IRONTON IRON, INC.
2520 South Third Street
P.O. Box 98
Ironton, Ohio 45638-0098
(614) 532-0009
Telecopier: (614) 532-4534

INTERMET

July 16, 1990

United States Nuclear regulatory Commission
Region III
799 Roosevelt Road
Glen Ellen, IL 60137

Gentlemen:

In reference to our material licenses #34-24800-01 dated December 3, 1986, I am submitting the following amendments for your review and approval.

AMENDMENTS TO LICENSE APPLICATION DATED 9-15-86

AMEND SEC. 4	CHANGE TO MICHAEL D. FOWLER EXT. 238	614-532-0009
AMEND SEC. 7	CHANGE TO MICHAEL D. FOWLER	
AMEND SEC. 8	SEE ATTACHED	
AMEND SEC. 10	SEE ATTACHED	

Log Aug 23 III
Remitter
Check No. 9499
Amount 350
Fee Category 3A
Date Check Rec'd.
Date Completed 8/30/90
By

AMENDMENTS TO LICENSE #34-24800-01

AMEND SEC. 11	LICENSED MATERIAL SHALL BE USED BY, OR UNDER SUPERVISION OF, MICHAEL D. FOWLER
AMEND SEC. 12.D	THE LICENSEE IS AUTHORIZED TO COLLECT LEAK TEST SAMPLES FOR ANALYSIS BY NDS PRODUCTS SEE ATTACHED
AMEND SEC. 14	REQUESTING PERMISSION FOR RADIATION SAFETY OFFICER TO PERFORM MAINTENANCE, REPAIR, INSTALLATION AND REPLACEMENT OF SEALED SOURCES.
AMEND SEC. 16.B -	**LETTER DATED NOVEMBER 11, 1986**
ITEM 4	REVISE TO READ LICENSEE WILL PERFORM LEAK TEST, NDS PRODUCTS WILL PROVIDE ANALYSIS. SHUTTER TEST WILL BE PERFORMED BY LICENSEE ON A 6 MONTH BASIS.

If you have any questions, or if we can be of further help to you, please feel free to call.

RECEIVED
AUG 09 1990
REGION III

Sincerely,

Michael Fowler

CONTROL NO. 90024

NRC FORM 313
(5-85)
10 CFR 30, 32, 33, 34, 35 and 40

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED BY OMB
3150-0120
Expires: 5-31-87

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.

FEDERAL AGENCIES FILE APPLICATIONS WITH:

U.S. NUCLEAR REGULATORY COMMISSION
DIVISION OF FUEL CYCLE AND MATERIAL 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 MATERIAL SECTION B
631 PARK AVENUE
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
MATERIAL RADIATION PROTECTION SECTION
101 MARIETTA STREET, SUITE 2900
ATLANTA, GA 30323

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
MATERIAL RADIATION PROTECTION SECTION
1450 MARIA LANE, SUITE 210
WALNUT CREEK, CA 94596

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
[XX] B. AMENDMENT TO LICENSE NUMBER 34-24800-01
[ ] C. RENEWAL OF LICENSE NUMBER

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

IRONTON IRON INC.
2520 SOUTH 3 RD STREET
IRONTON, OHIO 45638

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

IRONTON IRON INC.
2520 SOUTH 3 RD STREET
IRONTON, OHIO 45638
1-614-532-0009

4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION: MICHAEL D. FOWLER

TELEPHONE NUMBER: 614-532-0009

SUBMIT ITEMS 5 THROUGH 11 ON 8½ 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 53FR52632-3P AMOUNT ENCLOSED $ 300.00

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	TYPED/PRINTED NAME	TITLE	DATE
	MICHAEL D. FOWLER	RADIATION SAFETY OFF.	7/16/90

14. VOLUNTARY ECONOMIC DATA

a. ANNUAL RECEIPTS

[ ]	< $250K	[ ]	$1M – 2.5M
[ ]	$250K – 500K	[ ]	$2.5M – 7M
[ ]	$500K – 750K	[ ]	$7M – 10M
[ ]	$750K – 1M	[X]	> $10M

b. NUMBER OF EMPLOYEES (Total for entire facility excluding subcontractors): 230

c. NUMBER OF BEDS: 0

d. WOULD YOU BE WILLING TO FURNISH COST INFORMATION (dollar and/or staff hours) ON THE ECONOMIC IMPACT OF CURRENT NRC REGULATIONS OR ANY FUTURE PROPOSED NRC REGULATIONS THAT MAY AFFECT YOU? (NRC regulations permit it to protect confidential commercial or financial (proprietary) information furnished to the agency in confidence.)
[X] YES

FOR NRC USE ONLY

TYPE OF FEE	FEE LOG	FEE CATEGORY	COMMENTS

AMOUNT RECEIVED	CHECK NUMBER

RECEIVED
AUG 09 1990
REGION III
CONTROL NO. 90024

ITEM 7

RESPONSIBLE INDIVIDUAL :

MICHAEL D. FOWLER

107.5 DOCUMEN [illegible] OOM TRAINING HOURS
IN RADIATION S

HAS SATISFIED [illegible] REQUIREMENTS OF 10 CFR PARTS 19, 20 AND 34 ON THE SUBJECT OF RADIOGRAPHER.

HAS HELD CERTIFICATION AS RADIOGRAPHER WITH THE FOLLOWING COMPANIES:

UNITED STATES TESTING CO INC.
WESTERN STRESS INC.
GEO CONSTRUCTION TESTING INC.
HUNTINGTON TESTING INC.

ATTENDED KAY-RAY INC. RADIATION SAFETY COURSE ON NON-PORTABLE NUCLEAR GUAGES.
TRAINING COURSE OUTLINES THE FOLLOWING SUBJECTS

BASIC PRINCIPLES OF NUCLEAR PHYSIS
DETECTION OF RADIATION
DOSIMETRY - PERSONNEL MONITORING
RADIATION SAFETY
BY-PRODUCT LICENSING
NRC RULES AND REGULATIONS

I AM THE RADIATION SAFETY OFFICER FOR LICENSE No. 34-24800-02 AT IRONTON IRON INC. (RADIOGRAPHY LICENSE FOR COBOLT-60)

Training Certificate

This is to certify that

Mike Bowler

has successfully completed factory training in:

Radiation Safety School

In accordance with this specific program
this Certificate is issued:

Raymond Parsons
Instructor

May 18, 1990
Date

ROSEMOUNT Measurement Control Analytical Valves

Kay Ray/Sensall, Inc.

TRAINING & QUALIFICATION PROCEDURE

TRAINING COURSE OUTLINE

1. THE PRINCIPLES OF RADIATION
2. RADIOACTIVITY MEASUREMENTS
3. NUCLEAR GAUGES
4. RADIATION PROTECTION
5. REVIEW OF CODE OF FEDERAL REGULATIONS
6. REVIEW OF PROCEDURES FOR OPERATION
7. REVIEW OF EMERGENCY PROCEDURES
8. HANDS ON TRAINING
9. EXAMINATION

KAY-RAY TRAINING PROCEDURE

THE KAY-RAY 4800 SINGLE POINT LEVEL SYSTEM IS USED TO DETERMINE WHEN THE MATERIAL LEVEL IN THE CUPOLA (VESSEL) IS ABOVE OR BELOW A SPECIFIED POINT. THE SYSTEM CONSISTS OF TWO PARTS: A GAMMA SOURCE HEAD AND A COMBINATION DETECTOR-ELECTRONICS HEAD. SEE FIGURE 1.

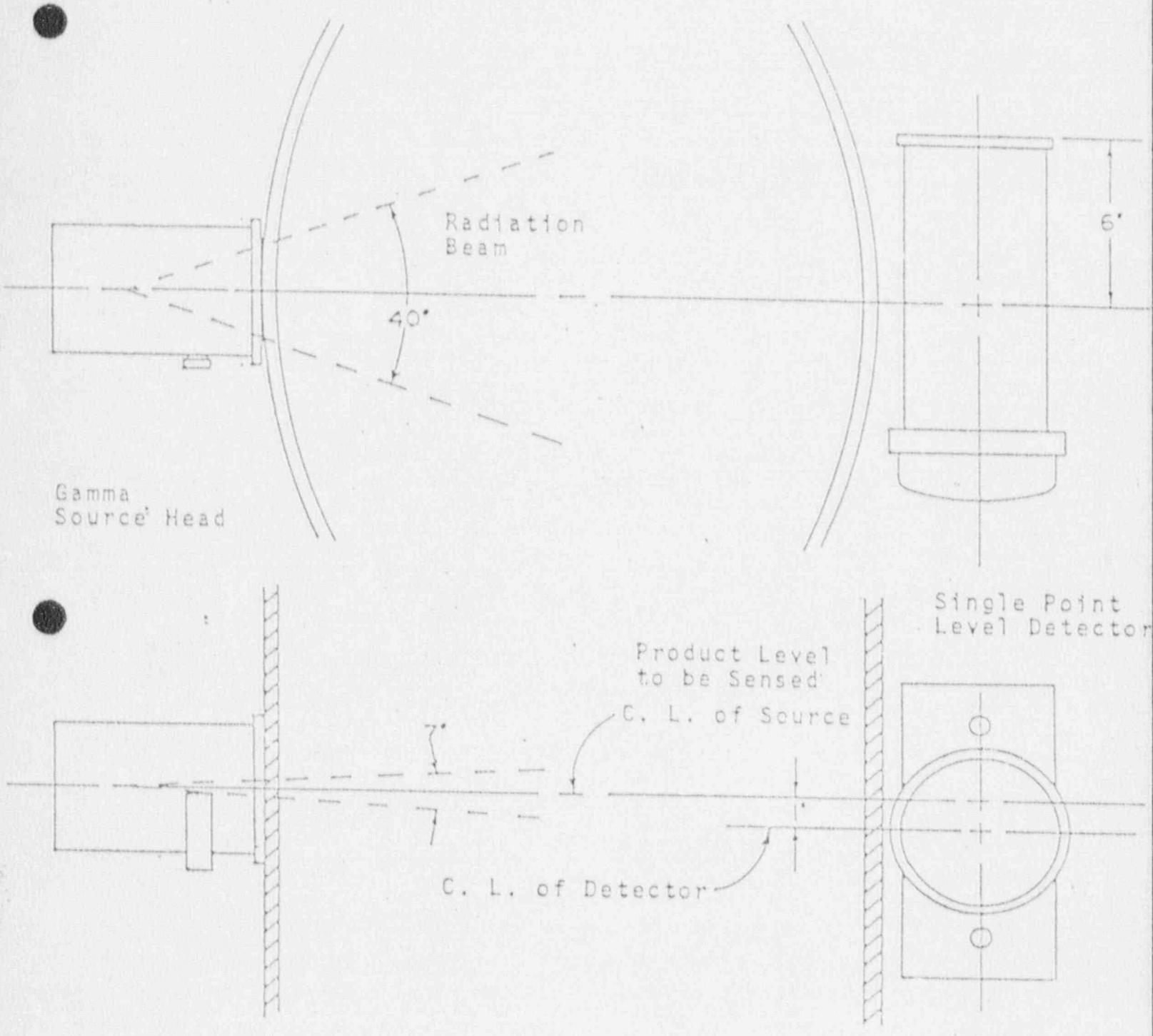
THE GAMMA SOURCE WILL EMIT IONIZING RADIATION, WHICH MAKES IT SUCH A VALUABLE INDUSTRIAL TOOL. ALSO, IT IS POTENTIALLY INJURIOUS TO MAN. FOR IT TO BE IN INDUSTRY AS AN EFFECTIVE TOOL, MEASURES MUST BE TAKEN TO PROTECT INDIVIDUALS FROM THE HARMFUL EFFECTS.

