

The Cleveland-Cliffs Iron Company

Engineering and Construction Department

E. H. BILKEY, CHIEF ENGINEER
J. J. OMBRELLO, CHIEF PROJECT ENGINEER

504 SPRUCE STREET
ISHPEMING, MICHIGAN 49849
PHONE 906-486-9041

November 3, 1982

U. S. NUCLEAR REGULATORY COMMISSION
Region III
Radioisotopes Licensing Section
799 Roosevelt Road
Glen Ellyn, Illinois 60137

Attention: Mr. Mike McCann

Gentlemen:

Re: By-product Material License Amendment
License No. 21-030 Amendment 41, Docket 030-04814
Condition #16 Modification

In response to our license amendment 41 and your cover letter dated October 28, 1982, the following information will supplement our previous correspondence to detail each supervisor's training in the classroom and in the field to safely handle and monitor nuclear gauging devices. With this additional information, we are asking for a modification to condition 16 of our license that will authorize our plant personnel, under the supervision of the listed individuals, to perform initial surveys, install and relocate nuclear gauging devices within our plants. The repair and maintenance of the sealed sources will be performed by the gauge manufacturer.

Attached is a copy of the Texas Nuclear Radiation Safety Training Course outline which was attended by our listed users.

1. Dennis Laituri	January 1969
2. Allan Wood	April 1978
3. Mike Nelson	April 1978
4. Louis Roncaglione	April 1978

Mr. Laituri has been listed on our license since 1967 and has been involved with the installation of new nuclear sources during three plant expansions, which were supervised by the device manufacturer.

Mr. Wood has worked with Mr. Laituri for the past ten years and has been involved with the installation of new nuclear sources during two plant expansions.

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RECEIVED BY LEMB
Date... 11/16/82
Loc... Nov 14
By... Brown
Orig To...
Action Compl. 11/17/82

FREE EXEMPT

response to 10/28/82

Mr.
cont of
Amendment 41

November 3, 1982

Mr. Nelson has been involved with nuclear gauging devices since 1975 and participates in radiation safety meetings with plant personnel.

Mr. Roncaglione has been associated with nuclear gauging devices for over ten years, working in the field and as a supervisor.

Additional in-plant training was provided by Texas Nuclear and Kay Ray, Inc. between 1973 and 1977 during the plant expansions.

Enclosed is a copy of a course completion certificate from Texas Nuclear which was also received by the above individuals.

These individuals are working with Industrial Nucleonics, Kay Ray, Ohmart and Texas Nuclear sources in our plants.

The intent of the renewal application was to delete the Humboldt Plant and the Pioneer Pellet Plant from the license. These are listed as conditions 10-4 and 10-5 on amendment 41 of our license.

We trust that the above information will authorize our listed plants to handle nuclear gauging devices as previously outlined by the Commission.

Yours very truly,

THE CLEVELAND-CLIFFS IRON COMPANY



By Carlo W. Maki
Instrumentation Engineer

CWM:bl

cc: EHBilkey
JJOmbrello
CWMaki
ESFile

Attachments

CONTROL NO. 07 067



**Texas Nuclear
Division**

Ramsey Engineering Company
Box 9267
Austin, Texas 78766 USA
Telephone (512) 836-0801
Telex 77-6413

LETTER OF CERTIFICATION

This is to certify that

David I. Brown
Cleveland Cliffs Iron Company

has attended and successfully completed a course of instruction, conducted under the auspices of Texas Nuclear Division and described in the attached Course Agenda. The course covers fundamentals of radiation, units of dose and quality of radiation fields, hazards of radiation exposure, detection devices, regulatory controls, industrial devices and specific training on installation and leak testing of Texas Nuclear density, level and weigh gauges.

The said course of instruction, together with prior experience, is structured to qualify persons who complete it to understand and safely perform various operations involving nuclear devices including the installation, relocation and leak testing of such equipment. The operations are to be done in accordance with the rules and regulations of the United States Nuclear Regulatory Commission and/or "Agreement States", and are in all respects subject to such rules and regulations.

This letter cannot be used in lieu of a specific license from or other sanction by an appropriate regulatory agency.

TEXAS NUCLEAR DIVISION
Ramsey Engineering Company

W. G. Hendrick

W. G. Hendrick
Health Physicist

CONTROL NO. 07 067

RADIATION SAFETY TRAINING COURSE AGENDA

First Day's Session

- 8:30- 9:30 1. Introduction
a. Contents and Purpose of Course
b. Agenda
2. Review of Preparation Material
- 9:30-10:00 3. Atomic Structure
a. Nomenclature
b. Periodic Table
- 10:00-10:15 Coffee Break
- 10:15-12:00 4. Radioactive Materials
a. Isotopes
b. Decay
c. Half-Life
5. Types of Radiation
- 12:00- 1:00 Lunch
- 1:00- 3:00 6. Radiation Interaction with Matter
a. Ionizing Radiation
1. electromagnetic
2. charged particle
3. neutron
b. Specific Ionization
- 3:00- 3:15 Coffee Break
- 3:15- 4:00 7. Radiation Dosimetry
a. Definitions and Units of Dose
b. Quality Factor
- 4:00- 5:00 Review
- 5:30- 7:00 HAPPY HOUR

