

ACCEPTANCE REVIEW MEMO (ARM)

Licensee: Kakivik Asset Management **License No.:** 50-27667-01
Docket No.: 030-35371 **Mail Control No.:** 471125
Type of Action: Amend **Date of Requested Action:** 09-18-06
Reviewer Assigned: *RTZ* **ARM reviewer(s):** Torres

| Response | Deficiencies Noted During Acceptance Review |
|----------|---|
| | [] Open ended possession limits. Limit possession. Submit inventory. [] Submit copies of most recent leak test results. [] Add - delete IC license condition. Add IC paragraph in cover letter. [] Split license from cover letter. Add SUNSI marking to license. [] Ask the licensee if they have any type-amount of EAct Material. |
| | |

Reviewer's Initials: _____ **Date:** _____

| | |
|--|---|
| <input type="checkbox"/> Yes <input type="checkbox"/> No | Unrestricted release Group 2 or >: Transfer memo to FCDB within 10 days. |
| <input type="checkbox"/> Yes <input type="checkbox"/> No | Decommissioning notification should be completed within 30 days. |
| <input type="checkbox"/> Yes <input type="checkbox"/> No | Termination request < 90 days from date of expiration |
| <input type="checkbox"/> Yes <input type="checkbox"/> No | Expedite (medical emergency, no RSO, location of use/storage not on license, RAM in possession not on license, other) |
| <input type="checkbox"/> Yes <input type="checkbox"/> No | TAR needed to complete action. |

Branch Chief's and/or Sr. HP's Initials: _____ **Date:** _____

SUNSI Screening according to RIS 2005-31

Yes No **Non-Publicly Available, Sensitive** if any item below is checked

General guidance:

- _____ RAM = or > than Category 3 (Table 1, RIS 2005-31), use Unity Rule
- _____ Exact location of RAM (whether = or > than Category 3 or not)
- _____ Design of structure and/or equipment (site specific)
- _____ Information on nearby facilities
- _____ Detailed design drawings and/or performance information
- _____ Emergency planning and/or fire protection systems

Specific guidance for medical, industrial and academic (above Category 3):

- _____ RAM quantities and inventory
- _____ Manufacturer's name and model number of sealed sources & devices
- _____ Site drawings with exact location of RAM, description of facility
- _____ RAM security program information (locks, alarms, etc.)
- _____ Emergency Plan specifics (routes to/from RAM, response to security events)
- _____ Vulnerability/security assessment/accident-safety analysis/risk assess
- _____ Mailing lists related to security response

Branch Chief's and/or Sr. HP's Initials: *RTZ* **Date:** *10/5/06*

Pre-Licensing Screening

Applicant Information:

Control No. 471125

| | |
|--------------------------------|---|
| Name: Kakivik Asset Management | Type of Request: Amend Program Code(s): |
| Location: AK | License No.: 50-27667-01 Docket No.: 030-35371 |

STEP 1–Radioactive Materials and Quantities Requested:

| | | |
|---|--|-----------|
| Instructions for Step 1: Complete Step 1 for all applications. If all your responses in Step 1 are "No" then do not complete Step 2 (Screening Criteria). Sign and date the completed step-sheet and add it as the sensitive and non-publicly available OAR in ADAMS. If a "yes" response is indicated for any item in Step 1, also complete Step 2. If the type of use is subject to a Security Order or the requirements for increased controls, complete Step 3 (Item A or Item B) without delay. | | Yes or No |
| A. | The request is from a new applicant. | N |
| B. | NUREG-1556, Volume 20, Section 4.9 indicates a licensing site visit is needed for the requested type of use, e.g., (1) Type A broad scope license, (2) panoramic irradiator containing > 10000 curies, (3) manufacturers or distributors using unsealed radioactive material or significant quantities of sealed material, (4) radioactive waste brokers, (5) radioactive waste incinerators, (6) commercial nuclear laundries, and (7) any other application that in the judgement of the reviewer and cognizant supervisor involves complex technical issues, complex safety questions, or unprecedented issues that warrant a site visit. | N |
| C. | The applicant requested certain radionuclides and quantities that equal or exceed the Risk Significant Quantity (TBq) values in the table, below, that have been "highlighted" by the reviewer | N |

Table of Risk Significant Quantities

(Category 2 Quantities, IAEA Safety Guide No. RS-G-1.9, Categorization of Radioactive Sources, August 2005)

| Radionuclide | Risk Significant Quantity (TBq ¹) | Risk Significant Quantity (Ci ¹) | Radionuclide | Risk Significant Quantity (TBq ¹) | Risk Significant Quantity (Ci ¹) |
|--------------|---|--|---------------------|---|--|
| Am-241 | 0.6 | 16 | Pm-147 | 400 | 11,000 |
| Am-241/Be | 0.6 | 16 | Pu-238 | 0.6 | 16 |
| Cf-252 | 0.2 | 5.4 | Pu-239/Be | 0.6 | 16 |
| Cm-244 | 0.5 | 14 | Ra-226 ² | 0.4 | 11 |
| Co-60 | 0.3 | 8.1 | Se-75 | 2 | 54 |
| Cs-137 | 1 | 27 | Sr-90 (Y-90) | 10 | 270 |
| Gd-153 | 10 | 270 | Tm-170 | 200 | 5,400 |
| Ir-192 | 0.8 | 22 | Yb-169 | 3 | 81 |

¹ The primary values are TBq. The curie (Ci) values are for informational purposes only.
² The Atomic Energy Act, as amended by the Energy Policy Act of 2005, authorizes NRC to regulate Ra-226 and NRC is in the process of amending its regulations for discrete sources of Ra-226.

| | |
|---|---------------------------------|
| Calculations of the Total Activity or the Unity Rule are attached to document whether or not the screening criteria in Step 2 were also completed to evaluate the application. NOTE–If an amendment of an existing license is being requested, the calculations will include the previously authorized quantities for the radionuclide(s). | Yes, No, or Not Applicable (NA) |
| Total Activity–multiple activities are requested for a single radionuclide and the sum of the activities equals or exceeds the quantity of concern for the radionuclide | — |
| Unity Rule–multiple radionuclides are requested and the sum of the ratios equals or exceeds unity, e.g., [(total activity for radionuclide A) ÷ (risk significant quantity for radionuclide A)] + [(total activity for radionuclide B) ÷ (risk significant quantity for radionuclide B)] ≥ 1.0. | — |

Signature and Date for Step 1:

KAC 10/5/06

License Reviewer and Date

From: Jack Whitten
To: Colleen Murnahan
Date: 09/20/2006 1:06:44 PM
Subject: ACT: License Amendment

Colleen//

Please set this up for the acceptance review.

