

TEAM Industrial Services, Inc.

200 Hermann Drive
Alvin, TX 77511
Phone: 281/388-5673
Fax: 281/388-5693

May 9, 2006

Office of Nuclear Material Safety and Safeguards
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Attention: Document Control Desk

Re: Written notification as required by 34.101(a)(1)

Dear Sir or Madam:

Team Industrial Services, Inc. in accordance with 10 CFR 34.101(a)(1), and subsequent to the event reported in notice 42508, provides this written notification.

1. Radiography crew was able to connect the crank assembly to the exposure device without connecting the drive cable to the source assembly.
2. Cause of the event was due to the above noted issue and performance issues by the radiographer and assistant radiographer.
3. Device involved in the event was AEA-QSA 660B, serial number B1811. The source was 15.8 curies of Ir-192, source model A424-9, serial number 24663B.
4. Event occurred at approximately 6:05 pm on April 18, 2006 at the Motiva Refinery tank farm, 1200 State Road, Pert Amboy, New Jersey, tank #T-81 (this is the large tank farm tank is physically located in Sewaren, NJ).
5. To establish normal operations AEA-QSA was contact to perform the source retrieval. A copy of the report provided by AEA is provided for your review. Once the source was returned to the shielded position the device was returned to the storage location in Aston, PA.
6. The following actions have or are being taken to prevent recurrence: 1) Crank assemblies provided by supplier removed from service 2) Part 21 notification submitted to the NRC. 3) Radiography crew involved in event removed from radiographic operations pending completion of disciplinary action. 4) Immediate "stand down" held at facility to discuss event and organizations expectations. 5) Training on event to be communicated to all Team Industrial Services radiographic operations. 6) Performance of "mis-connect" test on all AEA 660 devices/related crank assemblies to verify/prevent similar issues.

7. The radiographer is certified and carded as a radiographer, while the assistant is certified by Team Industrial Services as an assistant radiographer.

A copy of the materials attained during the performance of our investigation is attached for your review.

Should you have any additional questions, please contact me at (281)388-5673.

Sincerely,

A handwritten signature in black ink, appearing to read 'CGS', written in a cursive style.

Christopher G. Smith
Corporate Radiation Safety Officer

CGS

Cc: Regional Administrator, Region IV
File

Place Date and Time of the Incident:

Place:

Motiva Refinery 1200 State Rd, Pert Amboy New Jersey
The job site was in the refinery tank farm at tank # T-81, the tank farm is large and the tank is actually in the town of Sewaren NJ

Date:

April 18,2006

Timeline:

Crew arrived on site at 4:30 pm
First exposure was at 6:00 pm
Realized they had a problem at 6:05 pm
Crew established a 2 mr boundary and kept surveillance on area
Called Don Hinman at 6:20 pm
Don Hinman called Joe Agnew at 6:30 pm
Joe Agnew called Chris Smith at 6:45 pm
Chris Smith called QSA Global for a retrieval team at 7:00pm
Joe Agnew called Fabio Sanservino at 7:00 pm
Fabio Sanservino met Joe Agnew at the Aston (1204) facility at 8:00 pm they then drove to the Motiva Refinery arriving at 10:30 pm they helped watch the boundary until the retrieval team arrived from QSA Global at 01:45 on 4/19/06
The source was successfully retrieved into the exposure device at 04:10 am

Description of the equipment problem

4 control cables were ordered from Direct Distributors & Supply Co., Inc. for the QSA Global (AEA) 660 series exposure device.

These control cables were made by NDT Repair Service and Supply, Inc. 7874 Highway 90 East, Morgan City, La. 70380.

The control cables have a record of certification stating that they meet the requirements specified in ANSI N432-1981 as required by 10 CFR part 34

The difference between the NDT controls and the QSA Global controls was in the way they hook –up to the exposure device, the QSA Global controls have a clam shell design that opens and allows you to see the end of the cable without having to turn the control cable handle, the NDT controls have a solid end with the cable recessed approximately 1/8 inch where you have to turn the control handle to expose the cable end prior to making the connection to the source pigtail.

The problem with the equipment is that the design of the NDT control cable allows for a Miss-Connect to be effected because the locking mechanism on the 660 series exposure device can be activated without having to hook the control cable to the pigtail of the source, the control cable will hook to the exposure device and the lock can be turned.

NOTE ****

All 4 of the NDT control cables were checked with different exposure devices and all 4 failed the miss-connect test

Sn #s

NDT-265 D.C.SN:1407 , NDT-266 D.C.SN:1408 , NDT-267 D.C.SN:1409

NDT-268 D.C.SN:1410

Corrective Actions Taken:

- 1) All NDT control cables have been RED TAGGED and taken out of service
- 2) Training was conducted on the following subjects:
 - a: Device miss-connected incident.
 - b: Inspection of all associated equipment.
 - c: Go-NoGo inspection.
 - d: Connecting and disconnecting of the source assembly.
 - e: Consequences of failure to follow company procedures.
- 3) All control cables have been checked for the ability to affect a miss-connect.