Second Day's Session

- 8:30- 9:00 Question and Answer Session
- 9:00-10:00 1. Radiation Dosimetry (Continued)
a. Gamma Exposure Rate
b. Neutron Exposure Rate
- 10:00-10:15 Coffee Break
- 10:15-12:00 c. Biological Effects
d. Dose Limits
e. Radiation Protection Guides

- 12:00- 1:00 Lunch
- 1:00- 3:00 Radiation Detection
1. Detection Instruments
a. Basic Operation
b. Survey Meters
2. Personnel Dosimetry
3. Distance, Time, Shielding
a. Inverse Square Law
b. Half-Value Layer
- 3:00- 3:15 Coffee Break
- 3:15- 4:30 Discussion and Review
To be announced
Homework Assignment
Read Part I Manual of Standards and Procedures
Complete Study Quiz I

Third Day's Session

- 8:30- 9:00 Question and Answer Session
- 9:00-10:00 1. Working Definitions
a. Radiation Areas and Posting
b. Installation
c. Surveying
d. Leak Testing
e. Shipping and Labeling
- 10:00-10:15 Coffee Break
- 10:15-12:00 2. Regulatory Control
a. Title 10, Code of Federal Regulations
b. Agreement States
c. Licensing Procedures
d. Purpose of Licensing Program (Lecturer from Texas State Health Department)
e. Responsibility
- 12:00- 1:00 Lunch
- 1:00- 2:45 Review and Class Discussion
- 2:45- 3:00 Coffee Break
- 3:00- 3:30 3. Summary of Topics
a. Role of Radiation Safety Personnel
b. Class Discussion

- 3:30- 4:30 4. Preparation for Laboratory
a. Form Review
b. Team Assignment
c. Surveying and Leak Testing Demonstration
- Homework Assignment
Read Part II of Manual of Standards and Procedures
Complete Study Quiz II
Material Review for Exam

Fourth Day's Session

- 8:30- 9:00 Question and Answer Session
- 9:00-10:15 Written Test on Lectures and Homework Assignments
- 10:15-10:30 Travel to Texas Nuclear
- 10:30-12:30 Laboratory Work at Texas Nuclear
1. Check-out and re-briefing on use of portable radiation survey meters.
2. Survey Density, Level and Background Weigh devices.
3. Leak Test Devices Using QT/1S Procedure
a. Count Swabs
b. Prepare Leak Test Certificates
4. Class Discussion on Remaining Questions
- 1:00 ADJOURNMENT

FOR DETAILED INFORMATION, WRITE



Texas Nuclear Division

Ramsey Engineering Company
Box 9267
Austin, Texas 78766 USA
Telephone (512) 836-0801
Telex 77-6413

As contributors to Radiation Research and as suppliers of radiation detection instruments, industrial nuclear gauges and accelerators, Texas Nuclear Division personnel have developed a technical capability, specialized techniques and instrumentation for Health Physics applications.

Tracer studies, using selected radioactive isotopes to solve industrial problems such as flow rate and patterns, leak detection, mixing efficiency, process tracing, dispersion of pollutants, and subsurface tracing of fluids can be carried out.

The Health Physics Group provides specialized assistance to users of radioactive materials and radiation producing devices. A list of the services presently available is:

- Training courses on radiation safety,
- Aid in establishing in-house radiation safety programs,
- Licensing and regulation compliance assistance,
- Facility shielding and design consultation,
- Radiation surveys around plant facilities,
- Leak testing of radioactive sources,
- Radioactive waste disposal service,
- Tracer Studies

The Health Physics group maintains sophisticated capabilities for our in-house Radiological Safety program. This expertise is offered to our clients to solve, imaginatively, advanced problems in Health Physics Research and to design safety programs for their special needs.

Radiation Safety Course

BACKGROUND:

Several years ago, in response to many requests from users of nuclear gauges, Texas Nuclear Division established a RADIATION SAFETY COURSE. Since that time, it has been constantly augmented and up-dated by incorporating into the curriculum additions and changes in course content suggested by our many customers who have completed the course.

The present course structure covers such topics as radiation dosimetry, radiation detection and protection, licensing and regulatory controls, gauge installation and relocation, leak testing and radiation surveys for most industrial radiation devices. Participants are instructed in general principles rather than in specific characteristics of the Texas Nuclear Division equipment. At the completion of this course, each participant is awarded a certificate and a letter certifying the nature of the training. Texas Nuclear Division will offer assistance in obtaining a specific license from the Nuclear Regulatory Commission or the particular Agreement State.

The Course material is presented over a period of three and one-half days in Austin, Texas. The time is well used, as participants are given heavy evening assignments as well as written examinations.

Tuition for the course is \$250 per person. This fee includes all necessary course and reference materials. A buffet luncheon on each of the three days is also included in the tuition.

Classes are limited to twenty-five students. Registration forms and class agenda are provided in this brochure. Course materials are provided in advance to registered participants so that they may prepare themselves before arriving at the RADIATION SAFETY COURSE.