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tc Typo Correction p 9

a Addition of pp 20 thru 27

1.0 RADIATION SAFETY AND CONTROL COMMITTEE:

1.1 The primary function of the Committee is to establish and enforce policy and safe practices in the use of radioactive isotope sealed sources in the field.

1.2 The Committee is composed of personnel with an extensive background in the theory and applications of radioactive isotopes and other forms of radiation producing devices.

1.3 The Corporate Committee consists of the Chief Welding Engineer, Manager of Welding and QA Services, Radiation Safety Officer, Assistant Radiation Safety Officers, Safety Director, and Manager of Inspection and Testing.

2.0 RESPONSIBILITIES OF COMMITTEE PERSONNEL:

2.1 Committee Personnel shall:

2.1.1 Read and become familiar with the requirements of these procedures and other applicable documents.

2.1.2 Be responsible for adherence by CBI personnel to the procedures in this safety manual.

2.2 The Chief Welding Engineer and the Manager of Welding and QA Services have management responsibility for the radiation safety program outlined in this manual.

2.3 The Radiation Safety Officer (RSO) reports directly to the Chief Welding Engineer or the Manager of Welding and QA Services and has the following responsibilities.

2.3.1 Liaison officer with the NRC and State agencies on license matters.

2.3.2 Maintain up-to-date operating and emergency procedures.

2.3.3 Maintain control of licensed by-product material procurement, transfer within CBI and return to the exposure device manufacturer.

2.3.4 Examine and determine competency of isotope radiography personnel.

2.3.5 Conduct and/or supervise the Company forty (40) hour classroom Safety Training Program for Isotope Radiographers.

2.3.6 Establish Leak Testing Program.

2.3.7 Establish adequate storage facilities.

2.3.8 Establish and maintain the internal inspection system.

2.3.9 Establish a record keeping system to meet NRC and State regulations.

2.3.10 Review and assure maintenance of records required by NRC and State regulations.

2.3.11 Assume control and institute corrective action in emergency situations.

2.3.12 Investigate the cause of incidents and determine necessary preventive action.

2.3.13 Act in an advisory capacity to management and radiography personnel.

2.4 The Assistant Radiation Safety Officers (ARSO) are directly responsible to the RSO and will assume his duties in his absence, or when he is not available for any reason. They will serve as directed by the RSO and in addition will have the following responsibilities.

2.4.1 Maintain personnel monitoring program.

2.4.2 Maintain leak testing program.

2.4.3 When necessary, perform source replacement operations.

2.4.4 Review quarterly inventories and utilization logs.

2.4.5 Assist in determining competency of isotope radiography personnel and six months review of these personnel.

2.4.6 Assist in conducting the Company forty (40) hour classroom Safety Training Program for Isotope Radiographers.

2.5 The Safety Director is responsible for the CBI Accident Prevention Program. Construction Safety Supervisors, who have satisfactorily completed the forty (40) hour classroom Safety Training Program shall report jobsite visits to the Safety Director on the Radiation Safety Checklist (Form WL 238).

2.6 The Manager of Inspection and Testing has the following responsibilities.

2.6.1 Maintain qualification records of Radiographers and Assistant Radiographers.

2.6.2 Maintain records of reports, surveys and calibration of instruments.

2.7 District Radiation Safety Officers and District Assistant Radiation Safety Officers have the following responsibilities.

2.7.1 Constant contact with the jobsites and frequent visits to the jobsites for inspection and supervision for compliance with this program.

2.7.2 Review and monitor jobsite and district office records.

2.7.3 Examine and qualify Assistant Radiographers.

2.7.4 Visit jobsites at least quarterly and send reports of visits to the RSO using the Safety/Training Meeting Report (Form WL 46).

3.0 RADIATION SAFETY AND CONTROL COMMITTEE PERSONNEL:

3.1 Corporate Committee

John B. Christofferson Chief Welding Engineer	22 Palisades Oak Brook, Illinois 60521 Phone: 312/279-0159
John B. Trout Manager Welding & QA Services	6414 Hickorycrest Drive Spring, Texas 77389 Phone: 713/376-7538
Charles M. Sherlock Radiation Safety Officer and Manager of Inspection & Testing	23910 Creekview Spring, Texas 77389 Phone: 713/376-7691
Ronald W. Kruzic Assistant Radiation Safety Officer	3622 Rolling Forest Drive Spring, Texas 77388 Phone: 713/288-4804
Charles E. Harris Assistant Radiation Safety Officer	7710 Heathrow Lane Spring, Texas 77379 Phone: 713/376-2069