Thx//JackW



>>>"Jeff Arveson" <jarveson@kativik.com> 1:00 PM 9/20/200620/2006 >>>
Jack

As we discussed a few weeks ago attached is a request with supporting documentation to add the capabilities of source retrieval to or by-products materials license. Can you please see that it gets into the right hands.

Thanks in advance

Jeff Arveson

Kativik Asset Management



Nuclear Materials Licensing Section
 U. S. Nuclear Regulatory Commission Region V
 811 Ryan Drive, Suite 400
 Arlington, TX 76011

September 18, 2006

This is an application for an amendment to Byproducts Material License number:
 50-27667-01

RTK
 From:
 KAKIVIK Asset Management, LLC
 111 West 16th Ave
 Suite 100
 Anchorage, AK 99501

This application is to add source retrieval to our license and remove Mark Hylen as President/CEO and add Myrna D. Gardner as President/CEO.

Summary of changes to attached Operating and Emergency procedures;

- Part I Section 3.0 – Removed Mark Hylen as CEO added Myrna D. Gardner, Removed Paul Casey as RSS and added Mike Branch as RSS.
- Part I Section 9.0 – Added Mike Branch Resume and removed Paul Casey
- Part II Section 1.0 – Added Mike Branch as RSS and Removed Paul Casey.
- Part II Section 13.0 – Added source retrieval procedure.
- Part I and II Table of Contents – Revised to reflect revision to manual number.

Jeff Arveson
 KAKIVIK Asset Management – RSO
 Cell 651.470.8830 Office 907.770.9416

Attachment 1 – Part I Section 3.0
 Attachment 2 – Part I Section 9.0
 Attachment 3 – Part I Table of Content
 Attachment 4 – Part II Section 1.0
 Attachment 5 – Part II Section 13.0
 Attachment 6 – Part II Table of Content
 Attachment 7 – Source Retrieval training certificates for Jeff Arveson and Tony Bushard

Certificate of Training

This Certifies That

Jeff Arveson

Has Successfully Completed Training
Given By **INDUSTRIAL NUCLEAR COMPANY**
In The Inspection, Maintenance and Repair as follows:

In

Radioactive Source Retrieval:

Training Text Includes: The use of the following Tool's

6' Tongs

Source Guide Tubes

Hand Crank Control Assembly

Teleflex Drive Cable



Richard G. Lester 4/7/04
INSTRUCTOR DATE

Certificate of Training

This Certifies That

Anthony Bushard

**Has Successfully Completed Training
Given By *INDUSTRIAL NUCLEAR COMPANY*
In The Inspection, Maintenance and Repair as follows:**

In

Radioactive Source Retrieval:

Training Text Includes: The use of the following Tool's

6' Tongs

Source Guide Tubes

Hand Crank Control Assembly

Teleflex Drive Cable



Anthony Bushard 4/7/04
INSTRUCTOR DATE



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Jeff Arveson – Radiation Safety Officer

CURRENT CERTIFICATIONS:

ASNT Nationally Certified Level III in RT, MT, PT, VT, LT and UT.

AWS Certified Weld Inspector

IRRSP Certification, x-ray and radioactive materials,

API 570 Piping Inspector Certification

API 510 Pressure Vessel Inspector

API 653 Above Ground Storage Tank Inspector

COMPUTER SKILLS:

Computer Literate with DOS Base and Windows Base Quattro Pro, Excel, Access, Outlook, Autosketch, Acrobat, Microsoft Word, Wordstar, WordPerfect, Harvard Graphics, Timeline and dBase with some Basic programming skills.

EDUCATION:

Technical Institute of Hutchinson. August 1980 to April 1982. Graduated from a two-year Nondestructive Testing program with a Degree in Metals Testing Technology.

PROFESSIONAL EXPERIENCE:

KAKIVIK Asset Management, LLC December 2001 to present. **QC Manager/Corporate Level III, RSO.** Responsible for Qualification/Certification of NDE and Inspection Personnel, development of inspection procedures and assessment of training requirements of inspection personnel. Manage Quality/Inspection staff.

Minnesota Department of Transportation April 1999 to December 2001. **Metals Quality Inspector / Level III.** Monitor onsite QA/QC inspections at bridge manufacturers facilities to ensure construction compliance. Auditing of NDE vendors inspection, quality and certification practices.

ASCG Inspection, Inc. March 1998 April 1999. **QA/QC Team Lead.** Responsible for the development of company plan for ISO implementation. Head of quality, training and radiation safety departments. Assure, by audit, all systems, processes and personnel perform to an acceptable degree of customer satisfaction.

CTI Alaska, Inc. March 1996 to March 1998. **Quality Control Manager / Corporate Level III / RSO.** Responsible for NRC radiation safety requirements of 200+ Radiographers and 40+ gamma ray exposure devices and portable density gauges. Responsible for corporate quality procedure compliance to codes and client specifications. Identify required personnel technical training and process improvements. Certification administrator/examiner for all disciplines of inspectors.

EG&G Florida. November 1989 to March 1996. **Senior NDE Engineer/ Level III.** Provide nondestructive testing and engineering support to EG&G customers at Kennedy Space Center. NDE Engineering support to Pressure Vessel group for re-certification of in-service pressure systems. Verify vendors meet ASME code design and quality requirements during procurement and manufacture of new pressure vessels. NDE Engineering support to Pressure Piping Systems group for design and inspection requirements of new piping systems and modifications to existing systems per ASME/



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ANSI code requirements. NDE Engineering support to contracted welding facilities for welding procedure qualification and welder certification per AWS and ASME code requirements. Proficient with Computed Tomography and Real-time Micro focus x-ray systems as engineering tools. Also provide training and technical support to Level II Technicians.

DNV Industrial Services. Subcontracted to USBI Kennedy Space Center. August, 1989 to November 1989. **NDE Engineer / Level III**. Developed procedures for the in-service examination of the Shuttle Solid Rocket Booster components. Responsible for compliance to procedures during internal, NASA, and Air Force audits.

Magnaflux Quality Services. May, 1989 to August, 1989. **NDE Level III and QA/QC Coordinator**. Performed audits for compliance to specifications and Quality Assurance plan. Responsible for Qualification/Certification of Technicians.

Braun Engineering and Testing. May, 1986 to May, 1989. **Laboratory Supervisor, NDE Level III RT, UT, MT, PT**. Duties included coordinator for technicians and assistants, prepared techniques and procedures for examination of castings and weldments.

Conam Inspection Roseville. December 1984 to May 1986. **Laboratory supervisor, NDE Level III RT, UT, MT, PT and Regional Radiation Safety Officer**. Certified technicians and assistants in all methods. Provide training where needed. Prepared request for quotations and approved techniques and procedures for all test methods.

