

(7-98)  
10 CFR 30, 32, 33  
34, 35, 36, 39 and 40

## APPLICATION FOR MATERIAL LICENSE

Estimated burden per response to comply with this information collection request: 7. Submittal of the application is necessary to determine that the applicant is qualified and that adequate procedures exist to protect the public health and safety. Forward comments regarding burden estimate to the Information and Records Management Branch (T-8 F33), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, and to the Paperwork Reduction Project (3150-0120), Office of Management and Budget, Washington, DC 20503. NRC may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

INSTRUCTIONS: SEE THE APPROPRIATE LICENSE APPLICATION GUIDE FOR DETAILED INSTRUCTIONS FOR COMPLETING APPLICATION. SEND TWO COPIES OF THE ENTIRE COMPLETED APPLICATION TO THE NRC OFFICE SPECIFIED BELOW.

## APPLICATION FOR DISTRIBUTION OF EXEMPT PRODUCTS FILE APPLICATIONS WITH:

DIVISION OF INDUSTRIAL AND MEDICAL NUCLEAR SAFETY  
OFFICE OF NUCLEAR MATERIALS SAFETY AND SAFEGUARDS  
U.S. NUCLEAR REGULATORY COMMISSION  
WASHINGTON, DC 20555-0001

## ALL OTHER PERSONS FILE APPLICATIONS AS FOLLOWS:

## IF YOU ARE LOCATED IN:

CONNECTICUT, DELAWARE, DISTRICT OF COLUMBIA, MAINE, MARYLAND,  
MASSACHUSETTS, NEW HAMPSHIRE, NEW JERSEY, NEW YORK, PENNSYLVANIA,  
RHODE ISLAND, OR VERMONT, SEND APPLICATIONS TO:

LICENSING ASSISTANT SECTION  
NUCLEAR MATERIALS SAFETY BRANCH  
U.S. NUCLEAR REGULATORY COMMISSION, REGION I  
475 ALLENDALE ROAD  
KING OF PRUSSIA, PA 19406-1415

ALABAMA, FLORIDA, GEORGIA, KENTUCKY, MISSISSIPPI, NORTH CAROLINA, PUERTO  
RICO, SOUTH CAROLINA, TENNESSEE, VIRGINIA, VIRGIN ISLANDS, OR WEST VIRGINIA,  
SEND APPLICATIONS TO:

NUCLEAR MATERIALS LICENSING SECTION  
U.S. NUCLEAR REGULATORY COMMISSION, REGION II  
101 MARIETTA STREET, NW, SUITE 2900  
ATLANTA, GA 30323-0199

## IF YOU ARE LOCATED IN:

ILLINOIS, INDIANA, IOWA, MICHIGAN, MINNESOTA, MISSOURI, OHIO, OR WISCONSIN,  
SEND APPLICATIONS TO:

MATERIALS LICENSING SECTION  
U.S. NUCLEAR REGULATORY COMMISSION, REGION III  
801 WARRENVILLE RD.  
LISLE, IL 60532-4351

ALASKA, ARIZONA, ARKANSAS, CALIFORNIA, COLORADO, HAWAII, IDAHO, KANSAS,  
LOUISIANA, MONTANA, NEBRASKA, NEVADA, NEW MEXICO, NORTH DAKOTA,  
OKLAHOMA, OREGON, PACIFIC TRUST TERRITORIES, SOUTH DAKOTA, TEXAS, UTAH,  
WASHINGTON, OR WYOMING, SEND APPLICATIONS TO:

NUCLEAR MATERIALS LICENSING SECTION  
U.S. NUCLEAR REGULATORY COMMISSION, REGION IV  
811 RYAN PLAZA DRIVE, SUITE 400  
ARLINGTON, TX 76011-8064

415-25433-01  
030-34727

PERSONS LOCATED IN AGREEMENT STATES SEND APPLICATIONS TO THE U.S. NUCLEAR REGULATORY COMMISSION ONLY IF THEY WISH TO POSSESS AND USE LICENSED MATERIAL IN STATES SUBJECT TO U.S. NUCLEAR REGULATORY COMMISSION JURISDICTIONS.

