

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, 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 and 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.

Licensee		In accordance with application dated August 20, 1991
1. Stone Container Corporation		3. License number 25-26842-01 is amended in its entirety to read as follows:
2. Drawer D Missoula, Montana 59806		4. Expiration date January 31, 1998
		5. Docket or Reference No 030-29369
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 sources	A. See Item 9.A.
B. Krypton-85	B. Sealed sources (Accuracy Model S-11)	B. Not to exceed 500 millicuries per source

9. Authorized use

- A. For possession and use of ⁶⁰Co-Ray, Ohmart, Texas Nuclear, and AccuRay devices which have been evaluated and approved for licensing purposes and authorized for distribution under a license issued by the Nuclear Regulatory Commission or an Agreement State.
- B. For use in Accuray gauges to perform weight measurements.

CONDITIONS

- 10. Licensed material shall be used only at Stone Container Corporation Plant Site located on Mullan Road 10 miles west of Missoula, Montana.
- 11. A. Licensed material shall be used by, or under the supervision of, David M. Palmer.
B. The Radiation Safety Officer for this license is David M. Palmer.
- 12. Sealed sources containing licensed material shall not be opened or sources removed from source housings by the licensee.

250050

**MATERIALS LICENSE
SUPPLEMENTARY SHEET**

License number
25-26842-01

Docket or Reference number
030-29369

Amendment No. 03

13. A. Each gauge shall be tested for leakage or radioactive material at no longer than 6-month intervals or at such longer intervals not to exceed 3 years as are provided in the license of the gauge manufacturer and communicated in writing to the licensee by the manufacturer; however,

Gauges containing only krypton-85 need not be tested for leakage of radioactive material,

- (2) Gauges containing only tritium, not more than 100 microcuries of other beta and/or gamma emitting material, or not more than 10 microcuries of alpha emitting material, and gauges held in storage in the original shipping container prior to initial installation need not be tested for any purpose, and
- (3) In the absence of a certificate from a transferor indicating that a test has been made within 6 months prior to the transfer, a gauge (or a replacement sealed source for the gauge) received from another person shall not be put into use until tested.

- B. Any source in storage and not being used need not be tested. When the source is removed from storage for use or transfer to another person, it shall be tested before use or transfer.

- C. The 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, the gauge shall be removed from service and decontaminated, repaired, or disposed of in accordance with Commission regulations. A report shall be filed within 5 days of the date the leak test result is known with the U.S. Nuclear Regulatory Commission, Region IV, 611 Ryan Plaza Drive, Suite 1000, Arlington, Texas 76011, ATTN: Director, Division of Radiation Safety and Safeguards. The report shall specify the source involved, the test results, and corrective action taken. Records of leak test results shall be kept in units of microcuries and shall be maintained for inspection by the Commission. Records may be disposed of following Commission inspection.

- D. The licensee is authorized to collect leak test samples for analysis by Health Physics Northwest, or tests for leakage and/or contamination shall be performed by persons specifically licensed by the Commission or an Agreement State to perform such services.

14. 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, not to exceed 3 years, and at the same interval as the leak test specified in Condition 13.A.

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License number
25-26842-01

Docket or Reference number
030-29369

Amendment No. 03

15. Installation, initial radiation survey, relocation, or removal from service of devices containing sealed sources shall be performed only by David M. Palmer, Lon M. Schroeder, or by persons specifically licensed by the Commission or an Agreement State to perform such services. Maintenance and repair of gauges and 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.
16. The licensee shall conduct a physical inventory every 6 months to account for all devices received and possessed under the license. The records of the inventories shall be maintained for 3 years from the date of the inventory for inspection by the Commission, and shall include the quantities and kinds of byproduct material, manufacturer's name and model numbers, location of the devices and the date of the inventory.
17. 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.
18. The licensee shall maintain records of information important to safe and effective decommissioning at the licensee's facility described in Condition 10 per the provision of 10 CFR 30.35(g) until this license is terminated by the Commission.
19. 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 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 August 20, 1991

Date DEC 28 1992

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

By

Nuclear Materials Licensing Section
Region IV
Arlington, Texas 76011



UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION IV

611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TEXAS 76011-8064

DEC 28 1992

Stone Container Corporation
Drawer D
Missoula, Montana 59806

Gentlemen:

Please find enclosed Amendment No. 03 renewing your NRC material license. You should review this amendment carefully and be sure that you understand all conditions. If you have any questions, you may contact the reviewer who signed your license amendment at 817/860-8100.