Conam Inspection Williston. August, 1983 to December, 1984. **Branch Manager and Regional Radiation Safety Officer** for testing laboratory. Providing testing services (RT, UT, MT, PT) for petroleum industries and expanded to power plant operations.

Twin Ports Testing. April, 1982 to August, 1983. **Level II technician** performing RT, UT, MT, PT on turbines, boilers, and related piping welds. Also prepared reports, documented test results, and prepared request for quotations.

The Virginia Corporation and Reinhart and Associates. Employed part time as an **NDT Technician** performing inspections in nuclear power plants and paper mills while attending the Technical Institute of Hutchinson.

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PART I
RESUMES

Tony Bushard – Radiation Safety Supervisor

Highlights: Possess a strong background in Quality Assurance and Nondestructive Testing Technology. Extremely well organized, efficient and quickly learn new procedures and methods. Able to develop and implement new systems when necessary. Capable of handling multiple projects concurrently and comfortable working in a team environment.

Experience: Kakivik Asset Management
Kuparuk Project and Radiation - Safety Supervisor 8/2000 to Present

- Supervise Between 60 and 70 personnel depending on workload
- Direct interaction with client
- Manage personnel work schedules
- Radiation Safety training
- Radiation Safety and Quality Field audits
- Safety and Personnel issues
- Presently certified ASNT L-III RT,PT,IRRSP

Arctic Slope Consulting Group Inspection, Inc. Anchorage, Alaska
North Slope Project Manager 2/98 to 8/2000

- Manage Between 60 and 70 personnel depending on workload
- Direct interaction with client
- Manage inspection budget program for department
- Manage personnel work schedules
- Perform practical examinations for Radiographic Technicians
- Safety and Personnel issues
- Presently certified ASNT L-III RT,PT,IRRSP, ASCG L-II UT, PT, MT, RT, and AWS-CWI-QCI-96

CTI Alaska Inc. Anchorage Alaska
North Slope Project Manager 10/97 to 2/98

- Manage Between 60 and 70 personnel depending on workload
- Direct interaction with client
- Manage inspection budget program for department
- Manage personnel work schedules
- Perform practical examinations for Radiographic Technicians
- Safety and Personnel issues
- Presently certified ASNT L-III RT,PT,IRRSP, ASCG L-II UT, PT, MT, RT, and AWS-CWI-QCI-88

CTI Alaska Inc. Anchorage Alaska
Kuparuk River Unit Project Supervisor 2/97 to 2/98

- Coordinate inspection projects for both manual and automated inspections



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- Provide technical assistance when necessary
- Inspection of tanks and pressure vessels
- Maintained Radioactive Source Control and documentation
- Maintained equipment inventory

CTI Alaska Inc. Anchorage Alaska
Corrosion Specialist / NDE Technician 5/95 to 2/97

- Developed various inspection techniques both corrosion inspection and production weldments
- Corrosion rate monitoring on existing piping
- Calculated maximum allowable operating pressures for piping using B31G and R-Streng software
- Calculated recur inspection intervals
- Inspection of tanks and pressure vessels
- Managed Special Project Inspection library
- Film interpretation

Allied Signal Aerospace Inc. Tempe, AZ
Senior NDE Lead Technician 10/85 to 5/95

- Generated various inspection techniques for aerospace in accordance with Mil Standards
- Performed Supplier Quality Assurance audits
- Performed QA of supplier inspection techniques
- Inspection of aerospace components which consisted mainly of forgings, castings, and weldments
- Held L-III certifications in accordance with MIL-STD-410 in RT,UT,MT,and PT

Education: Hutchinson Area Vocational Technical Institute Hutchinson Minnesota
Nondestructive Testing Technology 1983
Curriculum consisted if all disciplines of NDE (RT,UT,MT,PT,ET,AE). Also included in-depth lab and theory of Metallurgy and various welding processes.

Other Related Training:

- Alyeska - Seven Habits of Highly Effective People (98)
- The Growth Company, Inc. - Increasing Supervisory Skills (97)
- ARCO - Supervisor Team Training (96)
- ARCO - Tap-Root Training (97)
- Allied Signal Aerospace Inc. - 40 hrs Total Quality Management (93)



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Larry Russell – Radiation Safety Supervisor

RELEVANT EXPERIENCE

Quality Control

In depth experience in inspection and testing, including field and lab radiography (Gamma and X-Ray), Ultrasonic (thickness), magnetic particle (wet and dry), liquid penetrant (visible and fluorescent), vacuum box, and visual Inspection. Proven skills in development of quality assurance/control manuals, operations procedures, and code interpretation.

Projects have included nuclear power plants, petrochemical projects, structural steel buildings and pipelines.

Industrial Welding

Extensive certification and field experience with welding procedures development including exotic materials.

Personnel Management

Experienced in hiring, training, and supervising up to 300 professional personnel in all areas of welding and related quality control work including non-destructive testing. Background includes effective instructional delivery in classroom, laboratory, and field training environments.

Administration

Proven experience in the establishment and effective administration of creative and flexible business including financial management, personnel training, filed work, quality control as well as inventory control and records management.

BUSINESS EMPLOYMENT

President/General Manager: Inspection Services & Testing, Fairbanks, Ak. 1986-1994.

Responsible for welder qualification, welding procedure development, civil, mechanical and nondestructive testing and inspection.

Manager-Technical Services: Alaska Welding Center, Fairbanks, AK. 1982-1986. Supervised all laboratory and field projects, including nondestructive testing, welding inspections and welder qualification testing.

Inspection Supervisor: Trowbridge Engineering, Prudhoe Bay, AK. 1981-1982. Supervised 30 Inspectors assigned to Arco's Prudhoe Bay operations.

Field Inspector: Alyeska Pipeline Service Company, Fairbanks, AK. 1980-1981. Inspected new pipeline and pump station construction, modifications and calibrations.

Senior Inspector: Flour Corporation, Alaska and Iran; 1976-1979.

Prior To 1976: Worked as Construction Welding Engineer, Research Engineer-Lockheed Missile & Space and related positions for various companies.

CONTINUING EDUCATION

Successfully completed professional development courses, seminars and workshops in theory and application of ultrasonic, radiographic Interpretation, magnetic particle examination, liquid penetrant Examination of castings, repair and calibration of pressure relieving devices, Inspection of mobile crane and construction rigging, and acoustic emission testing.

