducted immediately after use of Scott Air Paks.
5. Weekly inspection of Scott Air Paks.

XIV. RESPONSIBILITIES

A. Safety Department

1. Safety Director

The Plant Safety Director is responsible for conducting periodic inspections to determine the continued effectiveness of the Respiratory Protection Program.

2. Training Supervisor

The Plant Training Supervisor is responsible for training all employees in the use and care of respirators as stated in Section III. He also responsible for keeping records of all employee respirator training.

3. Safety Inspector

The Plant Safety Inspector has the following responsibilities:

a) Repair and maintenance of respiratory equipment to retain the equipment's original effectiveness.
b) Inspection of all respiratory equipment.
c) Filing of all respiratory equipment inspection records.

4. Industrial Hygienist

The Plant Industrial Hygienist is responsible for:

a) Conducting periodic inspections to determine the continued effectiveness of the Respiratory Protection Program.
b) Supervision of the overall program.
c) Approving respiratory equipment before use of such equipment is allowed.
d) Surveillance of work area conditions and degree of employee exposure to harmful atmospheres.

B. Respirator Cleaner

The individual assigned the task of cleaning and distributing respirators is responsible for:

a) Cleaning and sanitizing respiratory equipment
b) Distribution and retrieval of respiratory equipment to and from the designated work stations.
c) Routine inspection of respiratory equipment under the supervision of the Plant Safety Inspector.

C. Maintenance Department

The Maintenance Department is responsible for the repair and maintenance of the supplied air system.

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TABLE I

APPROVED RESPIRATORY EQUIPMENT

EQUIPMENT NAME	DESCRIPTION//USE	SUPPLIER
Self Contained Breathing Equipment	Referred to as Scott Air Pak. This unit has its own cylinder air supply. It is to be used in VCM atmospheres above 1,000 ppm, or unknown atmospheres.	SCOTT-Model: Pressure Pak IIA, Part No. 9001401
Pressure-Demand Masks	This is an air line supplied unit that also has a small escape cylinder attached. This unit is to be used in VCM atmospheres up to 3,600 ppm, and for entering enclosed areas.	Scott - Part No. 900055
Constant Flow Masks	This is a constant flow, air line supplied respirator. These units are to be used in VCM atmospheres from 10 ppm to 1,000 ppm, VCM.	Mine Safety Appliance Co. Part No. 460865
VCM Canister Gas Mask	This is an air purifying device using a canister type filter. This unit is to be used in VCM atmospheres up to 10 ppm.	1) SCOTT - Part No. 682-2 (complete unit) 2) Mine Safety Appliance Co., Part No. 461480 (replacement canister)
Chlorine Canister Gas Mask	This is an air purifying device using a canister type filter. This unit is to be used in atmospheres containing up to 2% chlorine.	SCOTT - Part No. 685-2 (Replacement Canister 084-CL-L)

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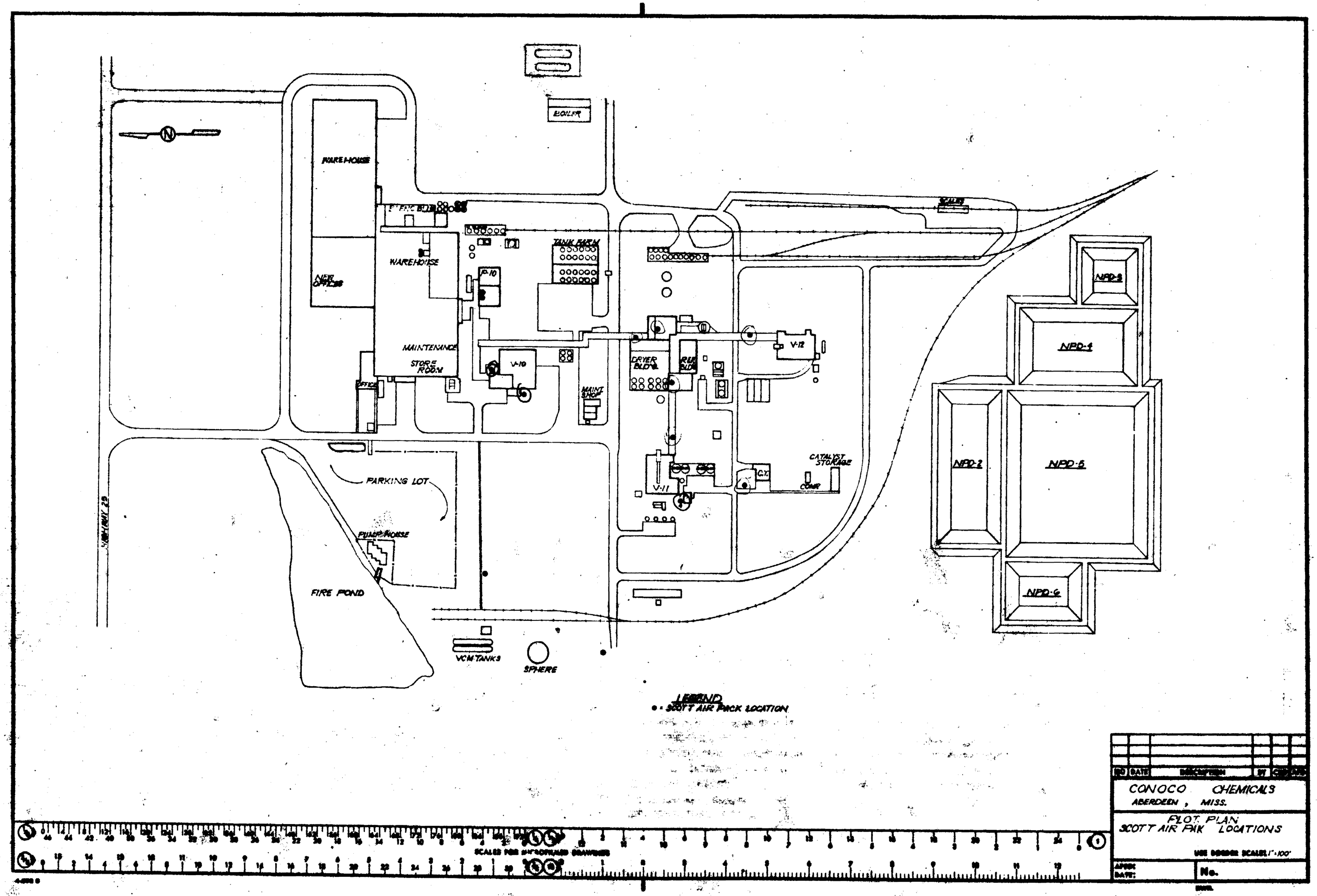
TABLE I

APPROVED RESPIRATORY EQUIPMENT (cont.)

EQUIPMENT NAME	DESCRIPTION//USE	SUPPLIER
Chemical Cartridge Respirator	This is an air purifying device using a chemical cartridge type filter. This unit is to be used in atmospheres containing up to 0.1% organic vapors.	Mine Safety Appliance Co. Model #85556
Dust Foe 66 Respirator	This is a mechanical filter type respirator. This unit is to be used in atmospheres containing particulate matter which have a TLV of not less than 0.1 mg/m^3.	Mine Safety Appliance Co. Model #76869



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