

MATERIALS LICENSE

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 (Public Law 93-438), and Title 10, Code of Federal Regulations, Chapter I, Parts 30, 31, 32, 33, 34, 35, 36, 39, 40, and 70, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, possess, and transfer byproduct, source, and special nuclear material designated below; to use such material for the purpose(s) and at the place(s) designated below; to deliver or transfer such material to persons authorized to receive it in accordance with the regulations of the applicable Part(s). This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, as amended, and is subject to all applicable rules, regulations, and orders of the Nuclear Regulatory Commission now or hereafter in effect and to any conditions specified below.

302235

Licensee		3. License Number 13-26779-01
1. Lehigh Portland Cement Company		
2. 121 North First Street P.O. Box 97 Mitchell, IN 47446		4. Expiration Date February 28, 2007
		5. Docket or Reference No. 030-34344/030-06215
6. Byproduct, Source, and/or Special Nuclear Material	7. Chemical and/or Physical Form	8. Maximum Amount that Licensee May Possess at Any One Time Under This License
A. Cesium-137	A. Sealed source (Ohmart Corp. Model No. A-2102)	A. No single source to exceed 100 millicuries
B. Cesium-137	B. Sealed source (Ohmart Corp. Model No. A-2102)	B. No single source to exceed 10 millicuries
C. Cesium-137	C. Sealed source (Ohmart Corp. Model No. A-2102)	C. No single source to exceed 130 millicuries
9. Authorized Use:		
A. To be used in Ohmart Models SHRM and SH-100 source holders for level measurements.		
B. To be used in Ohmart Model SHGS-2 source holders for level/density measurements.		
C. To be used in Ohmart Model SR-A source holders for level measurements.		

CONDITIONS

10. Licensed material shall be used only at the licensee's facilities located at 121 North First Street, Mitchell, Indiana.
11. The Radiation Safety Officer for this license is Robert F. Whiteside.

260037

COPY

**MATERIALS LICENSE
SUPPLEMENTARY SHEET**

License Number

13-26779-01

Docket or Reference Number

030-34344/030-06215

12. Licensed material shall be used by, or under the supervision of, Robert F. Whiteside.
13. A. Sealed sources and detector cells shall be tested for leakage and/or contamination at intervals not to exceed 6 months or at such other intervals as specified by the certificate of registration referred to in 10 CFR 32.210.
- B. Notwithstanding Paragraph A of this Condition, sealed sources designed to emit alpha particles shall be tested for leakage and/or contamination at intervals not to exceed 3 months.
- C. In the absence of a certificate from a transferor indicating that a leak test has been made within 6 months prior to the transfer, a sealed source or detector cell received from another person shall not be put into use until tested.
- D. The leak test shall be capable of detecting the presence of 0.005 microcurie of radioactive material on the test sample. If the test reveals the presence of 0.005 microcurie or more of removable contamination, a report shall be filed with the U.S. Nuclear Regulatory Commission in accordance with 10 CFR 30.50(b)(2), and the source shall be removed immediately from service and decontaminated, repaired, or disposed of in accordance with Commission regulations. The report shall be filed within 5 days of the date the leak test result is known with the U.S. Nuclear Regulatory Commission, Region III, ATTN: Chief, Nuclear Materials Safety Branch, 801 Warrenville Road, Lisle, Illinois 60532-4351. The report shall specify the source involved, the test results, and corrective action taken.
- E. The licensee is authorized to collect leak test samples for analysis by Ohmart Corporation. Alternatively, tests for leakage and/or contamination may be performed by persons specifically licensed by the Commission or an Agreement State to perform such services.
14. Sealed sources or detector cells containing licensed material shall not be opened or sources removed from source holders by the licensee.
15. The licensee shall conduct a physical inventory every 6 months to account for all sources and/or devices received and possessed under the license.
16. Installation, initial radiation survey, relocation, removal from service, maintenance, and repair of devices containing sealed sources shall be performed by Ohmart Corporation or by persons specifically licensed by the Commission or an Agreement State to perform such services. Installation, replacement, and disposal of sealed sources shall be performed only by persons specifically licensed by the Commission or an Agreement State to perform such services.

COPY

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17. Prior to initial use and after installation, relocation, dismantling, alignment, or any other activity involving the source or removal of the shielding, the licensee shall assure that a radiological survey is performed to determine radiation levels in accessible areas around, above and below the gauge with the shutter open. This survey shall be performed only by persons authorized to perform such services by the Commission or an Agreement State.
18. The licensee shall operate each gauge within the manufacturer's specified temperature and/or environmental limits such that the shielding and shutter mechanism of the source holder are not compromised.
19. The licensee shall assure that the shutter mechanism is locked in the closed position during periods when a portion of an individual's body may be subject to the direct radiation beam. The licensee shall review and modify as appropriate its "lock-out" procedures whenever a new gauge is obtained to incorporate the device manufacturer's recommendations.
20. Each gauge shall be tested for the proper operation of the on-off mechanism and indicator, if any, at no longer than 6-month intervals or at such longer intervals as specified by the manufacturer and approved by NRC.
21. In addition to the possession limits in Item 8, the licensee shall further restrict the possession of licensed material to quantities below the minimum limit specified in 10 CFR 30.35(d) for establishing decommissioning financial assurance.
22. Except as specifically provided otherwise in this license, the licensee shall conduct its program in accordance with the statements, representations, and procedures contained in the documents, including any enclosures, listed below. The U.S. Nuclear Regulatory Commission's regulations shall govern unless the statements, representations, and procedures in the licensee's application and correspondence are more restrictive than the regulations.
 - A. Application dated January 30, 1995; and
 - B. Letters dated May 29, 1996 and July 16, 1996.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date February 11, 1997

By Charles F. Gill
Nuclear Materials Licensing Branch, Region III

COPY

BETWEEN:

License Fee Management Branch, ARM
and
Regional Licensing Sections

(FOR LFMS USE)
INFORMATION FROM LTS

Program Code: _____
Status Code: 3 _____
Fee Category: _____
Exp. Date: 0 _____
Fee Comments: _____
Decon Fin Assur Req'd: _____

S8

LICENSE FEE TRANSMITTAL

A. REGION

1. APPLICATION ATTACHED

Applicant/Licensee: LEHIGH PORTLAND CEMENT COMPANY
Received Date: 970123
Docket No: 3034344
Control No.: 302235
License No.: _____
Action Type: New License

2. FEE ATTACHED

Amount: _____
Check No.: ~~X~~ _____

A00L INFO
398/20-S8

3. COMMENTS

Signed D. Hersey
Date 1-23-97

B. LICENSE FEE MANAGEMENT BRANCH (Check when milestone 03 is entered /)

1. Fee Category and Amount: 3P

2. Correct Fee Paid. Application may be processed for:

Amendment _____
Renewal _____
License _____

3. OTHER

Signed SC
Date 1/29/97

FEB 10 1997

Cont'n of 398/20
FEE NOT REQUIRED

RECEIVED BY LFDCB	
Date	<u>Jan. 28, 1997</u>
Log	<u>Jan 9 III</u>
By	<u>SC</u>
Date Completed	<u>1/29/97</u>

1997 JAN 28 AM 9:19

APPLICATION FOR MATERIAL LICENSE

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 9 HOURS. 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 (MNBB 7714), 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.

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

ARKANSAS, COLORADO, IDAHO, KANSAS, LOUISIANA, MONTANA, NEBRASKA, NEW
MEXICO, NORTH DAKOTA, OKLAHOMA, SOUTH DAKOTA, TEXAS, UTAH, OR WYOMING,
SEND APPLICATIONS TO:

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

ALASKA, ARIZONA, CALIFORNIA, HAWAII, NEVADA, OREGON, WASHINGTON, AND U.S.
TERRITORIES AND POSSESSIONS IN THE PACIFIC, SEND APPLICATIONS TO:

RADIOACTIVE MATERIALS SAFETY BRANCH
U.S. NUCLEAR REGULATORY COMMISSION, REGION V
1450 MARIA LANE
WALNUT CREEK, CA 94596-5368

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

13-26779-01

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

Lehigh Portland Cement Company
121 N. First Street, P.O. Box 97
Mitchell, IN 47446

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

Lehigh Portland Cement Company
121 North First Street, P.O. Box 97
Mtichell, IN 47446

4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION

Danny J. Blackwell

TELEPHONE NUMBER
(812)849-2191 Ext. 203

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 3P AMOUNT ENCLOSURE \$ 680.00
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 82 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

Jerry A. Miller, Asst. Plant Manager

SIGNATURE

Jerry A. Miller

DATE

01/30/95

FOR NRC USE ONLY

TYPE OF FEE	FEE LOG	FEE CATEGORY	AMOUNT RECEIVED	CHECK NUMBER	COMMENTS
Renewal	Feb 5	3P	\$680.00	13278	
APPROVED BY	DATE				
SC	2/6/95		302235		

RECEIVED

FEB 02 1995

LEHIGH PORTLAND CEMENT COMPANY

MITCHELL OPERATIONS

January 31, 1995

Materials Licensing Section
U.S. Nuclear Regulatory Commission, Region III
801 Warrenville Rd.
Lisle, IL 60532-4351

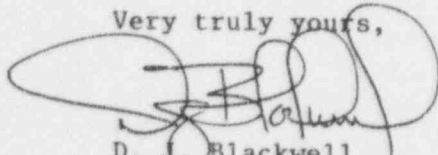
SUBJECT: Application for Renewal of Byproduct Material License
No. 37-09813-01 - Mitchell, Indiana Cement Plant

Gentlemen:

Enclosed are two (2) copies of completed Form 313 along with our check no. 13278 dated January 31, 1995, in the amount of \$680.00 to cover our renewal application for our Mitchell, Indiana Cement Plant.

Please forward the new license to the attention of the writer at our Mitchell, Indiana address.

Very truly yours,



D. J. Blackwell
Manager-Administration & Control

DJB/jp

Enclosures

FEB 2 1995 RECEIVED

FEB 02 1995

5. RADIOACTIVE MATERIAL

BY PRODUCTS, SOURCE AND/OR SPECIAL NUCLEAR MATERIAL	CHEMICAL AND/OR PHYSICAL FORM	MAXIMUM AMOUNT THAT LICENSEE MAY POSSESS AT ANY ONE TIME
A. CESIUM - 137	Sealed Sources (Ohmart Corporation Model A-2102)	No single source to exceed 150 Millicuries
B. CESIUM - 137	Sealed Sources (Ohmart Corporation Model A-2102)	No single source to exceed 10 Millicuries
C. CESIUM - 137	Sealed Sources (Ohmart Corporation Model A-2102)	No single source to exceed 100 Millicuries
D. CESIUM - 137	Sealed Sources (Ohmart Corporation Model A-2102)	No single source to exceed 130 Millicuries

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

AUTHORIZED USE

- A. To be used in Ohmart Corporation Model SHRM source holder for level measurements.
- B. To be used in an Ohmart Corporation Model SHGS-2 source holder to level/density measurements.
- C. To be used in an Ohmart Corporation Model SH-100 source holder for level measurements.
- D. To be used in an Ohmart Corporation Model SR-A source holder for level measurements.

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

Robert F. Whiteside

Completed June 14, 1959

Ohmart Training Course including: Principles and practices of radiation protection, radioactivity measurement and monitoring, mathematics and calculations, biological effects of radiation, common U.S.N.R.C. Regulations, waste disposal and emergency procedures.

Instructor: George H. Ellis

Final Exam Consisted of: 100 written questions

January 31, 1995

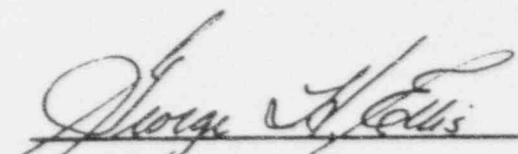
CERTIFICATE OF PROFICIENCY

THIS IS TO CERTIFY THAT

ROBERT WHITESIDE

HAS SUCCESSFULLY COMPLETED AN OHMART TRAINING COURSE INCLUDING:
PRINCIPLES AND PRACTICES OF RADIATION PROTECTION, RADIOACTIVITY
MEASUREMENT AND MONITORING, MATHEMATICS AND CALCULATIONS, BIOLOGICAL
EFFECTS OF RADIATION, COMMON U.S.N.R.C. REGULATIONS, WASTE DISPOSAL
AND EMERGENCY PROCEDURES.




TRAINING DIRECTOR

Date: 6-14-89



ohmart radiation™

SAFETY SCHOOL

AGENDA

RADIATION SAFETY

Twenty Hours

TIME	TOPIC	MANUAL SECTION
0830	Welcome and Introduction	-----
0900	Origin of Radiation	1
	A. Basic Atomic Theory	
	B. Radiation and Radioactivity	
	C. Radiation effects	
10:30	Radioactivity Measurement Standardization *	2
	A. Terms and Definitions	
11:00	Monitoring Techniques and Instruments *	2
	A. Detection Instruments	
	B. Personnel Dosimetry	
12:00	Mathematics and Calculations Basic to the Use and Measurement of Radioactivity *	3
1:00	LUNCH	
2:00	Mathematics and Calculations - Work Sheet - PA *	3
3:00	Biological Effects of Radiation and Principles * and Practices of Radiation Protection	4
	A. Internal Radiation Hazard	
	B. Protection from Internal Radiation Hazard	
	C. External Radiation Hazard	
	D. Protection from External Radiation Hazard	
4:00	Basic Tests to be Performed on Nuclear Gages - PA	9
	A. Wipe Test	
	B. Radiation Surveys	
	C. Shutter Operation Checks	
4:45	Plant Tour	
5:00	Session Ends for the Day	
	PA - Practical Application	
	*These items are listed in Item 16 of USNRC Form 313I, Formal Training in Radiation Safety.	



ohmart radiation

SAFETY SCHOOL

AGENDA

RADIATION SAFETY

Twenty Hours

TIME	TOPIC	MANUAL SECTION
0830	Review, Question and Answer Period	
0900	Waste Disposal and Shipping Requirements - PA <ul style="list-style-type: none"> A. Definitions B. Labeling C. Bill of Lading Completion 	6
10:00	Removal and Reinstallation of Sourceholders - PA <ul style="list-style-type: none"> A. Safe Handling Procedures B. Storage C. Preparation for Shipment D. Recovery E. Installation F. Radiation Survey G. Wipe Test H. Occupancy Evaluation I. Lock Out Procedures 	8
12:00	NRC Rules and Regulations *	5
1:00	LUNCH	
2:00	Emergency Procedures	7
2:45	Removal and Reinstallation of BAL Sourceholders	8
3:15	BREAK	
3:30	Removal of a Sourceholder with an Open Shutter - PA <ul style="list-style-type: none"> A. Establishing a barricade B. Selecting shielding material C. Procedure <ol style="list-style-type: none"> 1. Develop plan 2. Personnel Monitoring 3. Survey 4. Packaging 	8
5:00	Session Ends for the Day	
	PA - Practical Application	

ohmart radiation
SAFETY SCHOOL

AGENDA

RADIATION SAFETY

Twenty Hours

TIME	TOPIC	MANUAL SECTION
0830	Review, Question and Answer Period	
0845	Customer Service Department	
0930	NRC By Product Material License	10
	A. License Completion	
	B. License Limitations	
	C. License Additions	
10:30	Program Outline for Employee Training	10
11:00	Test	
1:00	End of Session	

8. TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS

Robert F. Whiteside

Will be responsible for training. (See Attachment 1)

ATTACHMENT 1

TRAINING PROGRAM OUTLINE
FOR EMPLOYEES

1. TYPE OF RADIATION EMITTED FROM OHMART SOURCES
 - A. GAMMA
 - B. BETA
 - C. NEUTRON
2. BIOLOGICAL EFFECTS FROM OCCUPATIONAL EXPOSURE BASED UPON OCCUPANCY EVALUATION
 - A. GAMMA - NORMAL DOSAGE
 - B. BETA - NORMAL DOSAGE
 - C. NEUTRON - NORMAL DOSAGE
3. NORMAL HANDLING PROCEDURES
 - A. SHUTTER MECHANISM OPERATIONS
 - B. RADIATION SURVEYS
 - C. WIPE TESTS
 - D. RECORD KEEPING REQUIREMENTS
4. LIMITATIONS OF SOURCE HOLDER HANDLING

UNLESS THE INDIVIDUAL IS SPECIFICALLY LICENSED THE FOLLOWING ACTIONS ARE NOT ALLOWED.

