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Providing Insight Onsite

September 9, 2011

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U.S. Nuclear Regulatory Commission
Region 1
475 Allendale Road
King of Prussia, PA 19406

Attn: Kathy Modes, Senior Health Physicist
Division of Nuclear Materials Safety

Re: License No. 07-28386-01 – Docket No. 030-31174 – Amendment Request
Add Remote Operated Vehicle Underwater Diagnostic Services
Add QSA Models AMN.PE2 & AMN.PE3 for Am-241/Be (200 mCi)
Add QSA Model CVN.CYn Series & EZIP Model N-252 Series for Cf-252 (30 mCi)

Dear Ms. Modes:

As a follow-up to our earlier discussion, Tracerco is requesting that Condition 9 of its license be amended, authorizing '**Remote Operated Vehicle (ROV) Underwater Diagnostic Services (UDS)**'. These services may include, but not be limited to flooded member inspection (FMI), pipeline scanning for hydrates and solids blockage, pipeline integrity gauge (PIG) location, and liquid level detection. Other services may be added as a need or customer request arises. A third party ROV is utilized to perform these services. Some of these services can also be performed with the assistance of a diver, but this licensing action does not request or address 'diver assisted' services. Subsequently, I will take that issue up at a later date. In conjunction with this request I have added a new Section 18 to our O&E procedures. Attached are the revisions to our O&E procedures associated with our request. I also took the opportunity to revise our O&E Procedures Appendix A to include new contact information



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NMSS/RGN1 MATERIALS-002

The 'UDS frame' referenced in the attached procedures is a custom fabricated stainless steel apparatus that varies in size, depending on a specified application, such as the size of pipe being scanned. Pursuant to NUREG-1556, Vol.3, Rev.1, 5.1.3, being a custom device built to unique specifications of a given user (custom) and not utilized with more than 7.4 GBq (200 mCi) of radioactive materials, it does not require a sealed source and device evaluation and registration.

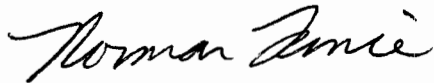
Regarding the sources used for the services, all sources will be special form sealed sources and supported by a SSDR. Listed below are the isotopes and activities typically and non-typically used:

- **Cs-137** - Typically the source will be limited to 20 mCi or less, with an occasional need upward to 50 mCi. The make and models used are the same as referenced in Condition 7.B. of our current license.
- **Co-60** - Typically the source will be limited to 5 mCi or less, with an occasional need upward to 50 mCi. The makes and models used are the same as referenced in Condition 7.A. of our current license.
- **Am-241/Be** - The source will be limited to 200 mCi or less. The makes and models are the same as referenced in Condition 7.C. of our current license. To ensure that our NRC license is able to accept other Am-241/Be sealed sources from other Tracerco licenses (TX, LA, CA, UT) we request that QSA Models AMN.PE2 and AMN.PE3 also be added to Condition No. 7.C. in conjunction with our ROV-UDS authorization request.
- **Cf-252** - The source will be limited to 30 mCi. Currently our NRC license does not include Cf-252. Subsequently, we are requesting that our license also be amended to include Eckert & Ziegler Isotope Products (EZIP) Model N-252 Series and QSA Model CVN.CYn Series sealed source, not to exceed 30 mCi per source and 120 mCi total.



As always, I trust that you find Tracerco's submission in proper order. Please do not hesitate to contact me at 281-291-7769 if additional information or clarification is required to process this amendment request. .

Best regards,



Norman P. Lanier
Corporate Radiation Safety Officer

cc: William Mixon – Tracerco Eastern Region Operations Manager/RSO

- Enclosures:
1. Tracerco O&E Procedures Revision Sheet (09/09/11)
 2. Tracerco O&E Procedures Cover Page (09/09/11)
 3. Tracerco O&E Procedures Table of Contents (09/09/11)
 4. Tracerco O&E Procedures Section 18.0 - ROV/UDS Procedures (09/09/11)
 5. Tracerco O&E Procedures Appendix A (09/09/11)



Tracerco
NRC License No. 07-28386-01
Operating and Emergency Procedures Revisions
September 9, 2011

Submitted to NRC 09/09/11 as attachment to amendment request to K. Modes regarding Underwater Diagnostic Services

NA- Not Applicable

Remove Page	Insert Page	Comments
Cover Page (07-15-09)	Cover Page (09-09-11)	Redated to indicate last revision date to the procedures
Table of Content (08-25-05)	Table of Content (09-09-11)	Added new Section 18.0 - ROV Underwater Diagnostic Services
NA	18-1 (09-09-11)	Added new Section 18.0 - ROV Underwater Diagnostic Services
NA	18-2 (09-09-11)	Added new Section 18.0 - ROV Underwater Diagnostic Services
NA	18-3 (09-09-11)	Added new Section 18.0 - ROV Underwater Diagnostic Services
NA	18-4 (09-09-11)	Added new Section 18.0 - ROV Underwater Diagnostic Services
NA	18-5 (09-09-11)	Added new Section 18.0 - ROV Underwater Diagnostic Services
Appendix A (12-23-10)	Appendix A (08-22-11)	Revised emergency contact information