Hugh K. Howerton
Assistant Radiation Safety Officer
London Operations
London, England

James R. Rhudy
Safety Director
11 Huntington Circle
Naperville, Illinois 60540
Phone: 312/355-9336

3.2 District Radiation Safety Personnel

3.2.1 Kankakee District (Central)

Gary F. McLish
2 Ravinia Court
Bourbonnais, Ill. 60914
Phone: 815/937-7767

W. R. Wagner
610 Oak Run Dr.
Bourbonnais, Ill. 60914
Phone: 815/935-2053

Raymond H. Bryant
809 Sample
Marseilles, Ill. 61341
Phone: 815/795-4796

Roger T. Francoeur
739 Olde Oak Dr.
Bourbonnais, Ill. 60914
Phone: 815/939-9799

3.2.2 New Castle District (Eastern)

Cecil G. May
34 Ferncliff
Windy Hills
Newark, Delaware 19711
Phone: 302/737-7955

Stanley Ray Howard
550 So. DuPont Parkway #9G
New Castle Delaware 19720
Phone: 302/328-4049

W. L. Reed
115 Woodshade Drive
Newark, Del. 19702
Phone: None at present

3.2.3 Birmingham District (Southeastern)

J. H. Sisk
908 Rockingham Road
Birmingham, Ala. 35235
Phone: 205/853-5578

F. C. Berry
3754 Brookwood Rd.
Birmingham, Ala. 35223
Phone: 205/967-3020

Tom Kendrick
4325 Windsong Lane
Trussville, Ala. 35173
Phone: 205/655-8568

3.2.4 Houston District (Southwestern)

Thomas D. Warner
9406 Denbury
Houston, Texas 77025
Phone: 713/661-0337

Mike Jeffers
5403 FM 1488
Spring, Texas 77384
Phone: 713/356-3945

Jesse Payne
17070 Cane Market Rd.
Walker, Louisiana 70785
Phone: 504/686-2148

3.2.5 Fremont District (Western)

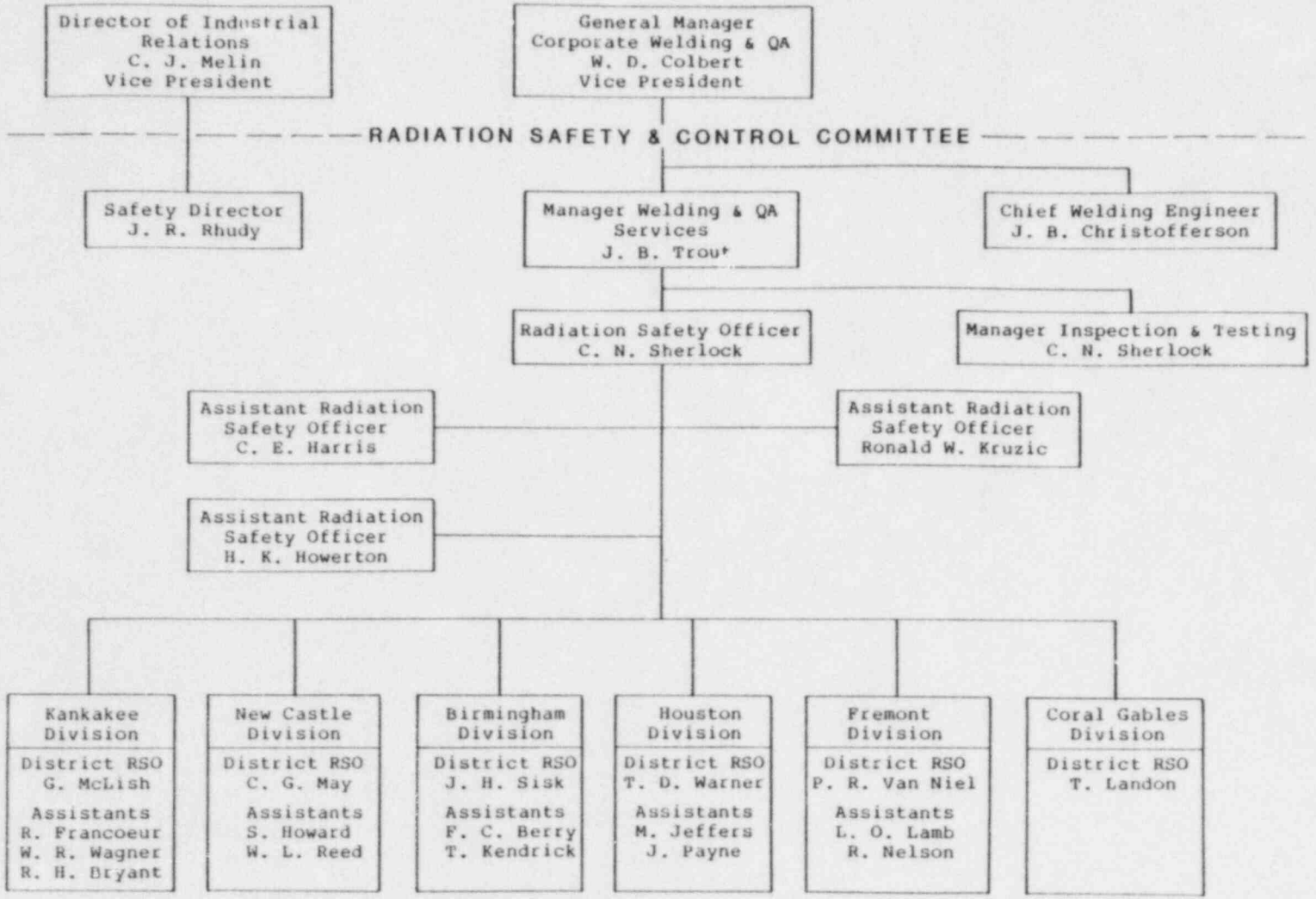
Paul R. Van Niel
11635 Castilian Court
Dublin, CA 94566
Phone: 415/828-2735