THE NUCLEAR REGULATORY COMMISSION THROUGH ITS RULES AND REGULATIONS AND IRONTON IRON, INC. THROUGH ITS TRAINING, OPERATING AND EMERGENCY PROCEDURES, HELP YOU TO USE RADIATION SAFELY. BUT YOU HAVE THE ULTIMATE RESPONSIBILITY. YOU MUST BE KNOWLEDGEABLE AND SAFETY-CONSCIOUS.

THIS PROCEDURE IS DESIGNED TO PRESENT THE INFORMATION NECESSARY FOR THE ENDEAVOR. IT WILL, HOPEFULLY, ASSIST YOU IN GAINING THE KNOWLEDGE YOU WILL NEED TO BE SAFETY-CONSCIOUS. IT IS FOR YOU SAFETY AND WELL BEING AND THAT OF THE GENERAL PUBLIC, THAT THIS PROCEDURE IS PRESENTED.

THE TRAINING YOU WILL RECEIVE ON THE SINGLE PORT LEVEL SYSTEM WILL BE GIVEN BY THE RADIATION SAFETY OFFICER.

ANY EMPLOYEE WHO OPERATES THIS EQUIPMENT MUST SUCCESSFULLY COMPLETE THIS TRAINING PROCEDURE AND PASS A WRITTEN AND ORAL EXAMINATION.



NUCLEAR GAUGE TRAINING

WHAT IS RADIATION ?

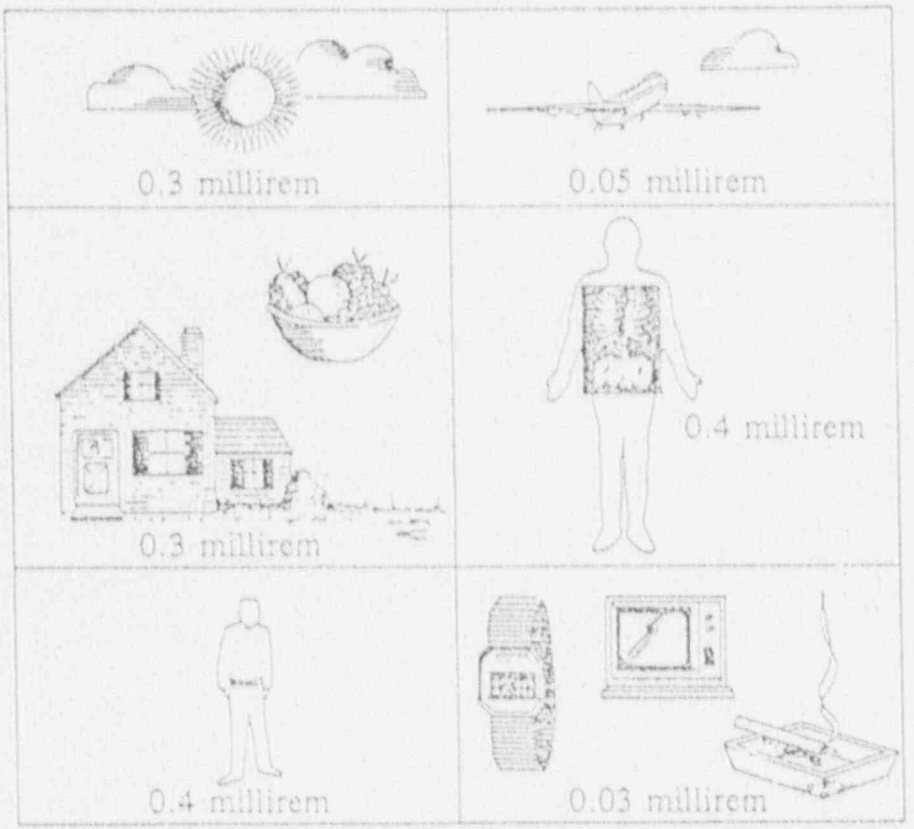
QUITE SIMPLY, RADIATION IS A FORM OF ENERGY. RADIATION COMES FROM ATOMS, THE BUILDING BLOCKS OF ALL MATTER, AND IS AROUND US ALL THE TIME.

ALTHOUGH MANY OF US ASSOCIATE THE WORD "RADIATION" WITH DANGER AND ILLNESSES SUCH AS CANCER, RADIATION IS NOT NECESSARILY HARMFUL. BURNING A LOG, FOR EXAMPLE, GIVES OFF RADIANT ENERGY (RADIATION) IN THE FORM OF BOTH HEAT AND LIGHT. AND WHEN YOU LIE IN THE SUN TOO LONG, YOU CAN GET A SUNBURN, WHICH IS A MILD RADIATION BURN. HOWEVER, THE HAZARDS THAT COME TO MIND WHEN YOU THINK OF RADIATION ARE MOST OFTEN ASSOCIATED WITH WHAT IS CALLED "IONIZING RADIATION."

WE ARE EXPOSED TO IONIZING RADIATION EVERY DAY. IN FACT, NATURAL BACKGROUND RADIATION - FROM SOIL AND ROCK, FROM THE FOOD WE EAT, FROM THE HOUSES WE LIVE IN, FROM COSMIC RAYS. EVEN FROM OUR OWN BODIES - CONTRIBUTES TO ABOUT TWO-THIRDS OF OUR ANNUAL RADIATION EXPOSURE.

WE ARE ALSO EXPOSED TO SEVERAL MAN-MADE SOURCES OF IONIZING RADIATION THROUGH OUR DAILY ACTIVITIES. THESE INCLUDE WATCHING TELEVISION, SMOKING, HAVING AN X-RAY AT YOUR DOCTOR'S OR DENTIST'S OFFICE, OR WEARING CERTAIN LUMINOUS DIAL WATCHES. OTHER ACTIVITIES INCREASE OUR EXPOSURE TO NATURAL RADIATION. FOR EXAMPLE, AIRPLANE FLIGHTS EXPOSE US TO INCREASED COSMIC RAYS. HOWEVER, WE CAN CONTROL THE AMOUNT OF RADIATION WE RECEIVE FROM THESE SOURCES BY SIMPLY LIMITING THE RELATED ACTIVITIES.

THE CHART BELOW SHOWS HOW MUCH IONIZING RADIATION WE NORMALLY RECEIVE FROM VARIOUS NATURAL AND MAN-MADE SOURCES. DOSES ARE GIVEN IN MILLIREM, WHICH IS THE TRADITIONAL UNIT FOR MEASURING THE AMOUNT OF RADIATION THE BODY ABSORBS.



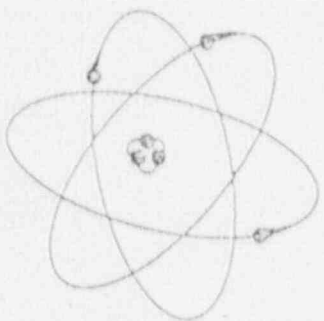
Natural radiation *Examples*		Man-made radiation *Examples*	
Cosmic rays:	*30 millirem*	*6,000 miles jet flight:*	*5 millirem*
Soil:	*30 millirem*	*Medical X-rays:*	*40 millirem*
Body:	*40 millirem*	*Misc. products:*	*3 millirem*
		Fallout:	*4 millirem*
Total dose/yr:	*100 millirem*	*Total dose/yr:*	*52 millirem*

Accumulated dose/yr: 152 millirem
(Note: 1 millirem equals 0.001 rem)

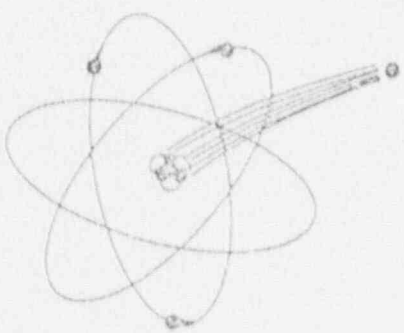
HOW IONIZING RADIATION OCCURS

MOST IONIZING RADIATION RESULTS WHEN THE STRUCTURE OF AN ATOM'S ELECTRONS, NEUTRONS AND PROTONS BREAK DOWN. THIS CAN HAPPEN WHEN SOME FORM OF IONIZING RADIATION COLLIDES WITH A NORMAL ATOM, OR WHEN AN UNSTABLE ATOM (CALLED A RADIOISOTOPE) DECAYS OR BREAKS DOWN ON IT OWN. RADIOISOTOPES RELEASE ENERGY IN THE FORM OF IONIZING RADIATION REPEATEDLY OVER A SPECIFIC LENGTH OF TIME, UNTIL ALL THE ATOMS BECOME STABLE.

