

APPENDIX K
Internal Audits



US ecology

RADIOLOGICAL CONTROL AND SAFETY AUDIT REPORT

Site:

US Ecology – Washington

Richland, Washington

Period:

1st Semi-Annual 2017

Audit Dates:

June 21 and 22, 2017

Prepared By:

Justin Jensen, Radiation Safety Specialist

Date: 7/18/2017

Introduction

The first semi-annual Radiological Control and Safety Audit for calendar year 2017 was performed on June 21 and 22, 2017 at the US Ecology-Washington (USEW) facility by Justin Jensen. The audit was performed in accordance with the current USEW Facility Standards Manual (FSM, February 2014) and Richland Operations Procedure (ROP) No. 105, Revision 0, "Radiological Controls and Safety Audits".

Audit Performance Areas

ROP 105 Attachment 1 (Rev 0) contains an audit checklist of radiation protection program areas for the USEW site that may be used as a guide for reviewing particular program elements. Portions of this checklist were used for the first 2017 semi-annual audit, with focus placed in the following areas:

- Personal Air Monitoring
- Internal Monitoring
- External Radiation Monitoring
- External Contamination
- Direct Gamma Monitoring
- Environmental Monitoring
- Direct Radiation Surveys
- Quarterly Inspection and Security

A completed copy of the audit checklist is attached to this report. Also attached is a RC&S Program Area Focus Matrix that shows the portions of USEW's program that have been audited on a semi-annual basis since the focused subject area approach was implemented (1S2011).

Observations

General

During the audit, USEW staff were very accommodating and demonstrated expertise in their respective areas. Files were well organized and easy to read.

Following is a summary of each program area that was audited for the 1st semi-annual 2017 audit.

Personal Air Monitoring

Air sample data for gross alpha and gross beta exceeded the action levels stated in Table 6.1, of the FSM. Required notification was sent to WDOH within 30 days. Retesting at ten days showed no exceedance. Samples were also sent to an offsite lab which confirmed that the concentrations were less than the action levels. No further action was required.

Internal Monitoring

Test America has been struggling to meet restrictive gross alpha specifications which has led to delays in the submittal data results. Recurrent issues with bioassay gross alpha testing prompted Sean Murphy to schedule a meeting with Test America personnel in Richland, WA. Justin Jensen and Mike Ault

accompanied Sean to discuss delayed returns of bioassay test results. Test America committed to increasing staff personnel and providing additional training. This will provide supplementary processing personnel to avoid future staff shortages. USEW will work with WDOH to determine if other test methods for gross alpha can be used that will decrease necessary count time.

External Radiation Monitoring

All external radiation monitoring is compliant. USEW began using new neutron badges (TLD 760) in the 2nd quarter of 2017.

Direct Gamma Monitoring

Environmental reports do not compare gamma results to WDOH values. WDOH has not provided their gamma monitoring data for comparison.

Direct Radiation Surveys

Records of the various contamination surveys performed were reviewed along with instrumentation calibration records. The survey of trench 14 was also observed. There were no deficiencies found in reviewing these records.

Findings

None.

Recommendations / Follow-up Items

1. The audit checklist calls for gamma data to be compared to WDOH values in the Environmental report, but the WDOH is not providing gamma their data. This requirement is not mentioned in ROP 707. A change in procedure may be necessary.

Attachments

1. Completed 1S17 Audit Checklist
2. USEW Semi-Annual RC&S Audit Program Focus Area Matrix

RICHLAND OPERATIONAL PROCEDURES

<u>ROP NO</u> ATT 105-1	<u>REV.</u> 0	<u>RADIOLOGICAL CONTROL & SAFETY AUDIT CHECKLIST (example)</u>	<u>EFFECTIVE DATE</u> 01/01/17	<u>PAGE</u> 1 of 13
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RADIOLOGICAL AUDIT COVER SHEET

INSPECTION NUMBER: 1817

AUDIT CONDUCTED BY: Justin Jensen

START DATE 6/21/2017 STOP DATE 6/22/2017

DATE OF LAST INSPECTION: 11/16/2016 INSP. NUMBER: 2816

TYPE OF INSPECTION – SEMI-ANNUAL: UNANNOUNCED:

FACILITY REPRESENTATIVE: M. Auld

SIGNATURE:  DATE: 6/22/2017

Audit reports are Due 30 days after audit completion.