 - A. SOURCE HOLDER REMOVAL
 - B. SOURCE HOLDER RELOCATION
 - C. SOURCE HOLDER REINSTALLATION
 - D. SOURCE HOLDER SHIPPING AND DISPOSAL
5. SPECIAL OPERATING PROCEDURES
 - A. LOCK OUT PROCEDURES FOR HIGH RADIATION AREAS
 - B. SPECIAL SHIELDING REQUIREMENTS WHEN REQUIRED
 - C. SOURCE HANDLING PROCEDURES WHEN AUTHORIZED BY NRC OR AGREEMENT STATES
 - D. POSTING REQUIREMENTS
 - E. PERSONNEL MONITORING
6. NRC RULES AND REGULATIONS
 - A. LOST OR MISSING SOURCEHOLDERS
 - B. RADIATION OVEREXPOSURE
 - C. DAMAGED SOURCEHOLDERS
 - 1 SHIELDING
 - 2 SHUTTER MECHANISMS
 - D. EMERGENCY SITUATIONS
 - 1 FIRES
 - 2 CONTAMINATION

9. FACILITIES AND EQUIPMENT

9. A.

Location: Quarry stone surge bin, high bin and low bin

See Figure 1.

Conditions: Low vibration and ambient temperature 80 deg.

Maintenance: Six months: Wipe test, shutter test, physical inventory and physical inspection.

Emergency Procedures: Cordon off and mark the area with radiation hazard tape at the 2MR/HR radiation level. 17 ft.

See attached emergency procedures.

9. B.

Location: #3 Kiln Coal Cyclone

See Figure 2.

Conditions: Low vibration and ambient temperature 100 deg.

Maintenance: Six months: Wipe test, shutter test, physical inventory and physical inspection.

Emergency Procedure: Cordon off and mark the area with radiation hazard tape at the 2 MR/HR radiation level. 5 ft.

See attached emergency procedures.

9. C.

Location: Roll Crusher Clinker Bin

See Figure 3.

Conditions: Low vibration and ambient temperature 80 deg.

Maintenance: Six months: Wipe test, shutter test, physical inventory and physical inspection.

Emergency Procedure: Cordon off and mark the area with radiation tape at the 2 MR/HR radiation level. 12 ft.

See attached emergency procedures.

9. D.

Location: Roll Crusher Bin Chute High Level

See Figure 4.

Conditions: Low vibration and ambient temperature 120 deg.

Maintenance: Six months: Wipe test, shutter test, physical inventory and physical inspection.

Emergency Procedure: Cordon off and mark the area with radiation tape at the 2 MR/HR radiation level. 6 ft.

See attached emergency procedures.

9. E.

Location: Clinker Outhaul System - South Clinker Outhaul Elevator Discharge Chute to Roll Crusher

See Figure 5.

Conditions: Low vibration and ambient temperature 120 deg.

Maintenance: Six months: Wipe test, shutter test, physical inventory and physical inspection.

Emergency Procedure: Cordon off and mark the area with radiation tape at the 2 MR/HR radiation level. 6 ft.

See attached emergency procedures.

9. F.

Location: #1 Finish Mill Clinker Bin

See Figure 6.

Conditions: Low vibration and ambient temperature 80 deg.

Maintenance: Six months: Wipe test, shutter test, physical inventory and physical inspection.

Emergency Procedure: Cordon off and mark the area with radiation tape at the 2 MR/HR radiation level. 6 ft.

See attached emergency procedures.

9. G.

Location: #2 Finish Mill Clinker bin

See Figure 7.

Conditions: Low vibration and ambient temperature 80 deg.

Maintenance: Six months: Wipe test, shutter test, physical inventory and physical inspection.

Emergency Procedure: Cordon off and mark the area with radiation tape at the 2 MR/HR radiation level. 6 ft.

See attached emergency procedures.

9. H.

Location: #3 Finish Mill Clinker Bin

See Figure 8.

Conditions: Low vibration and ambient temperature 80 deg.

Maintenance: Six months: Wipe test, shutter test, physical inventory and physical inspection.

Emergency Procedure: Cordon off and mark the area with radiation tape at the 2 MR/HR radiation level. 6 ft.

See attached emergency procedures.

9. I.

Location: #4 Finish Mill Clinker Bin

See Figure 9.

Conditions: Low vibration and ambient temperature 80 deg.

Maintenance: Six months: Wipe test, shutter test, physical inventory and physical inspection.

Emergency Procedure: Cordon off and mark the area with radiation tape at the 2 MR/HR radiation level. 6 ft.

See attached emergency procedures.

9. J.

Location: Finish Mill's Clinker Overflow Bin

See Figure 10.

Conditions: Low vibration and ambient temperature 80 deg.

Maintenance: Six months: Wipe test, shutter test, physical inventory and physical inspection.

Emergency Procedure: Cordon off and mark the area with radiation tape at the 2 MR/HR radiation level. 6 ft.

See attached emergency procedures.

9. K.

Location: Roll Crusher Feed Elevator

See Figure 11.

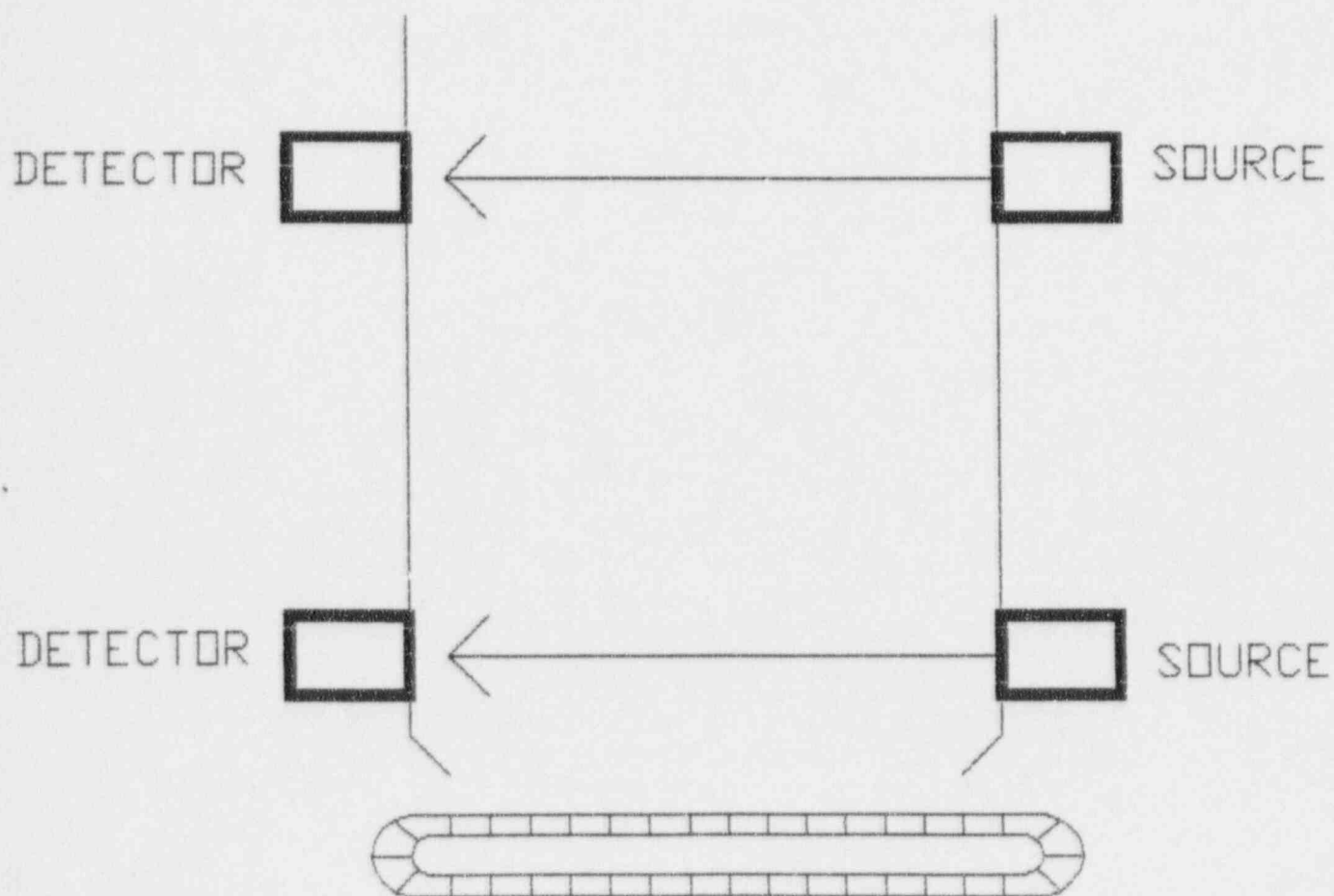
Conditions: Low vibration and ambient temperature 90 deg.

Maintenance: Six months: Wipe test, shutter test, physical inventory and physical inspection.

Emergency Procedure: Cordon off and mark the area with radiation tape at the 2 MR/HR radiation level. 6 ft.

See attached emergency procedures.