Radiation Protection Program

**OPERATING & EMERGENCY
PROCEDURES**

NRC License No. 07-28386-01

09/09/11

Tracerco
Radiation Protection Program
OPERATING and EMERGENCY PROCEDURES
USNRC License

- 1.0 PURPOSE AND SCOPE
- 2.0 DEFINITIONS
- 3.0 PERSONNEL MONITORING
- 4.0 SECURITY OF SOURCES OF RADIATION
- 5.0 SEALED SOURCE LEAK TEST PROCEDURES
- 6.0 UTILIZATION LOG
- 7.0 RECEIPT AND TRANSFER OF SOURCES OF RADIATION
- 8.0 SURVEY REQUIREMENTS
- 9.0 SURVEY PROCEDURES
- 10.0 PROCEDURES FOR RECEIVING AND OPENING PAKAGES
- 11.0 TRANSPORTATION OF RADIOACTIVE MATERIAL
- 12.0 RESTRICTING AND POSTING EXPOSURE AREAS
- 13.0 PROCEDURES FOR HANDLING SEALED SOURCES
- 14.0 PROCEDURES FOR HANDLING UNSEALED SOURCES
- 15.0 DECONTAMINATION PROCEDURES
- 16.0 RADIOACTIVE WASTE MANAGEMENT
- 17.0 EMERGENCY PROCEDURES
- 18.0 REMOTE OPERATED VEHICLE (ROV) UNDERWATER DIAGNOSTIC SERVICES (UDS) PROCEDURES

APPENDIX A - EMERGENCY PHONE NUMBERS

09/09/11

18.0 REMOTE OPERATED VEHICLE (ROV) UNDERWATER DIAGNOSTIC SERVICES (UDS) PROCEDURES

Tracerco is authorized to perform various underwater diagnostic services (UDS), which includes but not limited to: flooded member inspection, pipe scanning for hydrates and solids blockage, pipeline integrity gauge location, and liquid level detections. UDS can be performed in inland, coastal and offshore waters, utilizing a remote operated vehicle (ROV) owned and operated by a third party company. The ROV is typically launched from a dive support vessel, platform or barge. UDS utilize special form sealed sources installed in a Tracerco source holder, which is secured in a water tight source housing. The performance of these UDS must comply with the following procedures.

18.1 Sealed Source Transport

- 18.1.1 Sealed sources utilized for UDS must be transported to and from the job site in a TYPE A container.
- 18.1.2 The TYPE A container must be prepared and transported in accordance with Section 11 of these procedures.

18.2 Preparing the UDS Frame for Mounting to the ROV

- 18.2.1 A Tracerco radiation worker will be responsible for attaching the water tight source containment, source detector and steel tether cable to the UDS frame, used to position the source and detector in place to acquire a density measurement.
- 18.2.2 The Tracerco radiation worker will perform a final inspection to ensure all components are properly secured to the UDS frame prior to releasing the assembled UDS frame for mounting to the ROV.

- 18.3 Mounting the UDS Frame to the ROV
- 18.3.1 Mounting of the UDS frame to the ROV is to be performed by the ROV third party company.
 - 18.3.2 The sealed source must remain in a shielded TYPE A container during the mounting of the UDS frame to the ROV.
 - 18.3.3 Upon completing the mounting of the assembled UDS frame to the ROV, the Tracerco radiation worker will obtain instructions from the ROV third party company regarding an acceptable attachment point for the tether cable.
 - 18.3.4 The Tracerco radiation worker will be responsible for securing the UDS frame tether cable to ROV to ensure that the UDS frame and sealed source remains connected to the ROV in the unlikely event that there is a failure of the ROV mounting mechanism.
- 18.4 Loading the Sealed Source into the UDS Source Housing
- 18.4.1 Loading of the sealed source holder into the UDS source housing cannot proceed until the components of the UDS frame are assembled (re: 21.2) and the assembled UDS frame is securely mounted to the ROV (re: 21.3)
 - 18.4.2 Prior to removing the sealed source holder from the TYPE A container a restricted area must be established and posted in accordance with Section 12 of these procedures.
 - 18.4.3 The loading of the sealed source holder into the UDS source housing can only be performed by a Tracerco radiation worker.
 - 18.4.4 A source handling tool must be utilized to transfer the sealed source holder from the TYPE A package to the UDS source housing.

- 18.4.5 Upon transferring the source holder to the UDS source housing the Tracerco radiation worker will tighten the housing seal to ensure a water tight fit exist to prevent water seepage while underwater.
- 18.4.6 Upon a final verification that the UDS frame is properly assembled, the source properly loaded and secured and the UDS frame assembly is securely tethered to the ROV, the Tracerco radiation worker will inform the ROV operator that it is allowable to launch the ROV.

