



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

(FSME-09-29, April, Training, H-315)

April 16, 2009

ALL AGREEMENT STATES, MICHIGAN, NEW JERSEY

ACCEPTANCE TO THE IRRADIATOR TECHNOLOGY COURSE (H-315) (FSME-09-029)

PURPOSE: To provide the list of students selected for the Irradiator Technology Course (H-315).

BACKGROUND: NRC provides the list of students and instructions to the States to help ensure that States with candidates on waiting lists will have an opportunity to fill vacated slots that may open up after this notification letter has been sent

DISCUSSION; Enclosure 1 is the list of students from the Agreement States selected to attend the June 1-5, 2009, Irradiator Technology Course (H-315). Please provide the list of students and the instructions (Enclosure 2) to each individual from your program that is on the list. Enclosed for your information is a tentative schedule for the course (Enclosure 3). Students attending this course will be paid for by the U.S. Nuclear Regulatory Commission (NRC). Students should make their travel arrangements through Carlson Wagonlit Travel at 301-1-866-250-2160 immediately and then submit their travel information needed for NRC to issue their travel authorization (Appendix A) to Brenda Usilton (Fax 301-415-3502). (See invitational travel information in AD-500 at: <http://nrc-stp.ornl.gov/procedures/ad500.pdf>) to get to the Appendix A form.

We ask that you inform us of any cancellations 30 days prior to the course starting date or as soon as you are aware that the student cannot attend the course.*

*This information request has been approved by OMB 3150-0029, expiration 08/31/2010. The estimated burden per response to comply with this voluntary collection is approximately 8 hours. Send comments regarding the burden estimate to the Records and FOIA/Privacy Services Branch (T-5F52), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by Internet e-mail to infocollects@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202 (3150-0029), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

If you have any questions regarding this correspondence, please contact me at 301-415-3340 or the individual named below

POINT OF CONTACT: Brenda G. Usilton
TELEPHONE: (301)415-2348

INTERNET: Brenda.Usilton@NRC.GOV
FAX: (301)415-3502

/RA/

Robert J. Lewis, Director
Division of Materials Safety
and State Agreements
Office of Federal and State Materials
and Environmental Management Programs

IRRADIATOR TECHNOLOGY COURSE (H-315)
June 1-5, 2009
MONTREAL, CANADA

STATE	STUDENT(S)
NEW JERSEY Dept. of Environmental Protection P.O. Box 415 Trenton, NJ 08625-0415	Adria Wentzel
NEW MEXICO Harold S. Runnels Building 1190 St. Francis Drive, RmS2100 P.O. Box 5469 Santa Fe, NM 87502-5469	William "Dan" Hill
NORTH CAROLINA Department of Environment & Natural Resources 3825 Barrett Drive Raleigh, NC 27609-7221	Cliff Harris
TEXAS 1301 S. Bowen Road #200 Arlington, TX 76031	Earlon Shirley
UTAH Dept. of Environmental Quality 168 North 1950 West P.O. Box 144850 Salt Lake City, UT 84114-4850	Mario Bettolo

ENCLOSURE 1

INSTRUCTIONS TO STUDENTS

ACCEPTANCE: This is to advise you that those individuals in Enclosure 1 have been accepted for participation in the training course (H-315), "Irradiator Technology." This course is scheduled to be presented by MDS Nordion on June 1-5, 2009, at the Canadian Irradiation Centre (CIC), 535 Boulevard Cartier, Laval, Quebec, Canada, H7V 3S8, Contact: Mr. Yves Doyle, MDS Nordion, work - 450-687-5165, cell phone – 613-697-9837.

COURSE: This course will be conducted beginning on June 1, 2009, at 9:00 a.m. and end at 5:00 p.m. each day except for Friday, June 5, 2009, when the class is scheduled to end between 1:30-2:30 p.m. Travelers will need a passport to enter into Canada.

LODGING & TRAVEL: You should plan to arrive on Sunday, May 31, 2009, and depart on Friday, June 5, 2009. Participants must make their own lodging and travel arrangements. Individuals should request a government rate at the hotels. Below are a number of hotels in the area. If traveling by air, you need to contact Carlson Travel at 1-866-250-2160 for airline reservations. The per diem for the area is \$181 for lodging, \$93 for meals and incidents, not to exceed \$274. No rental cars will be issued. Please complete the invitational travel authorization (Appendix A) request as described in FSME Procedure AD-500, "Invitational Travel Authorization and Voucher" and return it to Brenda Usilton at Brenda.Usilton@nrc.gov or fax it to 301-415-3502. If you have any questions regarding the travel form please contact Brenda on 301-415-2348.

Cellular phones and similar devices with audible capability should be disabled while classes are in session. Normal office/business attire is appropriate for students attending training. Individuals should make a reservation at one of the following hotels. The cost of a taxi from the airport is around \$60.00 Canada. Enclosed for your information is a course schedule (Enclosure 3).

