



30-28702

IRECO Incorporated

3000 West 8600 South
West Jordan, Utah USA 84084
Telephone: (801) 255-6801
Telex: 388353

17 May 1985

U. S. Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, Illinois 60137

Attention: Dr. Adam

Gentlemen:

Below are additions to the NRC Form 313I.

Item 12

None required by user. Radiation on Ohmart equipment does not exceed 5/mr/hr at one (1) foot from gage outline and 100 mr/hr field is not present.

Item 13a

Please see attached plant facilities layout sketch for proposed location of the nuclear density gage.

Item 14b

Whenever the source holder is no longer needed, it will be (1) removed and stored in a locked cupboard or room properly labeled. It will not be replaced in service without prior wipe testing; or, (2) it will be removed and returned to the manufacturer for disposal. In either case, the services of the manufacturer's representative will be obtained to supervise removal, reinstallation, and/or packaging for return to the manufacturer.

Item 15

The source holders will be received and stored pending arrival of Manufacturer's Field Engineer. The source holders will be installed in the closed position under the supervision of the representative. A written procedure for prevention of entry into the vessel when the source is in the open (source exposed) position will be prepared. This program will be developed in consultation with the manufacturer's representative.

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REG3 LIC30
13-24514-01 PDR

IRECO Incorporated

The initial radiation survey will be made by the representative at the time the device is placed in service. An occupancy evaluation will be made by the representative and if film badges appear to be required, they will be obtained. Form NRC-3 will be posted and if the radiation survey with the vessel(s) empty reveals radiation fields in excess of 5 mr/hr at 12 inches from the surface of the vessels, appropriate warning signs will be posted. Procedures will be adjusted to reduce the total dose to personnel to the minimum reasonably achievable. A copy of the radiation survey and written procedures will be kept on file for future reference.

In case of malfunction of the source holder or damage thereto, the services of the manufacturer's representative will be obtained for repair or to supervise removal and proper packaging for return to the manufacturer for repair or replacement as required.

In case of emergency such as fire or explosion involving apparent damage to the source holder, the appropriate Regional Office of Inspection and Enforcement (10 CFR 20 Appendix D), USNRC, will be contacted for assistance. The area around the source holder will be barricaded. The services of a manufacturer's representative will be obtained to assist in inspection for damage and local health authorities will also be notified.

WIPE TEST PROCEDURE - A test will be performed on the surface of the source holder at the appropriate interval by the licensee in accordance with the instructions of the manufacturer's representative and contained in the gage instruction manual. The wipe test kit to be used is the Ohmart Model LT and the wipe will be evaluated for leakage by The Ohmart Corporation. Should the presence of 0.005 microcuries of removable contamination be detected, the source holder will be withdrawn from service, the Regional Office of the USNRC notified and the device repaired or replaced by the manufacturer.

Item 16

Ohmart gives on-the-job training at start-up. Ohmart provides radiation safety schools on a regular basis. Such training is recognized by the NRC. Mr. Mike Ray, Plant Manager at Kingsbury has agreed to take Ohmart's training course in Cincinnati, Ohio; his resume is attached. Mr. Reiner Lenzen graduated from Gulf Nuclear's course in 1980, and served in the capacity of radiation protection officer for 1 1/2 years at Utah International Incorporated before joining IRECO Incorporated; his resume and certificate are attached. Please see attached Utah Application Form for specific training for items 16a,b,c, and d.

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Item 17

Please see attached resume for Reiner Lenzen and employment application for Mike Ray. Also please see attached Utah application form for a list of radioisotopes and maximum activity of each used.

Sincerely,



Reiner Lenzen
R.P.O.

RL/se
RL-02MM

Enclosures

CONTROL NO. 7 9008

RESUME

REINER LENZEN
3377 Plaza Way
Salt Lake City, Utah 84109
(801) 487-2620

PERSONAL DATA

Birthdate; January 18, 1952, U.S. Citizen, Speak, read and write fluent German, Excellent health, Married, 3 children, Height; 5'9", Weight 150 lbs.

WORK EXPERIENCE

November-1981 to present. Iroco Chemicals, Position held; Electronics Engineer, Duties included; Design and fabrication of test and measurement systems for commercial and military explosives testing. Additional responsibilities include design and start up commissioning of a melt-pour instrument and control system that is fully automatic and a slurry explosives packaging operation that is semi-automatic. Presently designing labor and material saving control systems for slurry explosives plants and pump trucks.

April-1980 to October-1981. Utah International Inc. Position held; Senior Electronics Technician, Duties included; Repair and Calibration of all Geophysical instruments; including well logging and perforating trucks, geiger counters, scintillators, magnetometers, FH meters, UV scopes, Microprocessor based ratemeters and pulse generators, and FM radios. Additional responsibilities included; maintaining NRC reports and certifications for radioactive source held for well logging. NRC Certification obtained. Class D Chauffeurs lic and ICC medical cards are current.

September-1978 to March-1980. Terra Tek Inc. Position held; Senior Electronics Technician, Duties included; Design and fabrication of Geothermal Test Instruments for the measurement of downhole temperatures, pressures and conductivity. Additional duties included; Electronic design and construction of a device for measuring the partial pressures of gasses in steam. Underground mine experience includes interphase sensing systems and using explosives for simulating shocks. Geo-chemistry done by Atomic Absorption.

December-1977 to June-1978. Northrop Worldwide Aircraft Services Inc. (NWASI IRAN) Position held; Electrician, Duties included; repairing generating equipment and hot water heaters at the Imperial Iranian Air Force housing complex at Isfahan, Iran. Additional experience includes; repair and installation of electrical equipment at Khatami Air Base. IIAF Secret security pass obtained.

September-1975 to November-1977. University of Southern California. Image Processing Institute. Position held; Technical Administrator, Duties included; Overseeing all ARPA DOD and private contracts awarded to the institute. Additional experience consulting on photovoltaic devices while in California.