Atom



Decay



Particle leaving atom

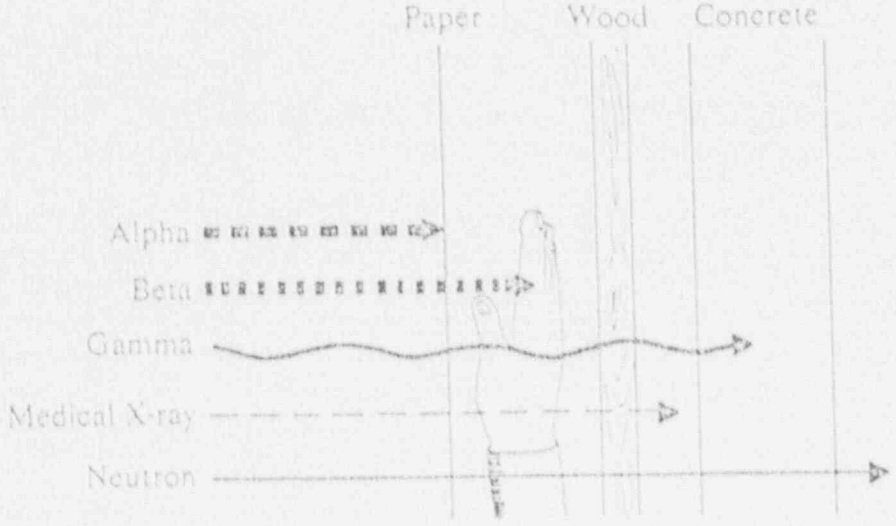
When an atom's structure breaks down, as shown here by a particle leaving the atom, the atom releases energy as ionizing radiation. This radioactive decay continues until the atom changes to a stable form.

NUCLEAR GAUGE TRAINING

THE WAY THAT A ATOM RELEASES RADIATION CAN BE COMPARED TO A FLASH BULB ON A CAMERA GOING OFF. WHEN A BULB IS TRIGGERED, ENERGY IS RELEASED AS A FLASH OF LIGHT. THE BULB THEN CHANGES ITS FORM TO A SPENT BULB AND IS NO LONGER CAPABLE OF FLASHING. THE RELEASE OF IONIZING RADIATION IS SIMILAR, EXCEPT THAT THERE IS NO VISIBLE FLASH. A DECAYING ATOM GIVES OFF ENERGY AS RADIATION AND THEN CHANGES INTO A NEW FORM. HOWEVER, UNLIKE THE FLASH BULB, YOU CANNOT SEE RADIATION AND CANNOT TELL THAT THE NEW FORM OF ATOM IS STILL DECAYING AND CAPABLE OF GIVING OFF RADIOACTIVE ENERGY. A RADIOISOTOPE MAY UNDERGO SEVERAL CHANGES AND RELEASE RADIATION OVER A LONG PERIOD OF TIME BEFORE CHANGING TO A STABLE FORM.

THE POWER OF IONIZING RADIATION

THE VARIOUS TYPES OF IONIZING RADIATION HAVE DIFFERENT PENE-TRATING POWERS. THIS PORTRAYS THE ABILITY OF DIFFERENT FORMS OF IONIZING RADIATION TO PENETRATE PAPER, THE HUMAN BODY, WOOD AND CONCRETE.



NUCLEAR GAUGE TRAINING

WHAT UNITS ARE USED TO MEASURE RADIATION ?

THE TERM "MILLIROENTGEN PER HOUR (Abbreviated mr/hr)" IS A MEASURE OF THE RADIATION FIELD INTENSITY IN AIR. WHEN RADIATION IS ABSORBED BY THE BODY, THE TERM "MILLIREM (Abbreviated mrem)" IS USED. THIS DISTINCTION IS NECESSARY BECAUSE NOT ALL RADIATION AFFECTS THE BODY IN THE SAME MANNER. FOR GAMMA RADIATION, THE MILLIREM IS EQUAL TO THE MILLIROENTGEN.

RADIATION DOSE LIMITS

THE NUCLEAR REGULATORY COMMISSION LIMITS THE AMOUNT OF RADIATION WHICH A PERSON COULD RECEIVE TO 1250 MILLIREM PER CALENDAR QUARTER.

TO GUARD AGAINST POSSIBLE OVER-EXPOSURE THE NRC REQUIRES PERSONNEL MONITORING OF PERSONS WHO ARE EXPOSED TO A RADIATION FIELD GREATER THAN 100 MILLIREM/HOUR.

THE MAXIMUM ALLOWED FIELD INTENSITY FOR THE KAY-RAY NUCLEAR GAUGE IS 5 MILLIREM/HOUR AT A DISTANCE OF 12 INCHES FROM ANY SURFACE OF THE GAUGE. THUS PERSONNEL MONITORING IS NOT REQUIRED.

NUCLEAR GAUGE TRAINING

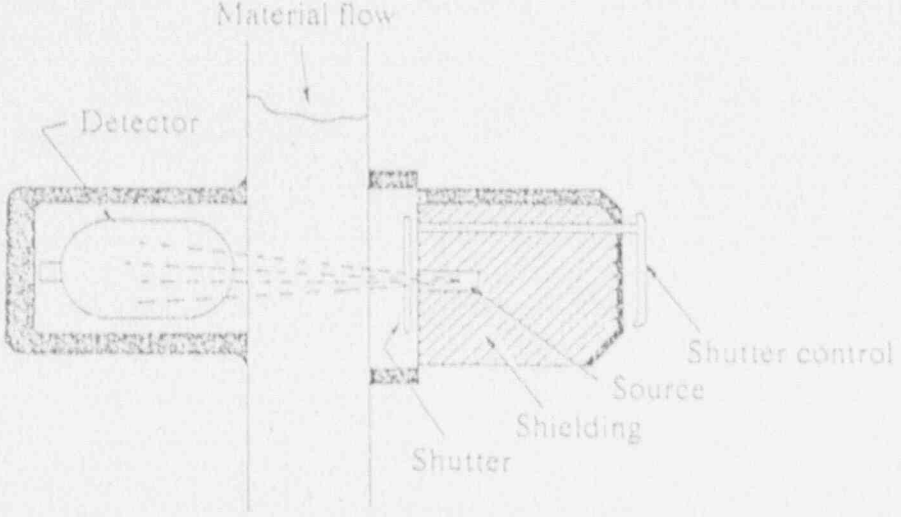
USING RADIATION SAFELY

THE NUCLEAR REGULATORY COMMISSION THROUGH ITS RULES AND REGULATIONS AND IRONTON IRON INC. THROUGH ITS TRAINING, OPERATING AND EMERGENCY PROCEDURES, HELP YOU TO USE RADIATION SAFELY. BUT YOU HAVE THE ULTIMATE RESPONSIBILITY. YOU MUST BE KNOWLEDGEABLE AND SAFETY-CONSCIOUS.

ALL TYPES OF IONIZING RADIATION CAN BE HARMFUL. LONG-TERM EXPOSURE TO A SMALL SOURCE OF CONSTANT RADIATION, OR SHORT-TERM EXPOSURE TO A LARGE AMOUNT OF RADIATION CAN CAUSE DAMAGE TO OUR CELLULAR STRUCTURE OR TISSUE. HOWEVER, THESE RISKS CAN BE MINIMIZED AND CONTROLLED, ALLOWING RADIOACTIVE SOURCES TO BE USED SAFELY FOR NUCLEAR GAUGES.

NUCLEAR GAUGES

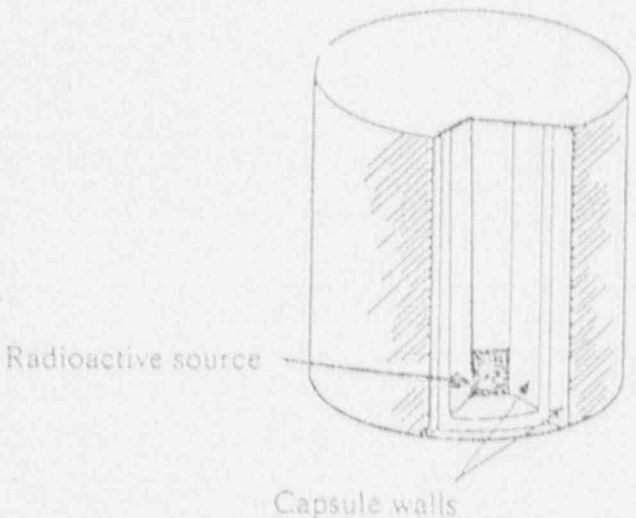
NUCLEAR GAUGES CONSIST OF A RADIOACTIVE SOURCE THAT IS HOUSED WITHIN A SOURCE HOLDER AND IS PLACED AT A CRUCIAL POINT IN A PRODUCTION PROCESS. WHEN THE SOURCE HOLDER'S SHUTTER IS OPENED, AN INVISIBLE BEAM OF RADIATION IS DIRECTED AT THE MATERIAL BEING PROCESSED. A DETECTOR MOUNTED OPPOSITE THE SOURCE MEASURES THE RADIATION INTENSITY THAT PASSES THROUGH THE MATERIAL.