Larry O. Lamb
2404 Del Monte
Livermore, CA 94550
Phone: 415/447-4736

Richard E. Nelson
501 Kawella Circle
Union City, CA 94587
Phone: 415/487-1539

3.2.6 Coral Gables District (Virgin Islands, Puerto Rico, etc.)

Tom Landon
11350 S.W. 164th Street
Miami, Florida 33157
Phone: 305/255-3451


Director of Industrial Relations
C. J. Melin
Vice President
General Manager
Corporate Welding & QA
W. D. Colbert
Vice President
RADIATION SAFETY & CONTROL COMMITTEE
Safety Director
J. R. Rhudy
Manager Welding & QA Services
J. B. Trout
Chief Welding Engineer
J. B. Christofferson
Radiation Safety Officer
C. N. Sherlock
Manager Inspection & Testing
C. N. Sherlock
Assistant Radiation Safety Officer
C. E. Harris
Assistant Radiation Safety Officer
Ronald W. Kruzic
Assistant Radiation Safety Officer
H. K. Howerton
Kankakee Division
District RSO
G. McLish
Assistants
R. Francoeur
W. R. Wagner
R. H. Bryant
New Castle Division
District RSO
C. G. May
Assistants
S. Howard
W. L. Reed
Birmingham Division
District RSO
J. H. Sisk
Assistants
F. C. Berry
T. Kendrick
Houston Division
District RSO
T. D. Warner
Assistants
M. Jeffers
J. Payne
Fremont Division
District RSO
P. R. Van Niel
Assistants
L. O. Lamb
R. Nelson
Coral Gables Division
District RSO
T. Landon

4.0 RESUMES:

4.1 RESUME OF CHARLES N. SHERLOCK

EDUCATION AND BACKGROUND

Pennsylvania State University, January 1955
Bachelor of Science in Civil Engineering
Former LTJG USNR
Two Week Course on NDT Fundamentals at Ohio State University
from September 14-25, 1970
Various NDT related seminars
CBI Isotope Safety - Class #2 - October 1967

PROFESSIONAL LICENSES

Illinois #62-23538 and Pennsylvania #PE-010029E - in Civil Engineering
California #QU 1897 in Quality Engineering

SOCIETIES

Member of ASCE and ASTM and a Fellow of ASNT; Ad Hoc ASM Committee on NDE of weldments; ASNT Leak Testing Handbook Executive Review Committee; Chairman of Leak Testing Methods Division Committee of ASNT; Member of Visual Methods Committee of ASNT; Secretary Elect of ASNT Technical Council; Member of ASME Section V SGRT

EXPERIENCE

Inspection and Test Engineer responsible for company wide review of testing and inspection procedures, implementation of new procedures, manuals and equipment in all phases of nondestructive examination on such structures as nuclear reactors, nuclear containment vessels, space chambers, cryogenics, and low temperature vessels. 5 years

Manager of Inspection and Testing responsible for the Inspection and Testing group of the Corporate Welding Department. 14 years
Responsibilities include:

Company wide NDE Training Program
Preparation of new, and review of existing, company wide NDE procedures
Assistance to the regions in the performance of leakage rate tests of nuclear structures
Assistance to the regions in special NDE situations
Provide input to the ASME Code Committees and ASNT Committees on NDE Code and training through membership and other CBI representatives on these organizations
Member of Corporate Committee of CBI Radiation and Safety Control Committee - 10 years.
Radiation Safety Officer - 1 year

4.2 RESUME OF RONALD W. KRUZIC

Welding Engineer - Inspection & Testing Group
Houston Corporate Welding Office

FORMAL EDUCATION

University of Illinois (Urbana, Illinois)
Metallurgical Engineering
Bachelor of Science 1970
Master of Science 1971

RADIOGRAPHIC SCHOOL

CBI Isotope Safety Class #19 - December 1973

REGISTRATION

Registered Professional Engineer
State of Illinois (1975)

SOCIETIES

American Society of Nondestructive Testing (ASNT)
American Welding Scoiety (AWS)

ASNT CERTIFICATIONS

NDT Level III Certification -
RT, MT, PT, UT, & LT #Q-1005

EXPERIENCE

Field/Shop Radiographic experience working with X-ray equipment, radioactive sources, training of personnel and personnel supervision. 11 Years.

Kankakee Construction District - Assistant Radiation Safety Officer. 3 Years.

Houston Corporate Welding - Corporate Assistant Radiation Safety Officer. 3 Years.

4.4 RESUME OF CHARLES E. HARRIS

FORMAL EDUCATION

Graduate Tuscola Community High School, 1958
Tuscola, Illinois

Joliet Junior College and Memphis State University
34 hours completed in Pre-engineering - Evening Program

RADIOGRAPHIC SCHOOL

Chicago Bridge & Iron Isotope Safety Training Class #12 - November 1970.

EXPERIENCE

Operator, Quality Control - Air Reduction Sales Company
2 years

Engineering Technical Assistant, Shift Supervisor in Test Laboratory. Inspection & Testing of Reactor Control Rod Drive Units - Marvel Schebler Products - Div. of Borg Warner - 5 years

Senior Technician - Argonne National Laboratory - 4 years

Metallurgy Division - Kinetics Group-Basic Research - 2½ years

Corporate Welding Department - Chicago Bridge & Iron Company - 13 years

Corporate Assistant Radiation Safety Officer - 10 years.

4.5 RESUME OF HUGH K. HOWERTON

FORMAL EDUCATION

Graduate of Montgomery Blair High School - 1967
Silver Spring, Maryland

Attended: Washington University, St. Louis, Mo. - 1968 - 1 year
University of Maryland - 1969 - 1 year

RADIOGRAPHIC SCHOOLS

Chicago Bridge & Iron X-Ray Training Classes New Castle, Del.
December 1970, December 1971, February 1973
Chicago Bridge & Iron Isotope Safety Training Class #32
Houston, Texas - January 1978; #40 Dubai UAE, July 1979,
#52 Dubai UAE, November 1981, #55 Dubai UAE, April 1982,
#59 Juaymah, Saudi Arabia, February 1983.

Gamma Industries October 1979 Radiation Health Physics Program

SOCIETIES

American Society for Nondestructive Testing (ASNT) 1976

EXPERIENCE

Fourteen (14) years experience in the field of radiography with CBI including:

5 years on field construction projects working as a Quality Assurance Technician performing X-ray work, monitoring radiation safety, grading film.

3 years as a Welding and Quality Assurance Supervisor, performing radiography, (isotope and X-ray), monitoring radiation safety, collection of radiography records, audit of records, film grading and setting up gamma ray and X-ray radiography exposures.

3 years in the Inspection and Testing group of the Houston Corporate Welding Department reviewing isotope sealed source records (worldwide), audits of radiography records, instruction of radiography and isotope safety classes, Assistant Radiation Protection Officer.

3 years in the Saudi Arabia Construction Welding Department training Assistant Radiographers, assisting in conducting isotope radiation safety training classes in Dubai UAE and Saudi Arabia, responsible for radiography records, monitoring radiation safety on all field locations.

1.0 INTRODUCTION:

1.1 The company is licensed to receive, ship and transport only sealed sources, exposure devices and source changers designated on its NRC license.

1.2 Personnel performing the duties outlined in this section shall be qualified Radiographers.

1.3 As part of the CBI 10CFR Part 71 QA Program, all shipping packages being prepared for transport shall meet the requirements outlined in 4.0 of this section.

2.0 SHIPPING PACKAGE REQUIREMENTS:

2.1 All radioactive sources used by CBI are classified "Special form" and are shipped in Type A or Type B packages.

2.1.1 Type A packages are those that can or have passed a series of tests and contain sealed sources with a specified maximum activity for a specific isotope.