March-1971 to August-1975. University of Utah-Chemistry Dept. Position held; Technician, Duties included; Installation of industrial power lines to Lazars. Additional experience includes repairing Mass-spectrometers and installing monitoring equipment, and designing printed circuit boards as a work study student while completing my bachelors degree at the University of Utah.

Additional experience working construction during summer breaks and part time experience as an R & D Technician while in High School.

SCHOOLS, HONORS AND LICENSES

University of Utah, BS-Acctg. 1975, Member, Instrument Society of America Member, Employee Fund Committee. (Terra Tek) Member, Safety Committee. (Iroco) FCC General Class Amateur Radio License since 1966, Member U OF U Track Team. Member, Olympus High Track Team (1st in State and WAC)

Certificate

This certificate indicates that REINER LENZEN
has satisfactorily completed an instruction and handling training course for Radiation
Safety for oil well logging.

MAY 7, 1980

Date

Gulf Nuclear, Inc.
Houston, Texas

Frank Malik

Instructor

Walter P. Peeples, Jr.

Walter P. Peeples, Jr.
President

CONTROL NO. 79005



Personnel Department
Seventh Floor Kennecott Building
Salt Lake City, Utah 84133
(801) 364-4800

APPLICATION FOR EMPLOYMENT

Qualified applicants are considered for positions applied for without regard to race, color, religion, sex, national origin, age, marital status, or the presence of a non-job related medical condition or handicap.

APPLICANT: READ AND SIGN BEFORE SUBMITTING THIS APPLICATION —

I understand that the information on this application will be used and that prior employers will be contacted for purposes of investigation as required by 391.23 of the Motor Carrier Safety Regulations.

Chen M. Ray 6-1-83
Signature of Applicant Date

Position(s) Applied For: DRIVER Date: _____

Referral Source: ☐ Advertisement ☐ Friend ☐ Relative ☐ Employment Agency ☒ Other _____

Date Available for Work: open Salary Desired: open

Have you worked for this company before? no Where? _____

Dates: From _____ To _____ Rate of Pay _____ Position _____

Reason for Leaving: _____

PERSONAL INFORMATION

Name: _____

Address _____ How Long? _____

Street City State and Zip Code

(For Past Three Years) _____ How Long? _____

Street City State and Zip Code

Attach sheet if more space is needed

Phone Number: Home _____ Other _____ Soc. Sec. No. _____

If you are known to Schools/References by another name, please indicate name(s): _____

Do any of your friends or relatives work here? ☐ Yes ☐ No

If Yes, list name(s) and Department(s): _____

Have you ever been discharged from employment because your work or conduct was not satisfactory? _____ If Yes, explain in Remarks below.

Have you ever been convicted of any violation of the law other than a minor traffic violation? _____

Languages other than English with which you are familiar: _____ To what extent? _____

EMPLOYMENT EXPERIENCE

List each job held. Start with your present or last job. Include military service assignments and volunteer activities.

DATES		Name and Address of Employer	Position Title and Duties	Salary	Reason for Leaving
From	To				
June		IRECO	PTO MANAGER	Starting:	
1972				Final:	
Supervisor		Phone			
		()			
				Starting:	
				Final:	
Supervisor		Phone			
		()			
				Starting:	
				Final:	
Supervisor		Phone			
		()			
				Starting:	
				Final:	
Supervisor		Phone			
		()			

EDUCATIONAL BACKGROUND

Grade and High School	Name of last school: _____	Location: _____ Did you graduate? _____
	(Circle highest year completed) 1 2 3 4 5 6 7 8 9 10 11 12	Average grade: _____ Date left: _____
Other (Trade School, Correspondence School, etc.)	Name: _____	Location: _____
	Length of course: _____	Was course completed? _____ When? _____
	Subject: _____	Scholarship average: _____
College or University	Name: _____	Location: _____
	Years attended: _____	Degree: _____ Date left: _____
	Major subject: _____	Scholarship average: _____
Graduate Study	Name of university: _____	Location: _____
	Years attended: _____	Degree: _____ Date left: _____
	Major subject: _____	Scholarship average: _____

PERSONAL REFERENCES

Name	Address	Phone	Yrs Known

CONTROL NO. 7 9 0 0 8

APPLICATION FOR EMPLOYMENT

INSTRUCTIONS: Fill in all the blanks as accurately as possible. False or misleading statements will be cause for rejection or for dismissal after employment.

Type of Work: _____
 Interviewer: _____
 Recommendation: _____
 Previous Employment check: _____
 Reference: _____
 Check: _____
 Misc.: _____
 Hire Date: _____ Rate: _____

1. Name in Full: RAY CLARENCE MICHAEL Date 5-14-72
 Last First Middle
 2. Address: 3118 ARTIC ST CHARLES HANVIRAL MISSOURI Phone No. 221-3994
 Street Address City State
 3. Single ☐ Divorced ☐
 Married ☒ Widowed ☐
 4. Height 6'3" 5. Weight 175 6. Date of Birth 3-27-51 7. Age Last Birthday 21
 8. If hired can you provide a birth certificate? YES 9. Name & Birth Dates of Dependents _____

10. How long have you lived at this address? 6 MONTHS 11. Social Security No. 490-56-8486
 12. Father's Name (If Minor) _____ Occupation _____ Education _____
 13. Mother's Name (If Minor) _____ Occupation _____ Education _____
 14. Name of Spouse JUDITH ELAINE RAY Address 3118 ST CHARLES Occupation WAITRES Education HIGH SCHOOL
 15. Are you a citizen of the U. S. YES 16. Have you ever worked for this Company before? NO
 17. Do you have any relatives employed by this company? NO 18. Explain any physical defects, infirmities or chronic diseases you may have NONE
 19. Are you willing to take a Company physical examination? YES 20. Do you have any objection to the personnel department contacting your past employers? NO