51811

AEA Technology
QSA Inc.
 40 North Avenue
 Burlington, MA 01803
 Telephone (781) 272-2000
 Telephone (800) 815-1383
 Facsimile (781) 273-2216

Source Certificate

Radionuclide: *Ir192*
 ISO/ANSI Classification: *C63535*
 IAEA Special Form Reference Number: *USA/0335/S*
 Measured Equivalent Activity on *Sep-21-2005*
119.3 Ci 4.4 TBq

Holder/Capsule #: **24663B**
 Source Model: *424-9*
 Product Code: *ICUCG100*
 Sales Order: *156147 TEAM COOPERHEAT-MQS INC*

| | Actual | | Nominal | |
|----------|--------|-------|---------|-------|
| | (mm) | (in) | (mm) | (in) |
| Diameter | 3.000 | 0.118 | 3.000 | 0.118 |
| Length | 2.000 | 0.079 | 2.300 | 0.091 |
| Diagonal | 3.606 | 0.142 | 3.780 | 0.149 |

| Quality Control Tests | | <i>Sep-21-2005</i> |
|-----------------------|--------------|--------------------|
| Wipe Test A: | <0.00045 uCi | |
| Vacuum Bubble Test: | Passed | |
| Tensile Test: | Passed | |
| Wipe Test B: | <0.00045 uCi | |

Decay Data:

Technician: *J. N.*

| Activity in Curies | | | | | | |
|--------------------|---------|---------|---------|---------|---------|---------|
| Date | Date +1 | Date +2 | Date +3 | Date +4 | Date +5 | Date +6 |
| 119.3 | 118.2 | 117.1 | 116.0 | 114.9 | 113.8 | 112.8 |
| 111.7 | 110.7 | 109.6 | 108.6 | 107.6 | 106.6 | 105.6 |
| 104.6 | 103.6 | 102.7 | 101.7 | 100.7 | 99.8 | 98.9 |
| 97.9 | 97.0 | 96.1 | 95.2 | 94.3 | 93.5 | 92.6 |
| 91.7 | 90.9 | 90.0 | 89.2 | 88.3 | 87.5 | 86.7 |
| 85.9 | 85.1 | 84.3 | 83.5 | 82.7 | 81.9 | 81.2 |
| 80.4 | 79.7 | 78.9 | 78.2 | 77.4 | 76.7 | 76.0 |
| 75.3 | 74.6 | 73.9 | 73.2 | 72.5 | 71.8 | 71.2 |
| 70.5 | 69.8 | 69.2 | 68.5 | 67.9 | 67.3 | 66.6 |
| 66.0 | 65.4 | 64.8 | 64.2 | 63.6 | 63.0 | 62.4 |
| 61.8 | 61.2 | 60.7 | 60.1 | 59.5 | 59.0 | 58.4 |
| 57.9 | 57.3 | 56.8 | 56.3 | 55.7 | 55.2 | 54.7 |
| 54.2 | 53.7 | 53.2 | 52.7 | 52.2 | 51.7 | 51.2 |
| 50.8 | 50.3 | 49.8 | 49.3 | 48.9 | 48.4 | 48.0 |
| 47.5 | 47.1 | 46.6 | 46.2 | 45.8 | 45.3 | 44.9 |
| 44.5 | 44.1 | 43.7 | 43.3 | 42.9 | 42.5 | 42.1 |
| 41.7 | 41.3 | 40.9 | 40.5 | 40.1 | 39.8 | 39.4 |
| 39.0 | 38.7 | 38.3 | 37.9 | 37.6 | 37.2 | 36.9 |
| 36.5 | 36.2 | 35.9 | 35.5 | 35.2 | 34.9 | 34.5 |
| 34.2 | 33.9 | 33.6 | 33.3 | 32.9 | 32.6 | 32.3 |
| 32.0 | 31.7 | 31.4 | 31.1 | 30.9 | 30.6 | 30.3 |
| 30.0 | 29.7 | 29.4 | 29.2 | 28.9 | 28.6 | 28.4 |
| 28.1 | 27.8 | 27.6 | 27.3 | 27.0 | 26.8 | 26.5 |
| 26.3 | 26.1 | 25.8 | 25.6 | 25.3 | 25.1 | 24.9 |
| 24.6 | 24.4 | 24.2 | 23.9 | 23.7 | 23.5 | 23.3 |
| 23.1 | 22.8 | 22.6 | 22.4 | 22.2 | 22.0 | 21.8 |
| 21.6 | 21.4 | 21.2 | 21.0 | 20.8 | 20.6 | 20.4 |
| 20.2 | 20.0 | 19.8 | 19.7 | 19.5 | 19.3 | 19.1 |
| 18.9 | 18.8 | 18.6 | 18.4 | 18.2 | 18.1 | 17.9 |
| 17.7 | 17.6 | 17.4 | 17.2 | 17.1 | 16.9 | 16.8 |
| 16.6 | 16.4 | 16.3 | 16.1 | 16.0 | 15.8 | 15.7 |
| 15.5 | 15.4 | 15.3 | 15.1 | 15.0 | 14.8 | 14.7 |
| 14.6 | 14.4 | 14.3 | 14.1 | 14.0 | 13.9 | 13.8 |
| 13.6 | 13.5 | 13.4 | 13.2 | 13.1 | 13.0 | 12.9 |
| 12.8 | 12.6 | 12.5 | 12.4 | 12.3 | 12.2 | 12.1 |
| 11.9 | 11.8 | 11.7 | 11.6 | 11.5 | 11.4 | 11.3 |
| 11.2 | 11.1 | 11.0 | 10.9 | 10.8 | 10.7 | 10.6 |
| 10.5 | 10.4 | 10.3 | 10.2 | 10.1 | 10.0 | 9.9 |
| 9.8 | 9.7 | 9.6 | 9.5 | 9.4 | 9.4 | 9.3 |
| 9.2 | 9.1 | 9.0 | 8.9 | 8.8 | 8.8 | 8.7 |
| 8.6 | 8.5 | 8.4 | 8.4 | 8.3 | 8.2 | 8.1 |
| 8.1 | 8.0 | 7.9 | 7.8 | 7.8 | 7.7 | 7.6 |
| 7.5 | 7.5 | 7.4 | 7.3 | 7.3 | 7.2 | 7.1 |
| 7.1 | 7.0 | 6.9 | 6.9 | 6.8 | 6.7 | 6.7 |
| 6.6 | 6.5 | 6.5 | 6.4 | 6.4 | 6.3 | 6.2 |
| 6.2 | 6.1 | 6.1 | 6.0 | 6.0 | 5.9 | 5.9 |
| 5.8 | 5.7 | 5.7 | 5.6 | 5.6 | 5.5 | 5.5 |
| 5.4 | 5.4 | 5.3 | 5.3 | 5.2 | 5.2 | 5.1 |
| 5.1 | 5.0 | 5.0 | 4.9 | 4.9 | 4.8 | 4.8 |
| 4.8 | 4.7 | 4.7 | 4.6 | 4.6 | 4.5 | 4.5 |
| 4.5 | 4.4 | 4.4 | 4.3 | 4.3 | 4.3 | 4.2 |
| 4.2 | 4.1 | 4.1 | 4.1 | 4.0 | 4.0 | 3.9 |