2.1.2 Type B packages are those that have passed all Type A requirements and hypothetical accident conditions; and contain sources with a maximum activity of five thousand (5000) curies.

2.2 The following Type A packages are shipped under transport status "DOT 7A".

2.2.1 Model 616 exposure device loaded with a maximum of 20 curies.

2.2.2 Model 773 exposure device.

2.2.3 Model 801 Drum loaded with a Model 571 exposure device.

2.3 The following Type B packages are shipped under transport status "DOT-55" (valid until July 1, 1985).

2.3.1 Model 488 source changer

2.3.2 Model 520 exposure device loaded with a maximum of 300 curies.

2.4 The following are NRC certified Type B packages manufactured by Technical Operations.

Exposure Device	Transport Status
Model 660	USA/9033/B
Model 672	USA-DOT-8-70
Model 676	USA/9029/B
Model 680	USA/9035/B
Model 900	USA/9141/B
Model 920	USA/9143/B
Source Changers	
Model 650	USA/9032/B
Model 770	USA/9148/B
Model 771	USA/9107/B
Model 850	USA/9147/B
Overpacks	
Model 715 Drum Loaded with a Model 616 Exposure Device	USA/9039/B
20WC Overpack loaded with a Model 520 Exposure Device	USA/5800/B

3.0 RECEIVING REQUIREMENTS:

3.1 Upon receipt of a shipping container, survey to determine the radiation levels external to the container. Perform this survey:

3.1.1 As soon as practicable after receipt, but no later than three (3) hours.

or

3.1.2 If received at company facilities after normal working hours, no later than eighteen (18) hours.

3.2 When a shipping container's radiation levels are in excess of 200 millroetgens per hour at any exterior surface or 10 millroetgens per hour at one meter (3.3 feet) from any exterior surface, immediately notify the District RSO or ARSO. The District RSO or ARSO shall notify the RSO or ARSO to determine the action to take. The NRC or other regulatory agencies and the final delivering carrier shall be notified as applicable. See Section 12.

3.3 Open shipping containers only in a Restricted Area.

3.4 Survey the exposure device immediately upon removal from the shipping container.

3.4.1 Technical Operations Model 571, 616, 660, 773, 900 and 920 exposure devices which all measure less than four (4) inches from the sealed source storage position to any exterior surface of the device, shall have no radiation level in excess of 50 milliroentgens per hour measured at a distance six (6) inches away from any exterior surface.

3.4.2 Technical Operations Model 520, 672, 676 and 680 exposure devices which all measure four (4) inches or more from the sealed source storage position to any exterior surface of the device, shall have no radiation level in excess of 200 milliroentgens per hour at any exterior surface and ten (10) milliroentgens per hour measured at a distance of one meter (3.3 feet) from any exterior surface.

3.5 If any exposure device readings are noted in excess of those specified in 3.4.1 or 3.4.2, immediately notify the District RSO or ARSO for instructions. The District RSO or ARSO shall notify and consult with the RSO or ARSO.

3.6 Examine the exposure device or source changer for any signs of damage and to assure that all seal wires, locks, plugs, etc., as provided by the manufacturer, are in place.

3.7 After all required inspections and surveys, place the exposure device or source changer in storage, if not used immediately. Fill out form WL 189.

4.0 SHIPPING PACKAGE INSPECTION AND PREPARATION:

4.1 Check the exposure device or source changer to assure that all shipping plugs, seal wires, locks, etc. are in place.

4.2 When a Model 715 Drum, Model 801 Drum or 20WC overpack is used:

4.2.1 Assure that pig hair, foam rubber or other packing material is in place to protect the fire insulation and prevent the enclosed exposure device from shifting during shipment.

4.2.2 Check the integrity of the fire resistant insulation shield.

4.2.3 Check for proper operation of the drum locking ring and bolting or fastener device.

4.3 Nonconforming or damaged packages or parts shall be tagged or marked and the District Radiation Safety Personnel notified for instructions. DO NOT SHIP nonconforming or damaged packages.

4.4 When a Type B package is shipped in a solid crate, transfer the DOT information to the outside of the crate.

4.5 Attach a security seal to the shipping container:

4.5.1 At the shipping plug or source indicator knob for exposure devices.

4.5.2 At the bolt heads of the cover for source changers.

4.5.3 At the locking ring bolt head for shipping drums.

4.6 Survey the shipping container to assure that the radiation level does not exceed 200 milliroetgens per hour at the external surfaces or 10 milliroetgens per hour at one meter (3.3 feet) from the surfaces.