21. EDUCATION AND TRAINING:

Grade and High School	Name of Last School	Location	Did you Graduate?
	<u>HANVIRAL HIGH SCHOOL</u>	<u>HANVIRAL, MO</u>	<u>YES</u>
	(Circle Highest Year Completed)	Average Grade?	Date Left
	1 2 3 4 5 6 7 8 9 10 11 <u>12</u>	<u>C</u>	<u>5-67</u>
		Special Courses (training, etc.)	
		<u>140 WELDING</u>	
		<u>140 AIR MECH</u>	
College or University	Name	Location	Date Left
	Years Attended	Degree	
	Major Subject	Scholarship Average	
Graduate Study	Name of University	Location	Date Left
	Years Attended	Degree	
	Major Subject	Scholarship Average	
Other (Trade School, Correspondence School, Etc.)	Name	Location	When?
	Length of Course	Was Course Completed	
	Subject	Scholarship Average	

22. List any licenses or certificates you may have _____
 23. List any professional groups, associations or other organizations having to do with your work to which you have belonged during the last five years excluding any, the names and character of which indicate race, religion, color or national origin _____
 24. List any special skills you may have (typing, mechanical operation, etc.) WELDING - BASIC AUTO MECHANIC Draft Classification HIGH NUMBER
 25. U.S. Military Service: Branch of Service _____
 Dates of Service From _____ To _____ Rank or Rate on leaving _____
 What continuing military affiliation do you have? _____

26. EMPLOYMENT RECORD: (Give a complete account of your full time employment. BEGIN ON THE FIRST LINE WITH YOUR PRESENT OR MOST RECENT EMPLOYMENT AND WORK BACK.)

DATE	Period of Ser. Yrs. Mos.	Name and Address of Employer	Title of Position Held and Specific Nature of Work Performed Including Any Supervisory Duties	Salary
A. From FEB 14 1972 To PRESENT	2 4 2 3 ^{1/2}	JOHN E MYERS 23 PAULINA DRIVE	CARPENTER BUILD NEW HOMES IN HANVICAL. Name of Supervisor JOHN E MYERS	Starting \$70.00 PER WK Present \$120.00 PER WK

Why do you wish to leave your present employer? WANT A BETTER, MORE INTERESTING JOB.

B. From				Starting
To			Name of Supervisor	Final

Why did you leave?

C. From				Starting
To			Name of Supervisor	Final

Why did you leave?

D. From				Starting
To			Name of Supervisor	Final

Why did you leave?

E. From				Starting
To			Name of Supervisor	Final

Why did you leave?

F. From				Starting
To			Name of Supervisor	Final

Why did you leave?

27. Do you plan to work part time (or full time) at some other firm while employed by this firm? NO

28. REFERENCES: Give names and addresses of two reliable persons, OTHER THAN RELATIVES OR EMPLOYERS LISTED UNDER QUESTION 26, who are familiar with your qualifications.

Full Name	Address	Business or Occupation
CECIL W. SCOTT	19 LAKE ARDOLLO DR.	CONSTRUCTION COMPANY
DON. FAULKNER	UNKNOWN	WELDER

29. Have you ever been discharged from employment because your work or conduct was not satisfactory? NO If yes explain in Remarks

30. Have you ever been charged with, arrested for, or convicted of any violation of the law other than a minor traffic violation? NO

31. Languages other than English with which you are familiar: NONE To what Extent:

32. Special Interests or Hobbies: HUNTING - FISHING -

33. When would you be available for work? 5-15-72 Salary Expected: OPEN

34. Type of Employment Desired: OPEN

35. What caused you to make application for work at this particular firm? INTERESTING WORK

36. REMARKS: I would like to go to work and learn the trade.

I understand that this is a preliminary application and that applicants may be interviewed, references checked and in some cases may be given aptitude or ability tests prior to employment. I am physically fit for the work for which I am applying and understand I may have to take and pass a company paid for physical examination by a licensed physician either before or after employment. I herewith authorize and request each and every former employer, person, firm or corporation listed herein to answer any and all questions that may be asked and herewith hold such persons harmless for giving any and all information within their knowledge or records. All of the information listed by me on this application is true and correct to the best of my knowledge. I understand that any false or misleading statements may be cause for rejection of my application and/or if employed, may be just cause for subsequent dismissal.

ADDITIONAL DRIVING INFORMATION

DRIVERS LICENSE	State	License No.	Type	Expiration Date
	Ky	R-000-119-603-244-0	Operator	MARCH 1984

- A. Have you ever been denied a license, permit or privilege to operate a motor vehicle? ☐ Yes ☐ No
- B. Has any license, permit or privilege ever been suspended or revoked? ☐ Yes ☐ No
- If the answer to either A or B is Yes, attach statement giving details.

DRIVING EXPERIENCE

Class of Equipment	Type of Equipment (Van, Tank, Flat, etc.)	DATES		Approx. No. of Miles (Total)
		From	To	
Straight Truck <input checked="" type="checkbox"/>	VAN + PP + RK.	JUNE 1972	Present	50,000
Tractor and Semi-trailer				
Tractor, two trailers				
Other				

Show special courses or training that will help you as a driver NONE

Which Safe Driving Awards do you hold and from whom? NONE

ACCIDENT RECORD FOR PAST 3 YEARS OR MORE (Attach sheet if more space is needed)

Dates	Nature of Accident (Head-on, rear-end, upset, etc.)	Fatalities	Injuries
Last Accident <u>NONE</u>			
Next Previous			
Next Previous			

TRAFFIC CONVICTIONS AND FORFEITURES FOR THE PAST 3 YEARS (Other than Parking Violations)

Location	Date	Charge	Penalty
	1981	Speeding	

(Attach sheet if more space is needed)

EXPERIENCE AND QUALIFICATIONS — OTHER

Show any trucking, transportation or other experience that may help in your work for this company _____

List courses and training other than shown elsewhere in this application _____

List special equipment or technical materials you can work with (other than those already shown) _____

TO BE READ AND SIGNED BY APPLICANT

It is agreed and understood that any misrepresentation of information given above shall be considered an act of dishonesty.