Condition 18 has been included in your license to require that you maintain records specific to the safe and effective decommissioning of facilities under the purview of this license. Records are to be maintained at the licensee's facility as described in Condition 10. These records should contain the identification of areas or locations where contamination remains after cleanup procedures have been implemented or at locations in which there is a likelihood that contamination may have spread to inaccessible sites. These documents must identify spills or other unusual occurrences involving the spread of contamination in and around equipment, facilities, or sites; include "as-built" drawings and outline modifications of structures and equipment in restricted areas where radioactive materials are used and/or stored; identify specific locations of possible inaccessible contamination such as buried pipes, concrete in existing physical plant structures (floor, walls, ceilings), and storage vaults; and provide information relative to the identification, quantity, chemical or physical form, and concentration of nuclides involved in contaminating incidents.

Please be advised that you must conduct your program involving radioactive 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:

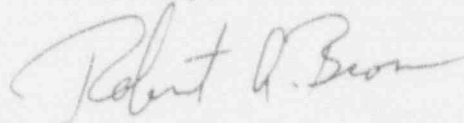
1. Operate in accordance with NRC regulations 10 CFR Part 19, "Notices, Instructions and Reports to Workers: Inspection and Investigations," 10 CFR Part 20, "Standards for Protection Against Radiation," and other applicable regulations.
2. Possess radioactive material only in the quantity and form indicated in your license.
3. Use radioactive material only for the purpose(s) indicated in your license.
4. Notify NRC in writing of any change in mailing address (no fee required if the location of radioactive material remains the same).

5. Request and obtain written NRC consent before transferring your license or any right thereunder, either voluntarily or involuntarily, directly or indirectly, through transfer of control of your license to any person or entity. A transfer of control of your license includes not only a total change of ownership, but also a change in the controlling interest in your company whether it is a corporation, partnership, or other entity. In addition, appropriate license amendments must be requested and obtained for any other planned changes in your facility or program that are contrary to your license or contrary to representations made in your license application, as well as supplemental correspondence thereto, which are incorporated into your license. A license fee may be charged for the amendments if you are not in a fee-exempt category.
6. Submit a complete renewal application with proper fee, or termination request at least 30 days before the expiration date on your license. You will receive a reminder notice approximately 90 days before the expiration date. Possession of radioactive material after your license expires is a violation of NRC regulations.
7. Request termination of your license if you plan to permanently discontinue activities involving radioactive material.

You will be periodically inspected by NRC. A fee may be charged for inspections in accordance with 10 CFR Part 170. 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; 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 Action, 10 CFR Part 2, Appendix C. 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 the NRC expects of its licensees.

Thank you for your cooperation.

Sincerely,



Robert A. Brown
Nuclear Materials Licensing Section

Enclosure:
As stated

RIV:NMES	NMES			
RABrown	JEWhitten			
12/2/92	12/18/92			

NOV 21 1991

Stone Container Corporation
ATTN: David M. Palmer
Drawer D
Missoula, Montana 59806

Docket No. 030-29369
License No. 25-26842-01
Control No. 463841

Gentlemen:

This is to acknowledge receipt of your application for renewal of the byproduct material 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
Billie Gruszynski

Billie Gruszynski (Ms.)
Nuclear Materials Licensing Section

RIV:NMLS *AG*
BGruszynski:jk
11/2V91

(FOR LFMS USE)
INFORMATION FROM LTS

BETWEEN:

LICENSE FEE MANAGEMENT BRANCH, ARM
AND
REGIONAL LICENSING SECTIONS

PROGRAM CODE: 03120
STATUS CODE: 2
FEE CATEGORY: 3P
EXP. DATE: 19910930
FEE COMMENTS:
DECOM FIN ASSUR REQD: N

LICENSE FEE TRANSMITTAL

A. REGION

1. APPLICATION ATTACHED
APPLICANT/LICENSEE: STONE CONTAINER CORP.
RECEIVED DATE: 910826
DOCKET NO: 3029369
CONTROL NO.: 463841
LICENSE NO.: 25-26842-01
ACTION TYPE: RENEWAL

SEP 13 1991

2. FEE ATTACHED
AMOUNT: 500
CHECK NO.: 99501

3. COMMENTS

SIGNED
DATE

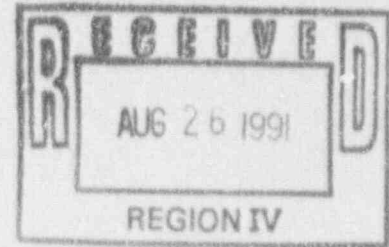
B. LICENSE FEE MANAGEMENT BRANCH (CHECK WHEN MILESTONE 03 IS ENTERED ☒)

1. FEE CATEGORY AND AMOUNT: 3P \$ 500
2. CORRECT FEE PAID. APPLICATION MAY BE PROCESSED FOR:
AMENDMENT _____
RENEWAL ✓
LICENSE _____

3. OTHER _____

SIGNED
DATE

Jim Calvez
9/11/91



Stone Container Corporation
Missoula Mill
Containerboard and Paper Division

August 19, 1991

Mr. Jack Whitten
Nuclear Regulatory Commission
Region IV Material Protection Section
611 Ryan Plaza Drive, Suite 1000
Arlington, Texas 76011

Dear Mr. Whitten:

Enclosed is the NRC Form 313, Application for Material License.
Also enclosed is the license fee of \$500.00

David M. Palmer

David M. Palmer
Instrument Foreman

appd ltr 8/20/91

4 6 3 8 4 1

APPLICATION FOR MATERIAL LICENSE

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.