4.7 Label the shipping container on <u>two</u> <u>opposite</u> <u>sides</u> as follows:

4.7.1 Use <u>Radioactive White I Label</u> if the radiation intensity is 0.5 MR/HR or less at the surface of the shipping container.

4.7.2 Use <u>Radioactive Yellow II Label</u> if the radiation intensity is 50 MR/HR or less at the surfaces of the shipping container <u>and</u> is 1 MR/HR or less at a distance of one meter (3.3 feet) from the surfaces.

4.7.3 Use <u>Radioactive Yellow III Label</u> if the radiation intensity is greater than 50 MR/HR at the surface of the shipping container or greater than 1 MR/HR at a distance of one meter (3.3 feet) from the surfaces.

4.8 Fill out the information on the shipping labels as follows.

4.8.1 Contents

4.8.1.1 Type of Radioisotope; ie Iridium 192, Cobalt 60, Cesium 137, or depleted Uranium.

4.8.2 Activity

4.8.2.1 For Iridium, Cobalt or Cesium, read the value from the decay chart.

4.8.2.2 For depleted Uranium use < .005 Ci.

4.8.3 Transport Index: For Yellow II or III Labels this is the radiation intensity measured at one meter (3.3 feet) from the surface of the shipping container.

5.0 COMPANY VEHICLE SHIPMENTS:

5.1 Document shipping information on form WL 189 "Radioactive Isotope Shipping/Receiving" and fill out form HO 85 "Straight Bill of Lading".

5.2 Supervise the loading of the shipping container.

5.3 Place the shipping container as far away as possible from the driver and/or other passenger(s).

5.4 Secure the shipping container in the vehicle by use of cables or chains to prevent movement and unauthorized removal.

5.5 For radioactive Yellow III shipments, placard the vehicle on all four (4) sides (front, rear, and each side) with radioactive placards. See Figure 1.

5.6 Prior to operation of the vehicle perform a survey. The reading at the driver and passenger(s) location, or anywhere on the exterior surface of the vehicle, shall not exceed two (2) milliroentgens per hour. If the reading exceeds this value, provide additional shielding to reduce the reading to this value.

5.7 A Radiographer with the necessary equipment must accompany this shipment.

5.8 Lock the vehicle or other compartments of the vehicle at all times when not occupied or when unattended.

5.9 Assure that the selected routes of travel are in accordance with all applicable regulations and, when required, that proper notice has been given to all regulatory agencies.

Figure 1 Radioactive Placards

6.0 COMMON CARRIER GROUND TRANSPORTATION SHIPMENTS:

6.1 Document shipping information on form WL 189 "Radioactive Isotope Shipping/Receiving" and fill our form HO 85 "Straight Bill of Lading".

6.2 The original shipping papers shall accompany the shipment.

6.3 Consign shipments only to common carriers qualified to handle such shipments.

6.4 Make notification of shipment ahead of time so that proper receiving arrangements can be made.

6.5 For shipments requiring Radioactive Yellow III Labels, provide the carrier with radioactive placards.

7.0 COMMON CARRIER AIR TRANSPORTATION SHIPMENTS:

7.1 In addition to the requirements of 4.0 and 6.0:

7.1.1 Fill out a "Shipper's Declaration For Dangerous Goods" form.

7.1.2 Apply two (2), "DANGER DO NOT LOAD IN PASSENGER AIRCRAFT" labels. See Figure 2.

Figure 2 Air Transportation Label

1.0 RESPONSIBILITY:

1.1 Radiographers:

1.1.1 Maintain up-to-date records at the site.

1.1.2 Submit all required weekly and quarterly reports to the district office.

1.1.3 At the end of site radiographic work, send in all required site records to the district office.

1.2 District Office;

2 1.2.1 Store all required records and forward copies to the RSO at the Houston Corporate Welding Office.

1.3 Corporate Office:

1.3.1 Store all required records.

2.0 REQUIRED RECORDS:

2 2.1 The Table on page 7 lists the required report forms, when to complete and when copies are to be sent to the district office.

3.0 FORMS:

3.1 NRC-4 Occupational External Radiation Exposure History (Form WL 41):

3.1.1 Completed and signed by the individual when starting radiographic work with CBI.

3.1.2 Send original to district office.

3.1.3 Retain copy in jobsite file.

3.2 NRC-5 Current Occupational External Radiation Exposure (Form WL 40) or A Film Badge Service Company Quarterly Report (If it Contains all the Required NRC-5 Information):

3.2.1 Kept up-to-date weekly or quarterly and completed by the individual at the end of quarter in which the individual was doing radiographic work.