NUCLEAR GAUGE TRAINING

THE STRENGTH OF THE SOURCE

THE NUCLEAR GAUGE USES ONE SOURCE OF CESIUM - 137, THE SOURCE STRENGTH IS MEASURED IN TERMS OF HOW MUCH RADIOACTIVE ENERGY IT GIVES OFF. ALTHOUGH THESE SOURCES ARE PHYSICALLY QUITE SMALL. THEY ARE EXTREMELY POWERFUL AND HIGHLY RADIOACTIVE. HOWEVER, IT IS THE AMOUNT OF RADIATION YOU ABSORB, NOT THE STRENGTH OF THE SOURCE OR THE AMOUNT OF RADIATION IT CAN EMIT, THAT CAN POSE A DANGER TO YOUR HEALTH. YOU ARE PROTECTED FROM RECEIVING EXCESS RADIATION BY THE SOURCE SHIELDING AND PROPER HANDLING TECHNIQUES.



ALL NUCLEAR GAUGES USE A RADIOACTIVE SOURCE THAT IS PLACED IN A SPECIAL DOUBLE CAPSULE. THIS CAPSULE, WHICH CAN BE AS SMALL AS A ERASER ON THE TIP OF A PENCIL, IS THEN INSERTED INTO THE GAUGE SOURCE HOUSING, WHICH SHIELDS THE RADIATION EMITTED FROM THE SOURCE.

NUCLEAR GAUGE TRAINING

ARE NUCLEAR GAUGES SAFE ?

NUCLEAR GAUGES ARE TOOLS LIKE A POWER SAW OR A WELDING TORCH THAT MAY BE HAZARDOUS UNLESS PROPER SAFETY PRECAUTIONS ARE TAKEN. BUT BECAUSE THE POTENTIAL HARM FROM RADIATION IS NOT AS OBVIOUS AS THE DANGERS FROM A SHARP BLADE OR A FLAME, THE SAFETY PRECAUTIONS ARE NOT AS OBVIOUS EITHER. BY FOLLOWING A FEW SIMPLE RULES, YOU CAN BE ASSURED THAT WORKING WITH OR AROUND NUCLEAR GAUGES WILL POSE NO THREAT TO YOUR HEALTH AND SAFETY.

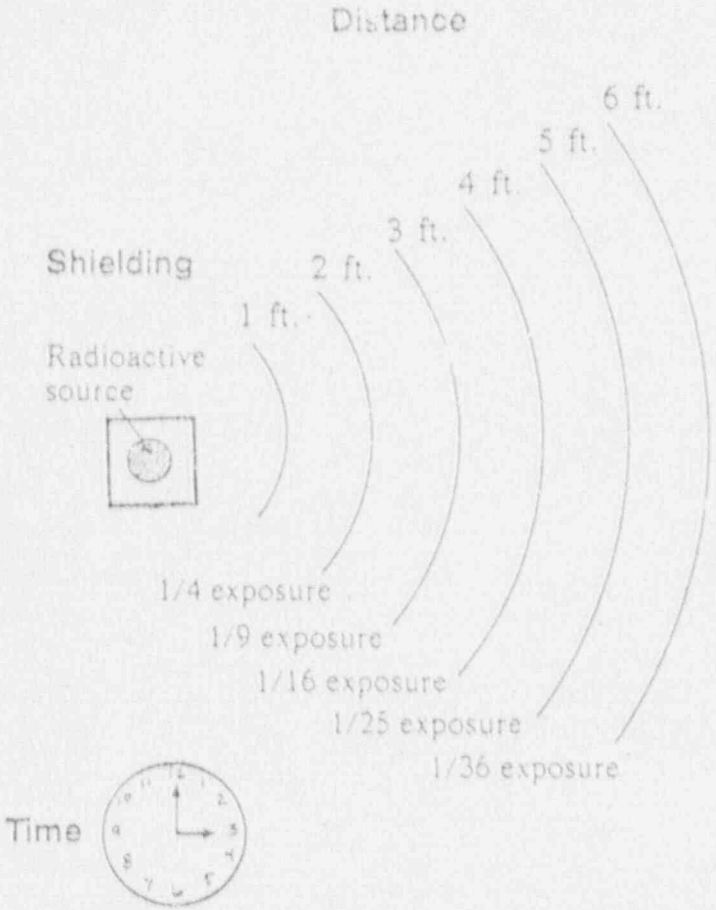
PRINCIPLES OF RADIATION PROTECTION

THREE FACTORS COME INTO PLAY WHEN PROTECTING YOURSELF FROM THE EFFECTS OF RADIATION: TIME, DISTANCE AND SHIELDING.

TIME: THE LESS TIME A PERSON REMAINS IN THE AREA OF RADIATION THE LESS OF A RADIATION DOSE THAT PERSON WILL RECEIVE.

DISTANCE: THE INTENSITY OF RADIATION AND ITS EFFECTS FALL OFF SHARPLY AS YOU MOVE FURTHER AWAY FROM THE RADIOACTIVE SOURCE.

SHIELDING: PROTECTIVE MATERIAL PLACED BETWEEN YOU AND THE SOURCE REDUCES THE LEVEL OF RADIATION PASSING THROUGH, AND THUS THE AMOUNT TO WHICH YOU WILL BE EXPOSED. IN NUCLEAR GAUGES, THIS PROTECTION IS PROVIDED BY THE SOURCE HOUSING.



The three elements of radiation protection are time, distance, and shielding. The less time you spend in the area of radiation, the less of a radiation dose you will receive. Likewise, the effects of radiation fall off sharply the further you move away from the radioactive source. Protective material placed between you and the source, like the shielding, also reduces the amount of radiation to which you will be exposed.

UNITED STATES NUCLEAR REGULATORY COMMISSION
Washington, D.C. 20555

NOTICE TO EMPLOYEES

STANDARDS FOR PROTECTION AGAINST RADIATION (PART 20); NOTICES, INSTRUCTIONS AND REPORTS TO WORKERS; INSPECTIONS (PART 19); EMPLOYEE PROTECTION

WHAT IS THE NUCLEAR REGULATORY COMMISSION?

The Nuclear Regulatory Commission is an independent Federal regulatory agency responsible for licensing and inspecting nuclear power plants and other commercial uses of radioactive materials.

WHAT DOES THE NRC DO?

The NRC's primary responsibility is to ensure that workers and the public are protected from unnecessary or excessive exposure to radiation and that nuclear facilities including power plants are constructed to high quality standards and operated in a safe manner. The NRC does this by establishing requirements in Title 10 of the Code of Federal Regulations (10 CFR) and in licenses issued to nuclear users.

WHAT RESPONSIBILITY DOES MY EMPLOYER HAVE?

Any company that conducts activities licensed by the NRC must comply with the NRC's requirements. If a company violates NRC requirements, it can be fined or have its license modified, suspended or revoked.

Your employer must tell you which NRC radiation requirements apply to your work and must post NRC Notices of Violation involving radiological working conditions.

WHAT IS MY RESPONSIBILITY?

For your own protection and the protection of your co-workers, you should know how NRC requirements relate to your work and should obey them. If you observe violations of the requirements, you should report them.

HOW DO I REPORT VIOLATIONS?

If you believe that violations of NRC rules or of the terms of the license have occurred, you should report them immediately to your supervisor. If you believe that adequate corrective action is not being taken, you may report this to an NRC inspector or the nearest NRC Regional Office.

WHAT IF I WORK IN A RADIATION AREA?

If you work with radioactive materials or in a radiation (controlled) area, the amount of radiation exposure that you may legally receive is limited by NRC Regulations. The limits on your exposure are contained in sections 20.101, 20.103, and 20.104 of Title 10 of the Code of Federal Regulations (10 CFR 20). While these are the maximum allowable limits, your employer should also keep your radiation exposure as far below these limits as is "reasonably achievable."

MAY I GET A RECORD OF MY RADIATION EXPOSURE?

Yes. Your employer is required to tell you, in writing, if you receive any radiation exposure above the limits set in the NRC regulations or your employer's license. In addition, if your job involves radiation, you may request from your employer a record of your annual radiation exposures and a written report of your total exposure when you leave your job.

HOW ARE VIOLATIONS OF NRC REQUIREMENTS IDENTIFIED?

NRC conducts regular inspections at licensed facilities to assure compliance with NRC requirements. In addition, your employer and site contractors conduct their own inspections to assure compliance. All inspectors are protected by Federal law. Interference with them may result in criminal prosecution for a Federal offense.

MAY I TALK WITH AN NRC INSPECTOR?

Yes. Your employer may not prevent you from talking with an NRC inspector and you may talk privately with an inspector and request that your identity remain confidential.

MAY I REQUEST AN INSPECTION?

If you believe that your employer has not corrected violations involving radiological working conditions, you may request an inspection. Your request should be addressed to the nearest NRC Regional Office and must describe the alleged violation in detail. It must be signed by you or your representative.

HOW DO I CONTACT THE NRC?

Notify an NRC inspector on-site or call the nearest NRC Regional office collect. NRC inspectors want to talk to you if you are worried about radiation safety or other aspects of licensed activities, such as the quality of construction or operations at your plant.

CAN I BE FIRED FOR TALKING TO THE NRC?

