RI - DNMS Licensee Event Report Disposition

Licensee: Team Industrial Svcs

Event Description: Part 21 Notification Involving Failure of Amersham 660B Crank Assembly

License No: 42-32219-01 Docket No: MLER-RI: 2006-020

Event Date: 4-18-06 Report Date: 5-8-0 HQ Ops Event #: 42541

1. REPORTING REQUIREMENT

- [ ] 10 CFR 20.1906 Package Contamination
- [ ] 10 CFR 20.2201 Theft or Loss
- [ ] 10 CFR 20.2203 30 Day Report
- [x] Other 34.101(a)(1)
- [ ] 10 CFR 30.50 Report
- [ ] 10 CFR 35.3045 Medical Event
- [ ] License Condition

2. REGION I RESPONSE

- [x] Immediate Site Inspection — Inspector/Date
- [ ] Special Inspection — Inspector/Date
- [ ] Telephone Inquiry — Inspector/Date
- [ ] Preliminary Notification/Report
- [ ] Information Entered in RI Log
- [ ] Report Referred To
- [ ] Daily Report
- [ ] Review at Next Inspection

3. REPORT EVALUATION

- [✓] Description of Event
- [✓] Levels of RAM Involved
- [✓] Cause of Event
- [✓] Corrective Actions
- [ ] Calculations Adequate
- [ ] Additional Information Requested from Licensee

4. MANAGEMENT DIRECTIVE 8.3 EVALUATION

- [ ] Release w/Exposure > Limits
- [ ] Repeated Inadequate Control
- [ ] Exposure 5x Limits
- [ ] Potential Fatality
- [ ] Deliberate Misuse w/Exposure > Limits
- [ ] Pkging Failure>10 rads/hr or Contamination>1000x Limits
- [ ] Large# Indivs w/Exp>Limits or Medical Deterministic Effects
- [ ] Unique Circumstances or Safeguards Concerns

If any of the above are involved:

- [ ] Considered Need for IIT
- [ ] Considered Need for AIT

Decision/Made By/Date

5. MANAGEMENT DIRECTIVE 8.10 EVALUATION (additional evaluation for medical events only)

- [ ] Timeliness - Inspection Meets Requirements (5 days for overdose / 10 days for underdose)
- [ ] Medical Consultant Used-Name of Consultant/Date of Report
- [ ] Medical Consultant Determined Event Directly Contributed to Fatality
- [ ] Device Failure with Possible Adverse Generic Implications
- [ ] HQ or Contractor Support Required to Evaluate Consequences

6. SPECIAL INSTRUCTIONS OR COMMENTS

☐ Non-Public

☒ Public-SISP REVIEW COMPLETE

Inspector Signauture: Date: 5/24/2006

Branch Chief Initials: Date: 5/24/06

Location of File: G:\Reference\Blank Forms\LER FORM.wpd

Rev. 02/25/05

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

FAX FROM
THE DIVISION OF INDUSTRIAL AND MEDICAL NUCLEAR SAFETY (IMNS)
FAX NO. (301) 415-5369

Date: 5/17/06

NAME: Pam Henderson	FAX NO: 610 337 5269
NAME: John Kinneman	FAX NO:
NAME:	FAX NO:
NAME:	FAX NO:
NAME:	FAX NO:
NAME:	FAX NO:
FROM:	PHONE NO:

NUMBER OF PAGES INCLUDING COVER SHEET: 20

DOCUMENT DESCRIPTION: Team closeout
34.101 Report

COMMENTS: Please provide to Pam & John Kinneman.
Thanks - Greg

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,

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.