PROFESSIONAL

American Society for Non-Destructive Examination



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AFFILIATIONS
Committee

American Welding Society; Certified Welding Inspector Member, QC-4

American Society for Quality Control

American Society of Mechanical Engineers

National Association of Corrosion Engineers

American Society of Testing Materials, Committee Member E-6 and E-36

American Society of Safety Engineers

American Society of Metals

American National Standards Institute

American Petroleum Institute, ANSI/API 510's Pressure Vessel Inspector

CERTIFICATIONS **Mechanical, Civil, Welding, Crane Inspection, Pressure Relief Valve, Mobile Cargo Tanker, ANSI/API-510, Vacuum Box, Receiving and underwater inspection. Corporate NDE Level III Liquid Penetrant, Magnetic Particle, Radiographic film interpretation, Ultrasonic.**

PERSONAL Excellent health. Additional information and references are available on request.

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Mike Branch – Radiation Safety Supervisor

Certifications

IRRSP Certified
Company Level II UT
Company Corrosion Film Interpretation

Work experience

8/00 to Present Kakivik Asset Management 111 W 16th Ave Suite 100 Anchorage, AK 99501. Telephone (907) 770-9400 Contact – Tom Liverance. **Site Supervisor** for the Kuparuk corrosion group. Supervise 90 personnel. Maintaining direct interaction with client. Administer Radiation Safety. Managing Safety and Personnel issues. Utilizing various computer programs.

2/98 - 8/00 ASCG Inspection, Inc. 301 Arctic Slope Blvd. Suite 100 Anchorage, AK 99518. Telephone (907) 344-5148 Contact Jim Kingrea. **Lead Automated RT Operator** for crew consisting of 4 personnel inspecting for under insulation corrosion and internal corrosion thru wall. Utilizing various computer programs. Trouble shot and repaired robotic equipment. Technical experience in a level II or equivalent capacity in RT, PT, MT, UT, VT, MFE Tanks, Manual Radioscopy (RTR 4 and C Arm), Automated RT (Real time imaging systems and crawlers).

3/95 - 2/98 CTI ALASKA, INC. 4831 Old Seward Hwy, Suite 100 Anchorage AK 99503. Telephone (907) 562-4442. Contact - George Haugen. **Lead Automated RT Operator** for crew consisting of 4 personnel Inspecting for under insulation corrosion and internal corrosion thru wall. Utilized various computer programs. Trouble shot and repaired robotic equipment. Technical experience in a level II or equivalent capacity in RT, PT, MT, UT, VT, MFE Tanks, Manual Radioscopy (RTR 4 and C Arm), Automated RT (Real time imaging systems and crawlers).

Education

GED education, Valdez, AK, 40 hour RT I, 40 hour RT II, 40 hour Radiation safety, 40 hour UT I, 40 hour UT II, 40 hour MT / PT, 40 hour film interpretation, 40 hour Mechanical Visual inspection, 40 hour Automated Radioscopy.

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Chuck Froiland - Radiation Safety Supervisor

Certifications

- ◆ API 653 Certified
- ◆ API 570 Certified
- ◆ NACE CP - 1
- ◆ ASNT Level II RT, UT, MT, PT, MFE., LT
- ◆ IRRSP Certified
- ◆ AWS Certified Welding Inspector

Experience

- 2001 to Present Kakivik Asset Management Anchorage AK

Kenai Site Supervisor

Special Projects Inspector

- Provided API 653 tank inspections throughout Alaska and overseas

Drill site Inspection Coordinator

- ◆ Manage ConocoPhillips Alaska Inc drill site inspection program at Kuparuk
 - ◆ Responsible for all inspection programs, as well as any special projects, direct inspection personnel on work assignments, maintain corrosion database, develop and maintain inspection procedures, provide data results and projections to client.

2000 to 2001 ASCG Inspection Inc. Anchorage AK

Internal Corrosion Coordinator

Phillips-Alaska Kuparuk Field

- ◆ Manage ConocoPhillips Drillsite Internal Corrosion program at Kuparuk.
 - ◆ Responsible for all inspection programs, as well as any special projects, direct inspection personnel on work assignments, maintain corrosion database, develop and maintain inspection procedures, provide data results and projections to client

1997 to 2000 ASCG Inspection Inc. Anchorage AK

External Corrosion Coordinator

Phillips-Alaska Kuparuk Field

- ◆ Design and implement the current CUI (corrosion under insulation) inspection program.
- ◆ Manage and execute Vessel/Tank Inspection Program
 - ◆ Coordinate manual and automated inspections of tanks/vessels, coordinate inspections with ADEC regulated tanks

1991 to 1997 CTI Alaska Inc Anchorage AK

Senior Lead Technician

British Petroleum – North Slope

- ◆ Provide NDE inspection services



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- 1988 - 1991 Ace Inspection Services Evanston, WY

Lead Technician

- ◆ ASNT Level II UT, MT, PT
- ◆ Design, implement, and Coordinated inspection program at BP-Amoco's Whitney Canyon Gas plant and Chevron 's Painter Canyon Gas Plant
- ◆ Provided inspection on downhole tools for exploration and production companies in the Rocky Mountain Overthrust Belt region of western Wyoming, Utah, and northern Colorado.

- 1986 - 1988 MilPark Drilling Fluids (Div. Baker Hughes)Evanston, WY

Sales Engineer

- ◆ Field representative providing technical drilling fluids analysis for well drilling operations in the Rocky Mountain Overthrust Belt western WY, Utah, and northern Colorado.

1980 - 1986

M-I Drilling Fluids

Williston, ND

Technical Sales Representative

- ◆ Provided technical support for drilling fluids analysis for 5 state area in the Northern Rocky Mountain region of Montana, Wyoming, northern Colorado, North and South Dakota

Education

1974 – 1978 Northern State College - Aberdeen, SD

- ◆ B.S., Environmental Science

1974 Aberdeen Central High School Aberdeen, SD

- ◆ Diploma

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Pat Haggenmiller – Radiation Safety Supervisor

Education

- 1981 - 1983 Hutchinson A.V.T.I. Hutchinson, MN

Nondestructive Testing

- Completed 2 year course in Nondestructive Testing including Radiation Safety related to industrial radiography.

Professional experience

- 1983 – 1988 Metalogic, A Div. Of WTL Phoenix, AZ

Level II Technician

- Certified as Level II in PT, MT, UT, RT and VT.
- Worked with Ir-192 and Co-60 sources performing industrial radiography.

- 1988 – 1989 General Dynamics, Elec. Boat Div. W.Milton. NY

Nuclear QC Inspector

- Certified as Nuclear QC Inspector on de-fueling project for the US Navy at the D.O.E.'s West Milton Nuclear Prototype Facility.
- Trained and worked in radiological controlled area around reactor prototype.