No. Federal law prohibits an employer from firing or otherwise discriminating against a worker for bringing safety concerns to the attention of the NRC. You may not be fired or discriminated against because you:

- ask the NRC to enforce its rules against your employer;
- testify in an NRC proceeding;
- provide information or are about to provide information to the NRC about violations of requirements;
- are about to ask for or testify, help, or take part in an NRC proceeding.

WHAT FORMS OF DISCRIMINATION ARE PROHIBITED?

No employer may fire you or discriminate against you with respect to pay, benefits, or working conditions because you help the NRC.

HOW AM I PROTECTED FROM DISCRIMINATION?

If you believe that you have been discriminated against for bringing safety concerns to the NRC, you may file a complaint with the U.S. Department of Labor. Your complaint must describe the firing or discrimination and must be filed within 30 days of the occurrence.

Send complaints to:

Office of the Administrator
Wage and Hour Division
Employment Standards Administration
U.S. Department of Labor
Room S-3502
200 Constitution Avenue, N.W.
Washington, D.C. 20210

or any local office of the Department of Labor, Wage and Hour Division. Check your telephone directory under U.S. Government listings.

WHAT CAN THE LABOR DEPARTMENT DO?

The Department of Labor will notify the employer that a complaint has been filed and will investigate the case.

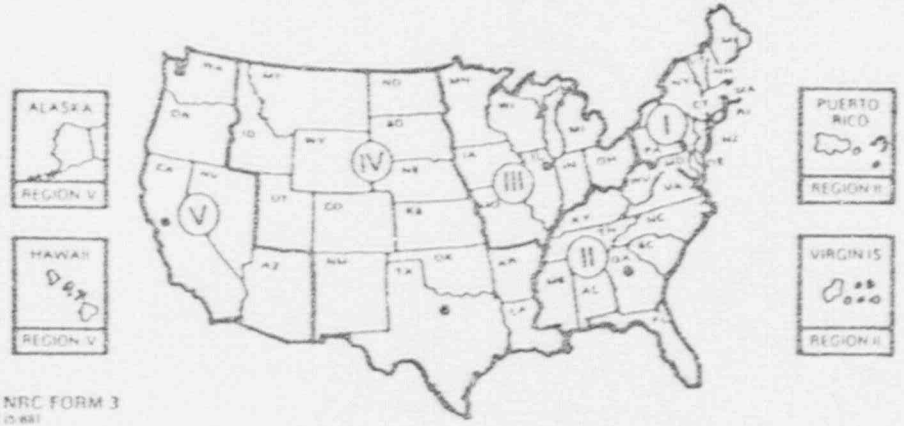
If the Department of Labor finds that your employer has unlawfully discriminated against you, it may order you to be reinstated, receive back pay, or be compensated for any injury suffered as a result of the discrimination.

WHAT WILL THE NRC DO?

The NRC may assist the Department of Labor in its investigation. NRC may conduct its own investigation where necessary to determine whether unlawful discrimination has prevented the free flow of information to the Commission. Also, if the NRC or Department of Labor finds that unlawful discrimination has occurred, the NRC may issue a Notice of Violation to your employer, impose a fine, or suspend, modify, or revoke your employer's NRC license.

UNITED STATES NUCLEAR REGULATORY COMMISSION REGIONAL OFFICE LOCATIONS

A representative of the Nuclear Regulatory Commission can be contacted at the following addresses and telephone numbers. The Regional Office will accept collect telephone calls from employees who wish to register complaints or concerns about radiological working conditions or other matters regarding compliance with Commission rules and regulations.



Regional Offices

REGION	ADDRESS	TELEPHONE
I	U.S. Nuclear Regulatory Commission Region I 475 Allendale Road King of Prussia, PA 19406	215 337 5000
II	U.S. Nuclear Regulatory Commission Region II 101 Marietta St., N.W. Atlanta, GA 30323	404 331 4503
III	U.S. Nuclear Regulatory Commission Region III 799 Roosevelt Road Glen Ellyn, IL 60137	708 790 5500
IV	U.S. Nuclear Regulatory Commission Region IV 611 Ryan Plaza Drive, Suite 1000 Arlington, TX 76011	817 860 8100
V	U.S. Nuclear Regulatory Commission Region V 1450 Maria Lane, Suite 210 Walnut Creek, CA 94596	415 943 3700

NRC FORM 3
(5-88)

CERTIFICATION OF RADIATION SAFETY TRAINING

EMPLOYEE'S NAME _____
LAST MIDDLE FIRST

SOCIAL SECURITY No _____-_____-_____

DATE OF BIRTH _____

APPROVED BY _____ RADIATION SAFETY OFFICER

THE ABOVE NAMED EMPLOYEE IS QUALIFIED TO PERFORM THE RESPONSIBILITIES OF A QUALIFIED PERSONNEL, THIS QUALIFICATION IS BASED ON THE SUCCESSFUL COMPLETION OF FOLLOWING ITEMS.

1. INSTRUCTIONS ON IRONTON IRON INC.RADIATION SAFETY PROGRAM, INSTRUMENTS, AND EQUIPMENT USED IN THE COURSE OF PERFORMING THEIR DUTIES.

   DATE _____

2. INSTRUCTIONS ON THE COMPANY'S MATERIAL LICENSE AND FEDERAL REGULATIONS FOR THE CONTROL OF RADIATION.

   DATE _____

3. DEMONSTRATED SATISFACTORILY HIS [HER] COMPETENCE TO PERFORM AND USE RELATED EQUIPMENT ASSOCIATED WITH SUCH OPERATION.

   DATE _____

4. PASSED A EXAMINATION ON TOPICS OUTLINED IN THE TRAINING PROCEDURE.

   EXAM SCORE _____ DATE _____

CONTROL No. 90024

INTERMET

IRONTON IRON INC.

RADIATION SAFETY PROGRAM
FOR THE
KAY-RAY LEVEL MEASURING SYSTEM

RSP-002 REV. 0

TABLE OF CONTENTS

SECTION

INTRODUCTION

THE PURPOSE OF THIS PROGRAM IS TO PROVIDE STEP BY STEP INSTRUCTIONS FOR THE USE OF THE KAY-RAY NON-PORTABLE NUCLEAR GAUGE, WITH INFORMATION THAT WILL ENABLE YOU TO UNDERSTAND SPECIFIC REQUIREMENTS AND POLICIES.

THIS PROGRAM SHALL BE CONDUCTED IN ACCORDANCE WITH [1] THE STATEMENTS, REPRESENTATIONS AND PROCEDURES CONTAINED IN THE APPLICATION [2] THE TERMS AND CONDITIONS OF THE LICENSE AND [3] THE NUCLEAR REGULATORY COMMISSION'S RULES AND REGULATIONS.

IRONTON IRON INC.

RADIATION SAFETY PROGRAM
FOR THE
KAY-RAY LEVEL MEASURING SYSTEM

ORGANIZATIONAL CHART

SAM GREENE
GENERAL MANAGER

DAVID McGORON
Q.A. MANAGER

MICHAEL FOWLER
RADIATION SAFETY OFFICER

OPERATING PROCEDURE

3.1 MAINTENANCE

A. UNLESS SPECIFICALLY AUTHORIZED BY THE RADIATION SAFETY OFFICER, NO PERSON SHALL PERFORM WORK ON THE GAMMA SOURCE HOLDER OR THE LEVEL DETECTOR.

B. A SHUTTER TEST SHALL BE PERFORMED EVERY SIX MONTHS, FOR VERIFICATION THAT THE SHUTTER IS OPERATING PROPERLY. THIS REQUIRED INSPECTION SHALL BE DOCUMENTED ON FORM 0002-90. THIS FORM SHALL BE KEPT ON FILE BY THE RSO.

C. IF MAINTENANCE IS REQUIRED INSIDE OF CUPALO [VESSEL] THE OPERATIONS SUPERVISOR SHALL BE NOTIFIED AND HE/SHE SHALL DIRECT A QUALIFIED PERSON TO PERFORM THE LOCK-OUT PROCEDURE.

D. A PRE-JOB BRIEFING SHOULD BE CONDUCTED WITH PERSONNEL WORKING IN THE GENERAL AREA OF THE GAMMA SOURCE HOLDER AND THE LEVEL DETECTOR BEFORE WORK BEGINS TO PREVENT ANY ACCIDENTAL DAMAGE TO EQUIPMENT OR PERSONNEL.

NOTE: MAINTENANCE OF THE GAMMA SOURCE HOLDER IS RESTRICTED TO LICENSED PERSONNEL WITH SPECIFIC LICENSING TO PERFORM WORK ON THIS TYPE OF EQUIPMENT.

E. A PHYSICAL INVENTORY SHALL BE PERFORMED EVERY SIX MONTHS AND SHALL BE DOCUMENTED ON FORM 0004-90. THIS FORM SHALL BE KEPT ON FILE BY THE RSO.

OPERATING PROCEDURE

3.2 PERSONNEL MONITORING

A. PERSONNEL MONITORING IS NOT REQUIRED IN ACCORDANCE WITH 10 CFR PART 20.105.

B. PERSONNEL MONITORING SHALL BE REQUIRED FOR THE RADIATION SAFETY OFFICER TO PERFORM MAINTENANCE, INSTALLATION, INITIAL RADIATION SURVEY, REMOVAL FROM SERVICE AND SHIPPING DEVICES.

B.1 FILM BADGES WILL BE EXCHANGED ON A MONTHLY BASIS.

OPERATING PROCEDURE

3.3 LEAK TEST

A. IN ACCORDANCE WITH 10 CFR PART 30, IRONTON IRON WILL PERFORM LEAK TEST TO DETERMINE IF THERE IS ANY LEAKAGE FROM THE SEALED-SOURCE IN THE GAMMA SOURCE HOLDER AT INTERVALS NOT TO EXCEED 3 YEAR INTERVALS.