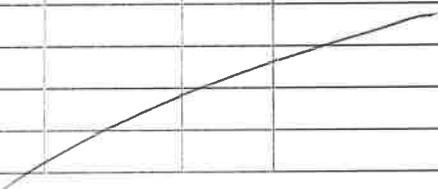
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REVIEW OF ALARA PROGRAM	SAT	UNSAT	N/A	COMMENTS
1. Have all non-routine preplanned activities been reviewed by the RPM/ARPM to ensure adherence to the ALARA policy?				/
(a) Are reviews documented?				
2. Do reviews address:				
(a) Description of activity?				
(b) Collection and evaluation of data?				
(c) Evaluation of hazards?				
(d) Establishment of criteria including staffing?				
(e) Protective clothing requirements?				
(f) Training?				
(g) Monitoring?				
3. Has the Radiation Safety Committee made annual ALARA report by June 30 for previous calendar year?				
4. Have radiation exposures to adults been contained to the administrative limits as specified in the FSM?				
5. If administrative limits were exceeded, were exposures investigated by the RPM?				
6. Were exposures to minors and members of the public limited to 0.1 REM per year?				
PERSONAL AIR MONITORING	SAT	UNSAT	N/A	COMMENTS
1. Is a minimum of one air sampler downwind and one air sampler for breathing zone air operated continuously in areas where people work in close proximity to waste?	/			
2. Does this include:				
(a) Vehicle unloading areas?	/			
(b) Cask handling operations?	/			
(c) In-trench operations?	/			
3. Were levels measured less than as specified in Table 6.1 of the FSM:	/			1-17-17 action levels exceeded for gross alpha and gross beta. Additional testing and lab analysis concluded that the results were below action levels. Notification including results of retesting was sent to WDOH within 30 days.
(a) If reporting levels were exceeded, was WDOH	/			
(b) Were copies of a written report submitted to WDOH within 30 days?	/			
(c) Did the RPM evaluate most restrictive DAC on the shipment from the manifest?			/	

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(d) If levels exceeded 10% of a DAC, was the need for bioassay evaluated and conducted if appropriate.				
INTERNAL MONITORING	SAT	UNSAT	N/A	COMMENT
1. For newly hired radiation workers, within one month:				<i>No new hires</i>
(a) Has a urinalysis been conducted			/	
(b) Has an in-vivo thyroid assay			/	
(c) Has a whole body scan been conducted			/	
2. Has a whole body count been performed each year for site radiation workers?	/			
3. Has a thyroid scan been performed each calendar year for site radiation workers?	/			
4. Has a urinalysis been performed each calendar quarter for site radiation workers?	/			
(a) Are urinalysis analyzed for tritium, carbon-14, gross alpha and gross beta minus potassium-40?	/			
5. When a radiation worker terminates employment, is a whole body gamma scan and bioassay made?			/	<i>none in last 2 years</i>
(a) If not possible, is an entry made in the individual's record?			/	
EXTERNAL RADIATION MONITORING	SAT	UNSAT	N/A	COMMENTS
1. Are whole body dosimeters worn on the frontal area of the chest or waist?	/			
2. Do all personnel who handle radioactive material wear extremity dosimetry?	/			
3. Are all personnel dosimeters, except pocket ionization chambers, processed by an organization accredited by NVLAP?	/			
4. Are personnel dosimeters (except pocket ion chambers) and extremity dosimeters processed at least once each quarter?	/			
5. Are pocket ion chamber dosimeters checked for accuracy and drift at least every six months?	/			
POSTING	SAT	UNSAT	N/A	COMMENT
1. Are all radiation areas properly posted?				
2. Are all high radiation areas properly posted?				
3. Are all airborne radioactivity area properly posted?				
4. Are Radioactive Material Storage areas properly posted?				