| Activity in Tera-Becquerels | | | | | | |
|-----------------------------|---------|---------|---------|---------|---------|---------|
| Date | Date +1 | Date +2 | Date +3 | Date +4 | Date +5 | Date +6 |
| Sep-21-05 | 4.41 | 4.37 | 4.33 | 4.29 | 4.25 | 4.21 |
| Sep-28-05 | 4.13 | 4.09 | 4.05 | 4.01 | 3.98 | 3.94 |
| Oct-05-05 | 3.87 | 3.83 | 3.79 | 3.76 | 3.72 | 3.69 |
| Oct-12-05 | 3.62 | 3.58 | 3.55 | 3.52 | 3.48 | 3.45 |
| Oct-19-05 | 3.39 | 3.36 | 3.33 | 3.30 | 3.26 | 3.23 |
| Oct-26-05 | 3.17 | 3.14 | 3.11 | 3.08 | 3.05 | 3.03 |
| Nov-02-05 | 2.97 | 2.94 | 2.91 | 2.89 | 2.86 | 2.83 |
| Nov-09-05 | 2.78 | 2.76 | 2.73 | 2.70 | 2.68 | 2.65 |
| Nov-16-05 | 2.60 | 2.58 | 2.56 | 2.53 | 2.51 | 2.49 |
| Nov-23-05 | 2.44 | 2.41 | 2.39 | 2.37 | 2.35 | 2.33 |
| Nov-30-05 | 2.28 | 2.26 | 2.24 | 2.22 | 2.20 | 2.18 |
| Dec-07-05 | 2.14 | 2.12 | 2.10 | 2.08 | 2.06 | 2.04 |
| Dec-14-05 | 2.00 | 1.98 | 1.96 | 1.94 | 1.93 | 1.91 |
| Dec-21-05 | 1.87 | 1.86 | 1.84 | 1.82 | 1.80 | 1.79 |
| Dec-28-05 | 1.75 | 1.74 | 1.72 | 1.70 | 1.69 | 1.67 |
| Jan-04-06 | 1.64 | 1.63 | 1.61 | 1.60 | 1.58 | 1.57 |
| Jan-11-06 | 1.54 | 1.52 | 1.51 | 1.49 | 1.48 | 1.47 |
| Jan-18-06 | 1.44 | 1.43 | 1.41 | 1.40 | 1.39 | 1.37 |
| Jan-25-06 | 1.35 | 1.33 | 1.32 | 1.31 | 1.30 | 1.29 |
| Feb-01-06 | 1.26 | 1.25 | 1.24 | 1.23 | 1.21 | 1.20 |
| Feb-08-06 | 1.18 | 1.17 | 1.16 | 1.15 | 1.14 | 1.13 |
| Feb-15-06 | 1.11 | 1.09 | 1.08 | 1.08 | 1.06 | 1.05 |
| Feb-22-06 | 1.03 | 1.02 | 1.02 | 1.01 | 0.99 | 0.98 |
| Mar-01-06 | 0.97 | 0.96 | 0.95 | 0.94 | 0.93 | 0.92 |
| Mar-08-06 | 0.91 | 0.90 | 0.89 | 0.88 | 0.87 | 0.86 |
| Mar-15-06 | 0.85 | 0.84 | 0.83 | 0.82 | 0.82 | 0.81 |
| Mar-22-06 | 0.79 | 0.79 | 0.78 | 0.77 | 0.76 | 0.75 |
| Mar-29-06 | 0.74 | 0.74 | 0.73 | 0.72 | 0.72 | 0.71 |
| Apr-05-06 | 0.69 | 0.69 | 0.68 | 0.68 | 0.67 | 0.66 |
| Apr-12-06 | 0.65 | 0.65 | 0.64 | 0.63 | 0.63 | 0.62 |
| Apr-19-06 | 0.61 | 0.60 | 0.60 | 0.59 | 0.59 | 0.58 |
| Apr-26-06 | 0.57 | 0.56 | 0.56 | 0.55 | 0.55 | 0.54 |
| May-03-06 | 0.54 | 0.53 | 0.52 | 0.52 | 0.51 | 0.51 |
| May-10-06 | 0.50 | 0.49 | 0.49 | 0.48 | 0.48 | 0.47 |
| May-17-06 | 0.47 | 0.46 | 0.46 | 0.45 | 0.45 | 0.44 |
| May-24-06 | 0.44 | 0.43 | 0.43 | 0.42 | 0.42 | 0.41 |
| May-31-06 | 0.41 | 0.41 | 0.40 | 0.40 | 0.39 | 0.39 |
| Jun-07-06 | 0.38 | 0.38 | 0.38 | 0.37 | 0.37 | 0.36 |
| Jun-14-06 | 0.36 | 0.35 | 0.35 | 0.35 | 0.34 | 0.34 |
| Jun-21-06 | 0.34 | 0.33 | 0.33 | 0.32 | 0.32 | 0.32 |
| Jun-28-06 | 0.31 | 0.31 | 0.31 | 0.31 | 0.30 | 0.29 |
| Jul-05-06 | 0.29 | 0.29 | 0.29 | 0.28 | 0.28 | 0.28 |
| Jul-12-06 | 0.27 | 0.27 | 0.27 | 0.27 | 0.26 | 0.26 |
| Jul-19-06 | 0.26 | 0.25 | 0.25 | 0.25 | 0.24 | 0.24 |
| Jul-26-06 | 0.24 | 0.24 | 0.24 | 0.23 | 0.23 | 0.22 |
| Aug-02-06 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.21 |
| Aug-09-06 | 0.21 | 0.21 | 0.21 | 0.20 | 0.20 | 0.20 |
| Aug-16-06 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.18 |
| Aug-23-06 | 0.18 | 0.18 | 0.18 | 0.18 | 0.18 | 0.17 |
| Aug-30-06 | 0.17 | 0.17 | 0.17 | 0.17 | 0.17 | 0.16 |
| Sep-06-06 | 0.16 | 0.16 | 0.16 | 0.15 | 0.15 | 0.15 |
| Sep-13-06 | 0.15 | 0.15 | 0.15 | 0.15 | 0.14 | 0.14 |