B. THE RADIATION SAFETY OFFICER WILL PERFORM THE LEAK-TEST. THE LEAK TEST KIT WILL BE FURNISHED BY NDS PRODUCTS, THE KIT USED WILL BE LEAK TEST KIT No. 2. THE VENDORS PROCEDURE FOR LEAK TESTING SHALL BE UTILIZED.

C. NDS PRODUCTS WILL PERFORM ANALYSIS OF LEAK TEST AND DOCUMENT THE RESULTS. THESE RESULTS SHALL BE RETAINED ON FILE BY THE RADIATION SAFETY OFFICER.

NDS PRODUCTS

TEXAS LICENSE No. L00991

111 ANDERSON
PASADENA, TX 77506
TEL. [713] 475-2986
FAX [713] 477-6741

OPERATING PROCEDURE

3.4 SURVEY'S & SURVEY METERS

3.4.A SURVEYS OF THE GAMMA SOURCE HOLDER AND DETECTOR SHALI BE SURVEYED EVERY SIX MONTHS TO ASSURE THAT NO PERSONNEL POTENTIAL EXPOSURE EXIST.
THIS SURVEY SHALL BE DOCUMENTED ON FORM 0003-90 AND KEPT ON FILE BY THE RADIATION SAFETY OFFICER.

3.4.B IN ORDER TO PERFORM APPROPRIATE SURVEYS, THE SURVEY METER MUST BE OPERABLE AND CALIBRATED.

PRIOR TO THE USE THE QUALIFIED PERSON SHALL VERIFY THAT THE SURVEY METER HAS A CALIBRATION LABEL, THIS LABEL SHALL LIST THE DATE OF CALIBRATION, AND THE DATE DUE.

ALL SURVEY METERS SHALL BE CALIBRATED AT LEAST ANNUALLY

NDS PRODUCTS WILL PERFORM CALIBRATION SERVICES

NDS PRODUCTS

TEXAS LICENSE No L00991

111 ANDERSON
PASADENA, TX 77506
TEL. [713] 475-2986
FAX [713] 477-6741

CONTROL NO. 90024

FORM 0002-90

SHUTTER TEST

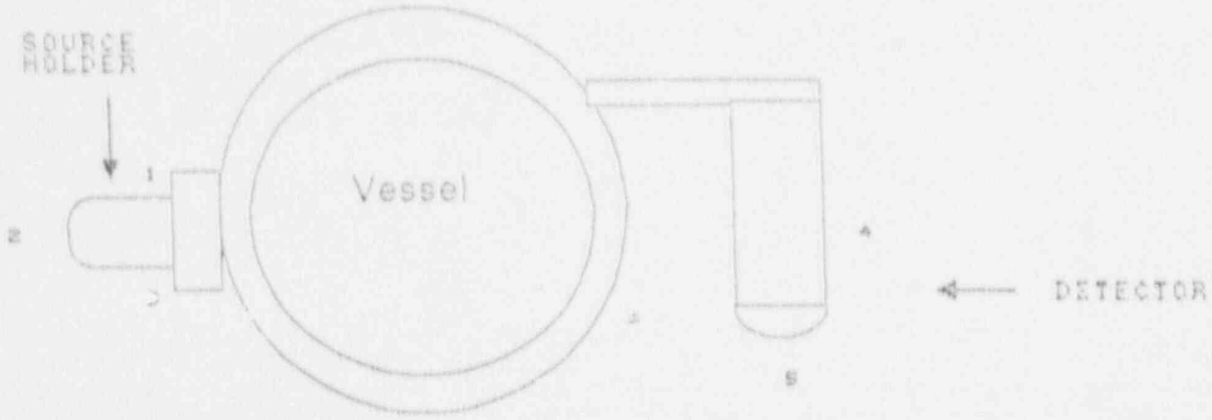
1. SHUTTER TEST PERFORMED BY RADIATION SAFETY OFFICER CNLY
2. CHECK FOR PROPER LABELS
3. CHECK FOR FREEDOM OF MOVEMENT

DATE	SOURCE HOLDER No.	FREEDOM OF MOVEMENT	LABELS	PERFORMED BY

SURVEY LOG

FORM 0003-90

CONDUCT RADIATION SURVEY WITH EMPTY VESSEL



LOG RADIATION LEVELS AT 1 FOOT DISTANCE					
DATE	ZONE 1	ZONE 2	ZONE 3	ZONE 4	ZONE 5

CONTROL NO. 90024

FORM 0004-90

BI-ANNUAL PHYSICAL INVENTORY

NOTE: INVENTORY SHALL BE CONDUCTED EVERY SIX MONTHS TO ACCOUNT FOR EXPOSURE DEVICES POSSESSED UNDER LICENSE.

DATE OF INVENTORY	SOURCE HOLDER PHYSICAL CONDITION	SOURCE HOLDER SERIAL NUMBER	INVENTORY PERFORMED BY

LOCK-OUT PROCEDURE

A NUCLEAR TYPE LEVEL SYSTEM CAN REPRESENT A POTENTIAL HAZARD, IF THE SHUTTER TO THE SOURCE IS NOT PROPERLY CLOSED AND LOCKED, THEREFORE ONLY QUALIFIED PERSONNEL SHALL OPERATE THE LOCKING MECHANISM, THE FOLLOWING PROCEDURE SHALL BE FOLLOWED WORD FOR WORD. NO DEVIATIONS ARE ALLOWED WITHOUT APPROVAL FROM THE RADIATION SAFETY OFFICER.

A. WHEN MAINTENANCE IS REQUIRED AT THE SOURCE HOLDER, DETECTOR OR INSIDE OF CUPOLA (VESSEL), THE OPERATIONS SUPERVISOR SHALL BE NOTIFIED.

B. THE OPERATIONS SUPERVISOR WILL APPOINT A QUALIFIED PERSON TO PHYSICALLY LOCK-OUT THE GAMMA SOURCE HOLDER.

C. THE QUALIFIED PERSON SHALL CLOSE THE SHUTTER AS INDICATED IN FIGURE 2 AND PLACE A PAD LOCK THROUGH THE LOCKING BAR.

D. THE QUALIFIED PERSON SHALL THEN PERFORM A SURVEY OF THE GAMMA SOURCE HOLDER AND VERIFY THAT NO RADIATION LEVELS ABOVE N/A CPM OR 5 MR/HR EXIST.

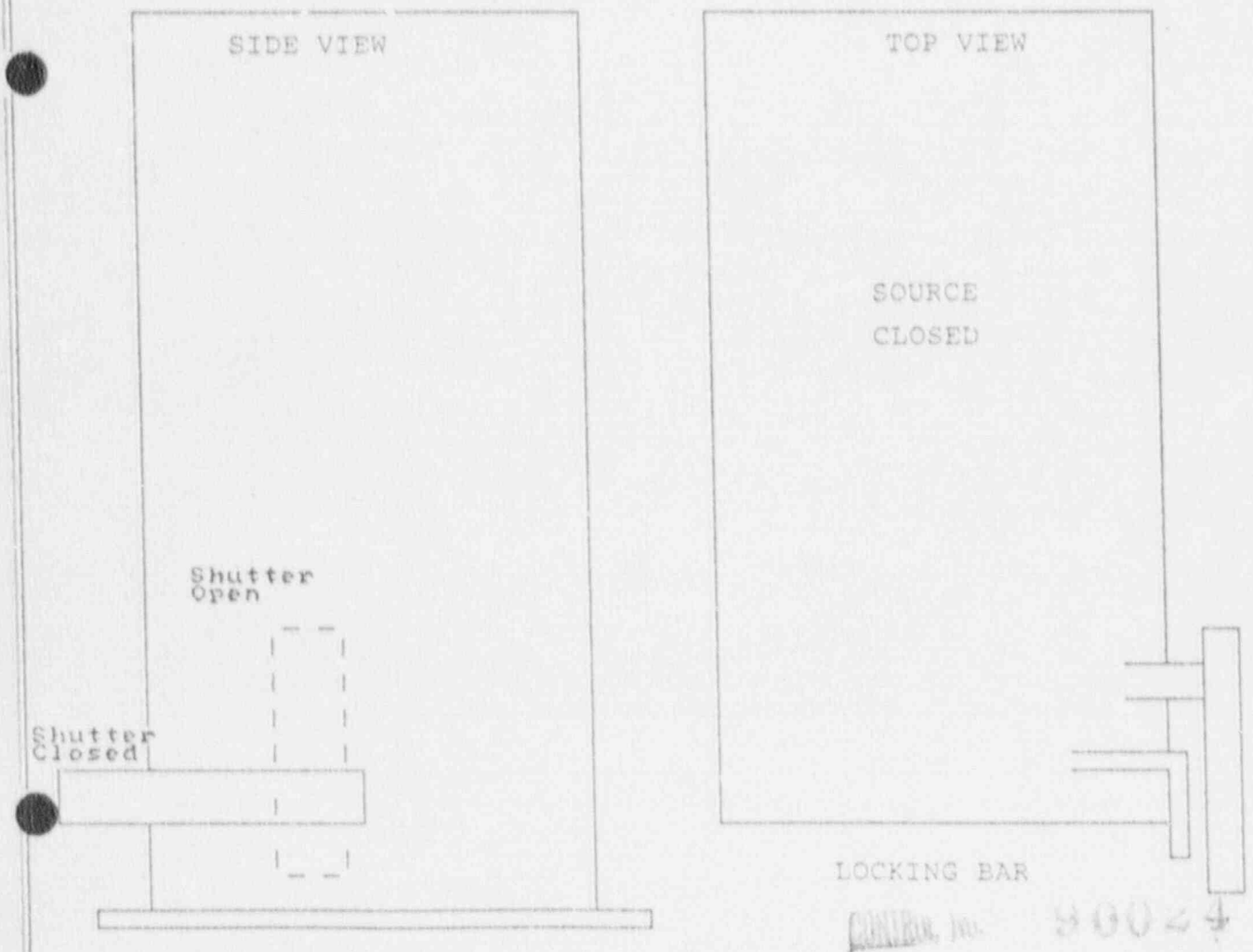
E. THE QUALIFIED PERSON SHALL THEN PERFORM A SURVEY OF THE LEVEL DETECTOR AND VERIFY THAT NO RADIATION LEVELS ABOVE N/A CPM OR 0 MR/HR EXIST.