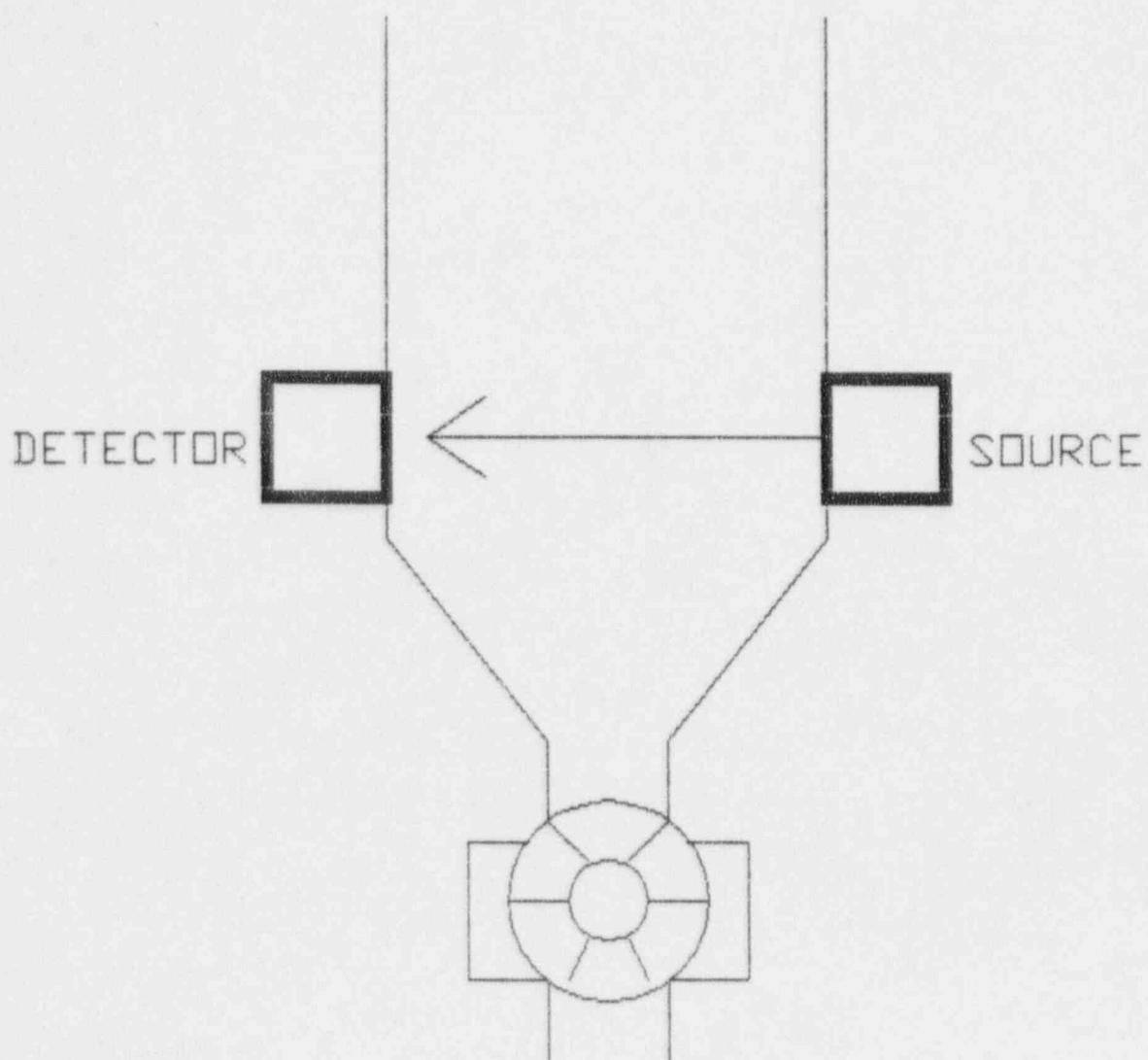
QUARRY SURGE BIN HI AND LOW BIN



RADIOACTIVE MATERIAL
AHOP ORDER #D541006036
MODEL # SHRM
ISOTOPE CISIUM 137
mci 150

FIG. 1

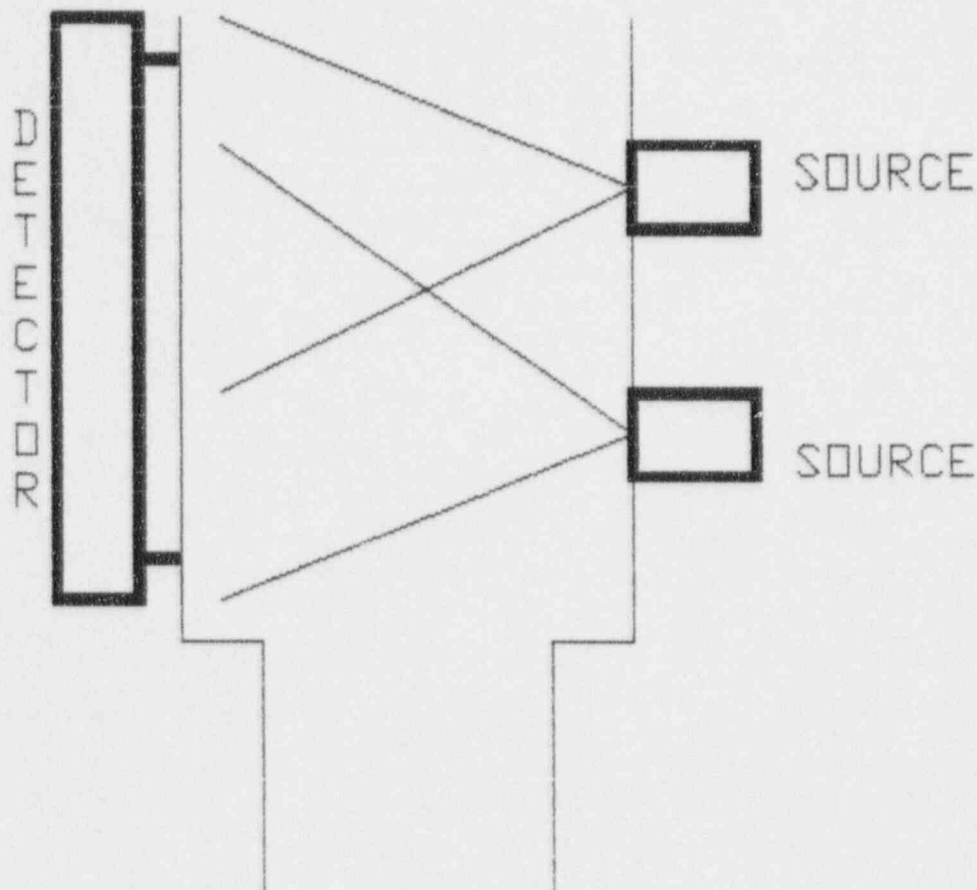
3 KILN COAL CYCLONE



RADIOACTIVE MATERIAL
SHOP ORDER # 8910050
MODEL # SHGS-2
ISOTOPE CESIUM 137
mci 10

FIG. 2

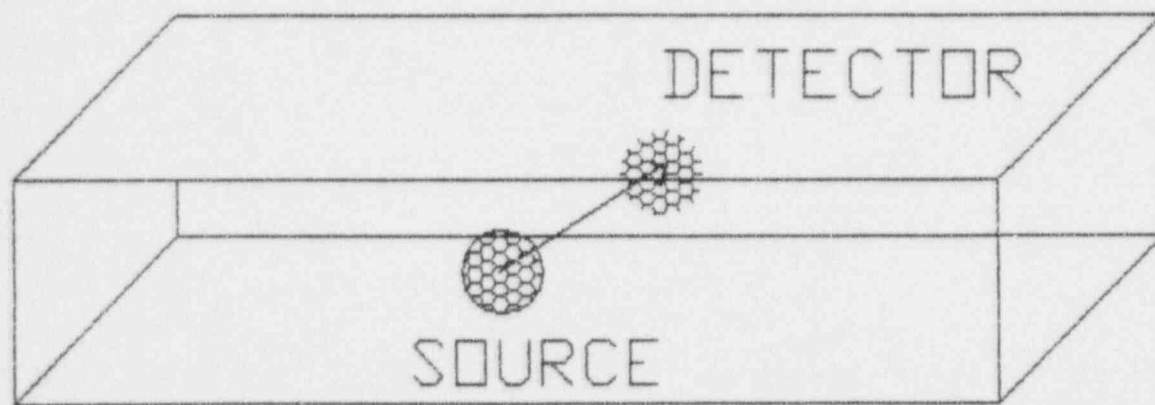
ROLL CRUSHER SURGE BIN



RADIOACTIVE MATERIAL
SHOP ORDER # A702003016
MODEL # SH-100
ISOTOPE CISIUM 137
mci 80

FIG 3

ROLL CRUSHER CLINKER SLIDE CHUTE

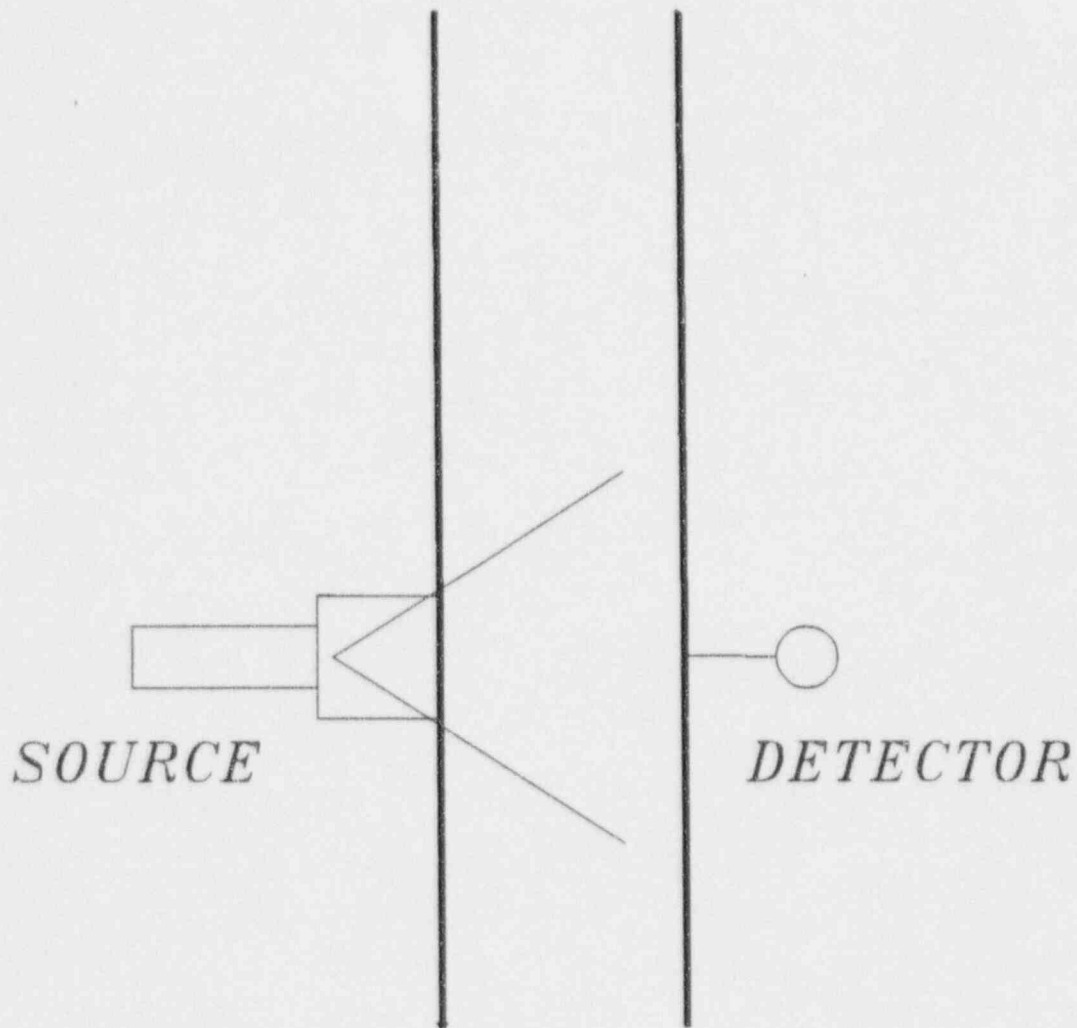


CLINKER SLIDE

RADIOACTIVE MATERIAL
SHOP ORDER # W801067050
MODEL # SR-A
ISOTOPE CESIUM 137
mci 20

FIG. 4

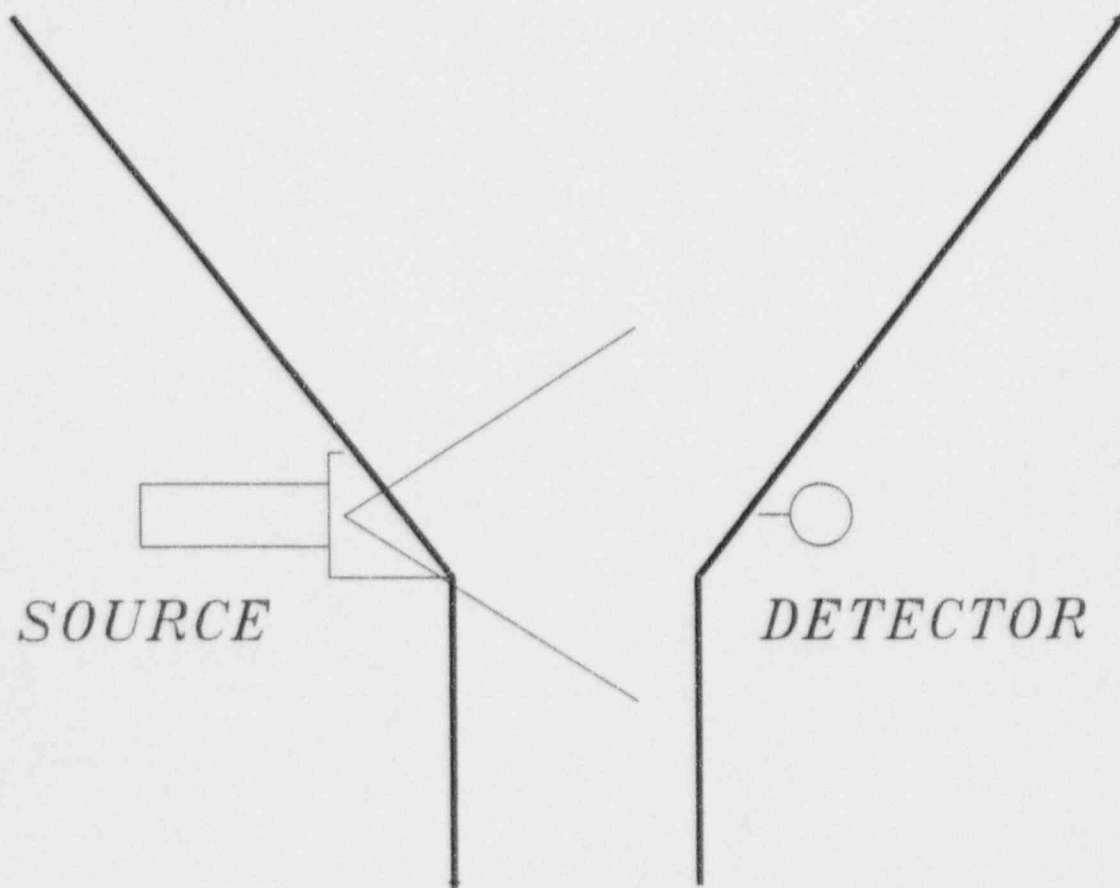
CHUTE FROM H132 TO G2 GATE



RADIOACTIVE MATERIAL
SHOP ORDER # IN94-010-1448
MODEL # SR-A
ISOTOPE CS-137
mCi 20

FIGURE 5

#1 FINISH MILL CLINKER BIN



RADIOACTIVE MATERIAL

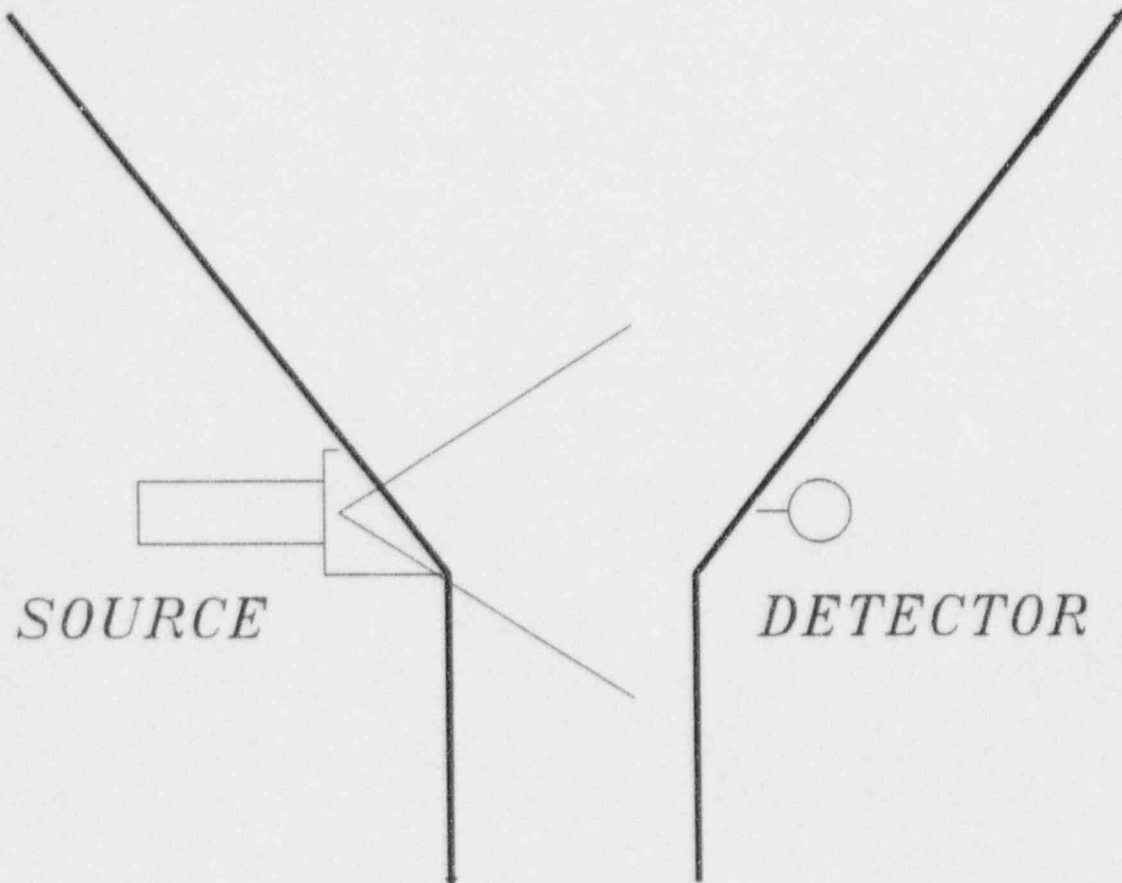
SHOP ORDER # W901010063D

MODEL # SR-A

ISOTOPE CS-137

mCi 10

#2 FINISH MILL CLINKER BIN



RADIOACTIVE MATERIAL

SHOP ORDER # W901010063A

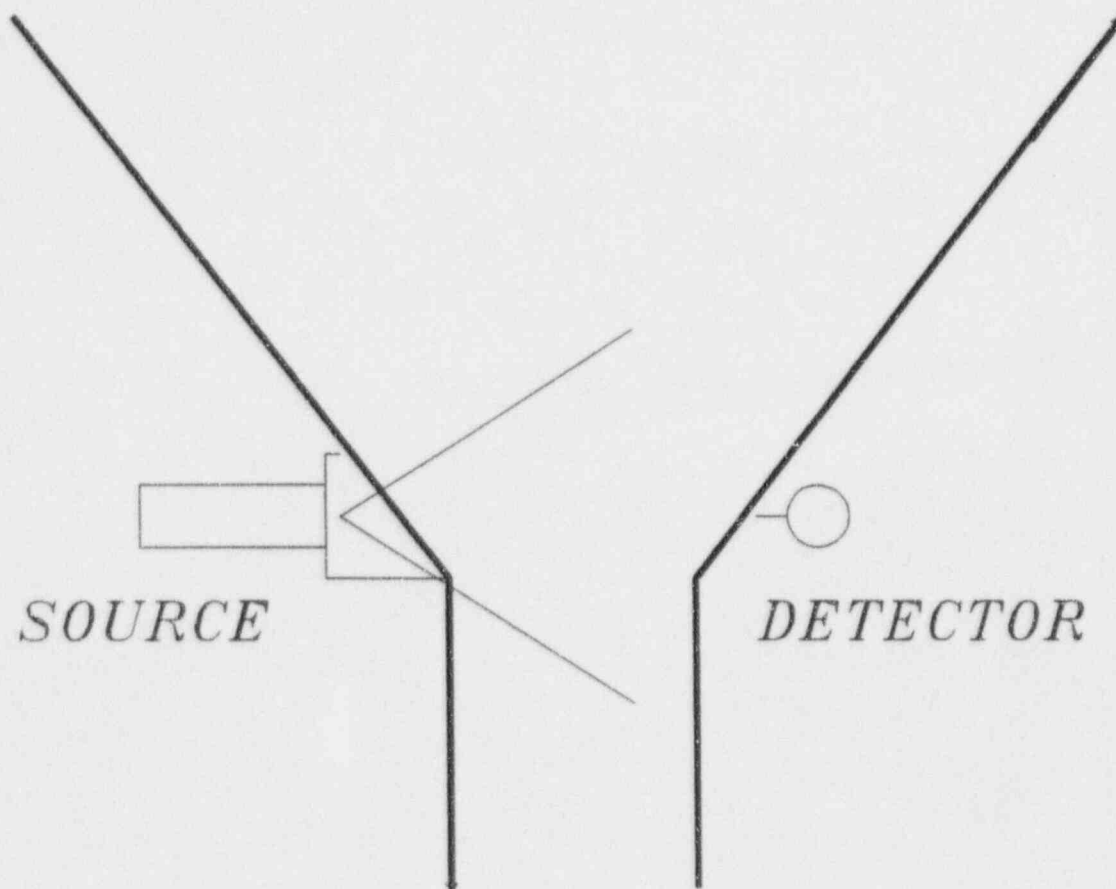
MODEL # SR-A

ISOTOPE CS-137

mCi 10

FIGURE 7

#3 FINISH MILL CLINKER BIN



RADIOACTIVE MATERIAL

SHOP ORDER # W901010063C

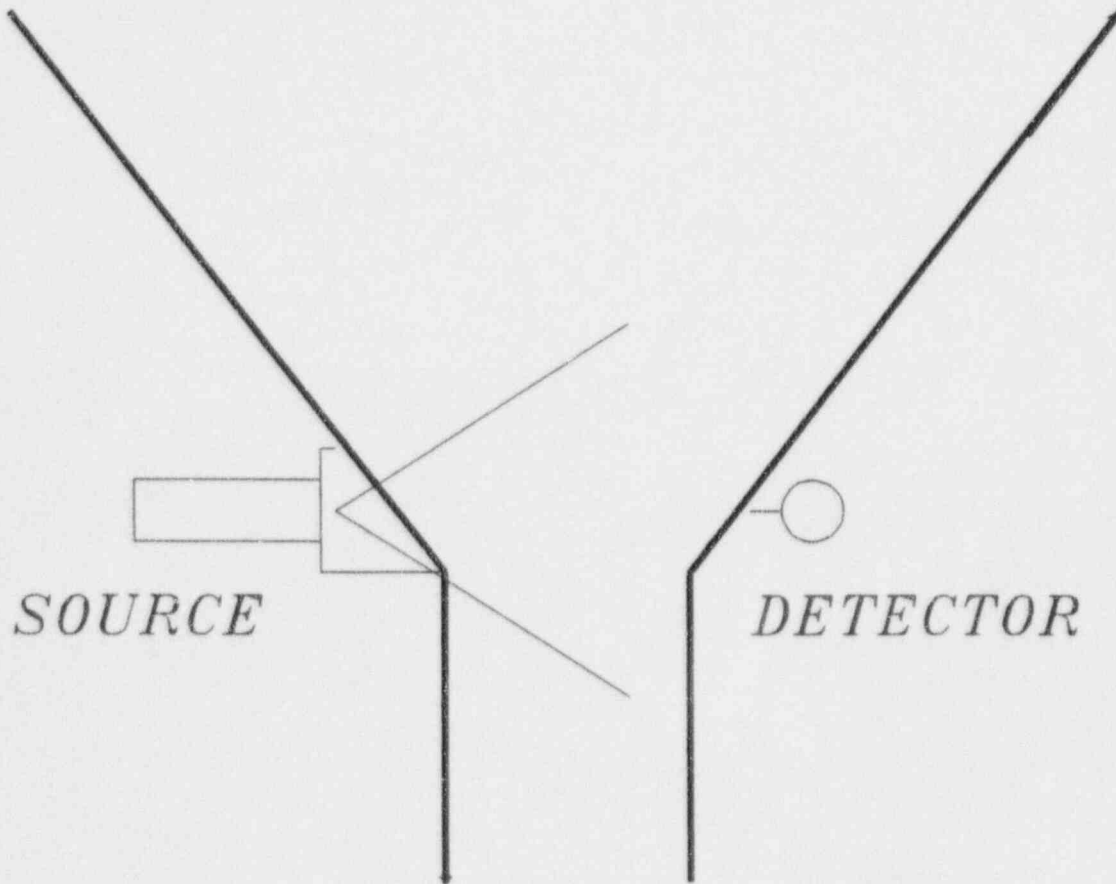
MODEL # SR-A

ISOTOPE CS-137

mCi 10

FIGURE 8

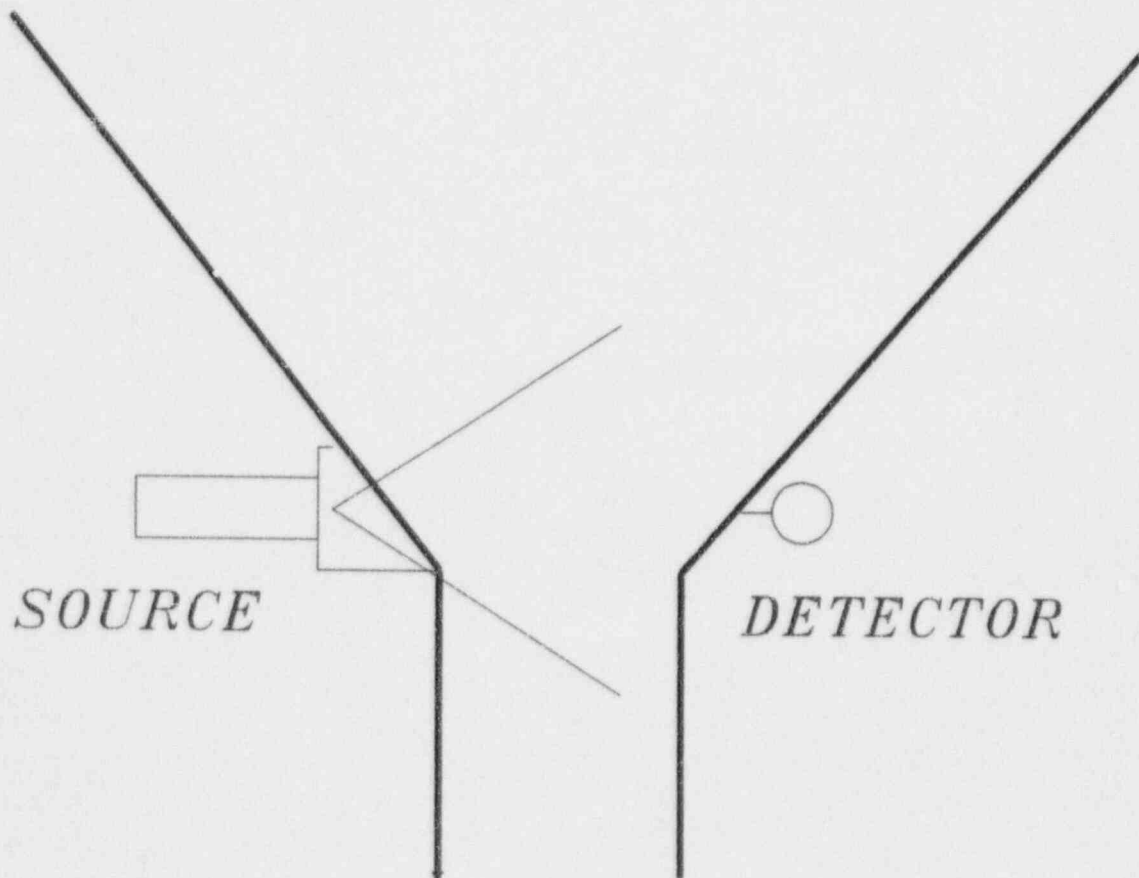
#4 FINISH MILL CLINKER BIN



RADIOACTIVE MATERIAL
SHOP ORDER # W901010063E
MODEL # SR-A
ISOTOPE CS-137
mCi 10

FIGURE 9

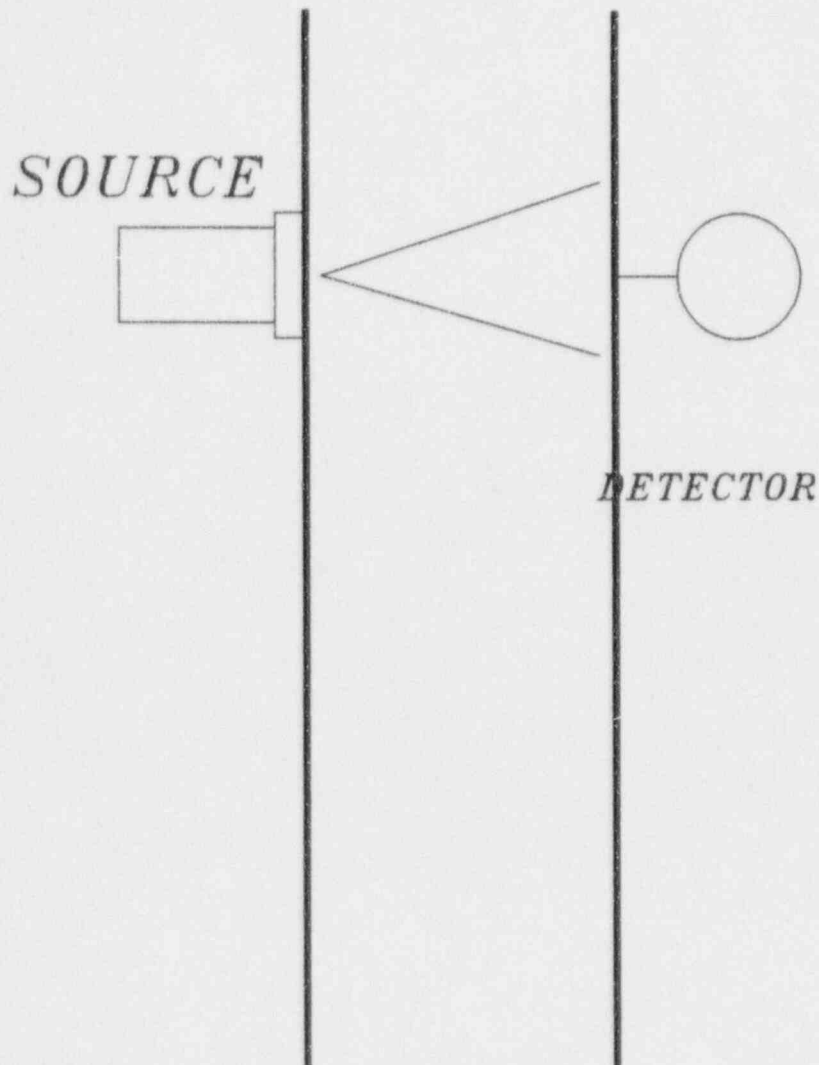
FINISH MILL'S CLINKER OVERFLOW BIN



RADIOACTIVE MATERIAL
SHOP ORDER # W901010063B
MODEL # SR-A
ISOTOPE CS-137
mCi 10

FIGURE 10

ROLL CRUSHER FEED ELEVATOR



RADIOACTIVE MATERIAL
SHOP ORDER # W901010062
MODEL# SR-A
ISOTOPE CISIUM 137
mCi 10

FIGURE 11

EMERGENCY PROCEDURES

- A. In all emergency procedures taken, **priority should be given to human safety.**
- B. **Evacuate** the immediate area while simultaneously ensuring that the radiation field and the extent of the spread of contaminating radioactive materials are kept to an absolute minimum.
- C. **Identify** and immediately **isolate** all persons who might have received high exposures or who could have been contaminated. In such cases, arrange for immediate decontamination, if necessary, evaluation of personnel devices, and sample collections of body fluids (blood, urine, etc.) for further analysis.
- D. **Regulate entry** to the scene of the accident by placing a cordon at the 2 MR/HR level and marking it with radiation hazard signs, so as to minimize all subsequent exposures and contamination incidents. Contain the contamination at the site of the accident. With gloves and tongs, place plastic bags over anything you suspect to be contaminated. Also, place contaminated gloves, tongs and clothing inside plastic bags, wash immediately, and shower as soon as possible. If there is any possibility of airborne contamination, masks should be worn (if possible, a self-contained oxygen mask). BE SURE TO SHUT OFF ALL FANS AND AIR-CONDITIONING.
- E. **Notify the appropriate authorities** promptly through suitable media such as telephone, telegraph, etc., and seek immediate advice on further steps to be taken. Arrange for the immediate advice on further steps to be taken. Arrange for the immediate availability of experts who are trained to deal with such accidental conditions. (Persons responsible for radiation protection should have prior information regarding experts and organizations to be contacted to deal with radiation emergencies.
- F. **Maintain complete records of the accident and follow-up procedures.** This simple instruction is often forgotten, resulting in enormous complications during incident investigation and in adoption of subsequent remedial measures.

These are some of the most probable problems involving radioactive sources.

Fall or Collision.

1. Survey the source holder to insure that the radiation pattern is normal. Radiation profile should measure less than 5 MR/HR at one foot from the unit with the shutter closed.
2. Insure that the shutter on/off mechanism is functioning properly.
3. Check for possible radioactive material leakage by wipe testing the unit. This is required by regulation, although, with doubly encapsulated sources this is very unlikely.
4. If the radiation pattern is within prescribed limits, the source shutter mechanism is operating properly and there is no evidence of radioactive material leakage then the unit may be returned to service.

However, if it appears that the lead shielding has been damaged, regard the unit as having a radiation field present above allowable limits.

1. Cordon off and mark the area with radiation hazard signs at the MR/HR level by calculation.
2. Obtain names of individuals who may have been overexpo. ed. (Medical examination may be required if exposure has exceeded 5 rems whole bc, γ dose.)
3. Call the NRC or Agreement State agency immediately and notify them.
4. Contact the gase manufacturer so that arrangements can be made for safe removal, packaging and shipment of the source holder. If permitted, shielding materials may be placed around the source holder to decrease radiation levels.

FIRES

In case of fire, handle the immediate emergency first, however, inform firefighting personnel that there are radioactive sources in the area. As soon as the immediate emergency is taken care of:

1. Assume that the lead shielding has melted and approach the source holder with caution. Place the survey meter on the lowest scale and approach the unit, if radiation profiles are as previously measured in initial installation surveys, then proceed.
2. Check the shutter mechanism for proper functioning.
3. Wipe test the unit.

However, if the radiation field is above normal limits:

1. Cordon off and mark the area with radiation hazards signs at the 2 MR/HR level.
2. Note names of all personnel who may have received an exposure dosage. (Dosage above normal limits will require medical examination.)
3. Call and notify the NRC or Agreement State immediately and implement any safe procedures they may prescribe.
4. Contact the gase manufacturer for assistance in removal, packaging and disposal of the unit.
5. Wipe test the unit for possible contamination. (The source capsule should withstand 1475 degree F before distorting and, possibly, leaking of radioactive material.)
6. If tests indicate that the unit exhibits leakage, then utilize plastic gloves and tongs. Place plastic bags over the unit to prevent spreading the radioactive material.

10. Lehigh Portland Cement Company personnel will:
- A. Perform wipe test
 - B. Shutter test
 - C. Remove and reinstall sources in original locations

According to procedures outlined by Ohmart Corporation.

All other services will be performed by:

Ohmart Corporation
4241 Allendorf Drive
Cincinnati, Ohio 45209

License #34-00639-01 (NRC Specific)
#201-487-95 (Kentucky Specific)

513-272-0131

Leak Testing:

Ohmart Corporation wipe test kit No. 724

Ohmart Corporation
4241 Allendorf Drive
Cincinnati, Ohio 45209

License #34-00639-01 (NRC Specific)
#201-487-95 (Kentucky Specific)

513-272-0131

Lockout Procedure:

Lehigh Portland Cement Company has prepared safety lockout procedures using job safety analysis. Mr. Robert F. Whiteside will be responsible for enforcement of lockout procedures and distribution of information on same.

Training:

As required by individuals working on equipment.

11. Ohmart will be responsible to:

Contain, package, ship and dispose of all radioactive material.

Address.

Ohmart Corporation
4241 Allendorf Drive
Cincinnati, Ohio 45209

398120

FEB 13 1997

Jerry A. Miller
Assistant Plant Manager
Lehigh Portland Cement Company
121 North First Street
P.O. Box 97
Mitchell, IN 47446

Dear Mr. Miller:

Enclosed is your NRC Material License Number 13-26779-01 in accordance with your request.

Please review the enclosed document carefully and be sure that you understand all conditions. If there are any errors or questions, please notify the U.S. Nuclear Regulatory Commission, Region III office at (630) 829-9887 so that we can provide appropriate corrections and answers.

Please note that your request for license renewal was processed as a new license. This was because you changed your mailing address from your Allentown, Pennsylvania corporate office to the address of your plant in Mitchell, Indiana. Although the location of use of licensed material did not change, it is the U.S. Nuclear Regulatory Commission's policy that the license number must correspond to the state listed on the license as the mailing address. Since we can only have your facility listed on one NRC license, License No. 37-09813-01 was terminated and mailed under separate cover to your corporate office. The license conditions on your new license are the same as they would have been if your application was processed as a license renewal.

Please be advised that we cannot, at this time, authorize Cody Hall to be the Assistant Radiation Safety Officer because certain additional information is needed to fully assess his qualifications. It appears that you have requested an informal Co-RSO arrangement without fully describing in your application the authority, duties and responsibilities, and activity limitations of the Assistant RSO position. Your application was also unclear how much of the RSO duties would be actually performed by the Assistant RSO. We cannot authorize a Co-RSO arrangement because we want one individual to have overall responsibility for the radiation safety program. However, if requested, we will designate a qualified individual(s) to be named as an "Assistant RSO" who is responsible to and reports to the RSO. The assistant(s) may act for the RSO in limited or all capacities in the absence of the RSO. If you wish to pursue such a request, you need to clearly state who you are requesting to be RSO and Assistant RSO(s). Further, you need to clearly state the duties, responsibilities and limitations placed on the Assistant RSO(s) and in what situation he/she will act for the RSO; i.e., only in RSO's absence, etc. It needs to be made clear that the Assistant RSO(s) will be responsible to and report to the RSO for all duties assigned or delegated to the Assistant RSO(s). You also need to state Mr. Hall's

302235

qualifications for this position, including training and experience with specific training dates, course length, topics covered, training certificates, and where and by whom the training was conducted. Please provide the above requested information to us, within 30 days, as additional information for Control No. 302235.