3.2.2 Send original to district office.

3.2.3 Retain copy in jobsite file.

3.2.4 When an individual transfers to another location, provide a copy of the latest NRC-5, or equivalent, report to the individual.

3.3 Assistant Radiographer Qualification (Form WL 188)

3.3.1 Completed and signed by the District RSO or ARSO.

3.3.2 Send original to district office.

3.3.3 Retain copy in jobsite file.

3.3.4 Provide a copy to the individual.

3.4 Radiographer "Certificate of Award" (Form WL 231)

3.4.1 Completed and signed by the Chief Welding Engineer and the RSO or ARSO.

3.4.2 Provide the original to the individual.

3.4.3 Retain a copy for the district office individual's personnel file.

3.5 Radioactive Isotope Shipping/Receiving Report (Form WL 189)

3.5.1 Completed and signed by the Radiographer whenever sealed sources are shipped or received.

3.5.2 Send original to district office at end of week.

3.5.3 Retain copy in jobsite file.

3.6 Physical Inventory, Leak Test and Maintenance Form WL 44-Front)

3.6.1 Make entries when:

3.6.1.1 Sealed sources are received or shipped.

3.6.1.2 Sealed sources are leak tested.

3.6.1.3 Quarterly maintenance is performed.

3.6.2 Completed and signed by the Radiographer at the end of each quarter.

3.6.3 Send original to district office at the end of each quarter or the end of the job.

3.6.4 Retain copy in jobsite file.

3.7 Quarterly Meter Report (Form WL 44 Back)

3.7.1 Make entries when:

3.7.1.1 Survey meters are received or shipped.

3.7.1.2 Dosimeters are received or shipped.

3.7.2 Completed at end of quarter.

3.7.3 Send original to district office.

3.7.4 Retain copy in jobsite file.

3.8 Gamma Radiography Utilization Log (Form WL 134)

3.8.1 Completed and signed by the Radiographer for each sealed source each time it is removed from storage for radiographic, dosimeter calibration and source changing operations and for each week of non-use. For non-use periods, add the statement "Sealed source not used for the week of _____ to _____."

3.8.2 Send original to district office at end of week.

3.8.3 Retain copy in jobsite file.

3.9 Radiation Survey (Form WL 134 Back)

3.9.1 Completed and signed by the Radiographer for each sealed source each time it is removed from storage for radiographic, dosimeter calibration and source changing operations.

3.9.2 For repeat sketches, reference to previous sketches by date may be used up to four (4) weeks, after which a new sketch shall be required.