SHIPPING PAPER FOR HAZARDOUS MATERIALS (For Ground Transportation Only)

(May be used as a utilization record, survey document and transport document. See instructions on reverse side)

| | |
|--|--|
| Shipper TEAM 240 TURNBULL AVE ASTON, PA 19014 | Location of Use MATRIX TANK 8 SQUARIN, N.J. MOTION TERMINAL |
|--|--|

This is to certify that the herein-named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation

NATURE AND QUANTITY OF DANGEROUS GOODS

| Qty. | Proper Shipping Name | Hazard Class | Radionuclide, Activity & JD | Category of Label | Transport Index | Type B Package ID & Certification |
|------|---|--------------|---|--------------------------|-----------------|-----------------------------------|
| 1 | Radioactive Material, Type (B)U Package UN2916 <input checked="" type="checkbox"/> RQ (check if greater than 10 ci.) | 7 | GBq or 220 ¹⁸ Ci. <input checked="" type="checkbox"/> Ir-192 / <input type="checkbox"/> Co-60 / <input type="checkbox"/> Se-75 S/N 24663B | Radioactive Yellow II | 2 | S/N 393 USA / 9283 / (U) 85 |

PERSONNEL & DOSIMETRY DATA

| | | | | |
|----------------------------------|--|---------------------|--------------------------|--|
| Tech. #1: Name J. MACK | <input checked="" type="checkbox"/> Rad. - Card No. 500502858 | Issued By IL | Exp. Date 2-28-11 | <input type="checkbox"/> Assist. Rad. |
| Tech. #2: Name A. Maimone | <input type="checkbox"/> Rad. - Card No. _____ | Issued By _____ | Exp. Date _____ | <input checked="" type="checkbox"/> Assist. Rad. |
| Tech. #3: Name _____ | <input type="checkbox"/> Rad. - Card No. _____ | Issued By _____ | Exp. Date _____ | <input type="checkbox"/> Assist. Rad. |

| Film / TLD / OSL No. | Alarming Ratemeter | | Dosimeter | | Readings (mR) | | |
|----------------------|--------------------|---------------|-----------|---------------|---------------|------|-------|
| | S/N | Cal. Due Date | S/N | Cal. Due Date | Start | Stop | Total |
| 02525 | 49066 | 6-29-06 | 49879 | 6-13-06 | 0 | 40 | 40 |
| 61796 | 48912 | 6-15-06 | 051233 | 6-17-06 | 0 | 40 | 40 |

EXPOSURE DEVICE & TRANSPORT SURVEY DATA

Exposure Device: Manufacturer **FLUKE** Model **660B** S/N **B1811**

Survey Meter(s): Make **NDS NDS** Model **2001, 2000** S/N **0871, 0869** Cal Due Date **5-8-06, 4-30-06**

| Device | Transport Package (Initial) | | | Device | Transport Package (Return) | | | Device |
|--------|-----------------------------|---------|---------|--------|----------------------------|---------|---------|--------|
| | Removal from Storage | Surface | Vehicle | | After Last Exposure | Surface | Vehicle | |
| 6 | 2 | 0 | 0 | 6 | 2 | 0 | 0 | 6 |
| mR/hr | mR/hr | mR/hr | mR/hr | mR/hr | mR/hr | mR/hr | mR/hr | mR/hr |

Maintenance Inspection

Check if OK:

- Device (Housing, Safety Plugs, Lock, ID, Labels)
- Control Assembly & Source Tubes (Crank, Drive Cable, Connections, Tube condition, Contamination, Corrosion)
- Drive cable & Source Connector Go - No Go Test
- Dosimeters & Alarming Rate Meters
- Survey Meters (verify calibration, physical integrity, calibration and overall general condition)

AREA RADIATION SURVEY

Collimator: Yes No

a) Number of exposures in 1 Hour - **1 (1m)**

b) Time per exposure (minutes) - **540**

c) Exposure Time/Hour (a x b) = **540** min.

d) Maximum Permissible Level at 2 mR boundary = $(60 \text{ min.} / (c)) \times 2 =$ _____ mR/hr

Comments: **SOURCE hung OUT. HAD TO BE Retrieved. 2 mR Established**

Emergency Number: CHEMTREC 800-424-9300

| | | |
|-------------------------|----------------------|------------------------------|
| 4-18-06 11:00 AM | 4-19-06 07:00 | [Signature] |
| Date & Time Removed | Date & Time Returned | Radiographer Print/Signature |