Also, please be advised that we cannot, at this time, authorize temporary removal and reinstallation of source holders to facilitate equipment maintenance by plant personnel under the supervision of the RSO (Robert Whiteside) and proposed Assistant RSO (Cody Hall). We cannot authorize these activities because certain additional information is needed to fully assess Messrs. Whiteside's and Hall's qualifications, as follows:

1. State Messrs. Whiteside's and Hall's qualifications for removal, reinstallation, and applicable equipment maintenance of fixed gauges, including training and experience with specific training dates, course length, topics covered, training certificates, where and by whom the training was conducted. This includes hands-on field training, supervision experience of service operations (removal, reinstallation, and equipment maintenance of fixed gauges). Your application needs to specifically address the scope and extent of both persons' actual performance of service operations and maintenance activities. These services include the use of appropriate survey meters; installation and reinstallation of nuclear gauges; training in re-evaluating shutter mechanisms, and removal from service of devices containing sealed sources. The maintenance activities should include those for which you are requesting authorization. This information should include the time frames for these activities; whether both persons were authorized to perform them alone as a licensed individuals (state license number) or were they performed under the supervision of licensed individuals (state license numbers and name of licensed individuals); and an estimation of the number of each type of service and maintenance activity performed.
2. Please state in your application that each individual (Messrs. Whiteside and Hall and individuals they would supervise) who will perform service operations and maintenance activities on licensed devices will be provided with operating, emergency and maintenance procedures and copies of current service, operations and maintenance manuals specific to the devices being serviced and maintained. State that you will also ensure that service, operations and maintenance manuals are updated with the manufacturers' revisions. Also state that the following elements will be included in your operating, service and maintenance procedures:
 - a. Step-by-step procedures for performing each requested service and maintenance activity. These are usually available in service and maintenance manuals provided by manufacturers of the gauging devices. Please state that you will maintain copies of the service and maintenance manuals for each gauge you wish to service and maintain.

- b. Instructions for locking the source housings in the "off" position during mounting, servicing, relocating or maintaining each device.
 - c. Surveys to be performed to ensure that each device is in the "safe" or "off" position, and surveys to be performed during other specific maintenance and servicing operations, when sources may not be shielded by the source holders.
 - d. Procedures for proper mounting, relocation and maintenance. Please confirm that all service and maintenance activities will be performed by or in the direct physical presence and under the supervision of Messrs. Whiteside and Hall (after their license authorizations) or by other persons specifically licensed by the commission or an agreement state to perform such activities. Include a complete description of the temporary gauge storage and maintenance facilities, a discussion of their proper use, and facility diagrams.
 - e. Procedures describing when each device can be safely unlocked and checked for proper operation after servicing or maintenance is completed.
 - f. Procedures for final surveys of the source holders during "on" and "off" modes of operation, following installation, servicing, maintenance, etc., including leak testing.
 - g. Instructions for preparing the final survey and leak test reports for the Radiation Safety Officer (RSO) or Assistant RSO (after authorization).
 - h. Records maintained for each in-house service and maintenance performed, including a radiation profile following service and maintenance to demonstrate that normal exposure levels have not changed.
3. Please confirm that you will follow the written procedures provided by the gauging device manufacturers for each service and maintenance operation requested. If you will follow a procedure other than one provided by the device manufacturer, please submit the alternative procedure you propose to use for each service and maintenance operation requested, your justification for using it and an evaluation of the radiation hazards associated with it to demonstrate its safety equivalence to the original procedure.
4. Please state in your application that individuals servicing and performing maintenance on gauges must wear both whole body and extremity personal monitoring devices, such as film badges and thermoluminescent dosimeters (TLD's). Please state the name of the supplier of your personal monitoring equipment, confirmation that the supplier is NVLAP certified and the frequency at which you will exchange the dosimeters. Please note that the maximum exchange frequency

is monthly for film badges and quarterly for TLD's. Please also confirm that each individual will wear only his/her assigned dosimeters, i.e., no "sharing" of badges will be allowed. Alternately, you must submit conclusive evidence that sufficiently demonstrates that personnel monitoring is not necessary.

5. Procedures, training and equipment must be adequate to protect personnel working in the areas of gauges undergoing service and maintenance. Please describe the following:
 - a. Your means of providing security for each work area to prevent unauthorized use, loss or theft of licensed material. Please commit to instructing your personnel that they must never leave gauges unattended while working on them.
 - b. Storage containers, special shielding, and remote handling tools used during servicing and maintenance of gauges.
 - c. Please submit resumes of training and experience for Messrs. Whiteside and Hall. These resumes should cover formal academic training and on-the-job training in the service and maintenance activities you wish to perform on the specified equipment.
 - d. Outline any additional training that will be provided periodically for Messrs. Whiteside and Hall to keep them up to date on the servicing and maintenance of gauging and measuring devices, new equipment to be serviced and maintained, and any factory modifications of existing equipment. You should state that such training will be augmented by using up-to-date manuals and instruction sheets provided by source and device manufacturers who provide new information on their recommended installation, servicing and maintenance procedures and methods.
 - e. Please submit evidence that Messrs. Whiteside and Hall have satisfactorily completed the device manufacturer's training course (or the equivalent) on the installation, servicing and maintenance of each specific Ohmart device requested in the application.
 - f. Provide information on the training that will be provided to ancillary personnel who may frequent any radiation restricted area or work under the direct supervision of Messrs. Whiteside and Hall (after authorization). Consider secretarial and janitorial personnel and technicians, among others, who might work directly under the supervision of Messrs. Whiteside and Hall (after authorization) or who might frequent any restricted area in your facility. You should provide the following information on this training:

- An outline of your training program, including the topics that will be covered. Examples of topics to be included in this training are: (1) the basic principles and fundamentals of radiation safety and good safety practices related to your use of radioactive materials, (2) the purpose for which radiation detection instruments will be used, (3) a review of your operating and emergency procedures, including safety procedures unique to your uses and facilities, and (4) specific instructions in precautions and procedures to be used to minimize exposure to radiation and radioactive materials.
 - The duration of your training program. The duration should be commensurate with your radiological health protection problems, but should be from 2 to 8 hours long.
 - The name of your training instructor or instructors. Submit your instructors' qualifications.
 - A commitment that records documenting the training of each individual will be maintained.
- g. Please state that anyone, under the supervision of Messrs. Whiteside and Hall (after authorization), performing service operations or maintenance on devices containing sealed sources will be trained in operating, emergency and lock-out procedures by Mr. Whiteside or Mr. Hall. You should also commit that service operations and maintenance activity procedural and on-the-job training will be conducted by qualified gauge manufacturers' service representatives, or by someone that the appropriated gauge manufacturers deems qualified to conduct this training for their specified gauges. For example, Mr. Whiteside or Mr. Hall could be designated instructors after qualification is achieved.
- h. In addition to the above specific job-related training in 5.g, you should provide information regarding your general training program on the safe use of these devices for the same members of your staff. This information should include the instructor's names and qualifications and an outline of the training program, including the time to be spent on each segment of the program. The duration of this training will depend, of course, on the complexity of the gauging or measuring device installation. However, as a minimum, this type of training should be from 2 to 8 hours long. Your training program outline should include:
- Basic radiation safety practices applicable to the safe use of the gauging and measuring devices. Include a review of the user manuals and specific instructions provided by the device manufacturer; use of

the shutter mechanism; shutter lock procedures during maintenance in device areas; control of access, barriers, warning signs, etc.; maintenance permitted and prohibited under the license; use of leak-test kits, and performance of periodic shutter on-off inspections.

- NRC regulations pertinent to the safe use of the devices, including maintenance of records by the customer for inspection purposes. Records of receipt (device shipment invoices, etc.), radiation surveys, wipe tests, shutter on-off operational checks, personnel monitoring (if required), and the training of user personnel should be included, if applicable.
- Required notices and signs such as "Notice to Employees" (Form NRC-3) and posting "Caution Radiation Area" signs for defining radiation areas.
- Means of disposal of the devices.
- Emergency procedures to be followed in case of damage resulting from fire, explosion, malfunction of the shutter, etc., including procedures such as limiting access and requesting professional assistance when needed.
- Means of determining the adequacy of the training, such as oral or written tests.

Please provide the above requested information (1 through 5) and submit it to us, within 30 days, as additional information to Control No. 302235. Regulatory Guides FC 404-4 and FC 411-4 are enclosed to assist you in preparing this information. We will then continue our review, without an additional fee, limited to your request to have Messrs. Whiteside and Hall authorized on your license to perform certain service and maintenance activities on devices containing sealed sources. Be advised, however, that if you request any other changes to your license, an amendment fee will be requested.

Please be advised that your license expires at the end of the day, in the month, and year stated in the license. Unless your license has been terminated, you must conduct your program involving byproduct materials in accordance with the conditions of your NRC license, representations made in your license application, and NRC regulations. In particular, note that you must:

1. Operate in accordance with NRC regulations 10 CFR Part 19, "Notices, Instructions and Reports to Workers; Inspections," 10 CFR Part 20, "Standards for Protection Against Radiation," and other applicable regulations.

2. Notify NRC, in writing, within 30 days:
 - a. When the Radiation Safety Officer permanently discontinues performance of duties under the license or has a name change; or
 - b. When the licensee's mailing address changes (no fee is required if the location of byproduct material remains the same).
3. In accordance with 10 CFR 30.36(b) and/or license condition, notify NRC, promptly, in writing, and request termination of the license:
 - a. When you decide to terminate all activities involving materials authorized under the license; or
 - b. If you decide not to complete the facility, acquire equipment, or possess and use authorized material.
4. Request and obtain a license amendment before you:
 - a. Change Radiation Safety Officers;
 - b. Order byproduct material in excess of the amount, or radionuclide, or form different than authorized on the license;
 - c. Add or change the areas of use or address or addresses of use identified in the license application or on the license; or
 - d. Change ownership of your organization.
5. Submit a complete renewal application with proper fee or termination request at least 30 days before the expiration date of your license. You will receive a reminder notice approximately 90 days before the expiration date. Possession of byproduct material after your license expires is a violation of NRC regulations. A license will not normally be renewed, except on a case-by-case basis, in instances where licensed material has never been possessed or used.

In addition, please note that NRC Form 313 requires the applicant, by his/her signature, to verify that the applicant understands that all statements contained in the application are true and correct to the best of the applicant's knowledge. The signatory for the application should be the licensee or certifying official rather than a consultant.

You will be periodically inspected by NRC. Failure to conduct your program in accordance with NRC regulations, license conditions, and representations made in your license application and supplemental correspondence with NRC will result in enforcement action

against you. This could include issuance of a notice of violation, or imposition of a civil penalty, or an order suspending, modifying or revoking your license as specified in the General Policy and Procedures for NRC Enforcement Actions. Since serious consequences to employees and the public can result from failure to comply with NRC requirements, prompt and vigorous enforcement action will be taken when dealing with licensees who do not achieve the necessary meticulous attention to detail and the high standard of compliance which NRC expects of its licensees.

Sincerely,

Original Signed By
Charles F. Gill
Nuclear Materials Licensing Branch

License No.: 13-26779-01
Docket Nos.: 030-34344/030-06215

Enclosures: 1. License No. 13-26779-01
2. Regulatory Guide No. FC 404-4
3. Regulatory Guide No. FC 411-4

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DATE	02/12/97								

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LEHIGH PORTLAND CEMENT COMPANY

CORPORATE OFFICE

JEFFRY H. BROZYNA
VICE PRESIDENT - GENERAL COUNSEL
610/366-4681

July 16, 1996

Mr. Charles F. Gill
Nuclear Materials Licensing
U.S. Nuclear Regulatory Commission
Region III
801 Warrenton Road
Lisle, IL 60532-4351

RE: LICENSE NO. 37-09813-01

Dear Mr. Gill:

A recent letter from Lehigh Portland Cement Company advised you of certain planned corporate changes scheduled for late June. This letter is to advise you that at present, the planned changes have been postponed indefinitely. Should they be consummated in the future, we will advise you in order to assure that you have the most current and complete information in your files.

I apologize for any inconvenience.

Thank you again for your consideration.

Very truly yours,

LEHIGH PORTLAND CEMENT COMPANY

Jeffrey H. Brozyna

Jeffrey H. Brozyna
Vice President, General Counsel

398/20

RECEIVED

JUL 19 1996

REGION III

JUL 19 1996

PM = 7-K-96

JHB/maw

JUN 18 1996

Jeffry H. Brozyna
Vice President, General Counsel
Lehigh Portland Cement Company
Corporate Office
7660 Imperial Way
Allentown, PA 18195

Dear Mr. Brozyna:

This refers to your letter dated May 29, 1996, requesting NRC consent to the proposed change of ownership of Lehigh Portland Cement Company, NRC License No. 37-09813-01. Based upon the information submitted in your letter, the NRC consents to the change of ownership.

If you have any questions or require clarification on any of the information stated above, you may contact us at (708) 829-9814.

Sincerely,

Original Signed By
Charles F. Gill
Nuclear Materials Licensing Branch

License No. 37-09813-01
Docket No. 030-06215

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LEHIGH PORTLAND CEMENT COMPANY

CORPORATE OFFICE

JEFFRY H. BROZYNA
VICE PRESIDENT - GENERAL COUNSEL
610/366-4681

CONFIDENTIAL

VIA OVERNIGHT DELIVERY

May 29, 1996

Mr. Charles F. Gill
Nuclear Materials Licensing
U.S. Nuclear Regulatory Commission
Region III
801 Warrenville Road
Lisle, Illinois 50432-4351

**Re: Additional Information to Control No. 398120
(Mitchell, Indiana Cement Plant -- License No. 37-09813-01)**

Dear Mr. Gill:

The purposes of this letter are to: (1) document and expand upon the information provided by Mr. Danny Blackwell and Mr. Don Silverman in their May 15, 1996 phone conversation with you regarding certain organizational changes made by Lehigh Portland Cement Company ("Lehigh") in the past; (2) inform the Nuclear Regulatory Commission ("NRC") of certain planned corporate changes presently scheduled for late June, 1996 and to request written NRC consent to such changes to the extent NRC believes consent may be required; and (3) separately request certain amendments to the Mitchell, Indiana plant license. These amendments are unrelated to the planned corporate changes.

First, the following information is provided to document and expand upon your conversations with Mr. Blackwell and Mr. Silverman:

MAY 31 1996

Mr. Charles F. Gill

Page 2

May 29, 1996

- Lehigh is presently a wholly-owned subsidiary of Heidelberg Cement, Inc., a Delaware corporation (HCI). HCI is wholly-owned by Heidelberger Zement (HZ). On May 15 of this year, HZ increased its majority share (approximately 67%) of HCI by purchasing the minority interest (approximately 33%) in HCI held by Schwenk, Inc.
- On March 7, 1995, Lehigh's Board of Directors approved an internal corporate restructuring of Lehigh's business into three corporate divisions -- a Western Division, an Eastern Division and a Specialty Products Division. These divisions are internal departments within Lehigh and have no separate corporate existence.
- Also in 1995, Lehigh's former President retired and a new President assumed his responsibilities. In addition, individual Division Presidents were appointed for each of the three internal Divisions. The Division Presidents are not Lehigh corporate officers. None of these positions are listed on our Mitchell, Indiana plant license.
- In Lehigh's current license No. 37-09813-01 our address is listed as 7660 Imperial Way, Allentown, Pennsylvania, and the authorized location for the use of radioactive materials under the license is our Mitchell, Indiana plant. Neither our corporate address, nor the location of our use of radioactive materials has changed.
- There may have been some confusion caused by our January 31, 1995 request (in connection with the renewal of our license for the Mitchell plant), that our address for correspondence be changed from our Allentown, Pennsylvania headquarters to the Mitchell plant.
- There has been no change in the name of the licensee, no change in personnel listed on the license, and no change in the location or nature of use of licensed materials. We continue to use the same sealed radioactive sources at the same facilities and in the

Mr. Charles F. Gill

Page 3

May 29, 1996

same applications as before these changes occurred. Before and after our internal restructuring, Lehigh has remained as the responsible licensee.

We hope that the information provided above will fully address your inquiries.