## 1. THIS IS AN APPLICATION FOR (Check appropriate item)



A. NEW LICENSE



B. AMENDMENT TO LICENSE NUMBER \_\_\_\_\_



C. RENEWAL OF LICENSE NUMBER \_\_\_\_\_

## 2. NAME AND MAILING ADDRESS OF APPLICANT (Include Zip code)

Martin Marietta Materials, Inc.  
2710 Wycliff Rd.  
P. O. Box 30013  
Raleigh, NC 27622

## 3. ADDRESS(ES) WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED

Doswell Quarry  
P. O. Box 8 (VA 684, 3 miles west of Rt. 1)  
12068 Stone Quarry Dr.  
Doswell, VA 23047

## 4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION

Adam J. Szczepanski

TELEPHONE NUMBER  
919/783-4644

SUBMIT ITEMS 5 THROUGH 11 ON 8-1/2 X 11" PAPER. THE TYPE AND SCOPE OF INFORMATION TO BE PROVIDED IS DESCRIBED IN THE LICENSE APPLICATION GUIDE.

## 5. RADIOACTIVE MATERIAL.

a. Element and mass number; b. chemical and/or physical form; and c. maximum amount which will be possessed at any one time.

## 6. PURPOSE(S) FOR WHICH LICENSED MATERIAL WILL BE USED.

## 7. INDIVIDUAL(S) RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR TRAINING EXPERIENCE.

## 8. TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS.

## 9. FACILITIES AND EQUIPMENT.

## 10. RADIATION SAFETY PROGRAM.

## 11. WASTE MANAGEMENT.

## 12. LICENSEE FEES (See 10 CFR 170 and Section 170.31)

FEE CATEGORY

AMOUNT  
ENCLOSED \$

## 13. CERTIFICATION. (Must be completed by applicant) THE APPLICANT UNDERSTANDS THAT ALL STATEMENTS AND REPRESENTATIONS MADE IN THIS APPLICATION ARE BINDING UPON THE APPLICANT.

THE APPLICANT AND ANY OFFICIAL EXECUTING THIS CERTIFICATION ON BEHALF OF THE APPLICANT, NAMED IN ITEM 2, CERTIFY THAT THIS APPLICATION IS PREPARED IN CONFORMITY WITH TITLE 10, CODE OF FEDERAL REGULATIONS, PARTS 30, 32, 33, 34, 35, 36, 39 AND 40, AND THAT ALL INFORMATION CONTAINED HEREIN IS TRUE AND CORRECT TO THE BEST OF THEIR KNOWLEDGE AND BELIEF.

WARNING: 18 U.S.C. SECTION 1001 ACT OF JUNE 25, 1948 62 STAT. 749 MAKES IT A CRIMINAL OFFENSE TO MAKE A WILLFULLY FALSE STATEMENT OR REPRESENTATION TO ANY DEPARTMENT OR AGENCY OF THE UNITED STATES AS TO ANY MATTER WITHIN ITS JURISDICTION.

CERTIFYING OFFICER - TYPED/PRINTED NAME AND TITLE

Stephen P. Zelnak, Jr.

President

SIGNATURE

Stephen P. Zelnak, Jr.

DATE

6/29/98

## FOR NRC USE ONLY

TYPE OF FEE	FEE LOG	FEE CATEGORY	AMOUNT RECEIVED	CHECK NUMBER	COMMENTS
			\$		
APPROVED BY				DATE	

**5. Radio Active Material**

*RIP RAP TOWER WALL*

S. O. 401002008-B

Source Holder SHD

Isotope CS 137

Ser. No. 6556, Ohmart Level Gauge

MCI 300

Date Installed -- February, 1984

*HEAD PULLEY C-3 CONVEYOR*

S. O. 401002008-A

Source Holder SH-100

Isotope CS 137

Ser. No. 51688, Ohmart Level Gauge

MCI 50

Date Installed -- February, 1984

SS&D Number NR-522-884-B

*PRIMARY CRUSHER BIN*

S. O. 48041

Source Holder SHRH-A

Isotope CS 137

Ser. No. 63796, Ohmart Level Gauge

MCI 1,000

Date Installed -- December, 1974

SS&D Number NR-522-D-882-B

**6. Purpose for which licensed material will be used.**

Level indication for the height of rock in bins at the Doswell Quarry.

