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10 JUL 25 AID: 5

July 17, 1986

Mr. Paul R. Guinn
Nuclear Regulatory Commission
Region II
101 Marietta Street
Suite 3100
Atlanta, Georgia 30323

Dear Mr. Guinn:

Subject: NRC License No. SUC-1287 --
Your June 9, 1986 letter requesting additional information

In response to your June 9 requests, please find enclosed with this letter the following:

- (1) Two (2) copies of our emergency procedures revised in accordance with your recommendations.
- (2) Updated sketch map of our facility showing location of natural uranium storage area relative to buildings, etc.

Please note that UF₆ cylinders have always been stored outdoors at our site and will continue to be in the future. Also, our facility is not accessible by boats. The local Fire Department and Hospital will be briefed by Edlow staff during August.

Sincerely,

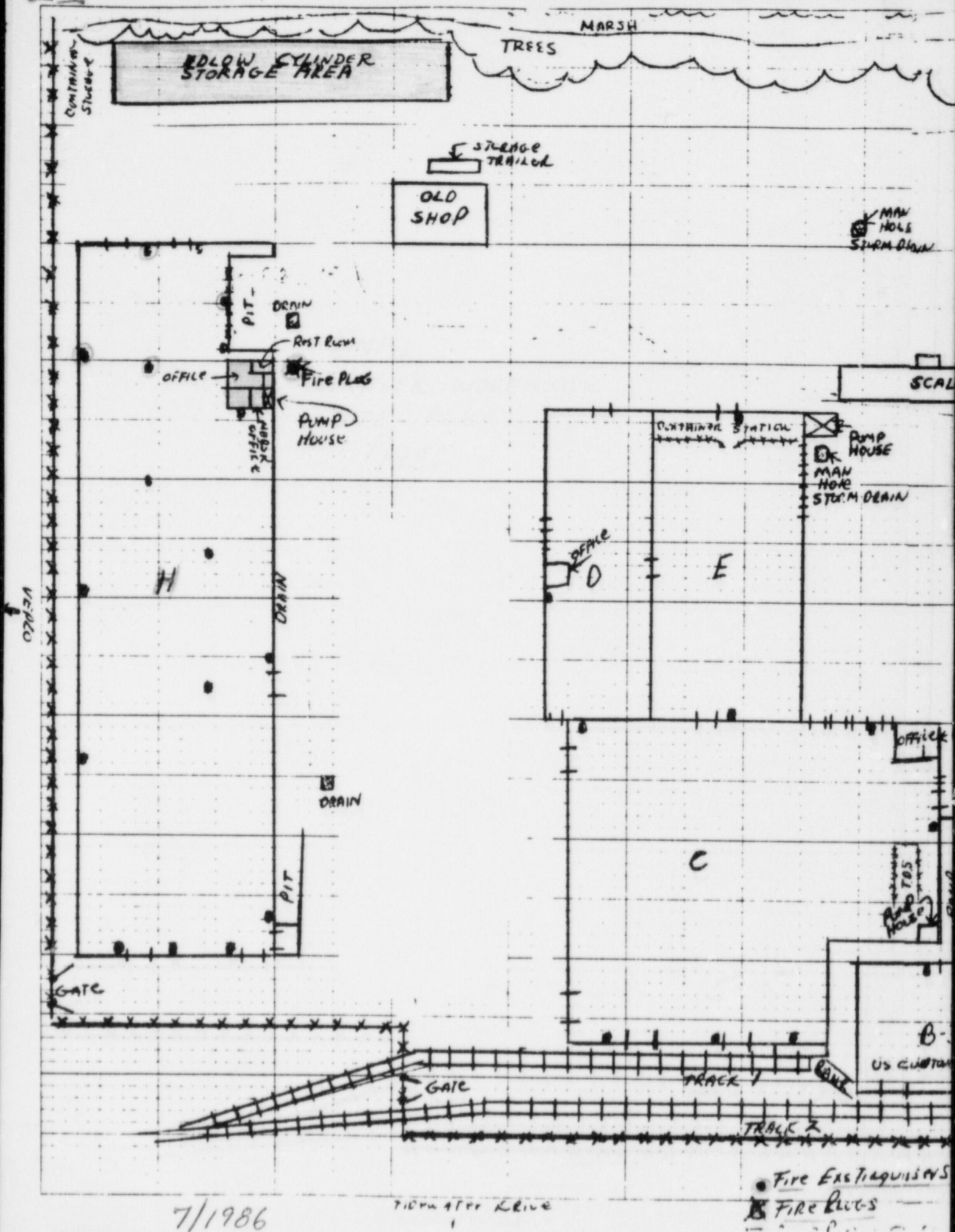
R.A. Rich
Executive Vice President

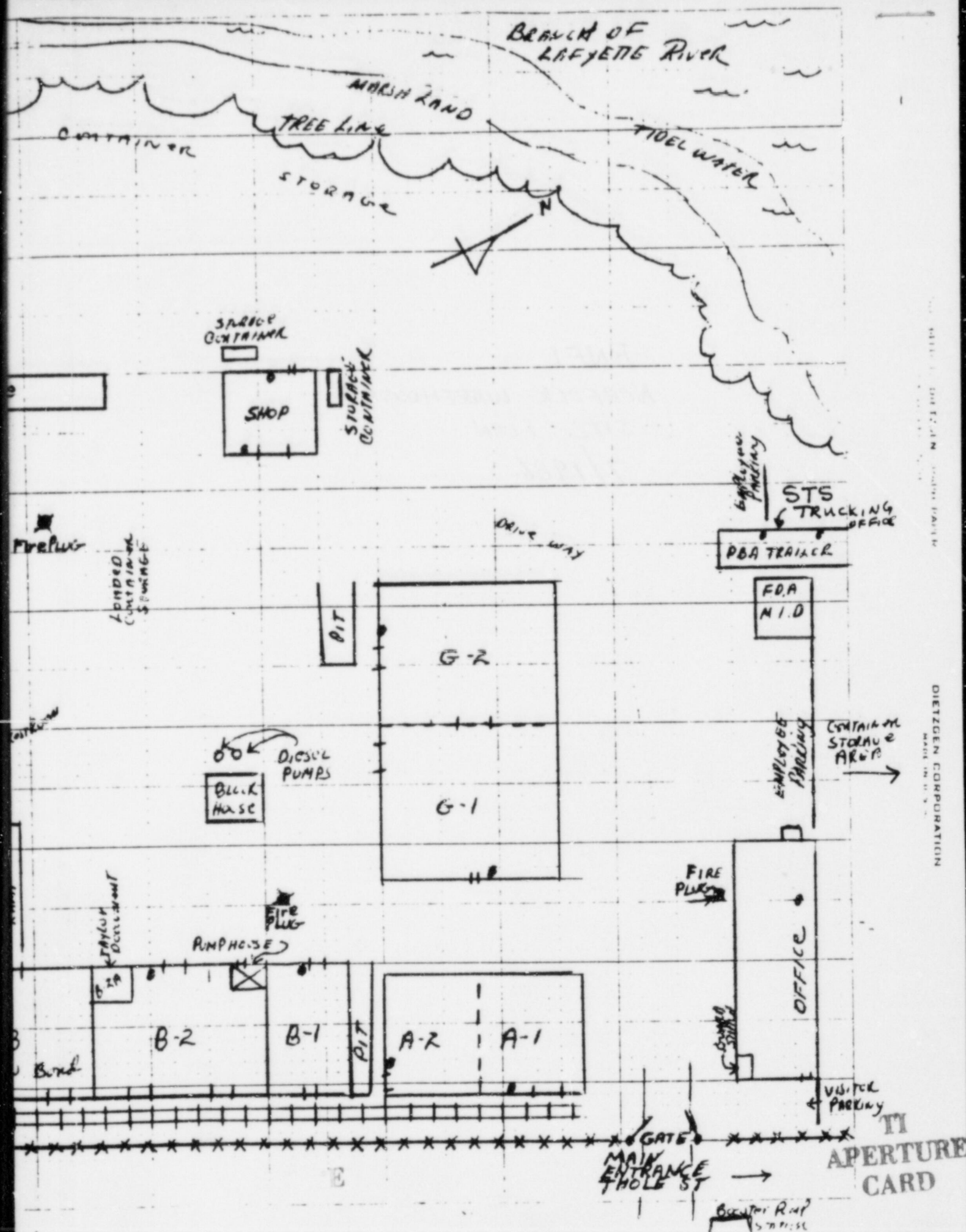
Enclosures

Official Copy

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REG2 LIC40
SUC-1287 PDR

BNFL
NORFOLK WAREHOUSE
SITE PLAN
7/1986



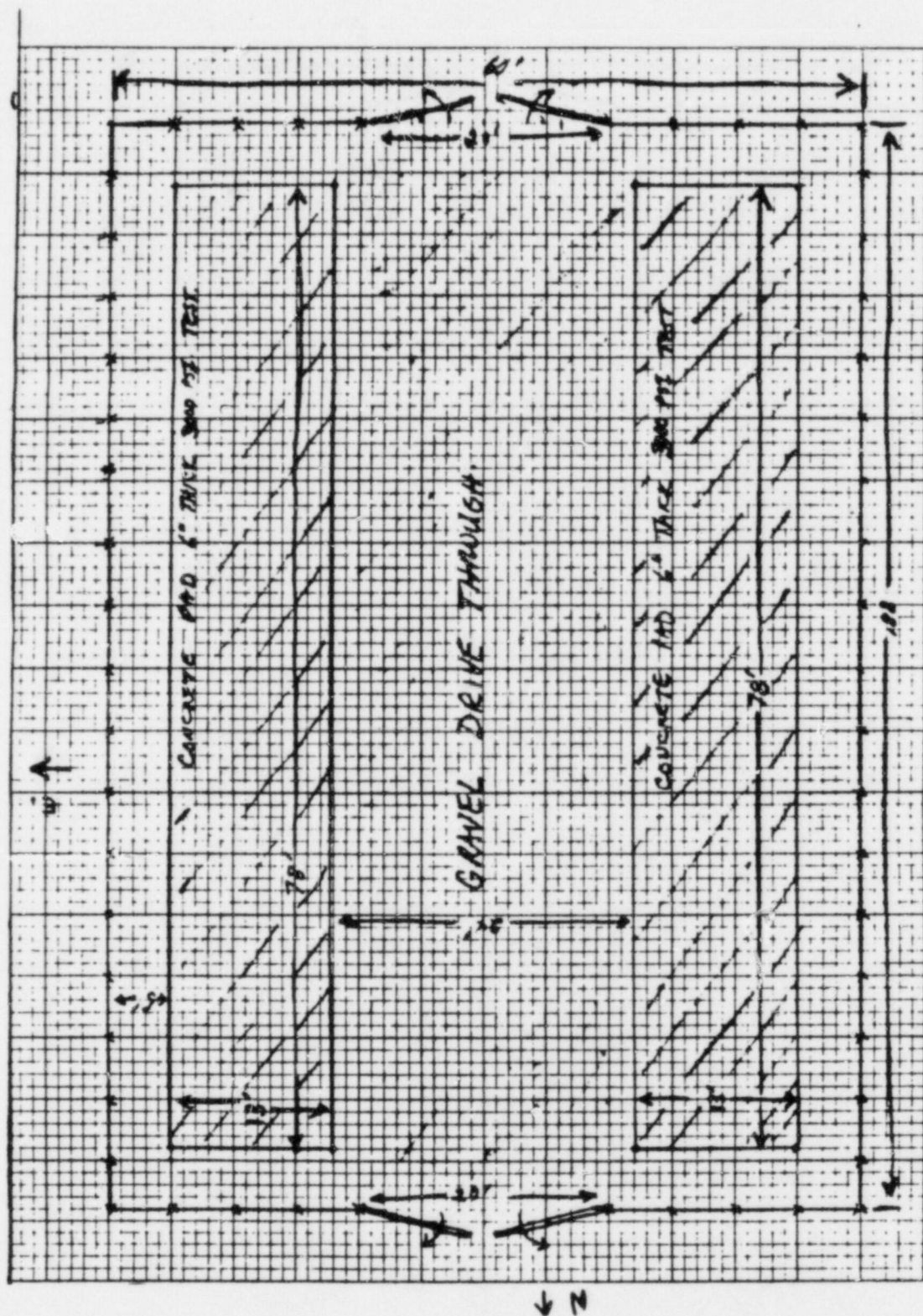


DATE: 08/24/81

DIETZEN CORPORATION
MADE IN U.S.A.