AEA TECHNOLOGY QSA

61811

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*

Source Physical Size:	Actual (mm)	Actual (in)	Nominal (mm)	Nominal (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 *Sep-21-2005*
Wipe Test A: <0.00045 uCi
Vacuum Bubble Test: Passed
Tensile Test: Passed
Wipe Test B: <0.00045 uCi

Decay Data:

Technician: Jan M

Date	Activity in Curies: Date	Date +1	Date +2	Date +3	Date +4	Date +5	Date +6	Activity in Tera-Bequerels: Date	Date +1	Date +2	Date +3	Date +4	Date +5	Date +6
Sep-21-05	119.3	118.2	117.1	116.0	114.9	113.8	112.8	4.41	4.37	4.33	4.29	4.25	4.21	4.17
Sep-28-05	111.7	110.7	109.6	108.6	107.6	106.6	105.6	4.13	4.09	4.05	4.01	3.98	3.94	3.90
Oct-05-05	104.6	103.6	102.7	101.7	100.7	99.8	98.9	3.87	3.83	3.79	3.76	3.72	3.69	3.65
Oct-12-05	97.9	97.0	96.1	95.2	94.3	93.5	92.6	3.62	3.58	3.55	3.52	3.48	3.45	3.42
Oct-19-05	91.7	90.9	90.0	89.2	88.3	87.5	86.7	3.39	3.36	3.33	3.30	3.26	3.23	3.20
Oct-26-05	85.9	85.1	84.3	83.5	82.7	81.9	81.2	3.17	3.14	3.11	3.08	3.05	3.03	3.00
Nov-02-05	80.4	79.7	78.9	78.2	77.4	76.7	76.0	2.97	2.94	2.91	2.89	2.86	2.83	2.81
Nov-09-05	75.3	74.6	73.9	73.2	72.5	71.8	71.2	2.78	2.76	2.73	2.70	2.68	2.65	2.63
Nov-16-05	70.5	69.8	69.2	68.5	67.9	67.3	66.6	2.60	2.58	2.56	2.53	2.51	2.49	2.46
Nov-23-05	66.0	65.4	64.8	64.2	63.6	63.0	62.4	2.44	2.41	2.39	2.37	2.35	2.33	2.30
Nov-30-05	61.8	61.2	60.7	60.1	59.5	59.0	58.4	2.28	2.26	2.24	2.22	2.20	2.18	2.16
Dec-07-05	57.9	57.3	56.8	56.3	55.7	55.2	54.7	2.14	2.12	2.10	2.08	2.06	2.04	2.02
Dec-14-05	54.2	53.7	53.2	52.7	52.2	51.7	51.2	2.00	1.98	1.96	1.94	1.93	1.91	1.89
Dec-21-05	50.8	50.3	49.8	49.3	48.9	48.4	48.0	1.87	1.86	1.84	1.82	1.80	1.79	1.77
Dec-28-05	47.5	47.1	46.6	46.2	45.8	45.3	44.9	1.75	1.74	1.72	1.70	1.69	1.67	1.66
Jan-04-06	44.5	44.1	43.7	43.3	42.9	42.5	42.1	1.64	1.63	1.61	1.60	1.58	1.57	1.55
Jan-11-06	41.7	41.3	40.9	40.5	40.1	39.8	39.4	1.54	1.52	1.51	1.49	1.48	1.47	1.45
Jan-18-06	39.0	38.7	38.3	37.9	37.6	37.2	36.9	1.44	1.43	1.41	1.40	1.39	1.37	1.36
Jan-25-06	36.5	36.2	35.9	35.5	35.2	34.9	34.5	1.35	1.33	1.32	1.31	1.30	1.29	1.27
Feb-01-06	34.2	33.9	33.6	33.3	32.9	32.6	32.3	1.26	1.25	1.24	1.23	1.21	1.20	1.19
Feb-08-06	32.0	31.7	31.4	31.1	30.9	30.6	30.3	1.18	1.17	1.16	1.15	1.14	1.13	1.12
Feb-15-06	30.0	29.7	29.4	29.2	28.9	28.6	28.4	1.11	1.09	1.08	1.08	1.06	1.05	1.05