TEAM COOPERHEAT MQS
 ATTN CHRIS SMITH
 200 HERMANN DR
 ALVIN TX 77511

LANDAUER®

Landauer, Inc. 2 Science Road Glenwood, Illinois 60425-1586
 Telephone: (708) 755-7000 Facsimile: (708) 755-7016
 www.landauerinc.com



luxel®

RADIATION DOSIMETRY REPORT

** EMERGENCY PROCESSING **

| ACCOUNT NO. | SERIES CODE | ANALYTICAL WORK ORDER | REPORT DATE | DOS METER RECEIVED | REPORT TIME & WORK DAYS | PAGE NO. |
|-------------|-------------|-----------------------|-------------|--------------------|-------------------------|----------|
| 61796 | WIL | 0611580002 | 04/26/06 | 04/25/06 | 1 | 1 OF 1 |

| PARTICIPANT NUMBER | NAME | | | DOSIMETER | USE | RADIATION QUALITY | DOSE EQUIVALENT (MREM) FOR PERIODS SHOWN BELOW | | | QUARTERLY ACCUMULATED DOSE EQUIVALENT (MREM) | | | YEAR TO DATE DOSE EQUIVALENT (MREM) | | | LIFETIME DOSE EQUIVALENT (MREM) | | | RECORDS FOR YEAR | INCEPTION DATE (MMYY) | SERIAL NUMBER | SEQUENCE NUMBER |
|---|------------|------------|-----|-----------|--------|-------------------|--|---------|-------------|--|---------|-------------|-------------------------------------|---------|-------------|---------------------------------|---------|-------------|------------------|-----------------------|---------------|-----------------|
| | ID NUMBER | BIRTH DATE | SEX | | | | DEEP DDE | EYE LDE | SHALLOW SDE | DEEP DDE | EYE LDE | SHALLOW SDE | DEEP DDE | EYE LDE | SHALLOW SDE | DEEP DDE | EYE LDE | SHALLOW SDE | | | | |
| FOR MONITORING PERIOD: | | | | | | | 04/01/06 - 04/30/06 | QTR 2 | | | 2006 | | | | | | | | | | | |
| 00935 | UNASSIGNED | | | Pa | WHBODY | *P | 24 | 24 | 22 | 24 | 24 | 22 | 24 | 24 | 22 | 651 | 650 | 634 | 2 | 12/98 | 7513748 | 1 |
| <i>Badge was assigned to Anthony Maimone on 4-18-06</i> | | | | | | | | | | | | | | | | | | | | | | |

M: MINIMAL REPORTING SERVICE OF 1 MREM

QUALITY CONTROL RELEASE: RCH

20 - PR 8479 - RPT1304- N1

- 11502

* - NO CONTROL SUBTRACTED, 6 MREM PER MONTH SUBTRACTED
 ELECTRONIC MEDIA TO FOLLOW THIS REPORT



NVLAP LAB CODE 100518-0**

Date: 4/26/2006 Time: 9:53 AM To: Fabio @ 9, 1-610-859-8944 Page: 002-

Date: 4/26/2006 Time: 1:48 PM To: Acct #61796 Attn: John Masiero @ 9,1-618-251-414 Page: 008-

TEAM COOPERATION MOS
 ATTN CHRIS SMITH
 200 HERRMAN DR
 ALVIN TX 77511

LANDAUER®

Landauer, Inc. 2 Science Road Glenwood, Illinois 60425-1586
 Telephone: (708) 755-7000 Facsimile: (708) 755-7016
 www.landauerinc.com



RADIATION DOSIMETRY REPORT

| ACCOUNT NO. | SERIES CODE | ANALYTICAL WORK ORDER | REPORT DATE | DOSIMETER RECEIVED | REPORT TIME A WORK DAYS | PAGE NO |
|-------------|-------------|-----------------------|-------------|--------------------|-------------------------|---------|
| 61796 | WRV | 0611180024 | 04/28/06 | 04/21/06 | 5 | 5 |

| PARTICIPANT NUMBER | NAME | | | DOSIMETER | USE | RADIATION QUALITY | DOSE EQUIVALENT (MREM) FOR PERIODS SHOWN BELOW | | | QUARTERLY ACCUMULATED DOSE EQUIVALENT (MREM) | | | YEAR TO DATE DOSE EQUIVALENT (MREM) | | | LIFETIME DOSE EQUIVALENT (MREM) | | | RECORDS FOR YEAR | INCEPTION DATE (MM/YY) | SERIAL NUMBER | SEQUENCE NUMBER |
|------------------------|------------------|------------|-----|-----------|------------|-------------------|--|---------|-------------|--|---------|-------------|-------------------------------------|---------|-------------|---------------------------------|---------|-------------|------------------|------------------------|---------------|-----------------|
| | ID NUMBER | BIRTH DATE | SEX | | | | DEEP DDE | EYE LDE | SHALLOW SDE | DEEP DDE | EYE LDE | SHALLOW SDE | DEEP DCE | EYE LCE | SHALLOW SCE | DEEP DDE | EYE LDE | SHALLOW SDE | | | | |
| FOR MONITORING PERIOD: | | | | | | | 03/01/06 | - | 03/31/06 | QTR 1 | | | 2006 | | | | | | | | | |
| 02389 | GILLELAND DOUG | | | Pa | WHBODY | PH | 173 | 173 | 165 | 387 | 387 | 375 | 387 | 387 | 375 | 2267 | 2271 | 2226 | 3 | 02/05 | 6700458 | 36 |
| 02394 | DAVIS ROBIN | | | Pa | CHEST NOTE | | UNUSED | | | 8 | 8 | 8 | 8 | 8 | 8 | 305 | 305 | 294 | 3 | 02/05 | 6700459 | 37 |
| 02404 | STONER RICHARD | | | Pa | WHBODY | PH | 72 | 72 | 69 | 98 | 98 | 93 | 98 | 98 | 93 | 98 | 38 | 93 | 3 | 03/05 | 6700460 | 38 |
| 02433 | | | | Pa | CHEST NOTE | | UNUSED | | | | | | | | | | | | 3 | 05/05 | 6700461 | 39 |
| 02503 | HIEBLING AARON | | | Pa | WHBODY | P | 20 | 20 | 19 | 135 | 135 | 127 | 135 | 135 | 127 | 506 | 507 | 503 | 3 | 06/05 | 6700462 | 40 |
| 02506 | MARTIN COREY | | | Pa | WHBODY | PH | 114 | 114 | 109 | 412 | 412 | 393 | 412 | 412 | 393 | 1478 | 1478 | 1428 | 3 | 06/05 | 6700463 | 41 |
| 02525 | MACK JOHN | | | Pa | WHBODY | P | 37 | 37 | 35 | 143 | 143 | 137 | 143 | 143 | 137 | 150 | 158 | 144 | 3 | 07/05 | 6700465 | 42 |
| 02526 | OXANDALE SIDNEY | | | Pa | WHBODY | PH | 124 | 124 | 120 | 300 | 304 | 306 | 300 | 304 | 306 | 599 | 612 | 621 | 3 | 07/05 | 6700466 | 43 |
| 02527 | WINNER MATT | | | Pa | WHBODY | PH | 104 | 104 | 99 | 555 | 586 | 605 | 555 | 586 | 605 | 1261 | 1298 | 1332 | 3 | 07/05 | 6700467 | 44 |
| 02530 | WILSON STEPHANIE | | | Pa | CHEST NOTE | | UNUSED | | | | | | | | | 686 | 691 | 711 | 3 | 07/05 | 6700468 | 18 |
| 02531 | KEGAN JAMES | | | Pa | WHBODY | P | 8 | 8 | 8 | 230 | 230 | 218 | 230 | 230 | 218 | 308 | 308 | 296 | 3 | 07/05 | 6700469 | 19 |