18.5 Retrieving the Sealed Source from the UDS Source Housing

- 18.5.1 The Tracerco radiation worker will be responsible for retrieving the sealed source holder from the UDS source housing.
- 18.5.2 The retrieval process will begin once the ROV is returned topside and the ROV has been secured for approach.
- 18.5.3 Once the ROV is secured for approach a restricted area is established and posted in accordance with Section 12 of these procedures.
- 18.5.4 The Tracerco radiation worker will remove the sealed source holder from the UDS source housing and return it to the shielded TYPE A package until its next use or return to a Tracerco permanent source storage facility.

18.6 Sealed Source Inspection and Maintenance

- 18.6.1 Upon removal of the sealed source holder, the UDC source housing will be examined for evidence of water leakage, which should be readily apparent by the presence of water.

- 18.6.2 No evidence of water leakage is verification that the integrity of the water tight seal was maintained while underwater, requiring no further action. The sealed source holder will be allowed to remain in service without any maintenance required.
- 18.6.3 Any indication of water leakage into the source housing requires the removal of the sealed source capsule from the sealed source holder for further inspection and maintenance, upon return of the sealed source holder to the Tracerco permanent seal source facility. Removal and maintenance of the sealed source capsule is not to be performed at the UDS job site, unless approved by the RSO.
- 18.6.4 Required maintenance will include:
- 18.6.4.1 Thorough drying of the sealed source capsule and sealed source holder
 - 18.6.4.2 Wiping the sealed source capsule and source holder with alcohol to displace any residual moisture
 - 18.6.4.3 A leak (wipe) test of the sealed source capsule
- 18.6.5 If the leak test results (re: 21.4.4.3) reveals the presence of 185 Bq (0.005 uCi) or more of removable contamination the sealed source will be removed immediately from service and decontaminated, repaired, or disposed of in accordance with regulatory requirements.
- 18.7 Source Security
- 18.7.1 The source of radiation will remain secured in a locked TYPE A container at all times except when being loaded into the UDS source housing, retrieved from the UDS source housing, or in use underwater.

- 18.7.2 When not under direct surveillance of a Tracerco radiation worker the locked TYPE A container, containing a source, is secured to prevent its removal. Acceptable security measures may be a pad lock tether to a fixed object/structure or placement in a fixed locked containment.
- 18.7.3 Upon launching, the ROV(with the source installed) remains under constant camera visual surveillance by the ROV operator or Tracerco radiation worker while the ROV is underwater.
- 18.7.4 Upon return of the ROV to the surface and secured to the launch desk, a Tracerco radiation worker will retrieve the sealed source from the UDS source housing and secure it in the TYPE A container.

APPENDIX A EMERGENCY PHONE NUMBERS

Tracerco Northeast Region Office – 31 Albe Drive, Suite 5, Newark, Delaware

Contact: William Mixon, Eastern Region Operations Manager/RSO

Office: 302-454-1109

Mobil: 225-328-0915 (Company Cell Phone)

Contact: Ralph Pierre, Northeast Technical Advisor

Office: 302-454-1109

Mobil: 302-359-3224 (Company Cell Phone)

Tracerco Great Lakes Region Office – 3320 East 84th Place, Suite A/B, Merrillville, Indiana

Contact: Brian Davis, Great Lakes Area Supervisor/Site Radiation Safety Officer

Office: 219-945-0400

Mobil: 219-381-9929 (Company Cell Phone)

Tracerco Corporate Office – 4100 New West Drive, Pasadena, TX

Contact: Norman Lanier, Corporate Radiation Safety Officer

Office: 800-288-8970

Mobile: 281-853-5486 (Company Cell Phone)

USNRC 24 Hour Headquarter Operations Center for Reporting Emergencies

301-816-5100 – Will accept collect calls

USNRC Region I – 475 Allendale Road, King of Prussia, PA

Connecticut, Delaware, District of Columbia, New Jersey, Pennsylvania, Vermont

Office: 610-337-5000 or 800-432-1156

USNRC Region II – 61 Forsyth Street, SW, Suite 23T85, Atlanta, GA

Puerto Rico, Virginia, Virgin Islands, West Virginia

Office: 404-562-4400 or 800-577-8510

USNRC Region III – 801 Warrenville Rd., Lisle, IL

Indiana, Michigan, Minnesota, Missouri, Wisconsin

Office: 630-829-9500 or 800-522-3035

USNRC Region IV – 611 Ryan Plaza Drive, Suite 400, Arlington, TX

Alaska, Hawaii, Idaho, Montana, South Dakota, Wyoming, U.S. Territories in the Pacific

Office: 817-860-8100 or 800-952-9677

This is to acknowledge the receipt of your letter/application dated

9/9/2011, and to inform you that the initial processing which includes an administrative review has been performed.

Amendment C07-28386-01 There were no administrative omissions. Your application was 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

A copy of your action has been forwarded to our License Fee & Accounts Receivable Branch, who will contact you separately if there is a fee issue involved.

Your action has been assigned **Mail Control Number** 575970.
When calling to inquire about this action, please refer to this control number.
You may call us on (610) 337-5398, or 337-5260.