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5. Are Radioactive Material Containers (for onsite waste) properly labeled?				
6. Are the following posted:				
(a) WDOH Notice to Employees? (WAC246-222-020)				
(b) Notice as to location of license and operating procedures?				
(c) Emergency procedures?				
(d) Notice of violation from WDOH?				
NOTIFICATION TO INDIVIDUALS	SAT	UNSAT	N/A	COMMENTS
1. Are notifications of radiation exposure furnished on written request and annually? (NRC form 5)				
(a) At request of former employees?				
(b) Within 30 days from request or 30 days after exposure determined? (see WAC 246-222-040)				
(c) Do the letters have the person's name, exposure data and the required statement? (WAC 246-222-040)				
2. Is notification to individual made in the event a report is required to NRC/WDOH?				
INSTRUMENT CHECK SOURCES	SAT	UNSAT	N/A	COMMENTS
1. When not in use, are instrument check sources located in source storage locker?				
(a) Is locker locked when unattended?				
(b) Is locker posted with current list of personnel authorized to have access?				
2. Are source locker radiation levels maintained at less than two mrem per hour?				
(a) Is a quarterly radiation survey of the storage locker performed?				
(b) Is a survey performed immediately after receipt of additional check sources?				
3. If sources were disposed, were they disposed in accordance with (IAW) ROP-415?				
4. Has a physical inventory of sources been conducted quarterly?				

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5. Are procurement history of each source including copies of purchase orders and seller certification available? (ROP-608)				
6. Is the total activity of all check sources less than the license limit (100 mCi)?				
EXTERNAL CONTAMINATION	SAT	UNSAT	N/A	COMMENTS
1. Do personnel survey themselves before leaving radiologically controlled area?	/			<i>observed log of surveys on computer</i>
(a) If levels exceeding 10,000 dpm per 100 square centimeter beta gamma or 1000 dpm per 100 square centimeter alpha detected was non-routine monitoring conducted? (FSM 2.15)			/	
(b) If so, was bioassay conducted?				
RESPIRATORY PROTECTION	SAT	UNSAT	N/A	COMMENTS
1. Is only NIOSH approved respiratory protection equipment furnished? (
2. Is respiratory protection equipment furnished if:				
(a) Contamination levels greater than 10,000 dpm per 100 square centimeters beta gamma or 1,000 dpm per 100 square centimeters alpha?				
(b) Any sample within 50 feet indicates greater than applicable DAC in WAC 246-221-290 Table 1?				
(c) Respiratory protection is a specific requirement of an operational procedure or required by the RPM or ARPM?				
3. Have all personnel required to use respiratory protection equipment received training on an annual basis?				
(a) Is training by RPM or individual approved by RPM?				
(b) Are personnel advised they may leave work area for relief from physical or psychological distress or significant deterioration of operational conditions?				
4. Is work being performed using respiratory protection always done under supervision of an individual qualified to wear respiratory protection and is such equipment readily available?				

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5.	Have all personnel qualified to wear respiratory equipment received an annual quantitative fit test?				
6.	Are personnel instructed in proper procedure for positive and negative fit tests?				
(a)	Are tests performed immediately after donning respirators?				
(b)	If user of respirator requires glasses, are respiratory prescription lenses available and worn?				
7.	Is respiratory protection equipment issued only by RPM or designee?				
(a)	Are outside contractors and other non-facility personnel required to adhere to the respiratory protection procedure?				
(b)	Are decontamination, sanitization, inspection noted in Respiratory Monthly Inspection Record Log?				
8.	Is respiratory protection equipment inspected prior to each use?				
(a)	Is respiratory protection equipment cleaned after each use?				
9.	Are respirators inspected once a month?				
10.	Are medical evaluations performed on personnel each year as part of or prior to fit testing? Medical evaluation documentation in individual dosimetry file? (ROP-306)				
11.	Respiratory protection issuance maintained in log with name, date of issue, reason, initials of person issuing, and date bioassay kit issued if needed?				
AUDITING PROGRAM		SAT	UNSAT	N/A	COMMENTS
1.	Management audits conducted at least once a year?				
(a)	Do audits cover two working days?				
(b)	Has the facility manager responded to any item requiring corrective actions IAW the FSM?				
2.	Has the facility manager or designee conducted and documented a weekly inspection of the facility?				