N: MINIMAL REPORTING SERVICE OF 1 MREM
 ELECTRONIC MEDIA TO FOLLOW THIS REPORT

QUALITY CONTROL RELEASE DRB

20 - PR 8481 - RPT1305- 31

- 11124



NVLAP LAB CODE 100516-07

TEAM INDUSTRIAL SERVICES, INC.

CERTIFICATE OF TRAINING

**This Is To Certify That
John Maack**

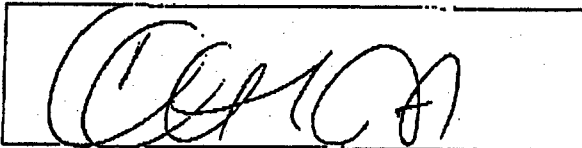
Has satisfied the training requirements of the U.S. Department of Transportation Title 49, part 172.704, Team Industrial Services Radiation Safety and Control Program, and all Regulations as set forth by the Agreement States and NRC

Radiographer

Central Cert Expiration Date: 02/28/2011
IEMA card # 500502838

TISI 40 Hr Rad Safety Training: 07/15/2005
Hazmat Recurrent Training Performed: 07/15/2005

Certifier's Signature:



Chris G. Smith
Corporate Radiation
Safety Officer

Date: 3/1/2006



CERTIFICATE OF TRAINING

This Is To Certify That
Anthony Maimone

Has satisfied the training requirements of the U.S. Department of Transportation Title 49, part 172.704, Team Cooperheat-MQS, Inc.'s Radiation Safety and Control Program, and all Regulations as set forth by the Agreement States and NRC

Radiographers Assistant/Trainee

Central Cert Expiration Date: N/A

CH-MQS 40 Hr Rad Safety Training: Other

Hazmat Recurrent Training Performed: 03/29/2005

Certifier's Signature:

Chris G. Smith
Corporate Radiation
Safety Officer

Date:

4/1/2005



QSA Global, Inc.
40 North Avenue
Burlington, MA 01803
Telephone: (781) 272-2000
Toll Free: (800) 815-1383
Facsimile: (781) 273-2216

April 20, 2006

Incident Report

Re: Emergency Source Retrieval at Motiva Refining Facility in Sewaren, New Jersey

This report conforms to the requirements of 10 CFR 34.101.

Description of Problem

A radiography team from Team Cooperheat, 260 Turner Industrial Way, Aston, PA, was conducting radiographic operations at the Motiva Refinery in Sewaren, NJ on April 18, 2006 at 18:27. The facility is a large one and the initial address given was 1200 State Street, Perth Amboy, NJ. The storage tank (T-81) where the incident took place was actually in the next town, Sewaren, NJ.

The radiographer reported that when he tried to retract the source when terminating a radiographic exposure, he was unable to return the source assembly to the exposure device. The source assembly was being used in a guide tube without a collimator. Repeated tries to return the source assembly to the exposure device were unsuccessful.

Cause of Incident

The radiographer reported that he did not connect the remote controls properly to the device.

Equipment

Exposure device involved was an Amersham-660B [S/N B1811] which contained a Model A424-9, 16.8 Curie Iridium-192 source S/N 224663B (initial activity 119.3 Ci on 9/21/05).

Remote controls: NDT Model C11 (Manufacturer unknown)

Source guide tube with stop (7 foot): Model T19 (Manufacturer unknown)

Actions Taken

Once aware of the problem the radiographer implemented his emergency procedures.

The device manufacturer is QSA Global, Inc, formerly AEA Technology QSA, Inc, and they were notified at approximately 17:00 hours EDST. An emergency retrieval team was dispatched from the Burlington, MA office at 21:30 4/18/06 and they arrived on scene in NJ at 01:45 4/19/06.

After preliminary safety training for tank entries, the emergency retrieval team (ERT) arrived at the incident tank at approximately 02:30. There was no light available in the affected area and there was a delay of approximately 1.25 hours while lighting was established.