Feb-22-06	28.1	27.8	27.6	27.3	27.0	26.8	26.5	1.03	1.02	1.02	1.01	0.99	0.99	0.98
Mar-01-06	26.3	26.1	25.8	25.6	25.3	25.1	24.9	0.97	0.96	0.95	0.94	0.93	0.92	0.92
Mar-08-06	24.6	24.4	24.2	23.9	23.7	23.5	23.3	0.91	0.90	0.89	0.88	0.87	0.86	0.86
Mar-15-06	23.1	22.8	22.6	22.4	22.2	22.0	21.8	0.85	0.84	0.83	0.82	0.82	0.81	0.80
Mar-22-06	21.6	21.4	21.2	21.0	20.8	20.6	20.4	0.79	0.79	0.78	0.77	0.76	0.76	0.75
Mar-29-06	20.2	20.0	19.8	19.7	19.5	19.3	19.1	0.74	0.74	0.73	0.72	0.72	0.71	0.70
Apr-05-06	18.9	18.8	18.6	18.4	18.2	18.1	17.9	0.69	0.69	0.68	0.68	0.67	0.66	0.66
Apr-12-06	17.7	17.6	17.4	17.2	17.1	16.9	16.8	0.65	0.65	0.64	0.63	0.63	0.62	0.62
Apr-19-06	16.6	16.4	16.3	16.1	16.0	15.8	15.7	0.61	0.60	0.60	0.59	0.59	0.58	0.58
Apr-26-06	15.5	15.4	15.3	15.1	15.0	14.8	14.7	0.57	0.56	0.56	0.55	0.55	0.54	0.54
May-03-06	14.6	14.4	14.3	14.1	14.0	13.9	13.8	0.54	0.53	0.52	0.52	0.51	0.51	0.51
May-10-06	13.6	13.5	13.4	13.2	13.1	13.0	12.9	0.50	0.49	0.49	0.48	0.48	0.48	0.47
May-17-06	12.8	12.6	12.5	12.4	12.3	12.2	12.1	0.47	0.46	0.46	0.45	0.45	0.45	0.44
May-24-06	11.9	11.8	11.7	11.6	11.5	11.4	11.3	0.44	0.43	0.43	0.42	0.42	0.42	0.41
May-31-06	11.2	11.1	11.0	10.9	10.8	10.7	10.6	0.41	0.41	0.40	0.40	0.39	0.39	0.39
Jun-07-06	10.5	10.4	10.3	10.2	10.1	10.0	9.9	0.38	0.38	0.38	0.37	0.37	0.37	0.36
Jun-14-06	9.8	9.7	9.6	9.5	9.4	9.4	9.3	0.36	0.35	0.35	0.35	0.34	0.34	0.34
Jun-21-06	9.2	9.1	9.0	8.9	8.8	8.8	8.7	0.34	0.33	0.33	0.32	0.32	0.32	0.32
Jun-28-06	8.6	8.5	8.4	8.4	8.3	8.2	8.1	0.31	0.31	0.31	0.31	0.30	0.30	0.29
Jul-05-06	8.1	8.0	7.9	7.8	7.8	7.7	7.6	0.29	0.29	0.29	0.28	0.28	0.28	0.28
Jul-12-06	7.5	7.5	7.4	7.3	7.3	7.2	7.1	0.27	0.27	0.27	0.27	0.27	0.26	0.26
Jul-19-06	7.1	7.0	6.9	6.9	6.8	6.7	6.7	0.26	0.25	0.25	0.25	0.25	0.24	0.24
Jul-26-06	6.6	6.5	6.5	6.4	6.4	6.3	6.2	0.24	0.24	0.24	0.23	0.23	0.23	0.22
Aug-02-06	6.2	6.1	6.1	6.0	6.0	5.9	5.9	0.22	0.22	0.22	0.22	0.22	0.21	0.21
Aug-09-06	5.8	5.7	5.7	5.6	5.6	5.5	5.5	0.21	0.21	0.21	0.20	0.20	0.20	0.20
Aug-16-06	5.4	5.4	5.3	5.3	5.2	5.2	5.1	0.19	0.19	0.19	0.19	0.19	0.19	0.18
Aug-23-06	5.1	5.0	5.0	4.9	4.9	4.8	4.8	0.18	0.18	0.18	0.18	0.18	0.17	0.17
Aug-30-06	4.8	4.7	4.7	4.6	4.6	4.5	4.5	0.17	0.17	0.17	0.17	0.17	0.16	0.16
Sep-06-06	4.5	4.4	4.4	4.3	4.3	4.3	4.2	0.16	0.16	0.16	0.15	0.15	0.15	0.15
Sep-13-06	4.2	4.1	4.1	4.1	4.0	4.0	3.9	0.15	0.15	0.15	0.15	0.14	0.14	0.14

Not transported

TEAM Industrial Services, Inc.