F. THE QUALIFIED PERSON SHALL THEN DOCUMENT THE RADIATION LEVELS FROM PARAGRAPH D AND E ON FORM NO. 0001-90. SEE FIGURE 3.

G. THE LOCK USED FOR LOCK-OUT SHALL BE A QUALITY TYPE LOCK AND THE KEYS SHALL BE CONTROLLED IN SUCH A MANNER THAT NO UNAUTHORIZED REMOVAL IS ALLOWED.

H. ALL SURVEYS SHALL BE TAKEN 12 INCHES FORM HOUSING.

FIGURE 2


SIDE VIEW
TOP VIEW
SOURCE
CLOSED
Shutter
Open
Shutter
Closed
LOCKING BAR

FORM 0001-90

LOCK-OUT LOG

DATE	PERFORMED BY	RADIATION LEVELS SOURCE HOLDER	RADIATION LEVELS / LEVEL DECTOR

KAY-RAY SOURCE HOLDER EMERGENCY PROCEDURE

1. THIS PROCEDURE APPLIES TO ALL INSTANCES WHERE DAMAGE IS INCURRED BY THE SOURCE HOLDER DUE TO SUCH ACTION AS FIRE, ETC.

   A. IMMEDIATELY ROPE OFF ALL STAIRWAYS TO BLOCK ACCESS TO THE SOURCE HOLDER.

   B. POST RESPONSIBLE GUARD AT EACH BOUNDARY.

   C. NO PERSONNEL SHALL ENTER THIS AREA EXCEPT THE RADIATION SAFETY OFFICER.

   D. NOTIFY THE RADIATION SAFETY OFFICER:

      MICHAEL D. FOWLER 614/533-0055 NIGHTS
      614/532-0009 EXT. 238 DAYS

   E. THE RADIATION SAFETY OFFICER WILL DETERMINE IF THE INCIDENT REQUIRES NOTIFYING THE REGULATORY AUTHORITY.

   F. THE RADIATION SAFETY OFFICER WILL NOTIFY THE KAY-RAY AT 708/803-5100 IF THEIR ASSISTANCE IS DESIRED.

CAUTION

RADIATION AREA INSIDE OF CUPOLA
DO NOT ENTER

ENTRY INTO THIS VESSEL

REQUIRES APPROVAL FROM THE

RADIATION SAFETY OFFICER

614/532-0009 EXT. - 238 DAYS

614/533-0055 NIGHTS

CAUTION

RADIOACTIVE MATERIAL LOCATED
ON CUPOLA VESSEL

NO GRINDING, CUTTING OR WELDING ETC.
PERMITTED WITHOUT APPROVAL FROM
MELTING DEPARTMENT SUPERVISOR

THE RADIATION LEVELS IN THIS AREA DO NOT EXCEED THE NUCLEAR REGULATORY COMMISSION, CODE OF FEDERAL REGULATION TITLE 10 PART 20 PARA. 20.105.

THIS DOCUMENT IS ON FILE AND IS AVAILABLE FOR YOUR REVIEW AT THE FOLLOWING LOCATIONS.

RADIOGRAPHY DEPARTMENT	-	EXT. 238
PLANT MANAGER	-	EXT. 202
MELTING DEPARTMENT	-	EXT. 242
Q.A. OFFICE	-	EXT. 290

NOTICE TO EMPLOYEES

COPIES OF THE FOLLOWING DOCUMENTS ARE ON FILE AND MAY BE OBSERVED AT THE FOLLOWING LOCATIONS:

RADIOGRAPHY DEPARTMENT	- EXT.	238
PLANT MANAGER	- EXT.	202
MELTING DEPARTMENT	- EXT.	242
Q.A. OFFICE	- EXT.	290

THE FOLLOWING DOCUMENTS MAY BE OBSERVED AT THE ABOVE LOCATIONS.

10CFR PART 19 - NOTICES, INSTRUCTIONS & REPORTS TO WORKERS
10CFR PART 20 - STANDARDS FOR PROTECTION AGAINST RADIATION
10CRF PART 21 - REPORTING OF DEFECTS AND NONCOMPLIANCE
10CRF PART 30 - RULES OF GENERAL APPLICABILITY TO DOMESTIC LICENSING OF BY PRODUCT MATERIAL.
- LICENSE AND INCORPORATED AMENDMENTS
- OPERATING & EMERGENCY PROCEDURES

THIS NOTICE TO EMPLOYEES REQUIRES POSTING IN ACCORDANCE WITH TITLE 10 CFR PART 19

INDIVIDUALS ENGAGED IN LICENSED ACTIVITIES HAVE THE RIGHT TO OBSERVE THESE DOCUMENTS NOTICES OR FORMS ON THE WAY TO OR FROM A LICENSED ACTIVITY LOCATION.

CONTROL NO. 90024

DEFINITIONS

"GAMMA SOURCE HOLDER" AN INSTRUMENT CONTAINING A SEALED SOURCE FASTENED OR CONTAINED THEREIN. THE SHIELDING MAY BE REMOVED FROM A SHIELDED TO UNSHIELDED POSITION FOR THE PURPOSE OF ACTIVATING THE DETECTOR HEAD

"DETECTOR HEAD" AN ELECTRONIC DEVICE THAT DETECTS RADIATION

"RADIATION SAFETY OFFICER" IS A QUALIFIED PERSON WHO IS RESPONSIBLE FOR THE IMPLEMENTATION OF THE RADIATION SAFETY PROGRAM

"QUALIFIED PERSONNEL" AN EMPLOYEE WHO HAS BEEN TRAINED IN THE USE OF THE KAY-RAY SINGLE POINT LEVEL SYSTEM AND HAS FULFILLED THE TRAINING REQUIREMENTS OF THE TRAINING PROGRAM AND HAS APPROVAL FROM THE RADIATION SAFETY OFFICER

"IONIZING RADIATION" THE RESULT OF THE BREAKDOWN, OR DECAY, OF AN ATOM'S STRUCTURE.

"LEAK TEST" TESTS PERFORMED ON NUCLEAR GAUGES TO ENSURE THAT THE SOURCE CAPSULE IS INTACT.

TRC FORM 41-3
(10-78)

TEXAS DEPARTMENT OF HEALTH
RADIOACTIVE MATERIAL LICENSE

05077

Pursuant to the Texas Radiation Control Act and Texas Department of Health regulations on radiation, 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 radioactive material listed below; and to use such radioactive material for the purpose(s) and at the place(s) designated below. This license is subject to all applicable rules, regulations and orders of the Texas Department of Health now or hereafter in effect and to any conditions specified below.

LICENSEE	This license issued pursuant to and in accordance with
1. Name: N D S Products Attn: Mr. Noel D. Smith	☐ APPLICATION ☒ LETTER ☐ _____ Dated: July 6, 1988
2. Address: P. O. Box 1896 Pasadena, Texas 77501	Signed By: Noel D.Smith
	3. License Number: L00991 — Amendment Number: 24
	PREVIOUS AMENDMENTS ARE VOID
	4. Expiration Date: January 31, 1993

RADIOACTIVE MATERIAL AUTHORIZED

5. Radioisotope	6. Form of Material	7. Maximum Activity*	8. Authorized Use
A. Co-60	A. Sealed source (U.S. Nuclear Model FCO-10).	A. 1 source of 10 mCi.	A. Calibration and testing of survey meters.
B. Cs-137	B. Sealed source (Tracerlab Model CR-22).	B. 1 source of 2 Ci.	B. Calibration and testing of survey meters.
C. Cs-137	C. Sealed source (Autochem Type 2000, Model Cs-2-10).	C. 1 source of 100 mCi.	C. Calibration and testing of survey meters.

☒ CONTINUED ON PAGE 2, IF CHECKED

CONDITIONS

9. Unless otherwise specified, radioactive material shall be stored and used only at:

Sub-site Number	Location
000	Pasadena - 111 Anderson
001 TERMINATED	Pasadena - 919 Herbert

10. The licensee shall comply with the provisions of Parts 11, 12, 13, 21, 22 and 41 of the Texas Regulations for Control of Radiation.

11. Radioactive material shall be used only by Noel D. Smith.

*Ci-Curies mCi-Millicuries μCi-Microcuries CONDITIONS CONTINUED ON PAGE 4

CONTROL NO. 90024

TRC FORM 41-3a
(10-78)

TEXAS DEPARTMENT OF HEALTH
RADIOACTIVE MATERIAL LICENSE

Supplementary Sheet

12410

LICENSE NUMBER	AMENDMENT NUMBER
L00991	24

ONTINUED:

. Radio-isotope	6. Form of Material	7. Maximum Activity	8. Authorized Use
. Any radio-ctive mate-ial.	D. Leak test samples.	D. As obtained in testing for leakage of sealed sources of radioactive material.	D. Tests for leakage and/or contamination of sealed sources of radioactive material.
. Ni-63	E. Foil (NEN Model NER-002 or NER-004).	E. 1 source of 2.8 mCi.	E. Check source.
. Cs-137	F. Sealed source (TO Model 77302).	F. 2 sources of 165 mCi. each.	F. Survey instrument calibration using Technical Operations Model 773 survey instrument calibrator.
. Cs-137	G. Sealed source.	G. No single source to exceed 10 microcuries.	G. Check source.
. Cs-137	H. Sealed source (NA Model 06-201).	H. 1 source of 9 micro-curies.	H. Pocket dosimeter calibration.
. Cs-137	I. Sealed source (DCA Model 3060).	I. 1 source of 9 micro-curies.	I. Pocket dosimeter calibration.
. Am-241	J. Plated source.	J. 1 source of 0.1 micro-curie.	J. Leak test standard.
. Am-241	K. Sealed source.	K. 1 source of 0.1 micro-curie.	K. Leak test standard.