The ERT from QSA Global, Inc. consisted of Bob Kelly (BK) and Charles Ellars (CE). At 03:39, Bob Kelly entered the tank, assessed the situation, and straightened the guide tube on the floor using remote handling tools.

At 03:55 both members of the ERT entered and placed shielding (tunnel brick) onto the guide tube. While CE monitored the radiation levels with a teletector from a distance of approximately 10 feet, BK pulled the device by the remote controls until CE verified that the source was under the shield. The dose rate prior to shielding was 2.0 to 2.5 R/hr at approximately four feet. Once the shield was in place, the dose rate was 650 mr/hr at one foot from the least shielded point.

At 04:00 bags of lead shot were piled onto the initial shield until the highest dose rate measured 100 mr/hr on contact with the shield.

At 04:05 the device was angled away from the guide tube beam and the controls removed. Then CE inserted the "fishing cable" into the exposure device and fed up to the source assembly. He then rotated the fishing cable until the source assembly connected to the cable. While monitoring the guide tube with the teletector, the cable was slowly removed to verify an increasing dose rate that showed the source assembly was attached to the cable. This was done several times to verify the integrity of the remote connection. Then the source was returned to under the shield and the fishing cable unwound to its full 30 foot length. The cable was then pulled out from the device until the locking mechanism engaged.

At 04:10 the ERT used the teletector to verify that the source was indeed returned to the device. The guide tube was surveyed to verify background radiation levels and again while removing the lead shot.

At 04:15 a closeout survey was performed on all surfaces of the device. The highest dose rate was 12.5 mr/hr on the subject exposure device.

At 04:20 routine maintenance tests were performed on the device. All tests passed except that the remote controls failed the misconnect test.

The highest exposure received by any member of the ERT for the entire emergency response was 12 mrem.

We would like to thank Team Cooperheat MQS personnel for their excellent support and assistance that resulted in low exposures to the ERT.



Charles Ellars

RSO

QSA Global, Inc.

Send all kits and requests to:

RECEIVED MAR 13 2006

SUNTRAC Services, Inc.
1818 East Main Street
League City, TX 77573
(281) 338-2133

ATTN: SIT-KIT

CAUTION: Conduct a survey on the outside of each package placed in the U.S. Mails. Any reading over 0.5 mR/hr at contact with the envelope or package shall not be mailed.

LEAK TEST INVENTORY/REPORT FORM

Company Name: Team Industrial Services, Inc. (12877003)

Address: 260 Turner Industrial W City: Aston State: PA Zip Code: 19014

Isotope: Ir 192 (DU) Activity: 26.3

Source Serial No: 24663B Leak Test Date: 3/1/06

Device Serial No: B1811

Manufacturer: AEA Technology Model No.: 424-9

Smear Taken By: J R Langston

----- DO NOT WRITE BELOW THIS LINE -----

This is to certify that the above described smear/swab has been assayed at our facilities for indication of source leakage.

Sample was also assayed for depleted uranium.

Our findings show the leakage to be:

| ALPHA | BETA-GAMMA |
|--------|------------|
| <.0001 | <.0001 |

µCi (Wet)

Certified By: 

Date: 3/7/06

SUNTRAC Services, Inc. Representative
(Texas Radioactive License No. L03062)

058006

**RADIATION SAFETY AND CONTROL PROGRAM
GAMMA EXPOSURE DEVICE INSPECTION
(Panoramic Type Devices)**

GENERAL DATA

Quarterly Inspection Lab/Project Address 1204, TEAM INDUSTRIAL SERVICES
 Special Inspection Exposure Device Mfr. QSA Global
 Exposure Device Model: ULDB S/N B1811
 Special Instructions _____

RADIOGRAPHIC EXPOSURE UNIT

| | <u>Accept.</u> | <u>Unaccept.</u> | <u>Repaired</u> | <u>Replaced</u> |
|---|-------------------------------------|--------------------------|--------------------------|--------------------------|
| 1. Check for abnormal surface radiation levels anywhere on camera, collimator, or guide tube. | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Check condition of safety plugs. | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Check for proper operation of locking mechanism | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Check condition of pigtail connector. | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Check condition of carrying device(straps, handle, etc.) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. Check for proper labeling | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

SOURCE TUBE

| | | | | |
|---|-------------------------------------|--------------------------|--------------------------|--------------------------|
| 1. Check for rust, dirt, or sludge build up inside the source tube. | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Check condition of source tube connector. | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Check condition of source stop. | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Check for kinks or damage that could prevent proper operation | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Check for presence of radioactive contamination | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

CONTROL CABLES AND DRIVE MECHANISM

| | | | | |
|--|-------------------------------------|--------------------------|--------------------------|--------------------------|
| 1. Check for compatibility of drive mechanism with camera, as appropriate | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Check for changes in general operating characteristics. | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Check condition of connector on drive cable. | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Check drive cable flexibility, wear, and rust. | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Check for excessive wear or damage to crank assembly parts. | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. Check for damage to drive cable conduit that could prevent the cable from moving. | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7. Check the connection of the control cable connector with the pigtail connector for proper mating. | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 8. Check for proper operation of source position indicator, if applicable | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 9. Check for the presence of radioactive contamination | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Comments

IR-192 EXPOSURE DEVICE

Inspected By:

[Signature]

Date:

4/3/06

TCM
DIVISION

TEAM Industrial Services, Inc.