Form 30.22
Rev. 16

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	Location of Use
TEAM	MATRIX
240 TURNERWAY	TANK 81
ASHTON, PA	SEWARIN, N.J.
19014	MOTIVA 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 & ID	Category of Label	Transport Index	Type B Package ID & Certification
1	Radioactive Material, Type (B)U Package UN2916 ☒ RQ (check if greater than 10 ci.)	7	____ GBq or 626 GBq / 6.8 Ci. ☒ Ir-192 / ☐ Co-60 / ☐ Se-75 S/N 24663B	Radioactive Yellow II	.2	S/N 393 USA / 9283 /B(U) 85

PERSONNEL & DOSIMETRY DATA

Tech. #1: Name J. MAACK ☒ Rad. – Card No. 500502838 Issued By IL Exp. Date 2-28-11 ☐ Assist. Rad.

Tech. #2: Name A. Maimone ☐ Rad. – Card No. ____ Issued By ____ Exp. Date ____ ☒ Assist. Rad.

Tech. #3: Name — ☐ Rad. – Card No. — Issued By — Exp. Date — ☐ Assist. Rad.

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

EXPOSURE DEVICE & TRANSPORT SURVEY DATA

Exposure Device: Manufacturer AEA Model 660B S/N B1811

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

Device Removal from Storage	Transport Package (Initial) Surface	Transport Package (Initial) Vehicle Outside	Transport Package (Initial) Vehicle Interior Cab	Device After Last Exposure	Transport Package (Return) Surface	Transport Package (Return) Vehicle Outside	Transport Package (Return) Vehicle Interior Cab	Device Return to Storage
6 mR/hr	2 mR/hr	0 mR/hr	0 mR/hr	6 mR/hr	2 mR/hr	0 mR/hr	0 mR/hr	6 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

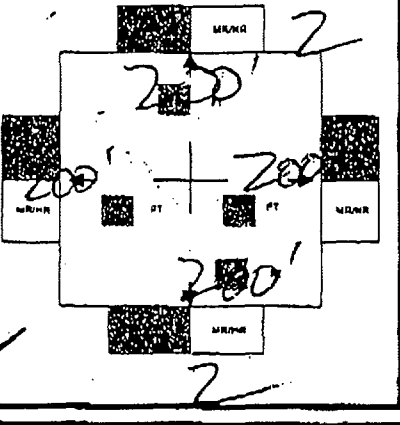
a) Number of exposures in 1 Hour - 1 (1m)

b) Time per exposure (minutes) - 540

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

d) Maximum Permissible Level at 2 mR boundary = (60 min. / (c)) x 2 = ____ mR/hr

Comments: SOURCE hung out. HAD to BE Retreived. 2 mR Established



Emergency Number: CHEMTREC 800-424-9300

Date & Time Removed	Date & Time Returned	Radiographer Print/Signature
4-18-06 11:00 AM	4-19-06 0700	[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	DOSIMETER RECEIVED	REPORT TIME IN WORK DAYS	PAGE NO.
61796	WIL	0611580002	04/26/06	04/25/06	1	1 OF 1

PARTICIPANT NUMBER	NAME: ID NUMBER / BIRTH DATE / SEX	DOSIMETER	USE	RADIATION QUALITY	DOSE EQUIVALENT (MREM) FOR PERIODS SHOWN BELOW: DEEP DDE	EYE LDE	SHALLOW SDE	QUARTERLY ACCUMULATED DOSE EQUIVALENT (MREM): DEEP DDE	EYE LDE	SHALLOW SDE	YEAR TO DATE DOSE EQUIVALENT (MREM): DEEP DDE	EYE LDE	SHALLOW SDE	LIFETIME DOSE EQUIVALENT (MREM): DEEP DDE	EYE LDE	SHALLOW SDE	RECORDS FOR YEAR	INCEPTION DATE (MM/YY)	SERIAL NUMBER	SEQUENCE NUMBER
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