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(a) Does inspection include tour of restricted area and inspection of random selection of documents?				
3. Have radiological control and Safety audits been performed at least twice a year, with at least 4 months between audits?				
PERSONNEL TRAINING	SAT	UNSAT	N/A	COMMENTS
1. Do escorted visitors receive the following orientation: (ROP-208)				
(a) Restricted area location?				
(b) Any other controlled areas and potential for dose?				
(c) Methods of marking and posting?				
(d) Requirements for dosimetry?				
(e) Escort requirements?				
(f) Completion of exposure authorization form?				
(g) Review of USNRC Regulatory Guide 8.13?				
(h) Need to frisk upon exit, and procedure to frisk?				
2. Do unescorted visitors also receive orientation in the above plus:				
(a) Facility security?				
(b) US Ecology notice to personnel?				
(c) Radiation and risk?				
3. Are non-occupationally exposed facility personnel provided with general orientation and:				
(a) Facility security?				
(b) US Ecology notice to personnel?				
(c) Radiation and risk?				
(d) Is this training re-administered biennially?				
4. Have Radiological Workers received training as specified in the FSM?				
(a) Completion of Occupational Radiation Exposure Questionnaire? (ROP 201)				
(b) Is training repeated every two years?				
(c) Does qualification require passing a written test?				
(d) Does training include 12 hrs classroom and 4 hrs of practical factors?				
5. Is specialized radiological worker training conducted in the event a worker is required to work on a special project?				
6. Is RC&ST training as described in the FSM?				
(a) Does training include 40 hours of classroom study?				

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(b) Are RC & ST re-qualified and tested every two years?				
7. Is a weekly safety meeting conducted? (ROP's 206 & 201)				
8. Is a list of qualified instructors and areas of expertise maintained at the facility?				
9. Does the Management training meet the requirements of the FSM and ROP 204?				
INCOMING VEHICLE INSPECTION	SAT	UNSAT	N/A	COMMENT
1. Are incoming vehicles surveyed as minimum at the following points:				
(a) Two smears each on right, left, rear and inside?				
(b) Three smears of cargo?				
(c) 200 mR/hr contact at sides and underneath?				
(d) 10 mR/hr at 2 meters from sides?				
(e) 2 mR/hr in cab?				
2. Are following documents available:				
(a) Waste shipment and disposal manifest?				
(b) LLRW shipment certification form RHF-31?				
(c) NARM determination letters?				
(d) DOE/NCR 741 if required?				
(e) Exclusive use instruction?				
(f) Specific exemption letters from DOH?				
(g) WSP Vehicle inspection form?				
3. In the event of hazard to personnel safety or the environment are operations ceased until approval granted by WDOH?				
(a) Are administratively correctable violations corrected, documented and brought to attention of WDOH on site inspector?				
4. Does the Facility Manager or designee ensure the wastes:				
(a) Meets packaging and wastes form requirements?				
(b) Are containers inspected for physical integrity and compliance with marking IAW the FSM?				
(c) Are all waste packages checked to ensure correlation to the manifest?				
5. Are HIC users manuals on file for HIC waste received?				
6. Are the cask owner's manuals available?				
7. Are site vehicles and items for unconditioned release surveyed and decontaminated in accordance with ROP 504?				
a Do they meet the release limits of Table 6.2 of FSM?				

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8	Are transport vehicles surveyed, decontaminated and released in accordance with ROP 504?				
(a)	If FSM table 6.2 criteria can not be met, are attempts made to decontaminate transport vehicle to FSM Table 6.2 criteria?				
(b)	Do all released transport vehicles meet DOT criteria?				
(c)	Are all transport vehicle release in excess of FSM Table 6.2 criteria documented and approved by facility management?				
9	Is waste generated from decontamination processed, packaged and manifested in accordance with the license?				
10	Are instruments calibrated in accordance with ROP 605?				
11	Is a person qualified as a RC & ST present during receipt and disposal operations?				

PACKAGE CONFIRMATION AND STORAGE		SAT	UNSAT	N/A	COMMENT
1.	Are the contents of a package confirmed at the frequency of the FSM?				
(a)	If possible, are package contents confirmed in package inspection facility? (ROP 413)				
(b)	Is any violation reported to WDOH by the Facility Manager or designee?				
(c)	Are records available for the inspection room survey after the confirmation?				
2.	Are all packages stored above ground been disposed of accordance with license criteria?				
(a)	Is storage within license possession limits?				
(b)	Is storage in accordance with ROP's 408?				
3.	Is ROP 417 followed for over packaging containers?				