APPLICATIONS FOR DISTRIBUTION OF EXEMPT PRODUCTS FILE APPLICATIONS WITH:

U.S. NUCLEAR REGULATORY COMMISSION
DIVISION OF INDUSTRIAL AND MEDICAL NUCLEAR SAFETY, NMSS
WASHINGTON, DC 20555

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:

U.S. NUCLEAR REGULATORY COMMISSION, REGION I
NUCLEAR MATERIALS SAFETY SECTION 8
475 ALLENDALE ROAD
KING OF PRUSSIA, PA 19406

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

U.S. NUCLEAR REGULATORY COMMISSION, REGION II
NUCLEAR MATERIALS SAFETY SECTION
101 MARIETTA STREET, SUITE 2900
ATLANTA, GA 30321

IF YOU ARE LOCATED IN:

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

U.S. NUCLEAR REGULATORY COMMISSION, REGION III
MATERIALS LICENSING SECTION
799 ROOSEVELT ROAD
GLEN ELLYN, IL 60137

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

U.S. NUCLEAR REGULATORY COMMISSION, REGION IV
MATERIAL RADIATION PROTECTION SECTION
611 RYAN PLAZA DRIVE, SUITE 1000
ARLINGTON, TX 76011

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

U.S. NUCLEAR REGULATORY COMMISSION, REGION V
NUCLEAR MATERIALS SAFETY SECTION
1400 MARIA LANE, SUITE 210
WALNUT CREEK, CA 94696

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 JURISDICTION.

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

☐ A. NEW LICENSE

☐ B. AMENDMENT TO LICENSE NUMBER

☒ C. RENEWAL OF LICENSE NUMBER 25-26842-01

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

Stone Container Corporation
Drawer D
Missoula, MT. 59806

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

Stone Container Corporation
Mullan Road
Missoula, MT. 59806

4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION

David M. Palmer

TELEPHONE NUMBER

406-626-4451

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 AND 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 3.P.

AMOUNT ENCLOSED \$ 500.00

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, AND 40 AND THAT ALL INFORMATION CONTAINED HEREIN, IS TRUE AND CORRECT TO THE BEST OF THEIR KNOWLEDGE AND BELIEF.

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

SIGNATURE - CERTIFYING OFFICER

TYPE/O/PRINTED NAME

TITLE

DATE

W. J. Kohl

William J. Kohl

Chief Engineer

8/20/91

FOR NRC USE ONLY

TYPE OF FEE

FEE LOC

FEE CATEGORY

COMMENTS

REN

Aug 13 1991

3P

AMOUNT RECEIVED

CHECK NUMBER

6500

79351

APPROVED BY

463841



Stone Container Corporation

Containerboard and Paper Division

Missoula Mill

Mullan Road
Drawer D
Missoula, Montana 59806

406 626-4451

NRC FORM - 313 - ITEM 5

MATERIAL TO BE POSSESSED

-- ALL SEALED SOURCES --

<u>Manufacturer</u>	<u>Isotope</u>	<u>Source Model Number</u>	<u>Amount Possessed</u>	
			<u>mCi/Source</u>	<u>Total mCi</u>
AccuRay Corp. (formerly Industrial Nucleonics)	Cesium-137	S-6(SH-352)	500	500
	Krypton-85	U-2	500	500
	Krypton-85	U-7	250	750
Kay-Ray Inc.	Cesium-137	7062-P	10	40
	Cesium-137	7062	100	400
	Cesium-137	7062-P	100	400
	Cesium-137	7063	500	2,000
	Cesium-137	7063-P	2,000	18,000
	Cesium-137	7063	200	600
Ohmart Inc.	Cesium-137	SRI-A-2102	150	1,800
	Cesium-137	HM-B-A-2102	100	700
	Cesium-137	BWV-30-SHRM	500	1,000
	Cesium-137	SHRM	35	70
	Cesium-137	HG-CS-1000-SHRM-A	1,000	2,000
	Cesium-137	A-5776	0.5	0.5
	Cesium-137	SR-A	50	200
Texas Nuclear	Cesium-137	5193	1,000	2,000
	Cesium-137	PNF	100	300



Stone Container Corporation
Missoula Mill
Containerboard and Paper Division

NRC FORM 313 - ITEM 6

PURPOSE FOR USE OF SEALED SOURCE/DEVICE

1. measure paper moisture
2. measure wood chip levels
3. measure wood chip weight
4. measure liquid level
5. measure lime mud density
6. measure chemical density
7. measure paper weight
8. measure coke level



Stone Container Corporation
Missoula Mill
Containerboard and Paper Division

August 19, 1991

NRC FORM 313 - ITEM 7

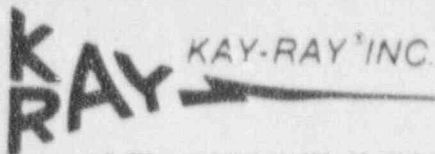
INDIVIDUAL RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND
THEIR TRAINING

DAVID M. PALMER Maintenance Foreman

Eighteen years experience with nuclear gauging devices at present location.