- 1989 – 1999 MQS Inspection, Inc. Roseville, MN

Regional Radiation Safety Officer, QC Manager, Level III

- Certified Level III PT, MT, UT, RT, and VT.
- As F.R.S.O., maintained compliance with State and Federal regulations and license conditions. Trained and certified personnel, performed audits and inspections, maintained document control.

- 1999 – 2002 US Inspection, Inc. Blaine, MN

Facility Radiation Safety Officer, QC Manager, Level III

- Certified Level III PT, MT, UT, RT, and VT.
- As F.R.S.O., maintained compliance with State and Federal regulations and license conditions. Trained and certified personnel, performed audits and inspections, maintained document control.

- 2002 – Present Kakivik Asset Management Anchorage, AK

Corrosion Inspector

- Certified Level II PT, MT, UT, RT.
- Perform corrosion and code inspections on oil field piping systems.



PART II

OPERATING AND EMERGENCY PROCEDURES



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RADIATION SAFETY PROGRAM

CONTROLLED MANUAL NUMBER: _____

LICENSE AMENDMENT NUMBER: 50-27667-01 _____

REVISED ON DATE: 09/15/2006 _____

ISSUED TO: _____



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PART I

ADMINISTRATIVE PROCEDURES



RADIATION SAFETY PROGRAM

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PART I

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PART II
EMERGENCY PROCEDURES

1.0 EMERGENCY PROCEDURES

- 1.1 With the best of safety precautions, accidents are always possible and for this reason it is necessary to establish procedures to be followed in case of an emergency. It is the responsibility of each Radiographer and Radiographer's Assistant to be thoroughly familiar with these procedures and to follow them explicitly when emergency situations arise.
- 1.2 If there is any question as to whether a given situation constitutes an emergency, emergency procedures must be followed.
- 1.3 In the event of an emergency arising from malfunction of an exposure device (including source disconnect), damage to a source or exposure device or vehicle accident, the area should immediately be surveyed with an operable radiation survey meter and the area(s) of danger secured. Warning flares, signs and (if possible) personnel barriers should be erected to prevent individuals from entering the danger area(s).
 - 1.3.1 The warning signs and barricades around the danger area(s) will be placed at such a distance that unauthorized personnel will receive no more than 2 mRem/hr.
 - 1.3.2 Immediately contact the Radiation Safety Officer if an emergency arises. In the event he is not available, contact the Radiation Safety Supervisor or the appropriate NRC or State authorities.
 - 1.3.3 Under NO circumstances should a danger area be left unattended by the Radiographer in charge. DO NOT PANIC if assistance is not immediately available. Remember that no harm will be done to persons maintaining a safe distance from a radiation source. Do not leave untrained or inexperienced persons to watch the danger area(s) while help is summoned. Send another person with written instructions to make calls. Contact State Police if vehicle accident occurs.
 - 1.3.4 After securing the danger area(s) and requesting help, maintain surveillance over the area(s) and wait until assistance arrives. Normally it is not expected that the radiographer or his assistant will retrieve or recover disconnected sources.



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- 1.4 In the event that a source is lost or stolen, immediately notify the Radiation Safety Officer and the Radiation Safety Supervisor. If not available, notify the Nuclear Regulatory Commission or the State of Alaska, Department of Health.
- 1.5 In the event of a fire, the radiographic exposure device in use is to be returned to a safe condition, locked and removed from the fire hazard area. If a radiation source cannot be returned to a safe condition and removed from the area, notify the Fire Department personnel when they arrive at the site. Also notify the Radiation Safety Officer, Radiation Safety Supervisor, the Nuclear Regulatory Commission or the State of Alaska, Department of Health.

NOTE

In the event of any other form of accident involving radioactive material or radiation producing devices, take applicable safety measures and notify the Radiation Safety Officer or the Radiation Safety Supervisor. If the event cannot be resolved, immediately notify the Nuclear Regulatory Commission or the State of Alaska, Department of Health.

- 1.6 The radiographic crew must initiate a written Radiography Incident and Equipment Failure Report within 8 hours after an incident or equipment failure occurs.

NOTE

It shall be the responsibility of the supervisor (or lead radiographer where no supervisor is assigned) to see that the Radiation Safety Officer's office receives the completed report, a copy or a facsimile within the 8 hour period.

2.0 SOURCE RETRIEVAL PROCEDURE

WARNING

Only specifically trained and authorized individual or personnel supervised by such authorized individuals or working in their presence are allowed to perform the following steps for source retrievals.

- 2.1 **OBJECTIVE** - Administration system Procedure for handling source retrieval emergencies. The specific emergency actions to be taken by the RSS and/or Radiation Safety Officer are also included in this procedure.



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If necessary, Kakivik Asset Management reserves the right to use an outside Consultant, approved by the NRC to perform source retrievals.

- 2.2 **RETRIEVAL EQUIPMENT:** - Source retrieval equipment shall include, but not limited to, the following items:
- a. Film Badge/TLD's may be issued to personnel for the specific retrieval emergency as designated by the RSO/RSS.
 - b. A sufficient number of 0 - 200 mR, 0 -500 mR and 0 - 5 R Dosimeters based on the type of emergency.
 - c. Extra Survey Instruments.
 - d. Alarming Rate meters.
 - e. 6' remote tongs (example type - Gee - Vee - England).
 - f. 12" Tongue and Groove Pliers (example type - Crescent Model RT212C).
 - g. 8" Heavy- duty Diagonal Cutter (example type - Crescent Model 542-8C).
 - h. 6" Diagonal Cutter (example type - Crescent Model 942-6C).
 - i. 9 1/2" High Leverage Cable Cutter (example type - Klein Tools Model 63050).
 - j. 25 lb. Bags of lead shot (quantity of bags based on the type of incident).
 - k. Dummy source pigtail.
 - l. Tool box equipped with various wrenches, hammer screw drivers, file, etc.
 - m. Roll(s) of 2" wide duct tape.
 - n. Other equipment and/or tools as deemed necessary by the RSO/RSS.
- 2.3 The source retrieval procedure is the controlling document for all personnel and equipment involved in handling the source retrieval emergency. This procedure will be used during retrieval emergencies by all Kakivik Asset Management licensed facilities.
- 2.3.2 All personnel are directed by Kakivik Asset Managements' Operating & Emergency Manual to report all radiation emergencies to the RSS and then to the RSO.
- 2.3.3 Source retrieval emergencies require immediate notification to the RSS and the RSO.
- 2.3.4 Source Retrieval emergencies will be handled by the RSO or and approved alternate(s) identified by Kakivik Asset Management.
- 2.4 The reporting Radiographer and/or Radiographer Assistant will be asked to answer the following questions and provide information covered in Paragraph 2.6
- a) Have all personnel been removed from the radiation area?
 - b) Has the radiation area been posted?
 - c) Is the area being controlled by a responsible person?
 - d) Is there any immediate danger of personnel receiving radiation exposure?