8609290264-01

Also Available On
Aperture Card



BNFL
 NORFOLK WAREHOUSE
 PLAN OF UFG STORAGE AREA
 (FENCED 5280 FT² -- 80' X 60')

CAPACITY: 26 X 48' CYLS -- 13 ON
 EACH CONCRETE PAD

7/1986

BRITISH NUCLEAR FUELS, PLC

NORFOLK WAREHOUSE

EMERGENCY PROCEDURES FOR SOURCE MATERIAL STORAGE

Issued by Edlow International Company

July 17, 1986
(supercedes January 30, 1986 edition)

A. Introduction

Whereas the possibility of an accident at the Source Material Storage Facility involving release of radiation or toxic chemicals is very small, the following Emergency Procedures are provided. With or without a fire, in the event of actual or possible exposure to toxic and/or radioactive chemicals, immediately call the Norfolk Fire Department's emergency number 911. The Fire Department is prepared to respond to such emergencies and is Norfolk's first line of defense and source of aid in the event of an accident involving hazardous materials.

Nearest Fire Station:

Norfolk Fire Department
115 Thole Street
Norfolk, VA 23501
(804) 423-7225

Nearest Hospital:

De Paul Hospital
Granby St. and Kingsley Ln.
Norfolk, VA 23501
(804) 489-5000

Edlow has briefed representatives of Fire Station and Hospital staff concerning injuries which could occur in case of a fire, explosion, or other type of emergency at the facility. Information will be up-dated as required by changing circumstances, but in any event Edlow will rebrief Fire Department and Hospital staff representatives once per calendar year.

All uranium hexafluoride cylinders are stored outdoors. No flammable or combustible materials are stored within 200 feet of the fenced storage area. The fenced storage area is kept free of vegetation by periodic spraying with weed killer.

B. Emergency in which there is a fire or threat of fire -

- a) All non-essential personnel should immediately evacuate the Storage Facility.
- b) Notice should be given immediately to the Norfolk Fire Department -- dial 911 and explain that the hazardous materials involved are uranium hexafluoride (UF_6) and/or triuranium octoxide (U_3O_8). Both are low specific activity radioactive materials; UF_6 is chemically toxic and hazardous if released.

- c) Notice should as soon as possible be given to Norman Ravenscroft at Edlow International Company, telephone (202) 833-8237. For nights, weekends, and holidays alternate telephone contacts are Norman Ravenscroft (301) 384-5062, Bob Rich (703) 525-5742 or (617) 255-7424, or Jack Edlow (301) 881-4460.
- d) U.S. Nuclear Regulatory Commission (NRC) Region II Office should be notified by telephone (404-331-4503) as soon as possible after emergency actions have been initiated.
- e) All efforts should be made to keep fire from stored uranium.
- f) Follow applicable procedures described below under paragraph(s) C5 and/or C6.

C. Emergency in which fire is not an immediate threat -

- 1. All non-essential personnel should immediately evacuate the Storage Facility.
- 2. The Norfolk Fire Department (dial 911) should be called in the event of actual or possible exposure to toxic gas or chemicals.
- 3. Notice should immediately be given to Norman Ravenscroft at Edlow International Company, telephone (202) 833-8237. For nights, weekends and holidays, alternate telephone contacts are Norman Ravenscroft (301) 384-5062, Bob Rich (703) 525-5742 or (617) 255-7424, or Jack Edlow (301) 881-4460.
- 4. NRC's Region II Office should be notified by telephone (404-331-4503) of any emergency as soon as possible after emergency actions have been initiated.
- 5. Damaged or Leaking Uranium Hexafluoride (UF_6) Cylinder -
 - a) Leaking UF_6 will form a white cloud due to its reaction with moisture in air. Essential Warehouse personnel should under no circumstances enter or stay in the visible cloud resulting from leaking UF_6 .
 - b) During repair and cleanup operations Warehouse personnel must:
 - 1. Wear respirators to prevent inhaling toxic gases or radioactive dust.
 - 2. Wear shoe covers, gloves and coveralls to prevent contamination of skin and clothing.
 - c) Warehouse personnel should not proceed with remedial actions until it receives instructions from Edlow. Edlow will authorize Warehouse personnel to take actions to minimize the spread of contamination prior to the arrival of Edlow personnel at the Facility.