**7. See Attached Certificates for Training**

The responsible individuals are:

James Doss attended the Ohmart Radiation Safety course on March 4 to 6, 1985 at the Ohmart Corporation Technical Training schools, Cincinnati, Ohio 45209. (Certificate copy attached.)

Jock Fuqua attended the Ohmart Radiation Safety course on March 4 to 6, 1985 at the Ohmart Corporation Technical Training Schools, Cincinnati, Ohio 45209. (Certificate copy attached.)

Adam Szczepanski attended the Troxler Electronic Laboratories, Inc., training course for the use of Nuclear Testing Equipment on August 8, 1987 at the Troxler Training Facility, 3008 Cornwallis Rd., P. O. Box 12057, Research Triangle Park, NC 27709.

No other persons will perform these duties unless they have had proper training by an authorized radiation safety training facility.

The above stated authorized users have adequate training and experience to safely work with the gauges. Mr. Doss and Mr. Fuqua have had responsibility for the gauges since they were installed in 1974 and 1984. Mr. Doss and Mr. Fuqua are full time employees at the Doswell quarry and one or the other is physically present when the devices are in use. If any other individuals were to operate the devices, they would first attend the proper training classes provided by an authorized radiation safety training facility.

- 1) Location: - Enclosed are sketches for the Doswell sites.  
Sketch 1 – Primary Crusher – sealed source model ELG-08  
Sketch 2 – C3 conveyor discharge box.  
Sketch 3 – Rip Rap Bin – sealed source model L-1004.
- 2) Environmental Conditions - They are only exposed to ambient temperature and they are housed to protect them from the weather. They are mounted to minimize vibration.
- 3) N/A
- 4) N/A
- 5) Maintenance - Shutter operation, labels, and outside contamination checks are performed at 6 month intervals and a wipe test is performed at 3 year intervals.
- 6) Emergency Procedures - In the event of an accident involving damage to a gauge, the following persons would be responsible for notifying the U.S. N.R.C.:

**Jock Fuqua**  
**Business Phone** 804/227-3372  
**Home Phone** 804/449-6844

United States Nuclear Regulatory Commission, Region II  
61 Forsyth St., S. W., Suite 23T85  
Atlanta, GA 30303 404/562-4727

Ajs/Material License 2

Other agencies that would be notified would be:

Local Emergency Planning Committee  
Pinewood Drive  
Ashland, VA

Doswell Fire Department  
Doswell, VA 804/798-8282

Hanover County Hazardous Material Coordinator  
Hanover County, VA 804/798-8554

Ohmart Corporation  
4241 Allendorf Drive  
Cincinnati, Ohio 513/272-0131

Martin Marietta Materials  
Adam Szczepanski  
2710 Wycliff Rd.  
Raleigh, NC 27607 919/783-4644

The area involving damage to a gauge would be evacuated of all personnel and secured until the proper agencies arrive or give instructions.

#### **10. Radiation Safety Program**

Our responsible radiation person, James C. Doss at Verndon will:

- A. Keep the keys to padlocks locking the gates/doors which prohibit access to certain gauge areas.
- B. See that leak test schedules are posted and leak tests performed according to license conditions. (Same for shutter mechanism tests.)
- C. Obtain and post current copies of Part 19 and Part 20, License Conditions, License Amendments, and Operations Procedures.
- D. See that all areas near gauges are secured, that all "danger" warning signs are posted, that lock-out procedures are carried out when necessary, and that only authorized persons enter the gauge areas.

#### Material Receipt and Accountability

Receipt records are maintained, as of this date no transfer or disposal of gauges has occurred. Physical inventories are conducted at 6-month intervals.

#### Occupational Dosimetry

The physical location and lock out procedure prevent an individual from receiving a radiation dose.

#### Public Dose

The gauges are used and located such that there is no public exposure to a radiation dose.

#### Operating and Emergency Procedures

Operating and emergency procedures are maintained as per NRC requirements.