Badge was Assigned To Anthony Maimone on 4-18-06

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®
NVLAP LAB CODE 100518-0

TEAM COOPERSPAT 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

ACCOUNT NO.	SERIES CODE	ANALYTICAL WORK ORDER	REPORT DATE	TOX METER RECEIVED	REPORT TIME & WORK DAYS	PAGE NO
61796	NRV	0611180024	04/28/06	04/21/06	5	5

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

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

QUALITY CONTROL RELEASE: DRB

20 - PR 8481 - RPT1305- N1 - 11124

NVLAP®
NVLAP LAB CODE 100518-0

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: 07/16/2005

Hazmat Recurrent Training Performed: 07/16/2005

Certifier's Signature:

Date: 3/1/2006

Chris G. Smith
Corporate Radiation
Safety Officer

Form 30.12A
Rev. 3

TEAM® COOPERHEAT MQS

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: Date: 4/1/2005

Chris G. Smith
Corporate Radiation
Safety Officer

Form 30.12A
Rev. 2

QSA GLOBAL

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 1 3 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

REV. 4
01/10/06

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

GENERAL DATA

☒ Quarterly Inspection
☐ Special Inspection

Lab/Project Address: 1204, TEAM INDUSTRIAL SERVICES 260 TURNER INDUSTRIAL WAY, ASTON, PA. 19014

Exposure Device Mfr.: QSA Global

Exposure Device Model: 660B S/N: B1811

Special Instructions:

RADIOGRAPHIC EXPOSURE UNIT	Accept.	Unaccept.	Repaired	Replaced
1. Check for abnormal surface radiation levels anywhere on camera, collimator, or guide tube.	✓			
2. Check condition of safety plugs.	✓			
3. Check for proper operation of locking mechanism	✓			
4. Check condition of pigtail connector.	✓			
5. Check condition of carrying device(straps, handle, etc.)	✓			
6. Check for proper labeling	✓			
SOURCE TUBE				
1. Check for rust, dirt, or sludge build up inside the source tube.	✓			
2. Check condition of source tube connector.	✓			
3. Check condition of source stop.	✓			
4. Check for kinks or damage that could prevent proper operation	✓			
5. Check for presence of radioactive contamination	✓			
CONTROL CABLES AND DRIVE MECHANISM				
1. Check for compatibility of drive mechanism with camera, as appropriate	✓			
2. Check for changes in general operating characteristics.	✓			
3. Check condition of connector on drive cable.	✓			
4. Check drive cable flexibility, wear, and rust.	✓			
5. Check for excessive wear or damage to crank assembly parts.	✓			
6. Check for damage to drive cable conduit that could prevent the cable from moving.	✓			
7. Check the connection of the control cable connector with the pigtail connector for proper mating.	✓			
8. Check for proper operation of source position indicator, if applicable	✓			
9. Check for the presence of radioactive contamination	✓			

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			

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

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

Invoice

Date	Invoice #
12/27/2005	1205397

Bill To	Ship To
TEAM COOPERHEAT MQS ATTN: ACCOUNTS PAYABLE 260 TURNER INDUSTRIAL WAY ASTON, PA 19014	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	5HVLMINI	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

Received
Per Kontkiewicz

64949

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: Brian

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: 985 ~~504~~-385-3293
PHONE: 504-385-3294

RECORD OF CERTIFICATION

THIS IS TO CERTIFY THAT ALL CONTROL ASSMBLIES, AND GUIDE TUBES INCLUDING VARIOUS FITTINGS AND ADAPTORS, MANUFACTURED OR SERVICED BY NDT REPAIR SERVICE MEET THE REQUIREMENTS SPECFIED 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 ASSEMBLIY SERIAL NUMBER,

S/N NDT-265, 266, 267, 268

DATE: 04-19-06 Q.C. SIGNATURE: [signature]