Training received by individual manufacturers at installation of specific gauging devices.

Responsibility: Ensure compliance with radiation program.
Formal training from Kay-Ray, Inc. February 17, 1989. See attached copy of Certificate of Training.



INDUSTRIAL PROCESS CONTROL EQUIPMENT

390 Holbrook Drive • Wheeling, IL 60090 • (312) 520-1100 • TELEX: 281-085 • CABLE: KAYRAY • FAX: (312) 520-1101

CERTIFICATION OF TRAINING

Name: David M. Palmer

Company: Stone Container Corporation

The above named individual has successfully completed the INSTALLATION AND NUCLEAR RADIATION SAFETY COURSE offered by Kay-Ray, Inc., consisting of the following curriculum:

- Principles and practices of radiation protection
- Monitoring radiation levels using Geiger counters
- Radiation exposure limits
- Radiation areas defined
- Calculating radiation levels from known gamma source size and distance
- Calculating dose rates of typical installation
- Leak testing Kay-Ray source housings
- Safety practices required for the use and handling of Kay-Ray source housings
- Installation of source housings demonstration and hands-on installation

The training course also includes discussions on practical applications, installations, leak testing procedures, radiation surveys, and completion of related forms.

Certified on Equipment Models: 7050, 7050B, 7051, 7051B, 7052, 7054, 7062, 7062B, 7062BP, 7062H, 7062P, 7062PH, 7063, 7063S, 7063P, 7063PS, 7063PH, 7064, 7064P, 7067, 7067P, 7069, 7069P, 7080, 7100A, 7100B, 7100CT, 7100CT, 7102, 7103, 7104, 7105, 7106, 7107, and 7108.

Instructor: James C. Bach

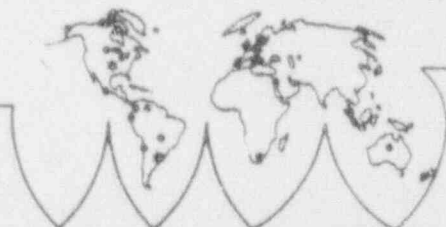
Date: February 17, 1989

Donald R. Freeman
National Service Manager

463841

WORLDWIDE SALES AND SERVICE OFFICES:

Africa • Argentina • Australia • Benelux • Brazil • Canada • Chile • Colombia • France
Germany • Indonesia • Italy • Japan • Mexico • New Zealand • Peru • Scandinavia • Spain
South Africa • United Kingdom • Venezuela



TRAINING CERTIFICATE

This certifies that

David M. Palmer

has successfully completed factory training in:

Installation and Nuclear Radiation
Safety

In accordance with this specific program
this Certificate is issued:

February 17, 1989

David Freeman

**K
RAY** KAY-RAY"INC.
INDUSTRIAL PROCESS CONTROL EQUIPMENT



Stone Container Corporation

Containerboard and Paper Division

Missoula Mill

Mullan Road
Drawe, D
Missoula, Montana 59806

406 626-4451

NRC FORM 313 - ITEM 8

TRAINING PROVIDED TO OTHER USERS

Adjustment of gauge sensing electronics is performed by Maintenance employees at this facility. These individuals have been trained by the respective nuclear gauging manufacturers at the time of installation of each specific device. This training included instruction in the operation and use of each device.

In addition, each person not familiar with the equipment is trained by a responsible individual named in the license as to operation and use of the device prior to being requested to adjust equipment electronics.

Further training will be given by a licensed individual to Instrument Technicians on how to perform wipe tests. This training will cover procedure for performing device leak testing. These employees will be instructed to perform wipe tests using the procedure outlined in Item 10, part 4 "DEVICE LEAK TESTING."

All operations personnel frequenting usage areas have been trained as to use and safety of gauging devices located in their respective areas by personnel from the operations or safety departments.



Stone Container Corporation
Missoula Mill
Containerboard and Paper Division

August 19, 1991

NRC FORM 313 - ITEM 9

FACILITIES AND EQUIPMENT

1. Nuclear Level Detection Systems:

The typical installation setup for level detection systems is shown on Stone Container Corporation sketch number SK-11131. The gauging systems are generally mounted on the side walls of closed vessels; ambient conditions do not exceed 150 F, have little or no vibration, are not a corrosive atmosphere, and the units do not require auxiliary cooling systems. Installations fall within the application criteria of the manufacturer.