3.9.3 Send original to district office at end of week.

3.9.4 Retain copy in jobsite file.

3.10 Quarterly Dosimeter Report (Form WL 236)

3.10.1 Enter readings daily, totals weekly and completed and signed by the individual at the end of quarter.

3.10.2 Send original to district office.

3.10.3 Retain copy in jobsite file.

3.10.4 When an individual transfers to another location, provide a copy of the current report to the individual.

3.11 Pocket Dosimeter Calibration Report (Form WL 287A)

3.11.1 Completed and signed by the Radiographer whenever dosimeters are calibrated.

3.11.1.1 Original to district office.

3.11.1.2 Retain copy in job site file.

3.12 Safety/Training Meeting Report (Form WL 46)

3.12.1 Meetings conducted and form completed and signed as follows:

3.12.1.1 At start of job by Radiographer-in-charge with entire crew.

3.12.1.2 Quarterly by District RSO or ARSO or by Corporate RSO or ARSO with Radiographers and Assistant Radiographers.

3.12.2 Send original to district office.

3.12.3 Retain copy in job site file.

3.13 Radiation Safety Checklist (Form WL 238)

3.13.1 Completed and signed by a Safety Supervisor whenever a construction job site is visited.

3.13.2 Send original to district office.

3.13.3 Send copy to Corporate Safety/RSO.

3.13.4 Retain copy in job site file.

3.14 Straight Bill of Lading - Short Form (Form HO 85)

3.14.1 Completed and signed by the Radiographer whenever a sealed source is shipped.

3.14.2 Send original with shipment.

3.14.3 Send copy to district office.

3.14.4 Retain copy in job site file.

3.15 Shippers' Declaration for Dangerous Goods(IATA)

3.15.1 Completed and signed by the Radiographer whenever a sealed source is shipped by Air Freight.

3.15.2 Send original with shipment.

3.15.3 Send copy to district office.

4.0 TWO (2) YEAR RETENTION:

4.1 These records shall to be retained for two (2) years.

4.1.1 Source Records

4.1.1.1 Decay Chart (Tech/Ops).

4.1.1.2 Manufacturer's (Tech/Ops) Leak Test Report.

4.1.1.3 Physical Inventory, Leak Test and Maintenance (WL 44 (Front)).

4.1.1.4 Isotope Shipping/Receiving Report (WL 189).

4.1.1.5 Straight Bill of Lading (HC 85).

4.1.1.6 Shipper's Declaration for Dangerous Goods (IATA) (if applicable).

4.1.2 Personnel Records

4.1.2.1 Six (6) Month Isotope Quiz.

4.1.3 Survey Records

4.1.3.1 Utilization Log and Radiation Survey (WL 134 (Front) & WL 134 (Back)).

4.1.4 Meter Records

4.1.4.1 Quarterly Meter Report (WL 44 (Back)).

4.1.4.2 Vendor Survey Meter Calibration Reports.

4.1.4.3 Vendor Pocket Dosimeter Calibration Reports. (If CBI, WL287A)

4.1.5 Safety Records

4.1.5.1 Safety Training/Meeting Reports (WL 46).

4.1.5.2 Radiation Safety Check List (WL 238).

5.0 FIVE (5) YEAR RETENTION:

5.1 These records shall be retained for five (5) years.

5.1.1 Transfer receipt from Manufacturer (Tech/Ops).

5.1.2 Isotope Radiographers examination.

6.0 INDEFINITE RETENTION:

6.1 These records shall be retained until the Nuclear Regulatory Commission (NRC) authorizes disposition.

6.1.1 NRC-4: Occupational External Radiation History (WL 41).

6.1.2 NRC-5: Current Occupational External Radiation Exposure (WL 40) or equivalent report containing the same information.

6.1.3 Quarterly Dosimeter Reports (WL 236).

6.1.4 Assistant Radiographer Certification (WL 188).

6.1.5 Radiographer Certificate of Award (WL 231).

OPERATION(S)	NRC-4 (WL 41)	ASSISTANT RADIOGRAPHER QUALIFICATION (WL 188)	CERTIFICATE OF AWARD (WL 231)	SAFETY/TRAINING MEETING REPORT (WL 36)	RADIOACTIVE ISOTOPE SHIPPING/RECEIVING REPORT (WL 189)	PHYSICAL INVENTORY AND MAINTENANCE (WL 44 FRONT)	QUARTERLY LEAK TEST REPORT (WL 44 BACK)	POCKET DOSIMETER CALIBRATION REPORT	GAMMA RADIOGRAPHY UTILIZATION REPORT (WL 2874)	RADIATION SURVEY LOG (WL 114)	QUARTERLY SURVEY REPORT (WL 114 BACK)	QUARTERLY DOSIMETER REPORT (WL 236)	NRC-5 (or 40) or Equivalent Form	STRAIGHT BILL OF LADING - SHORT FORM (WL 85)	SHIPPER'S DECLARATION FOR DANGEROUS GOODS (IATA)	RADIATION SAFETY CHECK LIST (WL 218)
NEW PERSONNEL: ASSISTANT RADIOGRAPHER	1	1														
NEW PERSONNEL: RADIOGRAPHER			1													
SAFETY MEETING: START-OF-JOB QUARTERLY				2												
RECEIPT OF SHIPPING CONTAINER(S)					2	3					3					
SHIPPING OF SHIPPING CONTAINER(S)					2	3					3		2	2		
RECEIPT OF SURVEY METERS AND/OR DOSIMETERS							3									
USE OF EXPOSURE DEVICES: RADIOGRAPHY									2	2	3					
USE OF EXPOSURE DEVICES: CALIBRATION								2	2	2	3					
SEALED SOURCE CHANGING						3		2	2	2	3					
QUARTERLY MAINTENANCE						3					3					
CONSTRUCTION SAFETY SUPERVISOR JOB-SITE VISIT																2
WEEKLY FILM BADGE REPORT FROM PROCESSOR												3				

1. Forms to be filled out <u>once</u> for new personnel.

2. Forms to be filled out and sent to the District Office at end of week.

3. Forms to be kept up-to-date daily during course of the quarter* and sent to the District Office at the end of each quarter.

* Each quarter is 13 weeks long and there are four quarters in a year. The first quarter starts on the first Monday on or after January 1 and ends on a Sunday. Any fractional week at the beginning of a year is added to the last quarter of the previous year. Starting and ending dates for quarters shown on Film Badge Reports must agree with the above.