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- e) Were there any personnel injured?
 - f) What is the nature of the incident?
 - g) What is your location?
 - h) What is/are your phone number(s)?
- 2.5 The RSO or his designated alternate(s) shall select and use the appropriate guideline to plan the emergency action. Other supplemental actions may be imposed by the RSO.
- 2.6 Emergency Action Guidelines for Source Retrieval
- a) Determine if the source is shielded (Collimator).
 - b) Verify personnel are clear of the exposure area.
 - c) Verify the radiation area has been posted.
 - d) Verify the area is under surveillance.
 - e) Determine if personnel are in danger of receiving further exposure.
 - f) Determine if any personnel were injured.
 - g) Determine which individual(s) are available at or near the site to assist in obtaining the necessary facts, information and source retrieval. **Only trained individual(s) shall perform the actual source retrieval.** The method of recovery will be determined by the RSS/RSO and the retriever.
 - h) Determine the dosimeter readings of personnel involved.
 - i) Determine the radiation exposure of personnel involved.
 - j) Determine the nuclide and serial number (S/N) of the source to establish the field strength.
 - k) If there is no immediate danger, interrupt the emergency action at this point to perform the required notifications.
 - l) Reporting shall be by telephone, telegram, mailgram, or facsimile to the RSS/RSO. The RSS/RSO will immediately notify the management of Kakivik Asset Management and inform them of the emergency. The management will approve and support the RSS/RSO's emergency action plan. Kakivik Asset Managements' management will see that the emergency action(s) are followed in compliance with this Source Retrieval Procedure, the Company's Radiation Safety Program, Radioactive Materials License, State and/or Federal Regulations.
 - m) Verify the exact source location. The location may need to be determined by triangulation.
 - n) Determine if the radiation area posting is correct and the high radiation area (by calculations only) is posted. The restricted area can be posted using High Radiation Area signs.
 - o) Determine what shielding is available that could be used to minimize exposure during recovery.

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- p) Determine the need for additional personnel including civil authorities and/or technical assistance during the planning stage and at the site. If extensive delays will occur, plan for surveillance of the area.
- q) The retriever will determine the method of recovery which will produce the minimum exposure to personnel.
- r) The RSO will review the radiation history of each trained person who is available to assist in recovery.
- s) The RSS/RSO and retriever will establish a step - by - step procedure for recovery. Specify in the procedure the maximum allowable time for each step (Retreat Time) which will take place within the radiation or high radiation area.
- t) Calculate the personnel exposure expected for each step. The retriever will provide exposure calculations. The RSS/RSO will determine if new film badges/TLD's will be issued prior to recovery. The decision for issuing the retriever(s) new film badges/TLD's will be based on the need for exposure information received for that particular incident.
- u) Review the procedure in detail with the person(s) who will perform the recovery. Assure the times are realistic. Any changes in times will require recalculation of the exposure. Have the Recoverer read the procedure to the RSS/RSO for proofing.
- v) The procedure shall be followed exactly. Changes will be made only by the RSS/RSO.
- w) The Recoverer shall assign a responsible person as Timekeeper. The RSS/RSO shall verify that the Timekeeper understands each step of the procedure and the importance of the "Retreat Time".
- x) The Timekeeper shall immediately notify the Recoverer if the Retreat Time of a step has been reached; The Recoverer shall then immediately leave the radiation area and report to the RSS/RSO for further instructions.

Example - Source Retrievals (various scenarios)

NOTE

Under no circumstance shall a source or source containing item such as a stuck source in a guide tube be handled directly. Under no circumstance shall an alarming dosimeter or electronic dosimeter be substituted for a survey meter.

Source stuck in guide tube (crimped) - Make every attempt to move equipment [exposure device, crank assembly and source tube (intact)] to a nearby location where the area can be posted and controlled for the source retrieval emergency procedure. Exposure surveys, calculations and a specific procedure shall be established prior to the moving of equipment as per Paragraph 2.6 s), through x).

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- a. Verify the exact location of the source within the guide tube and shield source with lead shot bag(s).
- b. Elevate the guide tube (using the 6' remote tongs) in the up or side direction (away from the direct beam of radiation) and attempt to correct the crimped area by reshaping (rounding) the source tube using the 12" Tongue and Groove Pliers or by lightly tapping the tube with a hammer against a metal object. If that procedure fails, remove the crimped area by cutting (using the 9 1/2" High Leverage Cable Cutter) the tube in front of and behind the crimped area without cutting the drive cable. Remove the area cut by the cable cutter using the 6" or 8" Diagonal cutters. After the crimped area has been removed attach both sides of the guide tube together using duct tape.
- c. Return the source back to its shielded and locked position of the exposure device,
- d. Make a complete survey of the exposure device to verify that the source has been returned to its safe shielded and locked position.

Source disconnected from drive cable (drive cable and source pigtail intact) - Crank source in the full exposed position into the collimator (if used). Make every attempt to move equipment [exposure device, crank assembly and source tube (intact)] to a nearby location where the area can be posted and controlled for the source retrieval procedure. Exposure surveys, calculations and a specific procedure shall be established prior to the moving of equipment as per Paragraph 2.6 s), through x).

- a. Shield source/collimator with lead shot bag(s).
- b. Retract drive cable back to the exposure device and disconnect guide tube (remove) from exposure device.
- c. Move exposure device to an area where the drive cable can be exposed and modified.
- d. Expose drive cable and modify cable by filing the tip (connector ball) flat on opposite side just enough to fit the slot of the source pigtail (use dummy pigtail to establish correct fit).
- e. Retract drive cable and re-connect source tube to exposure device.
- f. Expose and retract drive cable until it enters the slot of the source pigtail. Retract source slowly back to the shielded and locked position of the exposure device. If this procedure fails the source tube will have to be cut at the area where the drive cable and source pigtail connects, as described below in Damaged Crank Assembly Housing (crimped), a, and c physical drive cable/pigtail connection made by using another drive cable (repeat steps b), c). and e). of this procedure to insert another drive cable).

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- g. Retract source and make a complete survey of the exposure device to verify that the source has been returned to its safe shielded and locked position.
- h. Another method to use if the guide tube used has a threaded tip is to retract drive cable fully and with the 6' tongs attempt to position (gravity assisted) the source within the guide tube as close to the camera as possible. Place lead shot bags on the guide tube where the source is positioned. Remove source tip and duct tape a drive cable to the guide tube and use the drive cable to position (push) the source back into the exposure device and into the shielded and locked position.