#### Leak Tests

Leak Tests and records of the tests are done as per NRC regulations.

#### Maintenance

The shutter is checked for proper operation and the gauges are cleaned when needed. Any other maintenance would be conducted by Ohmart.

#### Transportation

The gauges are fixed and are not transported.

#### **Lock-Out Procedure**

Our lock-out procedures include padlocked steel gates and doors to prevent access to the areas where certain gauges are located while the plant and gauges are active.

Should anyone need to enter the gauge area, which is about one time a year, the following procedure is carried out:

- A. Gauge shutters are closed to cover the source and block the beam path.
- B. A responsible person only, will unlock the gates/doors and allow entrance.

This procedure precludes anyone from ever working in the beam path.

This lock-out procedure is posted for all employees to be familiar with the procedure.

#### **10.1 Performance of Service Operations by Others**

All services such as installation, initial radiation survey, device relocation, or removal will be performed by our distributor who is:

Ohmart Corporation  
4241 Allendorf Drive  
Cincinnati, Ohio

U.S.N.R.C. License #34-00639-01

#### **10.2 Personnel Monitoring Equipment**

N/A

#### **10.3 Radiation Detection Instruments**

N/A

**10.4 Leak-Testing**

Addressed in Item 9, Point 5.

James Doss and/or Jock Fuqua perform wipe tests with the Ohmart Leak Test Kit, Model No. 1652. It is processed by:

Ohmart Corporation  
4241 Allendorf Dr.  
Cincinnati, Ohio

**10.5 Lock-Out Procedures**

Addressed in Item 10, "Radiation Safety Program"

**10.6 Performance of Services**

N/A

**11. Waste Management**

Should we have to dispose of a licensed gauge, it will be by transfer to an authorized recipient, such as the original supplier of the gauge, a commercial firm licensed by the NRC.

# TROXLER ELECTRONIC LABORATORIES, INC.

HEREBY CERTIFIES THAT

ADAM SZCZUYANSKI

of

MARTIN MARIETTA AGGREGATES

HAS SUCCESSFULLY COMPLETED THE TROXLER ELECTRONIC LABORATORIES, INC.  
TRAINING COURSE FOR THE USE OF NUCLEAR TESTING EQUIPMENT.

SUBJECTS INCLUDED IN THIS COURSE WERE AS FOLLOWS:

## Radiological Safety

1. Principles and practices of radiation protection.
2. Leak testing procedures.
3. Mathematics and calculations basic to the use and measurement of radioactivity.
4. Biological effects of radiation.
5. Radioactivity measurement standardization and monitoring techniques and instruments.
6. Accident and incident procedures.
7. Procedures for nuclear gauge storage and transportation.
8. General safety precautions.

## Gauge Operation

1. Instrument theory
2. Operating procedures
3. Maintenance
4. Field application
5. Gauge calibration

  
INSTRUCTOR

08-06-87

DATE

W. F. Troxler

PRESIDENT

No 17148

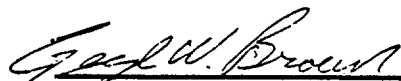
Duplicate  
***Certificate of Attendance***

Awarded to  
***James C. Doss***  
For the successful completion of the:

**Ohmart Radiation Safety Course**  
**March 4 to 6, 1985**  
**Presented at The Ohmart Corporation**

Subject matter covered:

Basic atomic theory  
Measurement and monitoring techniques  
Exposure calculations  
Biological effects of radiation  
NRC regulations  
Leak test, shutter check  
Installation, relocation and removal procedures  
Proper disposal practices  
Emergency procedures



George W. Brown  
Training Manager

April 25, 1993

**ohmart Corporation**

Technical Training Schools  
Cincinnati, Ohio 45209





Duplicate  
***Certificate of Attendance***

Awarded to  
***Jock Fuqua***  
For the successful completion of the:

**Ohmart Radiation Safety Course**  
March 4 to 6, 1985  
Presented at The Ohmart Corporation

Subject matter covered:

Basic atomic theory  
Measurement and monitoring techniques  
Exposure calculations  
Biological effects of radiation  
NRC regulations  
Leak test, shutter check  
Installation, relocation and removal procedures  
Proper disposal practices  
Emergency procedures



George W. Brown  
Training Manager

April 25, 1993

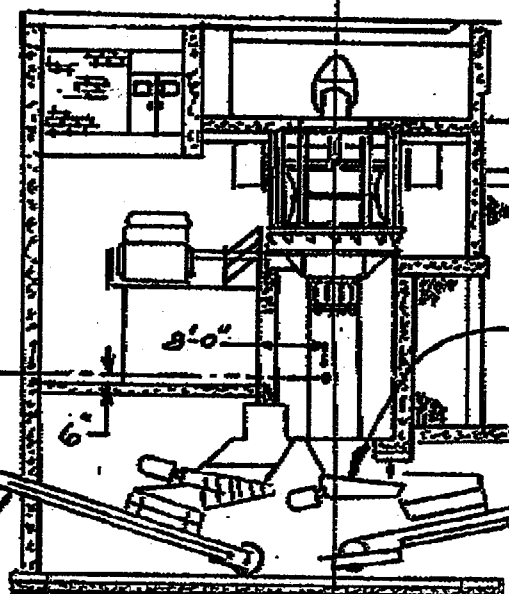
**ohmart Corporation**

Technical Training Schools  
Cincinnati, Ohio 45209



TO FLOOR OF PRIMARY CRUSHER  
OPERATOR'S CONTROL ROOM

51'-10"



C-20 CONVEYOR

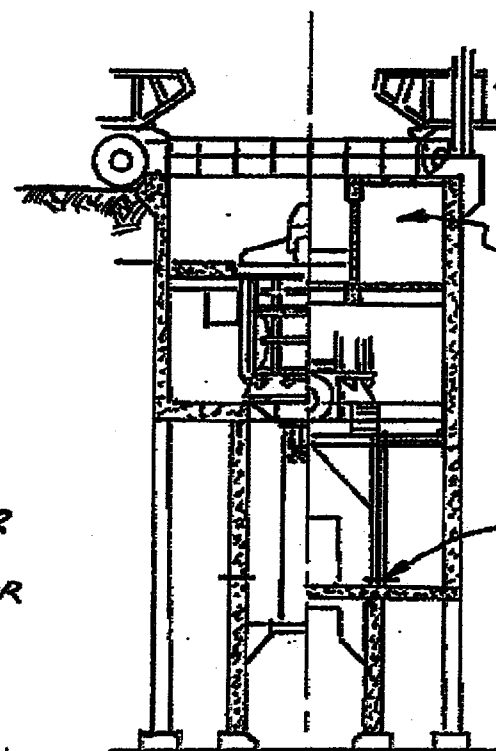
SECTION THRU PRIMARY CRUSHER  
(LOOKING SOUTH)

NORDBERG 54-80  
GYRATORY CRUSHER

WARNING SIGNS

EACH CAGED AREA HAS 2 SIGNS:

- 1- CAUTION-RADIATION AREA  
UNAUTHORIZED PERSONS STAY AWAY.
- 1- CAUTION-RADIATION AREA.



SECTION THRU PRIMARY CRUSHER  
(LOOKING WEST)