It is agreed and understood that the employer or his agents may investigate the applicant's background to ascertain any and all information of concern to applicant's record, whether same is of record or not, and applicant releases employers and persons named herein from all liability for any damages on account of his furnishing such information.

The applicant agrees to furnish such additional information and complete such examination as may be required to complete his employment file.

It is agreed and understood that this application for employment may be on a probationary period during which time he may be discharged without recourse.

This certifies that this application was completed by me, and that all entries on it and information in it are true and complete to the best of my knowledge.

It is agreed and understood that this application for employment in no way obligates the employer to employ the applicant.

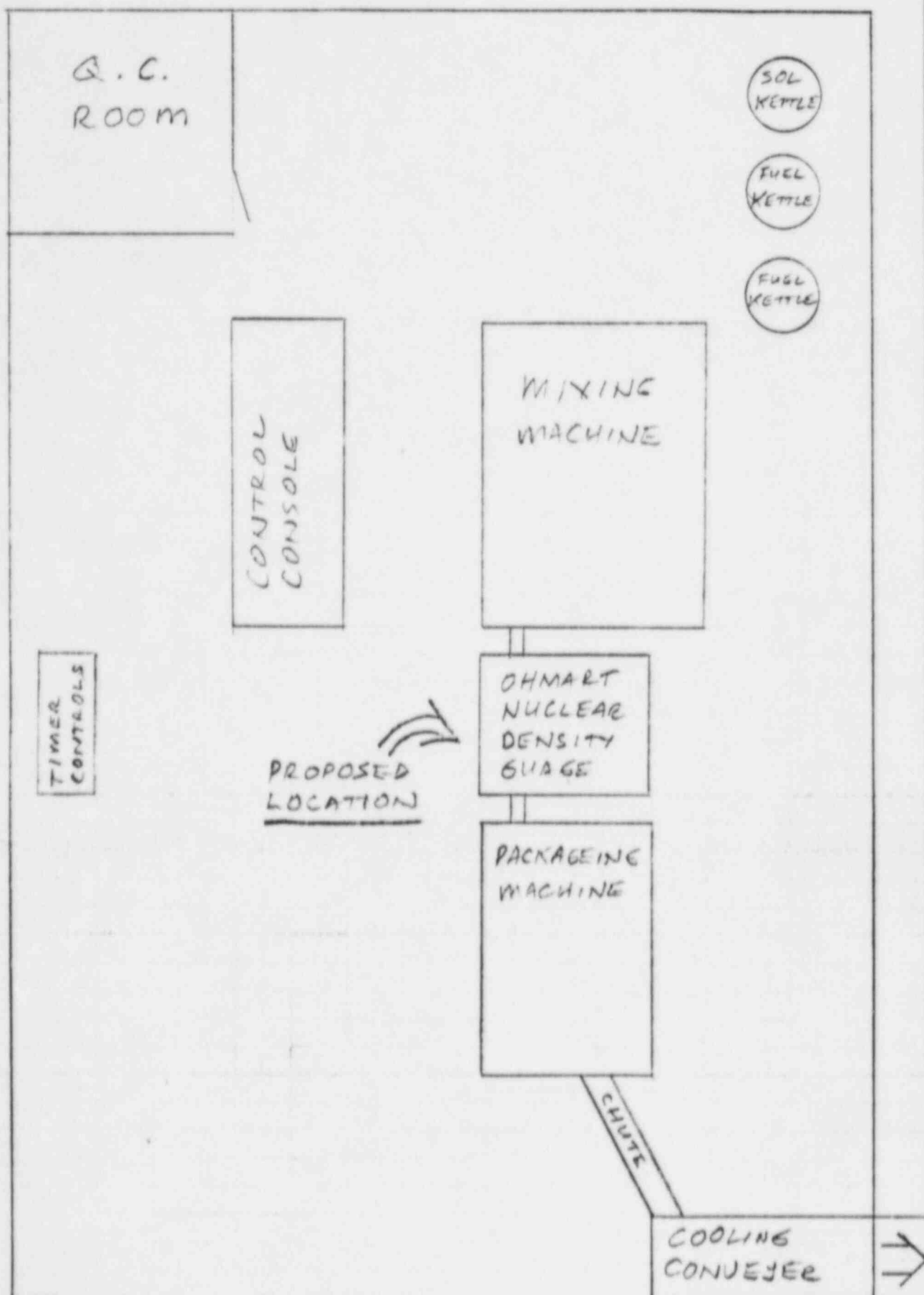
6-1-83

Date

Chas. H. King

Applicant's Signature

22-141 50 SHEETS
22-142 100 SHEETS
22-144 200 SHEETS



KINGSBURY, INDIANA - PLANT LAYOUT

CONTROL NO. 79008

8. TRAINING OF EACH INDIVIDUAL NAMED IN ITEM 4 (Use supplemental sheets if necessary).

TYPE OF TRAINING	WHERE TRAINED	DURATION OF TRAINING	ON THE JOB (Circle answer)	FORMAL COURSE (Circle answer)
Principles and practices of radiation protection	Gulf Nuclear Houston, Texas	3 days	Yes No	<input checked="" type="radio"/> Yes No
Radioactivity measurement standardization and monitoring techniques and instruments	Utah International Salt Lake City, Utah	1-1/2 yrs.	<input checked="" type="radio"/> Yes No	<input checked="" type="radio"/> Yes No
Mathematics and calculations basic to the use and measurement of radioactivity	Utah International Salt Lake City, Utah	1-1/2 yrs.	<input checked="" type="radio"/> Yes No	<input checked="" type="radio"/> Yes No
Biological effects of radiation	Gulf Nuclear Houston, Texas	3 Days	Yes No	<input checked="" type="radio"/> Yes No