2. Nuclear chemical Density Gauging Systems:

The typical installation setup for density gauging systems is shown on Stone Container Corporation sketch number SK-11132. The gauging systems are generally mounted on process piping; ambient conditions do not exceed 150 F, have little or no vibration, are not a corrosive atmosphere, and the units do not require auxiliary cooling systems. Installations fall within the application criteria of the manufacturer.

3. Nuclear Paper Weight Gauging Systems:

The typical installation for paper weight gauging systems is shown on Stone Container Corporation sketch number SF-11133. The gauging systems are generally mounted in fixtures designed to traverse a moving web and generate readings while scanning the web. Ambient conditions do not exceed 150 F, have little or no vibration, are not a corrosive atmosphere, and the units do not require auxiliary cooling systems. Installations fall within the application criteria of the manufacturer.

4. Nuclear Conveyor Belt Scale Systems:

The typical installation for conveyor belt scale systems is shown on Stone Container Corporation sketch number SK-11134. The systems are generally mounted in suspension above and below a conveyor belt; ambient conditions do not exceed 150 F, have little or no vibration, are not a corrosive atmosphere, and the units do not require auxiliary cooling systems. Installations fall within the application criteria of the manufacturer.

5. Maintenance of Nuclear Gauging Systems:

The initial radiation survey, servicing and repair of the source housings will be performed by the system manufacturer. Troubleshooting and corrective maintenance of system electronics will be performed by trained plant technicians. Additionally, a routine preventive maintenance program is in effect that accomplishes semi-annual checks of each gauge relating to:

- a. ambient conditions
- b. proper legibility and visibility of radiation labels
- c. gauge condition and serviceability
- d. shutter operation

6. Emergency Procedures:

In the event of an accident resulting in damage to a gauge, the following responsible person shall be notified:

David M. Palmer (406)549-1209

The attached procedure will be followed after the above notification.

ITEM 9.

6. EMERGENCY PROCEDURE TO BE FOLLOWED AFTER
DAMAGE TO SOURCE HOUSING

1. This procedure applies to all instances where damage is incurred by the source holder due to such action as fire, etc.,.
2. Immediately rope off the area around the source holder. Use the following formula to determine the rope off radius in feet.

$$\begin{array}{ll} \text{For Cesium 137,} & R = 0.84 \sqrt{A} \\ \text{For Cobalt 60,} & R = 1.69 \sqrt{A} \\ \text{For Americium Beryllium 241,} & R = 0.22 \sqrt{A} \end{array}$$

where A = activity in millicuries (mCi)
and R = rope-off radius in feet (ft.)

For example: if you have a 100 mCi Cs137 source,
 $R = (0.84) \sqrt{(100)} = 8.4 \text{ ft. radius}$

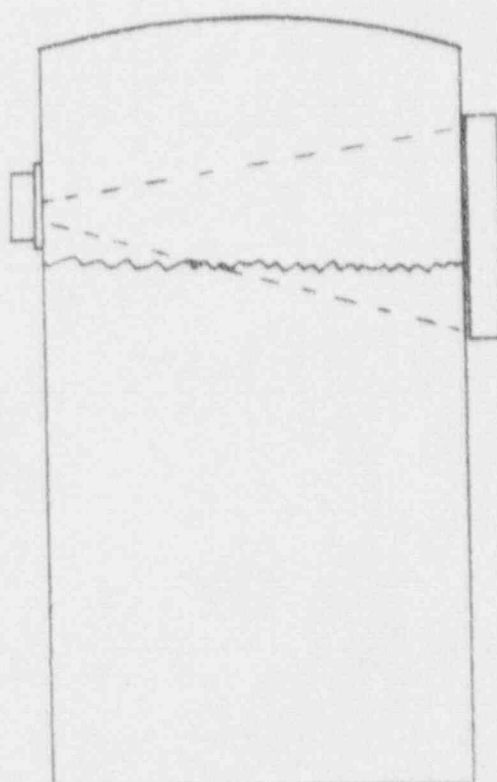
3. Inform Plant Radiation Protection Officer or person responsible for the use of the source as to the situation.
4. Inform by phone or telegram the proper Regional NRC office of the accident.
5. Notify appropriate gauging system manufacturer if their assistance is desired.
6. Limit access to source housing until a radiation survey and source wipe can be performed by a qualified personnel or a representative.

ROPE-OFF RADIUS, FT.