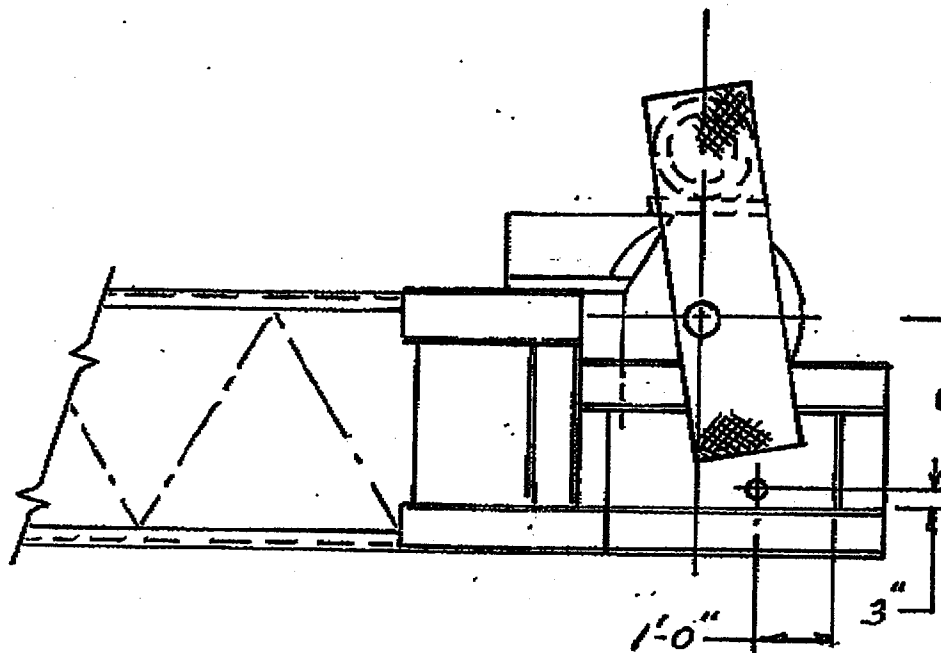
OHMART SEALED SOURCE  
MODEL ELG-08  
PRIMARY CRUSHER  
VERDON

THE GENERAL CRUSHED STONE CO.  
DRAWN V.R. SNYDER DATE 5-3-73  
SCALE N.T.S.

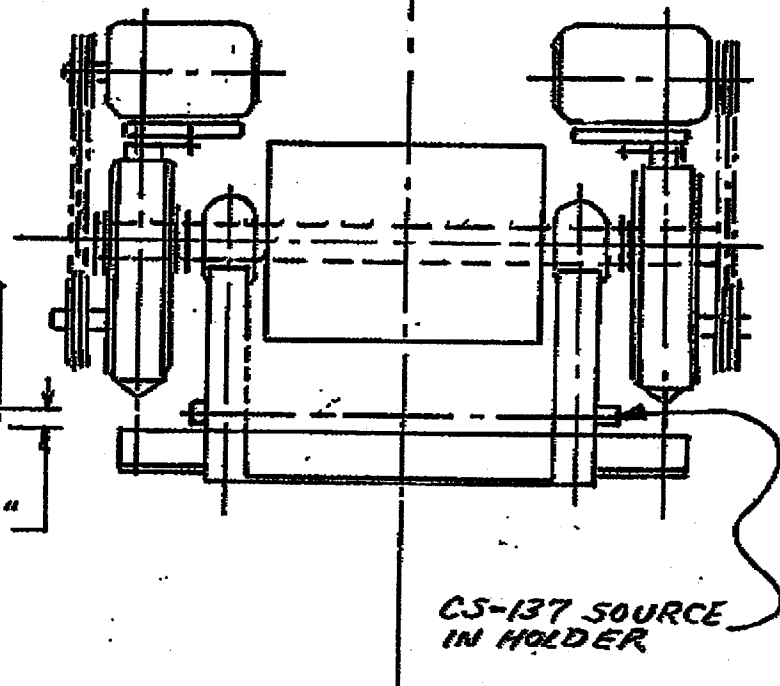
SKETCH #1

WARNING SIGN

LOCATED ON CONVEYOR STRUCTURE AT POINT  
WHERE CONVEYOR WALKWAY ENTERS BUILDING.  
RADIATION - AIRBORNE RADIOACTIVITY.