- d) Norman Ravenscroft, Bob Rich, or Jack Edlow will go as soon as possible to the Facility to personally supervise operations relating to the handling and cleanup of the leak and to assure that any actions taken prior to their arrival were performed safely and correctly. If not, prompt corrective action will be taken.
- e) The hole or source of the leak will most likely become self-sealed by escaping hydrolized UF_6 . If not, the leak should be frozen closed with a carbon dioxide fire extinguisher, taking care not to enter the white cloud formed by leaking UF_6 . A functioning and properly inspected carbon dioxide fire extinguisher should be on hand at all times. It is to be stored with other emergency equipment in the office in Building H adjacent to the outdoor storage area.
- f) When leak has self-sealed or has been frozen closed, temporarily patch hole or crack with duct tape. A metal patch will be provided for shipping and will be applied per instructions supplied at that time by Edlow.
- g) A leaking valve should be carefully replaced with a spare valve from the cylinder repair kit stored in the office in Building H. Instructions will be provided by Edlow.
- h) If the valve is totally sheared off, the hole should first be frozen closed with a carbon dioxide fire extinguisher to prevent leakage, and then plugged using a wooden plug from the cylinder repair kit stored in the office in Building H.
- i) Emergency response and cylinder repair equipment (see attached list) have been provided by Edlow and are stored in the office in Building H, which is approximately 200 feet from the outdoor storage area.
- j) Protective clothing worn during cleanup operations should be treated as radioactive waste and should be disposed of in waste drums provided for this use.

6. Damaged Uranium Ore Concentrate (U_3O_8) Drum -

If damage to a drum or drums of uranium ore concentrate during handling or storage results in a spill of U_3O_8 -

- a) Essential warehouse personnel should not enter or stay in area of airborne U_3O_8 dust.

- b) During cleanup operations personnel must:
- 1) Wear respirators to prevent inhaling airborne U_3O_8 dust.
 - 2) Wear shoe covers, gloves and coveralls to prevent contamination of skin and clothing with U_3O_8 dust.
 - 3) Minimize the spread of spilled U_3O_8 .
- c) Warehouse personnel should not proceed with remedial actions until receiving instructions from Edlow. Edlow will authorize Warehouse personnel to take actions to minimize the spread of contamination prior to the arrival of Edlow personnel on site.
- d) Norman Ravenscroft, Bob Rich, or Jack Edlow will go as soon as possible to the storage site to personally supervise operations relating to the handling and cleanup of the spill and to assure that any actions taken prior to their arrival on site were performed safely and correctly. If not, prompt corrective action will be taken.
- e) Holes in drums from which U_3O_8 spilled may be temporarily patched with duct tape, but damaged drums should not be moved by Warehouse personnel without specific instructions from Edlow.
- f) Sweep and/or shovel up the spilled U_3O_8 . This should be done carefully so as to minimize the amount that becomes airborne. Place this material in plastic trash bags and tightly bind to prevent escape of recovered material.
- g) Place the trash bags of radioactive waste inside an empty 55 gallon drum or drums to await disposition as per instructions from Edlow.
- h) Wet paper towels should be used to pick up dust on drums and on ground or floor. Used towels should be carefully handled and discarded as radioactive waste in an empty 55 gallon drum provided for this purpose. An adequate supply of paper towels should be available at all times with other emergency equipment.
- i) The area of the spill should then be surveyed with the Geiger Counter to assure that all contamination has been removed.
- j) Any contaminated ground (readings above twice background) found should be dug up, placed in a 55 gallon drum, and stored until Edlow issues disposition instructions.
- k) Protective clothing worn during cleanup should be treated as radioactive waste and disposed in waste drums along with material cleaned up.

List of Emergency Equipment
Stored in Office in Building H

Two industrial gas masks & filter cannisters for UF_6 .

Two respirators 7 filter cartridges for U_3O_8 .

CO_2 fire extinguisher.

Shoe covers (2 pairs).

Boots (2 pairs).

Gloves (2 pairs).

Coveralls & hood (2 sets).

Plastic bags (10 large, heavy gauge).

Duct tape (1 roll).

Black tape (1 roll).

Spray foam decontaminant (1 can).

Large supply of paper towels.

Cylinder Repair Kit:

One replacement valve.

Two wood plugs (1 x 1 1/2" diam + 1 x 2" diam).

Wrench for replacing valve.

Can of "Easy out".