9. EXPERIENCE WITH RADIATION (Actual use of radioisotopes or equivalent experience).

ISOTOPE	MAXIMUM AMOUNT	WHERE EXPERIENCE WAS GAINED	DURATION OF EXPERIENCE	TYPE OF USE
Cs137 AmBe241	50mCi, 10mCi 1 curie	Utah International, operating well logging trucks (2) Western Division (Coal) R.P.O.	1-1/2 years	monitoring density of rock formation

10. RADIATION DETECTION INSTRUMENTS (Use supplemental sheets if necessary).

TYPE OF INSTRUMENTS (Include make and model number of each)	NUMBER AVAILABLE	RADIATION DETECTED	SENSITIVITY RANGE (mR/hr)	WINDOW THICKNESS (mg/cm ²)	USE (Monitoring, Surveying, Measuring)
Will purchase scintillator or Geiger Mueller type at Research, use PROCO's in meanwhile. Victoreen #492	2	gamma	1 mr/hr	N.A.	Monitoring, surveying and measuring

11. METHOD, FREQUENCY, AND STANDARDS USED IN CALIBRATING INSTRUMENTS LISTED ABOVE.

D.O.T. Standard, Stabro Labs, Salt Lake City, Ut.
Every six months, minimum

12. FILM BADGES, DOSIMETERS, AND BIO-ASSAY PROCEDURES USED (For film badges, specify method of calibrating and processing, or name of supplier).

Same as PROCO
Dosimeters, the Dosimeter Corp. of America, 6106 Interstate Cir.,
Cincinnati, Ohio 45242

INFORMATION TO BE SUBMITTED ON ADDITIONAL SHEETS

13. FACILITIES AND EQUIPMENT. Describe laboratory facilities and remote handling equipment, storage containers, shielding, fume hoods, etc. Explanatory sketch of facility is attached (Circle answer).

Yes ☒ No

14. RADIATION PROTECTION PROGRAM. Describe the radiation protection program including control measures. If application covers sealed sources, submit leak testing procedures where applicable, name, training, and experience of person to perform leak tests and arrangements for performing initial radiation survey, servicing, maintenance and repair of the source.

15. WASTE DISPOSAL. If a commercial waste disposal service is employed, specify name of company. Otherwise, submit detailed description of methods which will be used for disposing of radioactive wastes and estimates of the type and amount of activity involved.

CERTIFICATE

16. THE APPLICANT, AND ANY OTHER OFFICIAL EXECUTING THIS CERTIFICATE ON BEHALF OF THE APPLICANT NAMED IN ITEM 1, CERTIFY THAT THIS APPLICATION IS PREPARED IN CONFORMITY WITH THE UTAH BUREAU OF RADIATION CONTROL REGULATIONS FOR THE CONTROL OF IONIZING RADIATION, AND THAT ALL INFORMATION CONTAINED HEREIN, INCLUDING ANY SUPPLEMENTS ATTACHED HERETO, IS TRUE AND CORRECT TO THE BEST OF OUR KNOWLEDGE AND BELIEF.

IRECO Incorporated

Date

10/24/84

By

Applicant named in Item 1

Houston R.P.O.

Title of certifying official authorized to act on behalf of the applicant

UTAH BUREAU OF RADIATION CONTROL
APPLICATION FOR RADIOACTIVE MATERIAL LICENSE

INSTRUCTIONS — Complete all items whether this is an initial application or an application for renewal of a license. Use supplemental sheets where necessary. Mail ~~in duplicate~~ to: Utah Department of Health, Bureau of Radiation Control, 150 W. North Temple, P.O. Box 2500, Salt Lake City, Utah 84110. Upon approval of this application, the applicant will receive a Radioactive Material License, issued in accordance with the requirements contained in the Utah Bureau of Radiation Control Regulations for the Control of Ionizing Radiation. Medical applicants: use form BRC-02

1. (a) NAME AND STREET ADDRESS OF APPLICANT. (Institution, firm, hospital, person, etc. Include Zip Code.) IRECO Incorporated 3000 West 8600 South West Jordan, Utah 84084	(b) STREET ADDRESS(ES) AT WHICH RADIOACTIVE MATERIAL WILL BE USED. (If different from 1(a). Include Zip Code.) Pelican Point Lehi, Utah 84043
2. DEPARTMENT TO USE RADIOACTIVE MATERIAL. Research	3. THIS IS AN APPLICATION FOR: (Check appropriate item) a. <input checked="" type="checkbox"/> New License b. <input type="checkbox"/> Amendment to License No. _____ c. <input type="checkbox"/> Renewal of License No. _____
4. INDIVIDUAL USER(S). (Name and title of individual(s) who will use or directly supervise use of radioactive materials. Give training and experience in Items 8 and 9.) Reiner Lenzen, R.P.O.	5. RADIATION PROTECTION OFFICER. (Name of person designated as radiation protection officer if other than individual user. Attach resume of his training and experience as in Items 8 and 9.) Telephone No.: Area Code (801) 255 6801
6. (a) RADIOACTIVE MATERIAL. (Elements and mass numbers of each.) Cs137	(b) CHEMICAL AND/OR PHYSICAL FORM AND MAXIMUM QUANTITY OF EACH CHEMICAL AND/OR PHYSICAL FORM THAT YOU WILL POSSESS AT ANY ONE TIME. (If sealed source(s), also state name of manufacturer, model number, number of sources and maximum activity per source.) 50 mCi max sealed source, we will probably purchase from Ohmart, Ronan or Texas Nuclear.
7. DESCRIBE PURPOSE FOR WHICH RADIOACTIVE MATERIAL WILL BE USED. Density monitoring and control	

CONTROL NO. 7 9 0 0 8

REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
SAFETY EVALUATION OF DEVICE

NO.: NR522D185B

DATE: April 09, 1979

PAGE 1 OF 5

DEVICE TYPE: Source Holder

MODEL: SR-1A

MANUFACTURER/DISTRIBUTOR: Ohmart Corporation
4241 Allendorf Drive
Cincinnati, OH 45209

MANUFACTURER/DISTRIBUTOR:

SEALED SOURCE MODEL DESIGNATION: Ohmart A-2102

ISOTOPE: Cesium-137

MAXIMUM ACTIVITY: 1500 millicuries

LEAK TEST FREQUENCY: 3 years

PRINCIPAL USE: Gamma Gauges

CUSTOM DEVICE: ☐ YES ☒ NO

REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
SAFETY EVALUATION OF DEVICE

NO.: NR522D185B

DATE: April 09, 1979

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DEVICE TYPE: Source Holder

DESCRIPTION:

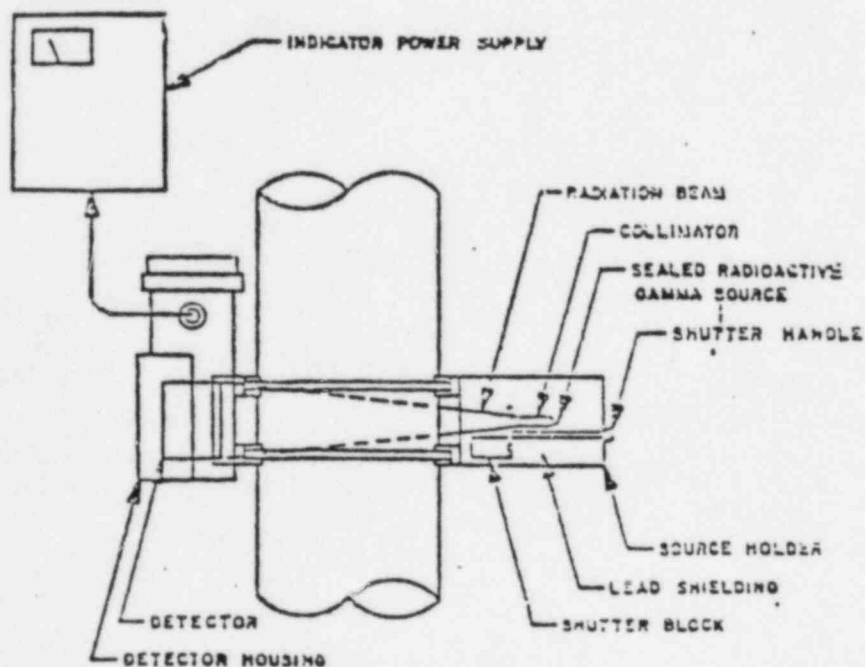
The SR-1A source holder will be used in the Ohmart DENSART Series 3000 density gauges to measure the density and/or weight of process materials flowing in a pipe (sealed source up to 1500 millicuries of Cs-137 in Ohmart Model A-2102). A beam of gamma radiation is passed through the material and is partially absorbed by the process material. The radiation not absorbed is detected by the radiation detector. The drawing below shows a typical installation. The device is used on pipes ranging in size from 2 to 14 inches in diameter.

The sealed source used in the SR-1A can be varied up to 1500 millicuries of Cs-137 depending upon the pipe size.

LABELING:

The device is labeled in accordance with the provisions of Section 20.203 10 CFR Part 20 or Section 32.51(a)(3) of 10 CFR Part 32 as appropriate.

DIAGRAM:



REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
SAFETY EVALUATION OF DEVICE

NO.: NR522D185B

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DEVICE TYPE: Source Holder

CONDITIONS OF NORMAL USE:

The device is intended for use in industrial and process control environments for measurement of density and/or weight of materials. Typical environmental conditions are:

Temperature.....	-40 to 60°C
Pressure.....	Atmospheric
Vibration.....	Ranges from Zero to Mild
Corrosion.....	Ranges from Zero to Highly Corrosive Vapor

PROTOTYPE TESTING:

A single prototype of the Model SR-1A was subjected to and passed tests for vibration, impact, temperature, and operation of the "on-off" mechanism. The tests were devised and conducted by the Ohmart Corporation.

EXTERNAL RADIATION LEVELS:

The radiation levels from the SR-1A holder vary according to pipe size, source strength, and amount of shielding. These variables will be controlled by the Ohmart Corporation to insure that external radiation levels from a given device do not exceed 5 mr/hr at 30 cm from the surface of the gauge or 100 mr/hr at 5 cm from the gauge.

QUALITY ASSURANCE AND CONTROL:

Prior to shipment each unit is subjected to and passes an acceptable series of tests and inspections. (Refer to Ohmart Corporation letter dated December 13, 1978.)

LIMITATIONS AND/OR OTHER CONSIDERATIONS OF USE:

- A. Since the SR-1A may lose its shielding effectiveness if subjected to temperatures in excess of 115°C (continuous operation) or about 204°C (fire condition), the licensing authority should require additional fire protection if these temperature conditions are likely to be exceeded. (For example: automatic fire extinguishing system, reliable sensing devices to provide early warning of abnormal temperature or auxiliary thermal protection, etc.).

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REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
SAFETY EVALUATION OF DEVICE

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DEVICE TYPE: Source Holder

LIMITATION AND/OR OTHER CONSIDERATIONS OF USE (CONT'D):

- B. If the SR-1A will be used in an area where explosions might occur under circumstances which might cause the loss of shielding effectiveness, the licensing authority should require additional structural protection for the device.

C. Distribution Requirements

May be distributed to either specific or general licensees.

D. User Training

User training shall be commensurate with the licensee's authorized use. As a minimum the user shall be informed by the manufacturer/distributor of the nature and extent of the potential radiation hazards from the device and the necessary procedures to protect against these hazards both during routine and emergency situations. A copy of the manufacturer's radiation safety instructions should be provided to the user.

E. Installation, Maintenance, Repair Servicing, Etc.

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.)

F. Leak Testing and Shutter Test

The initial leak testing of the device and operational testing of the on-off mechanism shall be performed by an individual specifically licensed by the NRC or an Agreement State. Thereafter leak testing and on-off mechanism operational checks may be performed by the individual possessing the device under either a general or specific license issued by NRC or an Agreement State. These tests shall be performed in accordance with procedures in the Ohmart Corporation Instruction Manual or other procedures approved by the licensing authority at intervals not to exceed three (3) years.

REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
SAFETY EVALUATION OF DEVICE

NO.: NR522D185B

DATE: April 09, 1979

PAGE 5 OF 5

DEVICE TYPE: Source Holder

LIMITATIONS AND/OR OTHER CONSIDERATIONS OF USE (CONT'D):

G. Removal from Service and Disposal

The device shall be removed from service and disposed of by the Ohmart Corporation or by other persons specifically licensed by NRC or an Agreement State to perform these operations.

SAFETY ANALYSIS SUMMARY:

The Model SR-1A was subjected to and passed a drop test from a height of 1.2 meters. Even so, if the device is subjected to high impact stresses, it should be carefully checked for structural damage which might result in excessive external radiation levels.

The Ohmart Corporation provided no specific test data on fire or explosion tests performed on the SR-1A. However, the sealed source is doubly encapsulated in stainless steel and meets ANSI Classification C-43343. (Temperature Limitation of 595°C). The SR-1A source holder is constructed of lead encased in carbon steel which Ohmart Corporation states, should withstand a continuous operating temperature of 115°C with temporary operation up to about 204°C (see limitations stated previously).

REFERENCES:

This Certificate of Registration is based on information and test data contained in the following supporting documents which are hereby incorporated by reference and made a part of this registry document.

- ° Ohmart Corporation Letter of December 13, 1978 and Enclosures thereto, and
- ° Ohmart Corporation Letter of March 9, 1979.

ISSUING AGENCY

U.S. Nuclear Regulatory Commission

CONTROL NO. 79000



STATE OF UTAH
DEPARTMENT OF HEALTH

NORMAN H. BANGERTER, GOVERNOR

SUZANNE DANDY, M.D., M.P.H., EXECUTIVE DIRECTOR

February 26, 1985

Mr. Reiner Lenzen
IRECO, Inc.
3000 West 8600 South
West Jordan, Utah 84084

Dear Mr. Lenzen:

Please find enclosed your Utah Radioactive Material License No. UT 1800173. In order to assist you in your complying with UBRC regulations, we have enclosed a copy of the regulations and form BRC-04 "Notice to Employees".

If you have questions or require clarification concerning your license, you may contact us at 533-6734.

Sincerely,

Larry F. Anderson for L.F.A.

Larry F. Anderson, Director
Bureau of Radiation Control

CW

OFFICE OF THE EXECUTIVE DIRECTOR

UTAH BUREAU OF RADIATION CONTROL
RADIOACTIVE MATERIAL LICENSE

BRC-03
April 1984

Pursuant to Chapter 1, Title 26-1-27 of the Utah Code, and the Utah Department of Health Regulations for the Control of Ionizing Radiation, and in reliance of statements and representations heretofore made by the licensee designated below, a license is hereby issued authorizing such licensee to transfer, receive, possess and use the radioactive material designated below; and to use such radioactive material for the purpose(s) and at the place(s) designated below. This licensee is subject to all applicable rules, regulations, and orders now or hereafter in effect and to any conditions specified below.

Licensee

1. Name IRECO, Inc.

2. Address 3000 West 8600 South
West Jordan, Utah 84084

) 3. License Number
) UT 1800173

) 4. Expiration Date
) February 28, 1990

) 5. License Category 3-1
)

6. Radioactive material
(element and mass number)

A. Cesium 137

7. Chemical and/or physical form

A. Sealed Sources (Ohmart Model
A-2102)

8. Maximum quantity licensee may
possess at any one time

A. 50 millicuries

9. AUTHORIZED USE

A. For use in Ohmart Model D3000 fixed gauges for process materials density monitoring and control.

CONDITIONS

10. Licensed material shall be used only at the licensee's facilities located at IRECO, Inc. Pelican Point, Lehi, Utah 84043.

11. The licensee shall comply with the provisions of Chapter URC-48 "Notices, Instructions and Reports to Workers, by Licensees or Registrants, Inspections" and Chapter URC-24, "Standards for Protection Against Radiation".

12. Licensed material shall be used by, or under the supervision of, Reiner Lenzen.

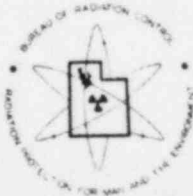


CONTROL NO. 79008

UTAH BUREAU OF RADIATION CONTROL
RADIOACTIVE MATERIAL LICENSE
SUPPLEMENTARY SHEET

License # UT 1800173

13. A. (1) Each sealed source acquired from another person and containing licensed material, other than Hydrogen-3, with a half-life greater than thirty days and in any form other than gas shall be tested for contamination and/or leakage at intervals not to exceed three (3) years. In the absence of a certificate from a transferor indicating that a leak test has been made within six months prior to the transfer, a sealed source received from another person shall not be put into use until tested.
- (2) The periodic leak test required by this condition does not apply to sealed sources that are stored and not being used. The sources excepted from this test shall be tested for leakage prior to any use or transfer to another person unless they have been leak tested within six months prior to the date of use or transfer.
- B. The test required by Subsection A shall be capable of detecting the presence of 0.005 microcurie of radioactive material on the test sample. The test sample shall be taken from the sealed source or from the surfaces of the device in which the sealed source is permanently or semipermanently mounted or stored on which one might expect contamination to accumulate. Records of leak test results shall be kept in units of microcuries and maintained for inspection by the Bureau.
- C. If the test required by Subsection A reveals the presence of 0.005 microcurie or more of removable contamination, the licensee shall immediately withdraw the sealed source from use and shall cause it to be decontaminated and repaired or to be disposed of in accordance with Bureau regulations. A report shall be filed within 5 days of the test with the Bureau of Radiation Control, P.O. Box 45500, Salt Lake City, Utah, 84145, describing the equipment involved, the test results, and the corrective action taken.
- D. Tests for leakage and/or contamination shall be performed by the licensee or by other persons specifically authorized by the Bureau, NRC, or an Agreement State to perform such services.
14. Sealed sources containing licensed material shall not be opened or removed from their respective source holders by the licensee.
15. The licensee shall conduct a physical inventory every six (6) months to account for all sealed sources received and possessed under the license. The records of the inventories shall be maintained for two (2) years from the date of the inventory for inspection by the Bureau, and shall include the quantities and kinds of radioactive material, location of sealed sources, and the date of the inventory.