Damaged Crank Assembly Housing (crimped) - Make every attempt to move equipment [exposure device, crank assembly and source tube (intact)] to a nearby location where the area can be posted and controlled for the source retrieval procedure. Exposure surveys, calculations and a specific procedure shall be established prior to the moving of equipment as per Paragraph 2.6 s), through x).

- a. Verify the exact location of the source.
- b. Shield source with lead shot bag(s).
- c. If the damage to the housing is on the storage side of the crank assembly, disconnect the housing at the crank (drive cable will be exposed) and return the source to its safe shielded position by turning the handle in the retract direction. If the damage is on the drive side of the crank assembly, cut the housing and drive cable (using the 9 1/2" High Leverage Cable Cutter) and disconnect the housing at the exposure device connector. Remove crank housing leaving the drive cable exposed. Take the exposed drive cable in hand and physically pull the cable in the retract direction until the source has been returned to the shielded and locked position of the device.
- d. Make a complete survey of the exposure device to verify that the source has been returned to its safe shielded and locked position.

Source will not return to its fully shielded position - Inspect the self locking mechanism of the exposure device to verify that it has not prematurely locked with the source in the exposed position. If found to have prematurely lock, press bar/tab to the operate position and retract source. (DO NOT TURN KEY)

If the self locking mechanism has not been activated (locked) and after making attempts to return the source to its fully shielded and locked position without success, move equipment [exposure device, crank assembly and source tube (intact)] to a nearby location where the area can be posted and controlled for the source retrieval procedure.



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Exposure surveys, calculations and a specific procedure shall be established prior to the moving of equipment as per Paragraph 2.6 s), through x).

- a. Shield source/device with lead shot bag(s).
- b. Inspect crank assembly, connector to device and source tube(s) for any damage that would prevent the source from returning to its shielded position.
- c. Disconnect the crank assembly housing at the device connector and inspect drive cable and again attempt to return the source to the shielded position by physically retracting by hand. If this procedure fails return the source to its partly shielded position and shield the device.
- d. Obtain a source changer, 4 1/2" lead collimator (Amersham/Tech - Op type) or another exposure device (with a low curie source) as a remote shielding device. Crank source into the remote shielding device and remove source tube (at the shielding device) and inspect source drive cable/pigtail connector. If another exposure device is selected as a shielding device, a source tube would have to be modified (the female fitting cut off and other male fitting duct tapped to the source tube) and the source cranked into the exit port of the device. If a source changer is used the source shall remain in the changer and returned to the appropriate manufacturer for further inspection.
- e. Correct (of possible) any conditions found that could have caused the failure of the source to be returned to its shielded position.
- f. Return the source to the exposure device (unless changer was used). If the source still will not return to the shielded and locked position, the device will have to be shielded and the source secured storage location until a changer can be received and the source transferred.
- g. If the source (after any correction completed) was able to be returned to the safe shielded position in the exposure device, the device shall not be used. The device shall be inspected and maintenance performed by the RSS or RSO or returned to the appropriate source and/or device manufacturer for further disposition.

2.7 **Personnel Monitoring** - Personnel will at all times during the retrieval be provided with and required to use personnel monitoring equipment.

- a. **Film Badge/TLD** - The RSS/RSO will determine if special film Badges/TLD's will be issued prior to recovery. The decision for issuing the retriever(s) special badges/TLD's will be based on the need for exposure information received for that particular incident.

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- b. **Dosimeters** - The RSS/RSO will determine the range (0-200 mR, 0-500 mR and 0-5 R) and body location(s) (hands, waist ban, legs, etc.) of dosimeters. Dosimeters will be attached to the hands when possible exposure exists. The timekeeper will maintain calculated and exposures record(s) received from dosimeter readings for each individual. The Timekeeper shall notify each individual of the "Retreat Time" for each step that has been reached.
 - c. **Survey Instruments** - shall be used for each step of the source retrieval procedure.
- 2.8 **ALARA (As Low As Reasonably Achievable)** - Exposure limits will be discussed with each individual prior to performing the source retrieval. They will be instructed to make every effort to maintain radiation exposures **As Low Reasonable Achievable. Time, Distance and Shielding** will be a major factor in establishing the step - by - step procedure and instructions.
- 2.9 **Post Emergency Action**
- 2.9.1 If deemed necessary by the RSO the film badges/TLD's of all personnel involved may be processed on an expedited basis. If expedited processing has occurred, the personnel shall be barred from potential radiation exposure assignments until the results of the film badges are available and the individual is released by the RSS/RSO.
 - 2.9.2 Any equipment that failed, may have been damaged or modified during the incident shall be removed from service until repaired, replaced, inspected and/or maintenance performed to the satisfaction of the RSO.
 - 2.9.3 The RSS/RSO will implement formal corrective action for the source retrieval emergency.
 - 2.9.4 The RSS shall prepare a complete written report of the source retrieval emergency (incident) within five (5) working days. The report shall include but not limited to:
 - a. Instruction/training given personnel prior to the source retrieval.
 - b. Personnel involved in the source retrieval emergency.
 - c. Source Retrieval Step - By - Step Procedure (including times scheduled for each step, exposure calculated and assigned for each step).
 - d. Radiation exposures assigned and received (calculated - dosimeters) for each individual.
 - e. Each individual shall receive a report (verbal and/or written) of exposure received during the source retrieval incident.



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- 2.10 The State or Federal agencies shall receive, within 30 days, a Source Retrieval Incident Report containing, as a minimum, the items noted in Paragraph 2.9.4.



PERSONNEL TO BE NOTIFIED IN CASE OF AN EMERGENCY

Jeff Arveson (907) 770-9416 Office

Tony Bushard (907) 770-9409 Office

Mike Branch (907) 659-7735 Office

Larry Russell (907) 452-7604 Office

Jerry Stalcup (907) 834-6187 Office

Chuck Froiland (907) 335-9440 Office

Pat Haggemiller (907) 670-4675 Office

NRC - Region IV; Texas (800) 952-9677
(817) 860-8100

Dwight Chamberlain, Director (800) 860-8249
Jack Whitten (817) 860-8197

NRC Emergency Headquarters, (301) 816-5100
(301) 951-0550 (Backup)
(301) 415-0550 (Backup)
(301) 816-5151 (Fax)

NRC Safety Hotline (800) 695-7403

Office of Inspector General (800) 233-3497

State of Alaska
(907) 334-2107
Radiological Health Program
Department of Health & Social Services
Anchorage, Alaska 99503



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**PART I
COMPANY ORGANIZATION**

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COMPANY ORGANIZATION

President/CEO

Myrna D. Gardner

Radiation Safety Officer

Jeff Arveson

Radiation Safety Supervisors

Tony Bushard,
Larry Russell,
Pat Haggemiller
Chuck Froiland
Mike Branch

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1.0 RADIATION SAFETY OFFICER

- 1.1 The Radiation Safety Officer is responsible for all operations involving the use of radiation producing equipment. He is responsible for the supervision of all Radiographers and other personnel in matters pertaining to radiation safety records. It will be the responsibility of the Radiation Safety Officer or his designee to conduct quarterly radiation safety meetings which will be attended by all employees participating in radiographic operations and to conduct announced and unannounced audits at radiography sites. The field inspections will be performed at intervals not to exceed six months.
- 1.2 It is the responsibility of the Radiation Safety Officer to assume the direction of the overall radiation program; monitoring Federal Regulations. The authority to issue new requirements or changes in the present procedures is vested in the Radiation Safety Officer and the appropriate agencies involved.