IONS CONTINUED ON PAGE 3

TEXAS DEPARTMENT OF HEALTH
RADIOACTIVE MATERIAL LICENSE

Supplementary Sheet

12411

LICENSE NUMBER	AMENDMENT NUMBER
L00991	24

ONTINUED:

. Radio-isotope	6. Form of Material	7. Maximum Activity	8. Authorized Use
. Ra-226	L. Plated source.	L. 1 source of 0.1 micro-curie.	L. Leak test standard.
. Ra-226	M. Sealed source.	M. 1 source of 0.1 micro-curie.	M. Leak test standard.
. Pu-238	N. Plated source.	N. 1 source of 0.1 micro-curie.	N. Leak test standard.
. Pu-239	O. Plated source.	O. 1 source of 0.1 micro-curie.	O. Leak test standard.
. U-238	P. Plated source.	P. 1 source of 225 pico-curies. (500 dpm).	P. Leak test standard.
. I-129	Q. Sealed source.	Q. 1 source of 0.1 micro-curie.	Q. Leak test standard.
. C-14	R. Sealed source.	R. 1 source of 0.1 micro-curie.	R. Leak test standard.
. Sr-90/ Y-90	S. Sealed source.	S. 1 source of 0.1 micro-curie.	S. Leak test standard.
. Tc-99	T. Sealed source.	T. 1 source of 0.1 micro-curie.	T. Leak test standard.
. Cd-109	U. Sealed source.	U. 1 source of 0.1 micro-curie.	U. Leak test standard.

CONTINUED ON PAGE 4

TRC FORM 41-3a
(10-78)

TEXAS DEPARTMENT OF HEALTH
RADIOACTIVE MATERIAL LICENSE

Supplementary Sheet

12412

LICENSE NUMBER	AMENDMENT NUMBER
L00991	24

CONTINUED:

5. Radio-isotope	6. Form of Material	7. Maximum Activity	8. Authorized Use
A. Ba-133	V. Sealed source.	V. 1 source of 0.1 micro-curie.	V. Leak test standard.
B. I-129	W. Sealed source.	W. 1 source of 100 micro-curies.	W. Calibration standard.

CONDITIONS CONTINUED:

12. The individual designated to perform the functions of Radiation Safety Officer for activities covered by this license is Noel D. Smith.

13. Sealed sources containing radioactive material shall not be opened.

14. Sealed sources of radioactive material, Nickel 63 foil, and/or plated alpha emitting sources shall be tested for leakage and/or contamination in accordance with the provisions of Texas Regulations for Control of Radiation 11.7.

15. Tests for leakage and/or contamination may be performed at customer job sites throughout Texas.

16. The licensee is authorized to distribute and analyze his Leak Test Kit Test-1 and Leak Test Kit Test-2. The customer shall be provided a copy of the leak test results in terms of microcuries.

17. The licensee is authorized to perform the service of pocket dosimeter calibration in accordance with procedures received with application dated August 11, 1987.

18. The licensee is authorized to calibrate radiation survey instruments in accordance with procedures contained in application dated August 11, 1987.

CONDITIONS CONTINUED ON PAGE 5

TRC FORM 41-3a
(2/88)

TEXAS DEPARTMENT OF HEALTH
RADIOACTIVE MATERIAL LICENSE

Supplementary Sheet

17508

LICENSE NUMBER	AMENDMENT NUMBER
L00991	24

CONDITIONS CONTINUED:

19. Except as specifically provided otherwise by this license, the licensee shall possess and use the radioactive material authorized by this license in accordance with statements, representations, and procedures contained in the following:

application dated August 11, 1987.
letters dated October 8, 1987, April 4, 1988, April 21, 1988, June 24, 1988 and July 6, 1988.

The Texas Regulations for Control of Radiation shall prevail over statements contained in the above documents unless such statements are more restrictive than the regulations.

FRM/sj

FOR THE TEXAS DEPARTMENT OF HEALTH

CONTROL NO. 90024

Date July 29, 1988

Joseph C. Bluntzer
Administrator, Licensing Branch

VOID SHEET

TO: License Fee Management Branch

FROM: Bob Hatton

SUBJECT: VOIDED APPLICATION

Control Number: 90024

Applicant: Envirotron Incorporated

Date Voided: 10-23-90

Reason for Void: Licensee unable to meet timeliness goals

Robert G. Hatton Jr. 10-23-90
Signature Date

Attachment:
Official Record Copy of
Voided Action

FOR LFMB USE ONLY

Final Review of VOID Completed: aug 23 3P

☐ Refund Authorized and processed

☑ No Refund Due

☐ Fee Exempt or Fee Not Required

Comments: _____

Log completed

Processed by: CP

ML30

BETWEEN:

LICENSE FEE MANAGEMENT BRANCH, ARM
AND
REGIONAL LICENSING SECTIONS

(FOR LFMS USE)
INFORMATION FROM LTS

PROGRAM CODE: 03120
STATUS CODE: 0
FEE CATEGORY: 3P
EXP. DATE: 19911231
FEE COMMENTS: _____

LICENSE FEE TRANSMITTAL

A. REGION

1. APPLICATION ATTACHED
APPLICANT/LICENSEE: IRONTON IRON, INC.
RECEIVED DATE: 900809
DOCKET NO: 3029539
CONTROL NO.: 390024
LICENSE NO.: 34-24800-01
ACTION TYPE: AMENDMENT

2. FEE ATTACHED
AMOUNT: $300.00
CHECK NO.: 02699

3. COMMENTS

SIGNED P. Durtsaff
DATE 8-13-90

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

1. FEE CATEGORY AND AMOUNT: 3P $300

2. CORRECT FEE PAID. APPLICATION MAY BE PROCESSED FOR:
AMENDMENT ✓
RENEWAL _____
LICENSE _____

3. OTHER _____
_____

SIGNED CRF 8/30/90
DATE

7

Ironton Iron Incorporated
ATTN: Sam Greene
General Manager
2520 South Third Street
Ironton, OH 45638

SUBJECT: ABANDONMENT OF YOUR REQUEST FOR AMENDMENT DATED JULY 16, 1990.

Gentlemen:

This refers to your request for amendment dated JUly 16, 1990 and our letter dated September 17, 1990 in which we requested additional information and notified you that unless a response was received in 30 days we would void your request.

We have not received a response to date.

You are hereby notified that we consider that you have abandoned your application and we have voided the request. This action is without prejudice to resubmission.

If you resubmit the same request within one year of the date of this letter, we will reactivate our review. Information submitted in response to this letter should refer to VOIDED CONTROL NUMBER 90024.

Sincerely,

Original Signed By
Robert G. Gattone, Jr.
Materials Licensing Section

Enclosure: Ltr dtd September 17, 1990

RECEIVED
'90 OCT 29 P3:18

RIII
Gattone/mc
10/29/90

SEP 17 1990

Ironton Iron, Incorporated
ATTN: Sam Greene
General Manager
2520 South Third Street
Ironton, OH 45638

Gentlemen:

We have reviewed your letter dated July 16, 1990 requesting amendment to NRC License Number 34-24800-01 and find that we will need additional information as follows:

It is necessary for you to resubmit your amendment request in its entirety. The request, including the application, should be signed and dated by Sam Greene. Please incorporate the following with your request:

1. Your proposed Nuclear Gauge Training and Qualification Procedure is unacceptable. The course content does not adequately cover the scope of information necessary for a course of this type. Furthermore, we have no documentation that shows you will appoint an instructor for this course who is adequately qualified. Therefore, please confirm that Kay-Ray Inc. or a previously authorized instructor will continue to provide training for proposed authorized gauge users. Confirm that this training for safe operation and emergency procedures of the source and system will incorporate the following topics:

   a. Basic Nuclear Theory

   b. Safety and Health Protection

   c. Radiation Detection Equipment

   d. Personnel Monitoring Devices

   e. Personnel Protection Levels

   f. Radiation Emergencies and Procedures

   g. Federal and State Requirements

   h. Examination, written and oral

2. Documentation of Michael Fowler's training does not indicate that he is qualified to perform installation, initial radiation survey, relocation, removal from service, maintenance, and repair of devices containing

sealed sources. Please confirm that these services shall be performed only by persons specifically licensed by the Commission or an Agreement State to perform such services.

3. Referring to your proposed lock-out procedure, (Item E), confirm that a qualified person shall perform a survey of the level detector and verify that no radiation levels above background exist. This will take into account background radiation.

We will continue our review of your application upon receipt of this information. Please reply in duplicate, within 30 days, and refer to Control Number 90024.

Upon failure to file a response within the specified time, we will consider that you have abandoned your request and will void this action. This is without prejudice to resubmission of the application.

If you have any questions or require clarification on any of the information stated above, you may contact us at (708) 790-5625.

Sincerely,

Original Signed By
Robert G. Gattone, Jr.
Materials Licensing Section

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Gattone/dsv
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