260 Turner Industrial Way

Aston, PA 19014

Ph: (610) 859-7800
Fx: (610) 859-8944

PURCHASE ORDER

| | | |
|------------------|-----------------------------------|---------------------------|
| To: | Direct Distributors & Supply CO | Taem Industrial Services |
| Address: | P.O.Box 5057 | 260 Turner Industrial Way |
| City, State, Zip | Hazlet, NJ 07730 PH: 732-739-3222 | Aston, Pa 19014 |
| | | |

| Quantity | | Total Price | | |
|----------|--------------------|-------------|--|--|
| 1. | NDE Supplies | | | |
| 2. | | | | |
| 3. | | | | |
| 4. | | | | |
| 5. | | | | |
| 6. | | | | |
| 7. | | | | |
| 8. | TOTAL PRICE | | | |

| | |
|---|---|
| Important | |
| <p>PURCHASE ORDER NUMBER MUST APPEAR ON ALL INVOICES - PACKAGING, ETC. PLEASE NOTIFY US IMMEDIATELY IF YOU ARE UNABLE TO COMPLETE ORDER BY DATE SPECIFIED.</p> | <p>Please send a copy of your invoice with original Bill of Lading.</p> |
| 1204-05-0410 | <p>TCM Contact: Don Hinman Date: 12/13/06 Job Number:</p> |

DIRECT DISTRIBUTORS & SUPPLY CO., INC.
 P.O. BOX 5057
 HAZLET, NJ 07730

Invoice

| | |
|------------|-----------|
| Date | Invoice # |
| 12/27/2005 | 1205397 |

| |
|---|
| Bill To |
| TEAM COOPERHEAT MQS ATTN: ACCOUNTS PAYABLE 260 TURNER INDUSTRIAL WAY ASTON, PA 19014 |

| |
|---|
| Ship To |
| TEAM COOPERHEAT MQS ATTN: PO# 1204-05-0410 260 TURNER INDUSTRIAL WAY ASTON, PA 19014 |

| P.O. Number | Terms | Due Date | Rep | Ship | Via | F.O.B. |
|--------------|--------|-----------|-----|------------|----------|--------|
| 1204-05-0410 | Net 30 | 1/26/2006 | | 12/27/2005 | BEST WAY | |

| Quantity | Item Code | Description | Price Each | Amount |
|----------|-----------------|---|------------|-----------|
| 10 | SWCLAMP | SWIVEL CLAMP | 26.99 | 269.90T |
| 1 | RINKYT | RINKY T | 195.00 | 195.00T |
| 1 | FREIGHT | Shipping Charges | 5.43 | 5.43 |
| 5 | 1/4"DBLEAD | PK/100 1/4" DEEP BLOCK LEAD FIGURES: 2, I,X,T,N | 8.00 | 40.00T |
| 1 | FREIGHT | Shipping Charges | 6.19 | 6.19 |
| 2 | GAUGES | GAMMA GAUGE | 350.00 | 700.00T |
| 1 | FREIGHT | Shipping Charges | 10.00 | 10.00 |
| 3 | #17104 | MANUAL ID FLASHER *SHIPPED 2ND DAY-FREIGHT CHARGES TO FOLLOW. | 154.00 | 462.00T |
| 4 | MISC EQUIPME... | 25' FLEXIBLE YELLOW CONTROL ASSY FOR USE WITH AMERSHAM 600B EXPOSURE DEVICE. S/N NDT-265 D.C. SN:1407 THROUGH NDT-268 D.C. SN: 1410 | 1,220.00 | 4,880.00T |
| 4 | SOURCE TUBE | 6' SOURCE TUBE | 75.00 | 300.00T |
| 4 | SOURCE TUBE | 6' SOURCE TUBE EXTENSION | 95.00 | 380.00T |
| 6 | SHVLMINI | 5 HVL MINI COLLIMATOR *SHIPPED FEDEX 2ND DAY-FREIGHT CHARGES TO FOLLOW. | 215.00 | 1,290.00T |

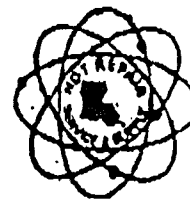
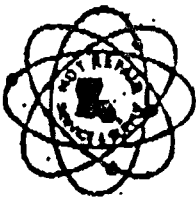
Thank you for your business. Phone 732-739-3222 / Fax 732-739-6605

| | |
|-------------------------|------------|
| Subtotal | \$8,538.52 |
| Sales Tax (0.0%) | \$0.00 |
| Total | \$8,538.52 |

649449

Received Per [Signature]

Direct Dist



TELEFAX TRANSMITTAL

NDT REPAIR SERVICE & SUPPLY, INC.

P.O. BOX 2931

MORGAN CITY, LA 70381

PHONE: 985-385-3293

FAX: 985-385-3299

TO: *Dan Hinman*

COMPANY: *Team Cooper Heat*

PHONE: _____

FAX: *610-859-8944*

FROM: *Ben*

COMPANY: *NDT*

PHONE: _____

FAX: _____

DATE: *4-19-06*

Pages including this page: *2*

Comments:

NDT REPAIR SERVICE AND SUPPLY, INC.

7874 HIGHWAY 90 EAST
MORGAN CITY, LA. 70380

PHONE: ~~785~~ 504-385-3293

PHONE: 504-385-3294

RECORD OF CERTIFICATION

THIS IS TO CERTIFY THAT ALL CONTROL ASSEMBLIES, AND GUIDE TUBES INCLUDING VARIOUS FITTINGS AND ADAPTORS, MANUFACTURED OR SERVICED BY NDT REPAIR SERVICE MEET THE REQUIREMENTS SPECIFIED IN ANSI N432-1981 AS REQUIRED BY 10 CFR PART 34. CABLE STOPS ARE INSTALLED AS REQUIRED BY 10 CFR PART 34 IN ALL CONTROL ASSEMBLIES . CONTROL ASSEMBLY SERIAL NUMBER,

SN NDT-265, 266, 267, 268

DATE: 04-19-06

Q.C. SIGNATURE:

Brian Bell