In Attachment 1, we are informing the NRC of planned future corporate changes in accordance with the guidance in NRC Information Notice 89-25, Rev. 1 (December 7, 1994). You will note that Lehigh is not planning any changes in the location, use, or persons authorized to use or control radioactive materials at the Mitchell plant, and that the sole changes contemplated are in the ownership structure of Lehigh. For these reasons, and because timely completion of the proposed transaction is critical to Lehigh, we are respectfully requesting that, if required, the NRC provide its written consent to the planned changes as promptly as possible, but in any event, no later than June 15, 1996. We understand from your May 15 conversation that no additional license amendment fee will be required, and that the NRC's consent will be included within the renewal amendment for the Mitchell plant license. We also request that until the transaction is completed at the end of June, the information in this letter and Attachment 1 be maintained as confidential, proprietary information.

Finally, Attachment 2 is a separate request for certain amendments to the Mitchell plant license. The requested amendments are important for our continued efficient operation and we request your approval of those amendments as soon as possible. These amendments are unrelated to the planned corporate changes. However, obtaining that approval should not delay any NRC consent that may be required prior to the corporate changes planned for late June.

We sincerely appreciate your assistance in these matters.

Mr. Charles F. Gill

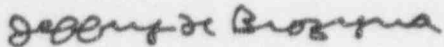
Page 4

May 29, 1996

If you have any questions, please feel free to call Patrick M. Lydon, Esquire at (610) 366-4727.

Very truly yours,

LEHIGH PORTLAND CEMENT COMPANY



Jeffrey H. Brozyna

Vice President, General Counsel

/maw

Enclosure(s)

cc D. Blackwell
D. Silverman, Esquire

**INFORMATION SPECIFIED IN
INFORMATION NOTICE 89-25, REV. 1**

Lehigh Portland Cement Company ("Lehigh") submits the following information in connection with License No. 37-09813-01 for its Mitchell, Indiana cement plant. The information provided below is being submitted in accordance with the guidance in Information Notice 89-25, Rev. 1, (December 7, 1994). A description of the planned organizational changes (the "Transaction") is provided under item 5 below and is also depicted in Enclosures A and B.

- 1. The new name of the licensed organization. If there is no change, the licensee should so state.**

There is no change in the name of the licensed organization. Lehigh is the current licensee, and that name will not change after the consummation of the Transaction.

- 2. The new licensee contact and telephone number(s) to facilitate communications.**

There is no new licensee contact or telephone number. As with the existing license, Mr. Danny J. Blackwell will continue as Lehigh's contact to the NRC, and he may continue to be reached at 812/849-2191 Ext. 203.

3. **Any changes in personnel having control over licensed activities (e.g., officers of a corporation) and any changes in personnel named in the license such as radiation safety officer, authorized users, or any other persons identified in previous license applications as responsible for radiation safety or use of licensed material. The licensee should include information concerning the qualifications, training, and responsibilities of new individuals.**

There is no change in personnel having control over licensed activities. As is required by the current license, licensed material will continue to be used by, or under the supervision of, Robert Whiteside.

4. **An indication of whether the transferor will remain in non-licensed business without the license.**

Lehigh will not transfer the license to any other party. Lehigh is, and will continue as, the licensee.

5. **A complete, clear description of the transaction, including any transfer of stocks or assets, mergers, etc., so that legal counsel is able, when necessary, to differentiate between name changes and changes of ownership.**

At present, Lehigh is a wholly-owned subsidiary of Heidelberg Cement, Inc. (HCI). HCI is wholly-owned by Heidelberger Zement (HZ). Enclosure A depicts Lehigh's current corporate structure as well as certain other companies controlled by HZ that have no current corporate affiliation with Lehigh but which will be related after the Transaction.

Upon consummation of the Transaction, certain changes in the structure depicted in Enclosure A will occur. These are depicted on Enclosure B. In particular:

- HZ will, through the purchase of stock, increase its share in CBR SA to in excess of its current 49% (approximate) ownership;
- HCI and CBR Investment Corporation of America (CBR Investment) will merge and CBR Investment will remain as the surviving company ^{1/};
- CBR Investment will be owned by Sodexcar and HZ;
- Lehigh and CBR Cement Corporation will merge, with Lehigh as the surviving company. Lehigh will continue to be the name of the licensee.

^{1/} It is presently anticipated that, after the merger of HCI and CBR Investment, the surviving company -- CBR Investment -- will change its name. Because Lehigh will remain as the licensee, and the name change will involve no change in corporate structure other than as described in this letter, no prior written NRC consent to the name change is required. Nevertheless, Lehigh will promptly notify the NRC in writing of the name change.

6. **A complete description of any planned changes in organization, location, facility, equipment, or procedures (i.e., changes in operating or emergency procedures).**

There will be no changes in Lehigh's organization, location, facility, equipment or procedures as a result of this Transaction. Specifically, no changes in either operating or emergency procedures will occur. However, should any such changes become necessary in the future, Lehigh will request a separate license amendment, as necessary.

7. **A detailed description of any changes in the use, possession, location or storage of the licensed materials.**

There will be no changes in Lehigh's use, possession, location or storage of licensed materials as a result of this Transaction.

8. **Any changes in organization, location, facilities, equipment, procedures, or personnel that would require a license amendment even without the change of ownership.**

There will be no changes in Lehigh's organization, location, facilities, equipment, procedures, or personnel that would require a license amendment even without the change in control.

9. **An indication of whether all surveillance items and records (e.g., calibrations, leak tests, surveys, inventories, and accountability requirements) will be current at the time of transfer. A description of the status of all surveillance requirements and records should also be provided.**

All required surveillance items and records are current and will be current at the time of this Transaction.

10. **Confirmation that all records concerning the safe and effective decommissioning of the facility, pursuant to 10 CFR 35.35(g), 40.36(f), 70.25(g), and 72.30(d); public dose; and waste disposal by release to sewers, incineration, radioactive material spills, and on-site burials, have been transferred to the new licensee, if licensed activities will continue at the same location, or to the NRC for license terminations.**

There will be no change in licensee and therefore no need to transfer any of the above records to any other party. All records concerning the safe and effective decommissioning of the facility pursuant to 10 CFR 30.35(g); public dose; and waste disposal by release to sewers, incineration, radioactive material spills, and site burials will remain in Lehigh's custody as the licensee.

11. **A description of the status of the facility. Specifically, the presence or absence of contamination should be documented. If contamination is present, will**

decontamination occur before transfer? If not, does the successor company agree to assume full liability for the decontamination of the facility or site.

Lehigh knows of no radiological contamination at the facility.

- 12. A description of any decontamination plans, including financial assurance arrangements of the transferee, as specified in 10 CFR 30.35, 40.36, and 70.25. This should include information about how the transferee and transferor propose to divide the transferor's assets, and responsibility for any cleanup needed at the time of transfer.**

Lehigh knows of no radiological contamination at this facility. The current license limits possession of radioactive materials to sealed sources in quantities below which the specific requirements for decontamination plans and financial assurance requirements apply.

- 13. Confirmation that the transferee agrees to abide by all commitments and representations previously made to NRC by the transferor. These include, but are not limited to: maintaining decommissioning records required by 10 CFR 30.35(g); implementing decontamination activities and decommissioning of the site; and completing corrective actions for open inspection items and enforcement actions.**

There will be no transfer of the license to another party. Lehigh is, and will continue as, the licensee. Lehigh agrees to abide by all docketed written commitments previously

made to the NRC, including but not limited to: maintenance of decommissioning records as required by 10 CFR 30.35(g); addressing radiological decontamination and decommissioning of the site; and completing all written docketed corrective actions for open inspection items and enforcement actions.

With regard to contamination of facilities and equipment, the transferee should confirm, in writing, that it accepts full liability for the site, and should provide evidence of adequate resources to fund decommissioning; or the transferor should provide a commitment to decontaminate the facility before change of ownership.

There will be no transfer of the license to another party. Lehigh is, and will continue as, the licensee. In any event, the current facilities and equipment have no known radioactive contamination. However, should radioactive contamination be discovered at the site, Lehigh accepts full liability for addressing decommissioning and decontamination of the site. The current license restricts possession of radiological materials to sealed sources in quantities below which the specific financial assurance requirements of 10 CFR § 30.35 apply.

With regard to open inspection items, etc., the transferee should confirm, in writing, that it accepts full responsibility for open inspection items and/or any resulting enforcement actions; or the transferee proposes alternative measures for meeting the requirements; or the transferor provides a commitment to close out all such actions with NRC before license transfer.

There will be no transfer of the license to another party. Lehigh is, and will continue as, the licensee. In any event, Lehigh accepts full responsibility for open inspection items and/or any resulting enforcement actions.

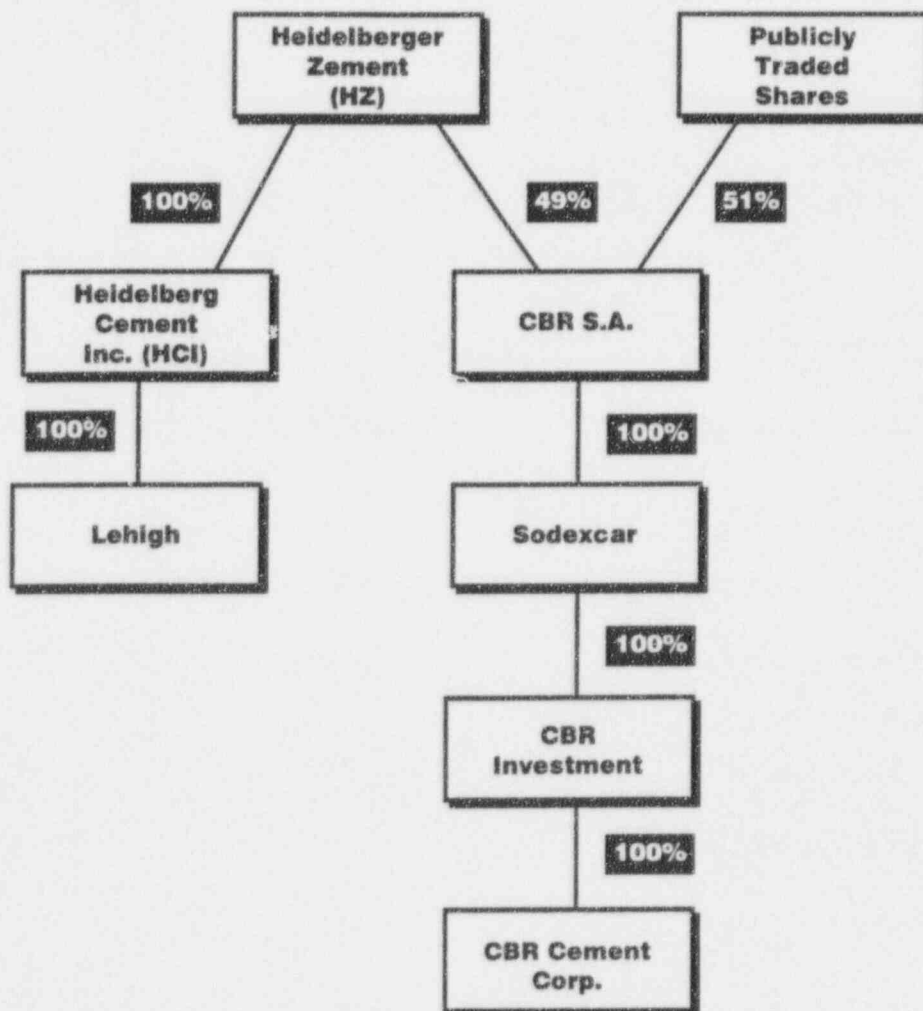
- 14. Documentation that the transferor and transferee agree to the change in ownership or control of the licensed material and activity, and the conditions of transfer; and the transferee is made aware of all open inspection items and its responsibility for possible resulting enforcement actions.**

There will be no transfer of the license to another party. Lehigh is, and will continue as, the licensee. Lehigh will continue to own and control the licensed material and activities, and acknowledges responsibility for possible resulting enforcement actions.

- 15. A commitment by the transferee to abide by all constraints, conditions, requirements, representations, and commitments identified in the existing license. If not, the transferee must provide a description of its program, to ensure compliance with the license and regulations.**

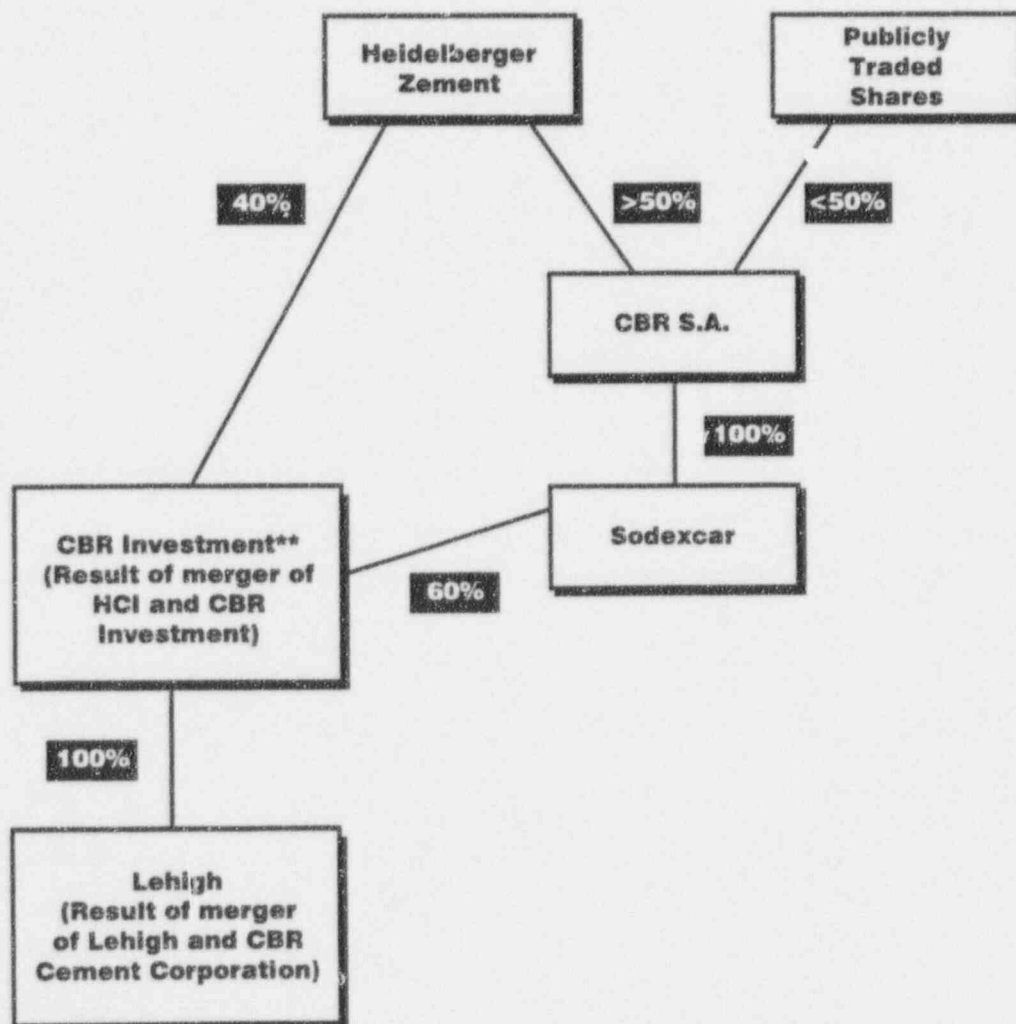
There will be no transfer of the license to another party. Lehigh is, and will continue as, the licensee. Lehigh agrees to abide by all constraints, conditions, requirements, representations, and commitments identified in License No. 37-09813-01.

CURRENT CORPORATE STRUCTURE*



*Approximate percentages

POST-TRANSACTION CORPORATE STRUCTURE*



*Approximate percentages. Percentages may change due to pending approvals.

**It is anticipated that CBR Investment will change its name upon consummation of the merger.

LEHIGH PORTLAND CEMENT COMPANY
MITCHELL OPERATIONS

May 28, 1996

United States
Nuclear Regulatory Commission
Region III
801 Warrenville Road
Lisle, Illinois 60532-4351

ATTN: Mr. Charles F. Gill

SUBJECT: Amendments to NRC Licenses
No.: 37-09813-01
Control No.: 98120

Dear Mr. Gill

In December of 1995 I had a safety audit of our Radiation Safety Procedures, by the Omart Corp. The audit produced some recommendations for changes in our license. I am including a list of amendments that we would like made to License No. 37-09813-01 Control No. 98120.