UTAH BUREAU OF RADIATION CONTROL
RADIOACTIVE MATERIAL LICENSE
SUPPLEMENTARY SHEETLicense # UT 1800173

16. A. Installation, relocation, or removal from service, and initial radiation survey of the devices containing licensed material and disposal of sealed sources containing licensed material used in devices shall be performed only by Reiner Lenzen or by other persons specifically authorized by the Bureau, NRC, or an Agreement State to perform such services.
- B. Maintenance and repair of the devices containing licensed material shall be performed only by representative of Ohmart, Inc. or by other persons specifically authorized by the Bureau, NRC, or an Agreement State to perform such services.
17. Except as specifically provided otherwise by this license, the licensee shall possess and use licensed material described in Items 6, 7, and 8 of this license in accordance with statements, representations, and procedures contained in application dated February 19, 1985. The Utah Radiation Control regulations shall govern the licensee's statements in applications or letters, unless the statements are more restrictive than the regulations.

Date

Feb 26, 1985Arnold J. Peart for L.F.A.
Larry F. Anderson, Director, Bureau of Radiation Control

CONTROL NO. 79008



STATE OF UTAH
DEPARTMENT OF HEALTH

NORMAN H. BANGERTER, GOVERNOR

SUZANNE DANDOO, M.D., M.P.H., EXECUTIVE DIRECTOR

March 26, 1985

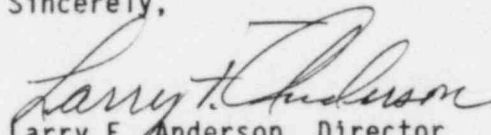
Mr. Reiner Lenzen
IRECO, Inc.
3000 West 8600 South
West Jordan, Utah 84084

RE: Radioactive Material License
No. UT 1800173

Dear Mr. Lenzen:

An internal review of our recent licensing activities has found an error on the first page of your license. Therefore, please replace the first page of your license with the correct one enclosed.

Sincerely,


Larry F. Anderson, Director
Bureau of Radiation Control

CW/lm

cc: Marge Williams

UTAH BUREAU OF RADIATION CONTROL
RADIOACTIVE MATERIAL LICENSE

BRC-03
April 1984

Pursuant to Chapter 1, Title 26-1-27 of the Utah Code, and the Utah Department of Health Regulations for the Control of Ionizing Radiation, and in reliance of statements and representations heretofore made by the licensee designated below, a license is hereby issued authorizing such licensee to transfer, receive, possess and use the radioactive material designated below; and to use such radioactive material for the purpose(s) and at the place(s) designated below. This licensee is subject to all applicable rules, regulations, and orders now or hereafter in effect and to any conditions specified below.

Licensee

1. Name IRECO, Inc.

2. Address 3000 West 8600 South
West Jordan, Utah 84084

) 3. License Number
) UT 1800173

) 4. Expiration Date
) February 28, 1990

) 5. License Category 3-1
)

6. Radioactive material
(element and mass number)

7. Chemical and/or physical form

8. Maximum quantity licensee may
possess at any one time

A. Cesium 137

A. Sealed Sources (Ohmart Model
A-2102)

A. 50 millicuries

9. AUTHORIZED USE

A. For use in Ohmart SR-1A source holder in Ohmart Model D3000 fixed gauge for materials density monitoring and control.

CONDITIONS

10. Licensed material shall be used only at the licensee's facilities located at IRECO, Inc. Pelican Point, Lehi, Utah 84043.

11. The licensee shall comply with the provisions of Chapter URC-48 "Notices, Instructions and Reports to Workers, by Licensees or Registrants, Inspections" and Chapter URC-24, "Standards for Protection Against Radiation".

12. Licensed material shall be used by, or under the supervision of, Reiner Lenzen.



CONTROL NO. 79008



STATE OF UTAH
DEPARTMENT OF HEALTH

NORMAN H. BANGERTE, GOVERNOR

SUZANNE DANDY, M.D., M.P.H., EXECUTIVE DIRECTOR

April 26, 1985

Reiner Lenzen, R.P.O.
IRECO, Inc.
3000 West 8600 South
West Jordan, Utah 84084

Dear Mr. Lenzen:

Enclosed, please find an amendment to your license. Thank you.

Sincerely,

Linda T. Matulich, Secretary
Bureau of Radiation Control

lm

Enclosure

CONTROL NO. 79008

KENNETH L. ALKEMA, DIRECTOR • DIVISION OF ENVIRONMENTAL HEALTH

April 1984

Page 1 of 1UTAH BUREAU OF RADIATION CONTROL
RADIOACTIVE MATERIAL LICENSE
SUPPLEMENTARY SHEETLicense # UT 1800173Amendment # 01

Ireco
3000 West 8600 South
West Jordan, Utah 84084

In accordance with letter dated April 11, 1985, License # UT 1800173 is amended as follows:

Item 8 is amended to read:

8. 100 millicuries

Condition 17 is amended to read as follows:

17. Except as specifically provided otherwise by this license, the licensee shall possess and use licensed material described in Items 6, 7, and 8 of this license in accordance with statements, representations, and procedures contained in applications dated February 19, 1985, and letter dated April 11, 1985. The Utah Radiation Control Regulations shall govern the licensee's statements in applications or letters, unless the statements are more restrictive than the regulations.

Date

April 24, 1985
Larry F. Anderson, Director, Bureau of Radiation Control

CONTROL NO. 89008