Activity, mCi	Cs137	Co60	Am241Be
1	1	--	----
5	2	--	----
10	3	--	----
25	4 1/2	8 1/2	----
50	6	12	----
100	8 1/2	17	----
200	12	24	----
500	19	38	5
1000	27	54	7
2000	38	76	10
3000	46 1/2	93	----
5000	60	--	----
10000	84 1/2	--	----

RADIOACTIVE SOURCE
FOR LEVEL GAUGING
SYSTEM

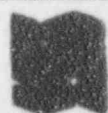
SIDE WALLS GENERALLY
OF STEEL CONSTRUCTION,
MAY OR MAY NOT BE
INSULATED



RADIATION DETECTOR

DETECTOR
SIGNAL PROCESSING
AND MEASUREMENT
TRANSMITTER
ELECTRONICS

VESSEL LEVEL MEASUREMENT
SHOWN; SAME GENERAL ARRANGEMENT
APPLIES TO BINS, CHUTES, SILO, ETC.



**STONE CONTAINER
CORPORATION**
Missoula Mill

TYPICAL NUCLEAR LEVEL DETECTOR

SCALE <i>NONE</i>	DATE <i>7/3/86</i>	DRAWING NO.	REV
DR. BY <i>DJV</i>	PROJ. NO. <i>-</i>	<i>SK-11131</i>	<i>Δ</i>

RADIATION SOURCE
FOR CHEMICAL DENSITY
GAUGING SYSTEM

RADIATION
DETECTOR

DETECTOR SIGNAL
PROCESSING ELECTRONICS
AND MEASUREMENT
TRANSMITTER



STONE CONTAINER
CORPORATION
Missoula, MT

TYPICAL CHEMICAL DENSITY SYSTEM

SCALE NONE

DATE 7/7/86

DRAWING NO.