Your assistance in this matter will be greatly appreciated.

Sincerely,

Robert F. Whiteside
Radiation Safety Officer

License No.: 37-09813-01
Control No.: 98120

Item 11 Reads

Licensed Material shall be used by, or under the supervision of, Robert Whiteside.

Amend To Read

Licensed Material shall be used by, or under the supervision of, Robert Whiteside, Radiation Safety Officer or Cody Hall, alternate Radiation Safety Officer.

Item 12 (A) Read

Sealed sources and detector cells shall be tested for leakage and/or contamination at intervals not to exceed 6 months or at such other intervals as specified by the certificate of registration referred to in 10 CFR 32.210.

Amend To Read

Sealed sources and detector cells shall be tested for leakage and/or contamination at intervals not to exceed 12 months or at such other intervals as specified by the certificate of registration referred to in 10 CFR 32.210.

Item 14 Reads

Installation, initial radiation survey, relocation, removal from service, maintenance, and repair of devices containing sealed sources shall be performed by the gauge manufacturer or by persons specifically licensed by the Commission or an Agreement State to perform such services. Installation, replacement, and disposal of sealed sources shall be performed only by persons specifically licensed by the commission or a Agreement State to perform such services.

Amend To Read

Initial Installation, initial radiation survey, relocation, disposal, maintenance, and repair of devices containing sealed sources shall be performed by the gauge manufacturer or by persons specifically licensed by the Commission or an Agreement State to perform such services. Temporary removal and reinstallation of source holders to facilitate equipment maintenance shall be accomplished by plant personnel under the supervision of the plant Radiation Safety Officer or alternate. Removal and Reinstallation shall follow procedures outlined in Plant Radiation Safety Manual, section R

Item 15 Reads

The licensee shall conduct a physical inventory every 6 months to account for all sources and/or devices received and possessed under the license.

Amend To Read

The licensee shall conduct a physical inventory every 12 months to account for all sources and/or devices received and possessed under the license.

CONVERSATION RECORD

TIME

DATE

Deficiency Telephone call

5/15/96

O VISIT

O CONFERENCE

☒ TELEPHONEO INCOMING
☒ OUTGOING

NAME OF PERSON(S) CONTACTED OR IN CONTACT

ORGANIZATION (OFFICE, DEPT. ETC.)

TELEPHONE NO.

Donny Blackwell

Lehigh Portland Cement Company (812) 849-2191 (Ext. 203)

SUBJECT

Application deficiencies that needed resolution before their license could be issued.

SUMMARY

① There were change of ownership/control issues that needed to be resolved. I faxed Mr. Blackwell a copy of IN 89-25, Par 1 & 30.34(b). We received the response to the 15 IN questions from the licensee on 5/31/96. We issued our consent to the proposed change of ownership by a letter dtd 6/18/96. On 7/6/96, the licensee sent us a letter stating that the proposed changes have been postponed indefinitely.

② This same 5/31/96 letter also included requests for an alternate RSO and some limited gauge servicing. However, as I stated in my 5/15/96 call, if inadequate info was provided, we could not authorize these activities. The cover letter to the new license states specifically the needed additional info.

③ There were also problems with possession limits which were corrected on the license.

④ I informed Mr. Blackwell that the old Penn license would be terminated & a new Indiana

ACTION REQUIRED (new IN)

- ① Issue the license to incorporate the appropriate new license authorizations w/ reasons for denial stated in cover letter regarding other requested authorizations. (license would be issued because of the mailing address change.)
- ② Void the renewal application
- ③ Terminate the Penn license

NAME OF PERSON DOCUMENTING CONVERSATION

SIGNATURE

DATE

CHARLES F. GILL

Charles F. Gill

5/15/96

ACTION TAKEN ① R, & ② placed in priority typewritten on 2/8/97

SIGNATURE

Charles F. Gill

TITLE

Sr. License Receiver

DATE

2/8/97

ohmart Corporation

1995 REVUE

Memorandum

DATE: December 1, 1995

TO: Leigh Portland Cement
Bob Whiteside

FROM: George Brown *GBrown*

RE: Review of Radiation Safety Program

Post-It™ brand fax transmittal memo 7671	# of pages 6
<i>Charles Hall/NEC</i>	
Co.	Phone #
Dept.	Fax #

On November 30 and December 1 1995 I conducted a review of your radiation safety program. The scope of the review was to ensure compliance with NRC rules particularly Part 19 and 20. The following are general notes and comments:

Thursday was spent doing a preliminary review of your program and documentation. In general documentation is complete, and the organization is very good and easy to access. The following items will be reviewed tomorrow:

- Some wording on the license should be changed or reviewed. The license is in timely renewal and it would be a good time to make changes
- A plant tour and survey of some gauge installations will be done
- Lock out procedures are part of Lehigh's Job Safety Analysis (JSA) forms. This will be reviewed.

Friday follow up on items from 11 30-95

1. Plant tour and surveys

Surveys were performed and recorded on the "No. 3 Coal Hopper", The "Chute To South Drag", and the "Surge Bin High". All installations were done several years earlier but installation surveys were not available this will correct that omission. In addition the installation of the "Roll Crusher Surge Bin" and the five "Clinker Feed Bins" were reviewed. All of the gauges are in areas that are not normally occupied. The plant general condition is very dusty and because of that some source holders are covered with dust and difficult to see. Additional signs stating "Caution Radioactive Material" are in those areas for each source holder. These signs are very visible and are mounted so dust will not collect on them. No formal surveys were done but radiation levels were measured in all areas where personal would walk. No levels above 0.3 mR/hr were measured in any easily accessible walk way. The highest levels were near the "Roll Crusher Surge Bin". Levels in this area are 0.5mR/hr. It is possible to walk very close to the source holders, the area is well marked and the source is very visible. Because of this it is extremely unlikely that any person could exceed a dose of 2 mrem in any one hour. I reviewed the general environmental condition around the gauges. All areas are very

Lehigh Portland Cement
12/1/95
Page No.2

dusty as noted above and some source holders have protective covers as required to prevent dust build-up. Some areas are hot and the detectors have been remotely mounted to protect them. Heat transfer to the source holders is unlikely because the mounts that are used, while sufficient to hold the sources, are small enough to prevent thermal transfer to the source holders in the hot areas.

2. Lock-out procedures and training

Met with Cody Hall and reviewed training records and agendas. The lock out procedures are part of the JSA form. While referring to the need for lock out and listing why the lock out is necessary the actual procedure was not included. Cody will add this to the JSA using procedures from the Ohmart Radiation Safety Manual. Installations that have access points have signs that state there are sources present and the number of sources that need to be locked out prior to entry. The RSO's name and phone number are also listed. These signs and the written procedures should be adequate to prevent unauthorized entry.

3. Review of License wording

License No.37-09813-01 Amendment 11 is the latest copy. It has expired on March 31,1995. Application for renewal and acknowledgment from the NRC has been received.

Items 1 and 2- The name of the company is correct but it appears that the listing of the address in Allentown PA is not correct due to some recent corporate changes. The license correctly list the Mitchell, Indiana plant as the site where the material is used but for clarification the address in Item 2 should be changed.

The wording of the license in sections 6,7,8,and 9 is consistent with the source inventories and material on plant. There is an error however Item 7a list an Ohmart capsule number A 2103. This is an error and should be A-2102

Item 11 list only Robert Whiteside. Cody Hall has attended the Ohmart 40 hour training class and could be added to the license for additional coverage.

Item 12 list that leak test will be done every 6 months which is the current practice. These sources have been approved for 3 year leak test cycles. Your practices could be changed if you want to. Ohmart can supply documentation if required.

Item 15 requires that a 6 month physical inventory be conducted. In discussions with Bob it has been the practice to use the six month leak test as the inventory check since the procedure for doing the leak test requires a person physically sees the source holder while I agree in principle, a note in the Radiation Safety Documentation that defines this practice should be added for clarification.

4. Radiation Safety Program

Lehigh Portland Cement
12/1/95
Page No.3

Lehigh appears to have a very good Radiation Safety program in place today but some of the records from previous years are some what incomplete. A good effort has been made by Bob Whiteside to improve the program and bring it up to date. Marge Williams of Ohmart has been working with him in this project. However 10CFR20 requires a written radiation program. Bob has suggested that a statement of that program be included in the Lehigh Corporate policy book.

Lehigh Cement Radiation Safety Program

➤ Statement of Purpose

Lehigh Portland Cement recognizes that while devices using radioactive material are necessary for the operation of the plant improper use the material can cause injury. Therefore the Radiation Safety Program shall at all time insure that all individual that work around nuclear gauges will be made aware of the presence of the material. Any exposure to individual shall be keep As Low As Reasonably Achievable. Doses to all employees shall be kept below the NRC defined limits of 2millirem per hour and 100 millirem per year.

➤ Who is in charge

The Radiation Safety Officer is responsible for this program. He will be appoint by the plant manager and listed on the NRC license.

➤ Who can use material

The material can be used by and under the supervision of the RSO. The RSO has authorized that plant electrician can do some procedures.

➤ What can they do

The plant electricians can do lock out and leak test using procedures in the JAS or radiation procedure manual

➤ Training

Training will be done by the Safety Department. List of the individual trained will be kept by the safety department. It will be part of the annual safety training.

➤ Emergency procedures

Emergency procedures are listed in the Supervisors Manual

➤ Operating procedures (wipe tests, surveys, lockout, etc.)

Operating procedures are listed in the Supervisors Manual

ohmart Corporation

December 1, 1995

Lehigh Portland Cement
Mitchell, IN

Sir:

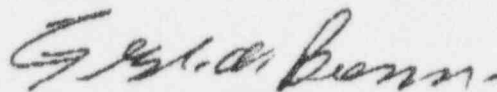
This letter verifies that Ohmart source holders that use Cesium-137 or Cobalt-60 contained in the model A-2102, A-2100, or A-5771 capsules have been approved for a leak test frequency of three years. For source holders manufactured prior to 1992 the NRC registration number is NR-522-S-178-B.

Source holders manufactured after 1991 are registered with the State of Kentucky. Those registries are numbered:

KY-512-D -101-B 1) SH-F1, (SH-1), SH-F2, (SH-2)
-102-S 2) (SHLG-1), SHLG-2, SHLG-3
-103-S 3) SHLM-B-1, 2, 3 and SHLM-C-1, 2, 3
-104-S 4) SHLM-BR-1, 2, 3, 4 and SHLM-CR-1, 2, 3, 4
-105-S 5) SHRM-BW, SHRM-B, (SHRM-PA)
-106-S 6) MDTs
-107-S 7) Moistart-5000 with SHN AND SHWA
-108-S 8) SHRD
-109-S 9) (SHD)
-110-B 10) SR-A, (SR-1A)
-111-B 11) SR-2, (SR-1)

Sincerely,

THE OHMART CORPORATION



George W. Brown
Radiation Safety Officer
Training Manager

Fax No:

REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
SAFETY EVALUATION OF DEVICE
(Amended In Its Entirety)

NO: KY-512-D-105-B

DATE: 9-22-92

PAGE: 1 OF 7

DEVICE TYPE: Source Holder

MODEL: SHRM, SHRM-PA, SHRM-2, SHRM-3, SHRM-4, SHRM-BW, SHRM-B

MANUFACTURER/DISTRIBUTOR:

Ohmart Corporation
1405 Jamike Drive
Erlanger, KY 41018

SEALED SOURCE MODEL DESIGNATION: Ohmart Corporation:

Minnesota Mining and Manufacturing Co. (4F6S)
Monsanto Research Company (24148)
Amersham Corporation (CDC.700/CDC.711m)

A-2102 Point source

Minnesota Mining and Manufacturing Co. (4F6P)
U.S. Nuclear (3285)

A-5771 Strip source

Minnesota Mining and Manufacturing Co. (4F3C)
U.S. Nuclear (3285)

A-5772 Strip source

Gamma Industries (S-10-1A)
Amersham (CKC.P1)
U.S. Nuclear (3280)

A-2100 Point source

Monsanto Research Corporation (24148)
Minnesota Mining and Manufacturing Co. (4F3D)

ISOTOPE:

MAXIMUM ACTIVITY: (See Description)

Cesium-137

100 millicuries

(A-2102)

Cesium-137

1 Curie (100 mCi/ft)

(A-5771) or (A-2102)

Cobalt-60

5 millicuries

(A-2100) (Specific License)

Cobalt-60

100 millicuries (10 mCi/ft)

(A-5772) (Specific License)

LEAK TEST FREQUENCY: 36 Months

PRINCIPAL USE: (D) Gamma Ga

CUSTOM DEVICE: ☐ YES

OPTIONAL FORM 99 (7-90)

FAX TRANSMITTAL

4/26/96

of pages

9

To	San Blackwell	From	Charles Hill/NRC
Dept./Agency	Belhugh Portland	Phone #	708/829-9814
Fax #	812/849-6045	Fax #	708/515-1259

NSN 7540-01-317-7365

5099-101

GENERAL SERVICES ADMINISTRATION

REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
SAFETY EVALUATION OF DEVICE
(Amended In Its Entirety)

NO: KY-512-D-105-B

DATE: 9-22-92

PAGE: 2 OF 7

DEVICE TYPE: Source Holder

DESCRIPTION:

The source holders are of heavy steel, welded construction and consist of a lead-filled cylindrical shutter mounted off-center. The rotary shutter contains a source tube mounted off-center such that the source is moved from the center of the device ("OFF" position) to a position tangent to the surface of the device ("ON" position) when the shutter is rotated 180°. The source is positioned within the center of the source tube with lead plugs at either end. The handle of the manually operated shutter is marked with an arrow which points to the words "ON" or "OFF" and may be held in either position by a shoulder screw. In addition, the shutter may be padlocked in the "OFF" position.

The source holder may be used in special gauge configurations by mounting on the side of a vessel or pipe or it may be used as a component of other Ohmart gauges such as the model BW. In either case, the source holder labeling must be visible to the user of the device.

All the models are similar in construction but have variations in dimensions. Each source holder may contain either a point source or a strip source depending on the overall length of the device and the purpose for which it is to be used.

The model SHRM-BW is used in weigh scale applications and the model SHRM-B is used in level gauge applications. The SHRM-BW and SHRM-B source holders were originally designed for strip source use. However, strip sources are no longer manufactured and the strip sources can be replaced with point sources and spacers between the point sources. The source holder design remains the same and can be used for strip sources from stock or multiple point sources.

Details of assembly of the point source capsules within the source tube within the SHRM-BW or SHRM-B source holder: The Cs-137 source capsules (model A-2102) are 1/2-inch diameter and 3/4-inch long. At least two source capsules are loaded into a typical weigh scale or level gauge and the maximum number of capsules depends upon the frame size for a weigh scale or the active length for a level gauge. The frame size is usually the same as the width of the conveyor. The maximum number of source capsules equals the frame size or active length divided by three (3), which spaces them three (3) inches apart. In no case does the activity exceed 100 millicuries per foot of frame size or active length.

The source tube is a 3/4-inch outside diameter stainless steel tube with 0.095-inch thick walls. A 17/32-inch diameter stainless steel plug that is 1/4-inch thick is welded in one end of the source tube. A 17/32-inch diameter lead rod that is 1-1/2-inch long is dropped into the open end of the source tube. One source capsule is then dropped into the source tube. Next, 1/2-inch diameter steel spacers are added until the position of the next source capsule is reached. The next source capsule is then dropped into the tube. When the final source capsule is added, a 17/32-inch diameter lead rod that is 1-1/2-inch long is added and tamped-down to expand inside the source tube. This tamping action seals the end of the source tube closed.

REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
SAFETY EVALUATION OF DEVICE
(Amended In Its Entirety)

NO: KY-512-D-105-B

DATE: 9-22-92

PAGE: 3 OF 7

DEVICE TYPE: Source Holder

DESCRIPTION (cont.):

Dimensions and sources for each model are given below:

<u>SOURCE HOLDER NO.</u>	<u>DIAMETER</u>	<u>LENGTH</u>	<u>Ohmart Source Model</u>	
			<u>CESIUM-137 (max)</u>	<u>COBALT-60 (max)</u>
SHRM	4"	8- $\frac{3}{4}$ "	A-2102 100 mCi A-5771 100 mCi/ft or 1 Curie total	A-2100 5 mCi A-5772 10 mCi/ft or 100 mCi total
SHRM-PA	4"	5- $\frac{1}{2}$ "	A-2102 100 mCi	A-2100 5 mCi
SHRM-2	4- $\frac{1}{4}$ "	15- $\frac{3}{4}$ "	A-5771 100 mCi/ft or 1 Curie total	A-5772 10 mCi/ft or 100 mCi total
SHRM-3	4- $\frac{1}{4}$ "	24"	A-5771 100 mCi/ft or 1 Curie total	A-5772 10 mCi/ft or 100 mCi total
SHRM-4	4- $\frac{1}{4}$ "	35- $\frac{1}{4}$ "	A-5771 100 mCi/ft or 1 Curie total	A-5772 10 mCi/ft or 100 mCi total
SHRM-BW	4- $\frac{1}{4}$ "	Variable	A-5771 100 mCi/ft A-2102 (multiple number) not to exceed 100 mCi/ft or 1 Curie total	A-5772 10 mCi/ft or 100 mCi total
SHRM-B	5"	Variable	A-5771 100 mCi/ft A-2102 (multiple number) not to exceed 100 mCi/ft or 1 Curie total	A-5772 10 mCi/ft or 100 mCi total

The SHRM-BW source holders are used in the Ohmart Model BW gauge series. The SHRM-BW is the new model designation for the Model SHRM-XX (where the XX stood for the length of the device). It is used in Weigh Scale applications.

The SHRM-B is an improved version of the SHRM-BW in that it uses a thicker wall tubing and adds a collimator as an integral part of the assembly. It is used in *Level Applications*.

REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
SAFETY EVALUATION OF DEVICE
(Amended In Its Entirety)

NO: KY-512-D-105-B

DATE: 9-22-92

PAGE: 4 OF 7

DEVICE TYPE: Source Holder

DIAGRAM:

Engineering drawings of the source holders are shown in *attachment 1 and 2*.

CONDITIONS OF NORMAL USE:

The source holders are intended for use as a component in industrial gauging application for measuring levels, density, thickness, and interface positions of substance in vessels. The source holders are designed for the following environments:

Temperature	-40°C to 115°C (-40°F to 240°F)
Pressure	Atmospheric
Vibration	Ranges zero to mild
Corrosion	Ranges zero to mildly corrosive vapors

LABELING:

The source holders contain labels which meet the requirements of 902KAR100:020 Section 12. The labels contain the radiation symbol, the words, "CAUTION-RADIOACTIVE MATERIAL", isotope, activity, model number, serial number, date of assay, and the name of the manufacturer.

When the model SHRM-BW weigh scale is distributed to general licensees, a general license label which explains regulatory responsibility is also attached.

The radiation label and the "General License" label are both made of stainless steel and are permanently attached to the source holders by screws or rivets.

EXTERNAL RADIATION LEVELS:

The manufacturer reports that a maximum radiation field intensity for a source holder containing either a 110 millicurie, Cs-137 point source or a 5 millicurie, Co-60 point source is 5 mR/hr at 12 inches from any accessible surface of the source holder with the source in the shielded position.

QUALITY ASSURANCE AND CONTROL:

The Ohmart Corporation maintains a quality assurance and control program.

REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
SAFETY EVALUATION OF DEVICE
(Amended In Its Entirety)

NO: KY-512-D-105-B

DATE: 9-22-92

PAGE: 5 OF 7

DEVICE TYPE: Source Holder

PROTOTYPE TESTING:

The source holders have been manufactured and distributed by the Ohmart Corporation under license since 1977 with no incidents of failure related to radiological safety.

LIMITATIONS AND/OR CONSIDERATION OF USE:

- The source holder shall be distributed to persons specifically licensed by the NRC or an Agreement State when labeled in accordance with 902KAR100:020 Section 12.
- When the model SHRM-BW is used as a weigh scale and labeled in accordance with 902KAR100:58 Section 3, the device shall be distributed only to persons generally licensed by the NRC or an Agreement State. In some cases, a protective barrier may be required.
- Any person is allowed to mount the device in place initially provided the shutter remains locked in the OFF position. However, all other servicing of the source and source holder shall be performed only in accordance with the terms and conditions of a specific license issued by NRC or an Agreement state.

Note _____

Only those testing and maintenance operations which are specifically stated in the license may be performed by the licensee.

- Handling, storage, use, transfer, and disposal: To be determined by the licensing authority.
- These source holders shall be leak tested at intervals not to exceed 36 months using techniques capable of detecting 0.005 microcurie of removable contamination.
- This registration sheet and the information contained within the references shall not be changed without the written consent of the Radiation Control Branch, Cabinet for Human Resources, Commonwealth of Kentucky.

REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
SAFETY EVALUATION OF DEVICE
(Amended In Its Entirety)

NO: KY-512-D-105-B

DATE: 9-22-92

PAGE: 6 OF 7

DEVICE TYPE: Source Holder

SAFETY ANALYSIS SUMMARY:

Based on our review of Ohmart Corporation's source holders and the information and test data cited, we continue to conclude that the source holders are acceptable for licensing purposes.

Furthermore, we continue to conclude that the source holders would be expected to maintain their containment integrity for normal conditions of use and accidental conditions which might occur during uses specified in this certificate.

Based on our review of the information and test data submitted and the interpretation of the regulations and the devices intrinsic safety features, we conclude that the SHRM-BW model when used as a weigh scale gauge is acceptable for distribution to persons who are generally licensed. The manufacturer has submitted data to demonstrate that:

- (i) Under ordinary conditions of handling, storage, and use of the device, the byproduct material contained in the device will not be released or inadvertently removed from the device, and it is unlikely that any person will receive in any period of one calendar quarter a dose in excess of 10 percent of the limits specified in the table in 902KAR100:020 Section 2.
- (ii) Under accident conditions (such as fire and explosion) associated with handling, storage, and use of the device, it is unlikely that any person would receive external radiation dose of dose commitment in excess of the dose to the appropriate organ as specified in the following table:

<u>Part of Body</u>	<u>Rem</u>
Whole body, head and trunk, active blood - forming organs; gonads; or lens of eye	15
Hands and forearms; feet and ankles; localized areas of skin average over areas no larger than 1 square centimeter	200
Other organs	50

REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
SAFETY EVALUATION OF DEVICE
(Amended In Its Entirety)

NO: KY-512-D-105-B

DATE: 9-22-92

PAGE: 7 OF 7

DEVICE TYPE: Source Holder

REFERENCE:

The following supporting documents for the model SHRM series are hereby incorporated by reference and are made a part of this registry document:

- Ohmart Corporation's letter dated September 6, 1991.
- Ohmart Corporation's letter dated February 19, 1992.
- Ohmart Corporation's letter dated June 11, 1992 and August 14, 1992.

ISSUING AGENCY:

Radiation Control Branch, Cabinet for Human Resources, Commonwealth of Kentucky.

DATE: 9/22/92

REVIEWER: Vicki D. Jeffs

DATE: 9/23/92

CONCURRENCE: H. A. Voge, Ph.D.

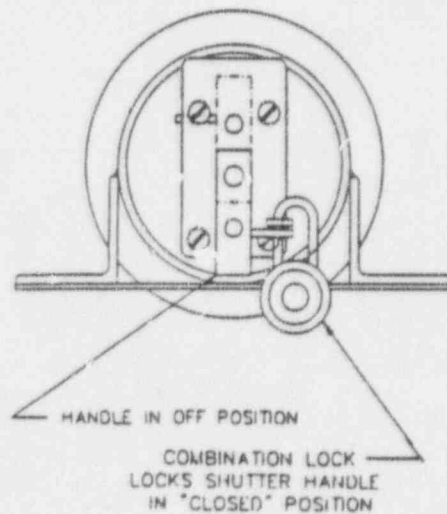
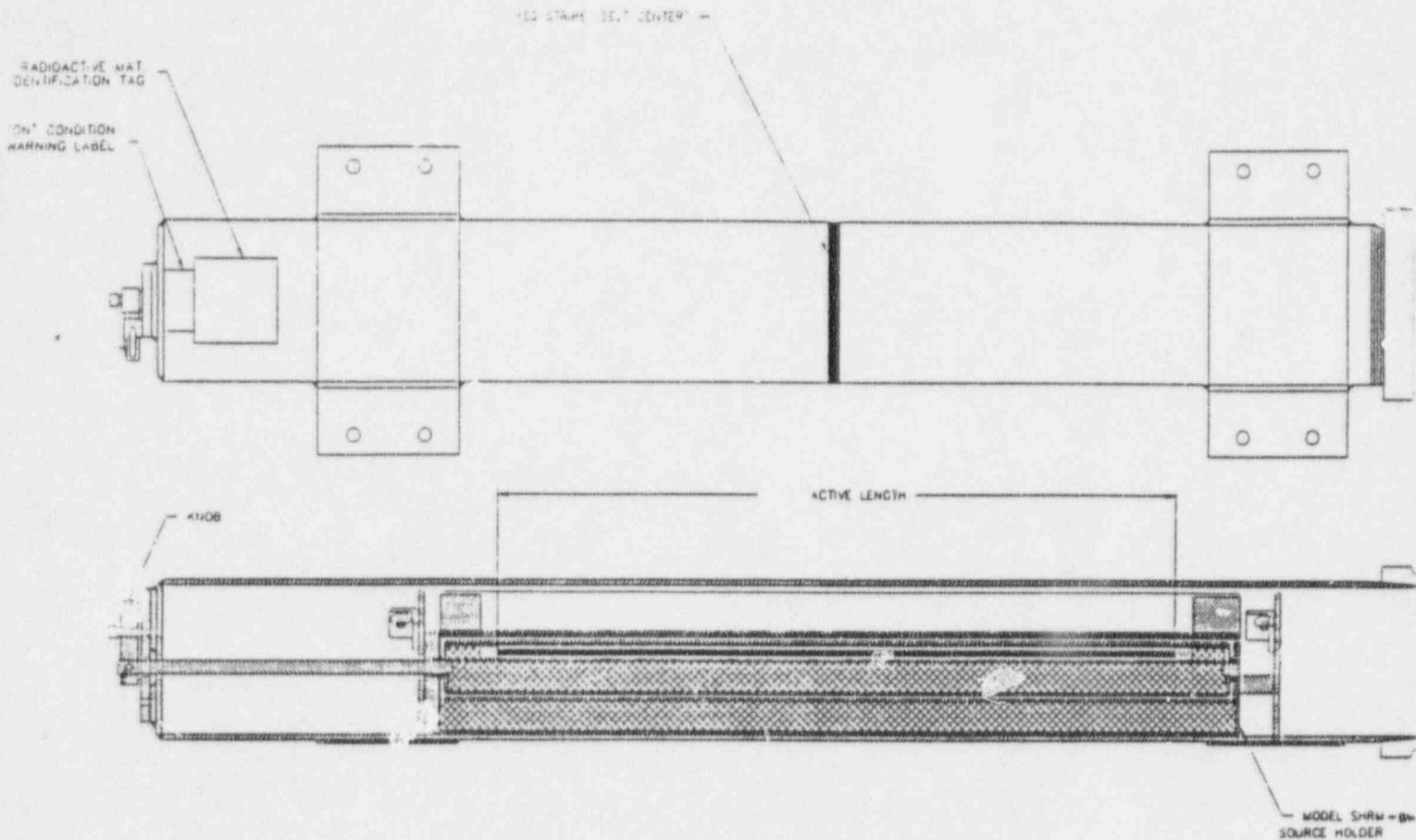
REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
SAFETY EVALUATION OF DEVICE

(AMENDED IN ITS ENTIRETY)

NO: KY-512-D-105-B

DATE: September 22, 1992

ATTACHMENT: 1



REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES SAFETY EVALUATION OF DEVICE

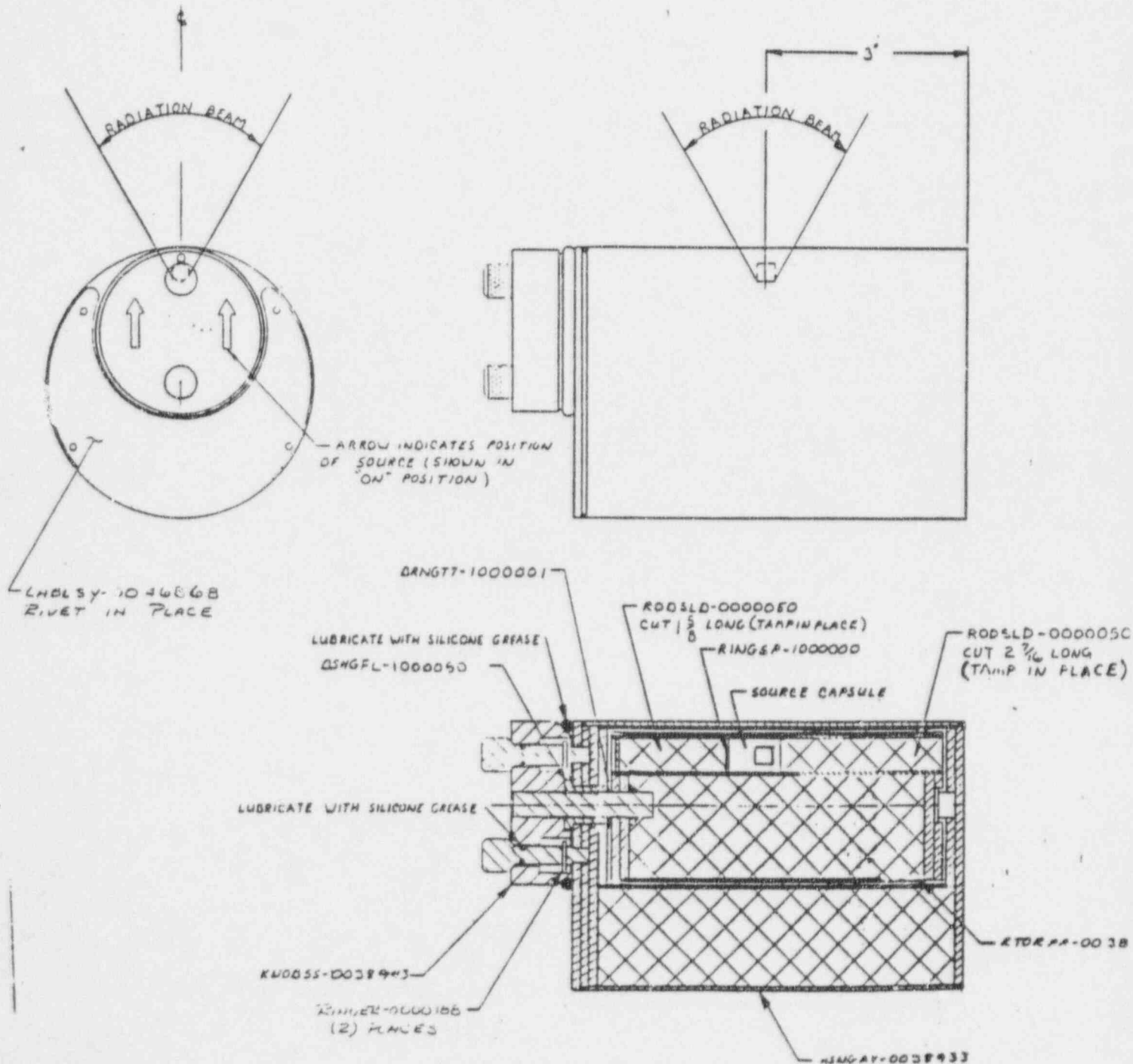
(AMENDED IN ITS ENTIRETY)

NO: KY-512-D-105-B

DATE: September 22, 1992

ATTACHMENT: 2

SHRM-PA



February 8, 1995

Lehigh Portland Cement Company
ATTN: Robert F. Whiteside
Radiation Safety Officer
7660 Imperial Way
Allentown, PA 18195

SUBJECT: LICENSE RENEWAL APPLICATION

Dear Mr. Whiteside:

This is to acknowledge receipt of your application for renewal of the material(s) license identified above. Your application is deemed timely filed, and accordingly, the license will not expire until final action has been taken by this office.

Any correspondence regarding the renewal application should reference the control number specified and your license number.

Sincerely,

Original Signed By
Marianne Meenan, Chief
Nuclear Materials Support Section

License No.: 37-09813-01
Control No.: 98120

DOCUMENT NAME: M:\03006215.DT5

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NAME	MMEENAN:jaw mm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
DATE	02/8/95	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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