Room reservations can be made at the Sheraton Laval Hotel, 2440, Autoroute des Laurentides, Laval, Tel. 800-667-2440 or 450-687-2440. This hotel offers a special rate for MDS Nordion's guests: \$135.00 CNS (approx. \$136.00 US) /night including all-you-can-eat continental breakfast buffet. The hotel is located across from a shopping mall. This is normally the preferred place to stay and overall best value. Please make sure to ask for the MDS Nordion special rate when you call.

Hilton Laval
2225, Autoroute des Laurentides
Laval
Tel. 800-363-7948

Comfort Inn
2055, Autoroute des Laurentides
Laval
Tel. 450-686-0600

Radisson Hotel Laval
2900 boul. Le Carrefour
Laval
Tel. 800-333-3333

Quality Suites
2035 Autoroute des Laurentides
Laval
Tel. 800-267-3837

ENCLOSURE 2

Irradiator Technology Course Schedule

DAY 1

Session 1
9:00-10:15

Introduction
-Welcome
-Preliminary tour of IR-147

10:15-10:30

COFFEE BREAK

Session 2
10:30-11:30

Industrial Irradiators
-Types
-Components
-Design principles
-Touchtime
-PLC

Session 3
11:30-12:00

Research Irradiators
-Types
-Design

12:00-1:00

LUNCH

Session 3
1:00-1:30

Research Irradiators (continued)
-Use
-Inspections (hands-on)

Session 4
1:30-2:30

Cobalt-60
-Cobalt-59
-Product of Co-60
-Transportation of Co-60
-Handling of Co-60

Session 5
2:30-3:15

Source Loading
-What every operator should know
-Handling tools
-Typical loading
-Source loading procedure

3:15-3:30

COFFEE BREAK

Session 6
3:30-5:00

Operation of Industrial Irradiators (Hands-on)
-Operating modes
-Sequence diagram
-PLC

DAY 2

Session 7
9:00 - 10:00
10:00-10:15
10:15-11:00

Safety Systems & Features
-Fault indicators
COFFEE BREAK
Safety Systems & Features (continued)
-Caution indicators
-Safety features
-Hands-on review of safety systems

Session 8
11:00-12:00
12:00-1:00
1:00-2:00

Walk-through Inspection (hands-on)
-A complete safety inspection is performed
LUNCH
Walk-through Inspection (hands-on) (continued)
-A complete safety inspection is performed

Session 9 2:00-3:15	Irradiator Maintenance -Control room organization -Equipment maintenance -Electrical/Mechanical -Safety checks
3:15-3:30	COFFEE BREAK
Session 10 3:30-5:00	Good Manufacturing Practices -Standard Operating Procedures -Following product from receiving to shipping
DAY 3 8:00	Leave Laval for Kanata
Session 11 All day	Tour of a cobalt-60 product facility Storage pool -Hot cells -Encapsulation -Leak testing -F-168 container -Transportation
12:00-1:30	LUNCH
Session 12 1:30-3:00 3:00-6:00	Tour of a Molybdenum 90 Product Facility -Guided tour of the MDS Nordion Molybdenum 90 product facility -Return to Laval
DAY 4 Session 13 9:00-10:00	Emergency Procedures -Procedures as required by 10 CFR36
10:00-10:15	COFFEE BREAK
Session 14 10:15-10:45	Wipe test (Hands-on) -A source rack wipe test is performed
Session 15 10:45-11:15	Radiation Safety Officer and Operator responsibilities -Maintenance records -Irradiation log book -Visitor records
Session 16 11:15-12:15	Radiation Survey (hands-on) -A radiation survey of biological shield is performed
12:15-1:15	LUNCH
Session 17 1:15-2:00	Incidents -Incidents at irradiation facilities
Session 18 2:00-3:15	Dosimetry (hands-on) -Types of dosimeters -Characteristics -Reading equipment
3:15-3:30	COFFEE BREAK

Session 19
3:30-5:00

Regulations
-USNRC regulations 10 CFR36

DAY 5

Session 19
8:15-9:15

Regulations (continued)
-Regulatory Guide 8-13
-Regulatory Guide 8-29
-IAEA guidelines
-ANSI standards

Session 20
9:15-9:45

Licensing
-USNRC Guide NUREG 1556 Vol. 6
-Security Update
COFFEE BREAK

9:45-10:00

Session 21
10:00-11:15

Audit
-Audit of radiation safety procedures,
operational procedures and safety systems

Session 22
11:15-11:30

Review

-Discussion

Session 23
11:30-1:30

Examination

-Written test

Note:

All hands-on exercises are carried out using a full scale commercial irradiator and two research irradiators.

Dosimetry exercises are possible in our dosimetry laboratory which currently handles 7 (seven) of the most used dosimetry systems in the world.