SK-11132

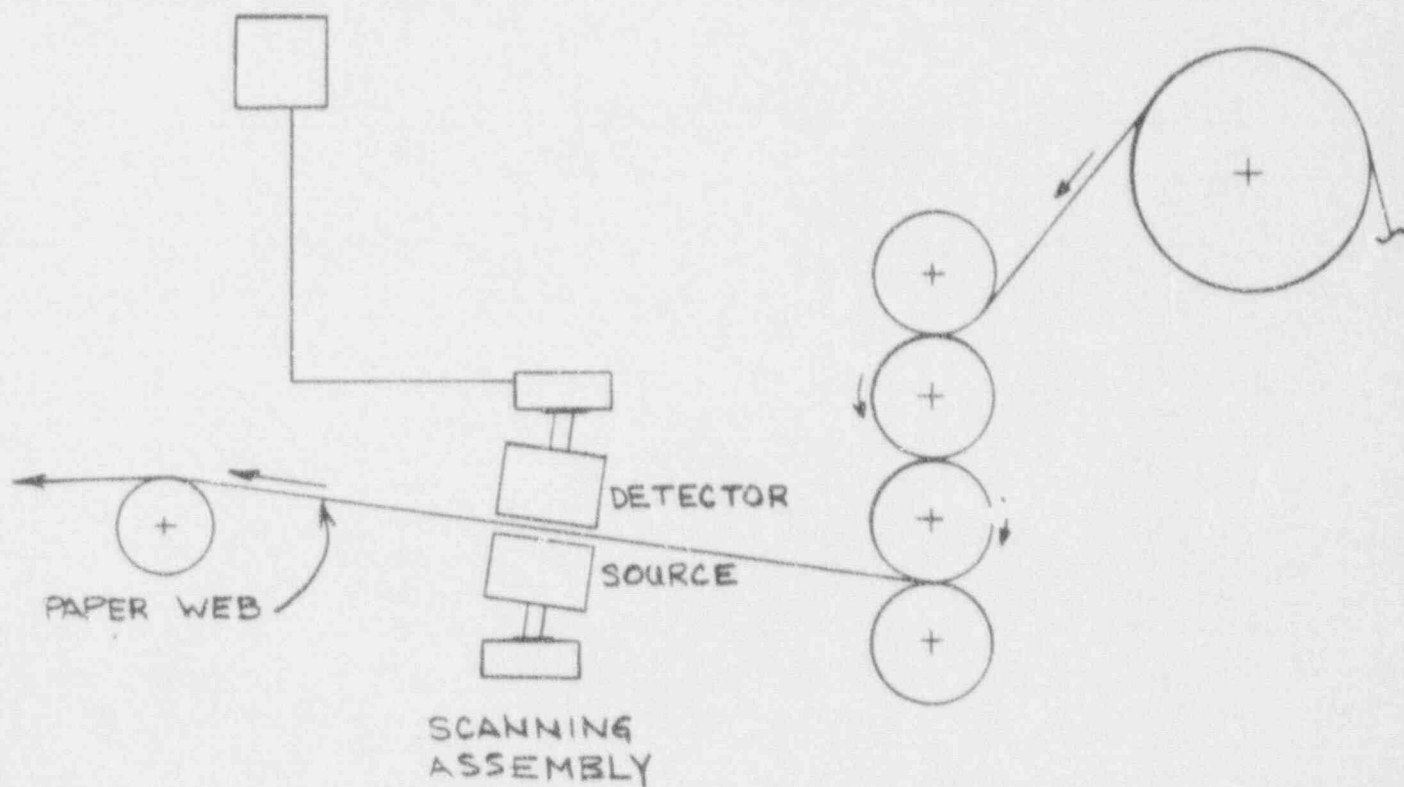
DR. BY DJV

PROJ. NO. -

REV

△

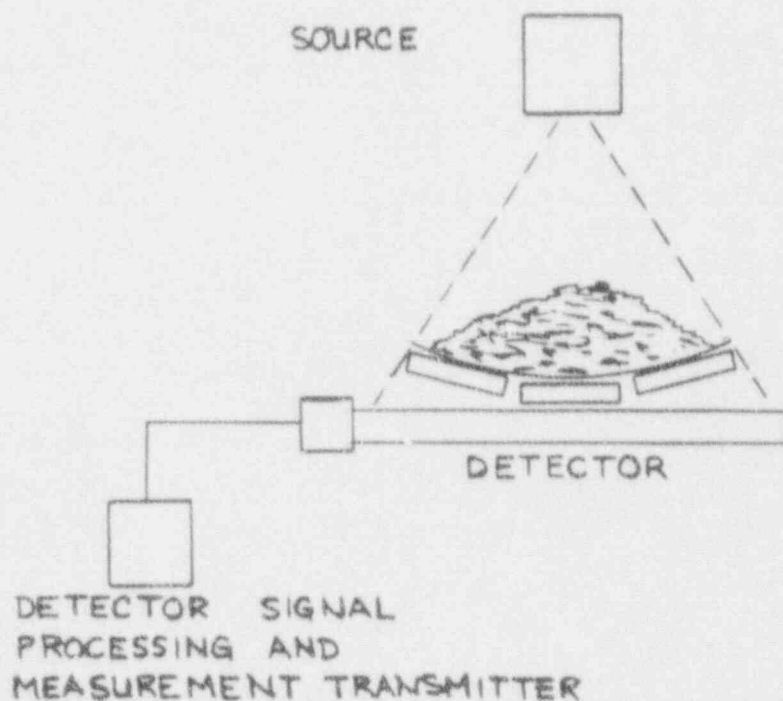
RADIATION DETECTOR
SIGNAL PROCESSING AND
COMPUTER SYSTEM



STONE CONTAINER
CORPORATION
Missoula Mill

TYPICAL PAPER WEIGHT SYSTEM

SCALE NONE	DATE 7/7/86	DRAWING NO.	REV
DR. BY DJV	PROJ. NO. -	SK-11133	Δ



**STONE CONTAINER
CORPORATION**
Missouri Mill

TYPICAL BELT SCALE SYSTEM

SCALE NONE

DATE 7/7/86

DRAWING NO

DR BY DJV

PROJ NO. —

SK-11134

REV





Stone Container Corporation
Missoula Mill
Containerboard and Paper Division

August 19, 1991

NRC FORM 313 - ITEM 10

RADIATION SAFETY PROGRAM

1. Performance of Service Operations by Others:

The installation, start-up, and initial radiation survey of gauging systems generally will be done following the recommendations and supervision of the system manufacturer and/or distributor. On occasion, the initial radiation survey may be performed by the manufacturer. Maintenance and/or repair of the source holder and sealed source will be done by the manufacturer.

2. Personnel Monitoring Equipment:

A routine monitoring program is not required because shutters on the sealed sources will be closed and locked prior any installation, relocation, or maintenance activities. Therefore, radiation fields and dosage rates will not exceed the requirements specified in NRC Rules and Regulations part 20.202 Para 2 and 3.

3. Radiation Detection Instruments:

A Geiger-Muller (G-M) tube survey meter is on site and available for use in surveys necessary for installation, monitoring, and relocation of gauging applications. The unit description is:

Manufacturer: EON Corporation

Model No. : PSM-700

Ranges 0.5; 5.0, and 50.0 mR/hr, full scale

Calibration of the instrument is performed at 12 month intervals by Health Physics Northwest, Tigard, OR.

4. Device Leak Testing:

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It is requested that the license be worded to permit a three-year source wipe interval to reflect extensions granted to manufacturers of the devices at this site. Leak testing will be performed by David M. Palmer pursuant to the

information contained in Part 7. Wipe kits will be obtained from Health Physics Northwest, 11535 S.W. 67th, Tigard, OR. 97223. Swabs will be returned to Health Physics Northwest for analysis and reporting. The leak test will proceed as follows:

Procedure for Wiping Source Holders (Licensed Personnel Only)

1. Following the instructions of the source wipe kit, prepare the cotton swab for testing.
2. Take cotton swab and wipe around all weldments of the source holder, source shutter, position handle, and all other corners and edges of the device.
3. Record the information requested on the back of the source wipe kit.
4. Return source wipe kit to Health Physics Northwest.
5. Health Physics Northwest will process the source wipe kit upon receipt.
6. Wipe test certificate will be forwarded to the customer for his records.