2.0 RADIATION SAFETY SUPERVISOR

- 2.1 It will be the function of the Radiation Safety Supervisor to assist the Radiation Safety Officer in the performance of his duties. The general duties of the Radiation Safety Supervisor include the following:
 - 2.1.1 Become familiar with 10 CFR, Parts 19, 20, 30, 34, 71, and Kakivik Asset Management Radiation Safety Program.
 - 2.1.2 Read and become familiar with duties of Radiation Safety Officer for recording and reporting requirements to the NRC.
 - 2.1.3 Perform radiation safety field inspections and audits on Radiographers.
 - 2.1.4 Check all radiation safety records, forms, reports and surveys for completeness and signature and forward to the Radiation Safety Officer.
 - 2.1.5 Establish a matrix for due dates on all records, reports and surveys.



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- 2.1.6 Notify all applicable Radiation Safety Personnel and Radiographers of forthcoming due dates for surveys and reports.
 - 2.1.7 Obtain, transmit, and collect survey instruments, film badges, dosimeters, rate alarms and other items out of calibration and deliver to Radiation Safety Officer.
 - 2.1.8 Conduct radiation safety meetings.
 - 2.1.9 Conduct radiation-training courses.
 - 2.1.10 Report to Radiation Safety Officer any incidents, hazardous conditions or radiographic field inspections.
- 3.0 RADIOGRAPHER - to be hired and trained under broad training program.
- 3.1 A Radiographer is an employee who performs radiography and personally supervises radiographic operations. He is directly responsible for any radiation producing devices assigned to him. He is also responsible for compliance with the rules and regulations of this firm and the regulatory agencies (Federal and State) relating to their use.
- 4.0 RADIOGRAPHER'S ASSISTANT
- 4.1 A Radiographer's Assistant is an employee who will be permitted to perform radiographic operations under the direct supervision of a Radiographer. Such operations will include the use of sealed sources, x-ray machines, and radiation safety equipment.

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**PART II
GENERAL POLICY**

- 1.0 The procedures stated herein are designed to control the use of the radiation producing devices licensed by Kakivik Asset Management at locations with in the state of Alaska and other agreement and non-agreement states.
 - 1.1 Direct responsibility for the overall radiation safety program in regards to radiographic operations is assigned to Jeff Arveson. He is designated Radiation Safety Officer for all radiographic operations. Tony Bushard, Larry Russell, Chuck Froiland, Mike Branch and Pat Haggemiller are designated Radiation Safety Supervisors.
 - 1.2 Radiographers will be certified by an independent certifying entity. All certifications will be verified by the issuing entity.
 - 1.3 Qualified radiographers shall have the authority to use and supervise the use of, while in constant surveillance of the job-site, the sealed sources authorized by the company license.
 - 1.4 A copy of these instructions will be made available to each employee concerned with the handling or use of radiation producing devices. Other company personnel, after training is completed as required by the company-training program, will be designated as assistant radiographers and may operate the exposure equipment under the constant surveillance of a qualified radiographer.
 - 1.5 Each concerned employee will sign a statement as to the fact that they have read and understand these instructions by means of an examination prior to performing and working with radiation producing equipment.
 - 1.6 Radiation Safety Regulations of the United States Nuclear Regulatory Commission have been used as guides in the preparation of these instructions. The objectives of these instructions presented here are to protect the health of the general public and employees of the firm, and to prevent disabling accidents. It is the responsibility of every concerned employee to have a working knowledge of these instructions.
 - 1.7 The Nuclear Regulatory Commission has the authority to modify, suspend, or revoke any radioactive material license which they issue, or to take any actions necessary to insure careful handling of radiation producing equipment in their jurisdiction. These instructions must be followed explicitly as set forth by Federal and State authorities. If any doubt exists concerning these instructions or the safety conditions in the performance



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of radiographic operations, the Radiation Safety Officer shall be contacted immediately.

- 1.8 Violations of the conditions and procedures set forth in these instructions, by an employee, shall be just cause for punitive action.

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10/10/06

DATE

This is to acknowledge the receipt of your letter/application dated 09/18/06, and to inform you that the initial processing, which includes an acceptance review, has been performed.

There were no administrative omissions. Your application will be assigned to a technical reviewer. Please note that the technical review may identify additional omissions or require additional information.

Please provide to this office within 30 days of your receipt of this card:

The action you requested is normally processed in 90 days.

A copy of your action has been forwarded to the NRC Office of the Chief Financial Officer, who will contact you separately if there is a fee issue involved.

Your action has been assigned **Mail Control Number** 471125.

When you call to inquire about this action, please refer to this mail control number.

You may call me at 817-860-8143.

Sincerely,

Colleen Munnahan
Licensing Assistant

BETWEEN:

License Fee Management Branch, ARM
and
Regional Licensing Sections

(FOR LFMS USE)

INFORMATION FROM LTS

: Program Code: 03320
: Status Code: 0
: Fee Category: 30 2B
: Exp. Date: 20100630
: Fee Comments:
: Decom Fin Assur Req'd: N
:

LICENSE FEE TRANSMITTAL

A. REGION

1. APPLICATION ATTACHED

Applicant/Licensee: KAKIVIK ASSET MANAGEMENT
Received Date: 20060920
Docket No: 3035371
Control No.: 481125
License No.: 50-27667-01
Action Type: Amendment

2. FEE ATTACHED

Amount: _____
Check No.: _____

3. COMMENTS

Signed *Collette Bussell*
Date 9/29/06

B. LICENSE FEE MANAGEMENT BRANCH (Check when milestone 03 is entered / __/)

1. Fee Category and Amount: _____

2. Correct Fee Paid. Application may be processed for:

Amendment _____
Renewal _____
License _____

3. OTHER _____

Signed _____
Date _____