SIDE ELEVATION

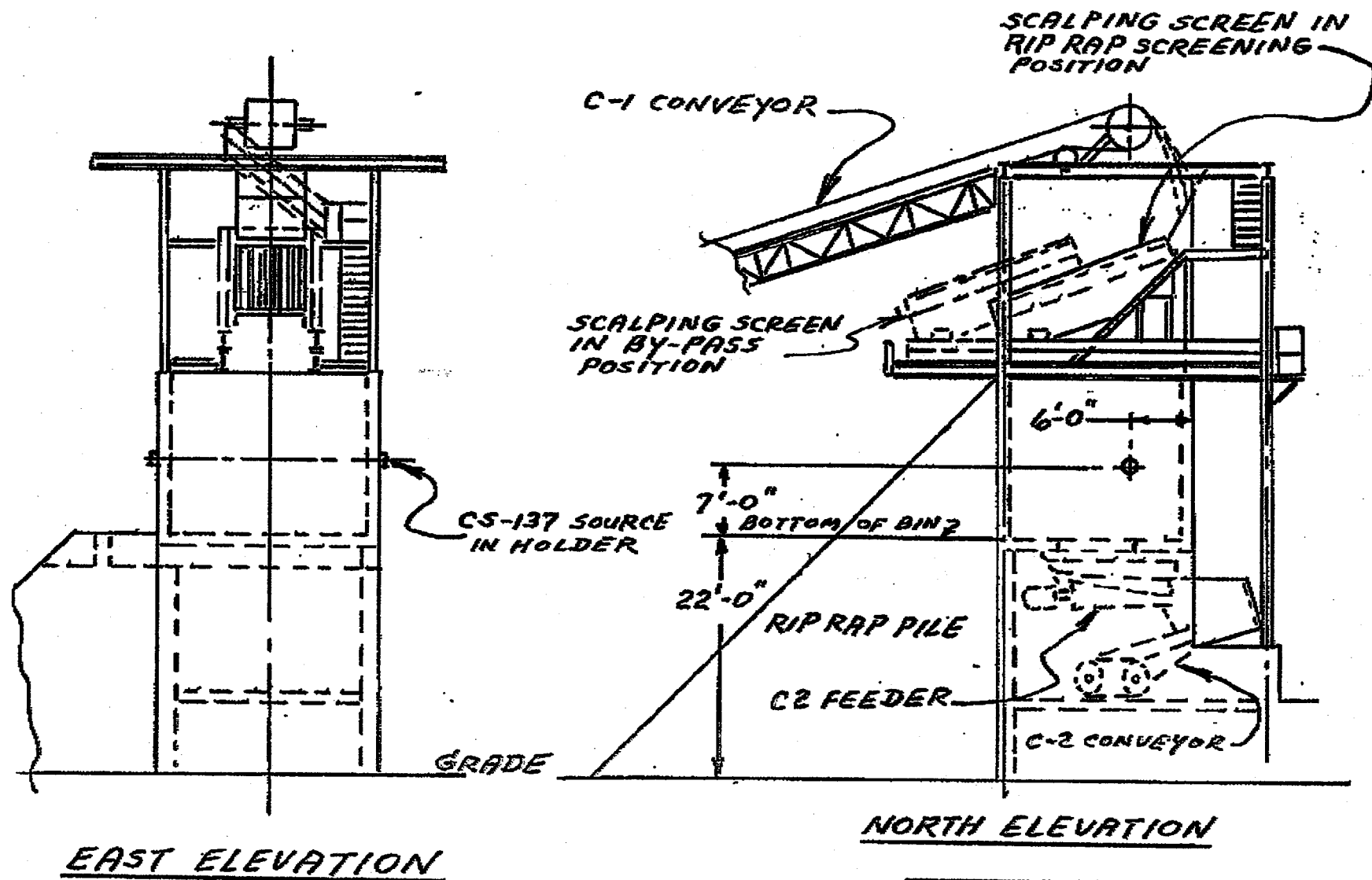


HEAD END VIEW

SKETCH #2

OHMART SEALED SOURCE  
MODEL L1004  
C-3 CONVEYOR  
HEAD PULLEY DISCHARGE BOX  
VERDON

THE GENERAL CRUSHED STONE CO.  
DRAWN V.R. SNYDER DATE 5-3-93  
SCALE N.T.S.



WARNING SIGN

POSTED ON ACCESS PLATFORM TO  
THE C2 FEEDER.

CAUTION-RADIATION AREA  
UNAUTHORIZED PERSONS STAY AWAY.

SKETCH #3

OHMART SEALED SOURCE  
MODEL L 1004  
RIP RAP BIN  
VERDON

THE GENERAL CRUSHED STONE CO.  
DRAWN V.R. SNYDER DATE 5-4-93  
SCALE N.T.S.