5. Lock-out Procedures:

Gauging systems as referred to in this application rarely require a lock-out procedure. In the case of level detectors on bins and chutes, if maintenance is required inside, a warning sign will be placed at all entrances prohibiting access without first contacting the Radiation Protection Officer. In the case of density, weight and belt scale applications, no special precautions because of the inherent shields and narrowly collimated beams used in the device design. For functions of the Radiation Safety Officer, see Item 7 - Responsible Individual:

David M. Palmer

6. Performance of Services:

The purpose of this application is to obtain licensing for the possession and use of radioactive materials in sealed sources for various industrial process control applications. In addition, licensing is requested to allow the individual in Item 7 (specifically David M. Palmer) to perform the following functions:

- a.) installation and relocation
- b.) radiation survey
- c.) leak testing
- d.) packaging for shipment and return to manufacturer

The above functions will be performed on various manufacturers' source housings and carried out within the guidelines of NRC Regulations and the manufacturers' recommendations. Training of users of the licensed gauging systems will be done by the appropriate manufacturer; no such training will be done by the "Responsible Individuals" in Item 7.

Service may be performed on any of the specific devices listed below:

<u>Manufacturer</u>	<u>Source Model Number</u>
AccuRay Corp. (formerly Industrial Nucleonics)	S-6 (SH-352) U-2 U-7
Kay-Ray Inc.	7062 7062-P 7063 7063-P 7100-B
Measurex Sys, Inc.	NER-586
Ohmart Inc.	SR1-A-2102 HM-8-A-2102 BWV-30-SHRM SHRM HG-CS-1000-SHRH-A
Texas Nuclear	5193

Procedures to be followed for servicing are as follows:

A. Procedure for Relocating of Source Head

The following procedure should be used whenever the source housing is to be removed for relocation or maintenance.

1. Lock source housing in the "store" position.
2. Check the radiation around the housing to assure that the source shutter is properly locked in the "store" position.
3. Remove the source housing (licensed personnel only).
4. After maintenance is complete, or after transfer to a new location, mount source housing at the new location.

5. Source can now be unlocked for operation.
6. Perform a new radiation survey on the source head following the procedure for performing radiation survey and source wipe.

B. Procedure for Performing Radiation Survey

This procedure must be followed before the gauge can be put into operation.

1. Immediately after mounting the source head with the pipe saddle, perform a radiation survey of the source head and its pipe saddle configuration to the detector. These readings should be performed with an empty vessel with the source in the "measure" position.
 - (a) This survey consists of recording all of the surface radiation points and the corresponding points 12" from the surface as noted on the attached radiation survey form. These readings are not to exceed 5 mr/hr.
 - (b) These readings are to be used to verify the fact that no individual will receive an exposure in excess of 500 mr/year. If there is a possibility that an individual will receive greater than the above, the appropriate manufacturer should be immediately notified before the gauge is put into operation, where a verification of readings and suggested shielding measures will be discussed.
2. Submit a copy of this survey to the appropriate manufacturer, keeping the original for your file. This survey should be kept with the leak test certificates that will be necessary to keep this head in operation.

C. Procedure for Wiping Source Holders (Licensed Personnel Only)

1. Following the instructions of the source wipe kit, prepare the cotton swab for testing.
2. Take cotton swab and wipe around all weldments of the source holder, source shutter, position handle, and all other corners and edges of the device.
3. Record the information requested on the back of the source wipe kit.
4. Return source wipe kit to Health Physics Northwest.
5. Health Physics Northwest will process the source wipe kit upon receipt.
6. Wipe test certificate will be forwarded to the customer for his records.

D. Customer Return Procedure

The following procedure must be used in returning equipment with radioactive material per Department of Transportation Hazardous Materials

Regulations 49 CFR Parts 171-177. However, this procedure cannot be followed unless specifically authorized by the User's specific license. The User's license must state that removal of the source head is permitted. The User is to have available a calibrated survey meter for performing radiation surveys on the shipping container.

- (a) Shipper will construct crate so as to limit radiation level on outside surface to 10 mR/hr or less.
- (b) Crate must bear radioactive labels on two opposite sides of the crate showing appropriate radiation class. Labels are available from Kay-Ray, Inc. upon request.
- (c) Contents, number of curies and transportation index must be filled in prior to shipment. Transportation Index is measured radiation level in mR/hr at 3 feet from crate.
- (d) Bill of Lading must describe material as follows:

"RADIOACTIVE MATERIALS SPECIAL FORM N.O.S.

_____ mCi CESIUM 137 TYPE A-USA

Inside packages comply with D.O.T. 49 regulations



Stone Container Corporation

Containerboard and Paper Division

NRC FORM 313 - ITEM 11

WASTE MANAGEMENT

Gauging devices and sealed sources will be returned to the manufacturer for disposal.

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