DIRECT GAMMA MONITORING (fenceline)		SAT	UNSAT	N/A	COMMENTS
1.	Was direct gamma monitoring conducted (ROP 707)?	/			
(a)	Are results compared to WDOH values in Environmental report?		/		WDOH has not provided gamma data for comparison
(b)	Were fenceline dosimeters posted and exchanged quarterly at N, S, E & W fence lines?	/			
2.	If fenceline dosimeters reporting limits were exceeded, was WDOH verbally notified within 24 hours?			/	

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(a) Written notification within 30 days?					
ENVIRONMENTAL MONITORING					
1.	Is a scaled map showing all environmental monitoring locations available?	/			
2.	Is a record of all routine and special calibration of airflow or volume metering devices available?	/			
3.	Have monthly burial reports been forwarded to WDOH?	/			
4.	Have interim trench markers been installed at each end of the disposal trenches IAW the FSM?	/			
5.	Are continuous air monitoring stations located along the fence line IAW the FSM?	/			
(a)	Is this in accordance with the scaled map?	/			
(b)	Are airflows set IAW ROP 701?	/			
(c)	Are tritium samplers set IAW ROP 701?	/			
(d)	Are gross alpha, gross beta counted weekly?	/			
(e)	Is the gamma spectroscopy counted quarterly?	/			
(f)	Are iodine air samples taken and counted as required?	/			
(g)	Is tritium taken and counted as required?	/			
(h)	Is the Environmental Air Sampling Daily Check Form filled out properly?	/			
6.	Are results within action levels of FSM table 6.1?	/			
7.	If reporting levels were exceeded, was immediate verbal notification made to WDOH?			/	
(a)	Was letter sent to WDOH within 30 days?			/	
8.	Is air sampling equipment calibrated so that the cumulative error in the determination of the total volume is less than 20%?	/			
(a)	Is a linear change in flow rate assumed?	/			
OPERATIONAL ACTIVITIES					
		SAT	UNSAT	N/A	COMMENT

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1.	Observation of operating and maintenance activities. List activities observed: _____ _____ _____				
2.	Interviews with Radiation Protection personnel List personnel interviewed: _____ _____ _____				
3.	Interviews with Operations/Maintenance personnel List personnel interviewed: _____ _____ _____				

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RADIATION SAFETY COMMITTEE (RSC)	SAT	UNSAT	N/A	COMMENTS
1. Are minutes on file for current year RSC meetings?				
2. Does the RSC review safety evaluations for new/revised procedures?				
3. Does the RSC review draft license and FSM changes?				
4. Does the RSC review events that lead to unplanned exposures to individuals?				
5. Does the RSC consist of the minimum required participants specified in the FSM either in person or by telecom?				
6. Have items of noncompliance (audit findings, NCR's, inspection findings, etc.) been reviewed by the RSC?				
DIRECT RADIATION SURVEYS	SAT	UNSAT	N/A	COMMENTS
1. Were direct surveys conducted IAW the FSM and ROP 501?:	/			
(a) Controlled facilities?	/			
(b) Operational trench?	/			
(c) Normal traffic areas?	/			
(d) Site equipment outside area?	/			
(e) Site equipment outside area?	/			
(f) Non-rad buildings, monthly?	/			
2. Was at least one of each type of instrument in use in the area in which receipt, handling and disposal operations were conducted:	/			
(a) Portable instruments for measuring high levels (0-500 R/hr) beta-gamma?	/			
(b) Portable instrument for measuring low levels (0-2000 mR/hr) beta-gamma?	/			
(c) Portable instruments for measuring beta-gamma contamination?	/			
3. Did these instruments meet 10% full-scale linearity and 10% calibration stability?	/			
4. Do beta-gamma contamination instruments meet 10% calibration stability and window of 1.2 - 2.0 mg/cm ² ?	/			
5. Was calibration of instruments at one-third and two-thirds of each scale?	/			
6. Were portable instruments source checked prior to use?	/			

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(a) Were contamination instruments checked for response every other day and other instruments checked once each week?	/			
(b) Is a battery check performed each time instrument is turned on?	/			
(c) Is any instrument found to respond improperly taken out of use until repaired?	/			
QUARTERLY INSPECTION AND SECURITY	SAT	UNSAT	N/A	COMMENTS
1. Are a visual inspection and radiation survey performed on completed disposal units each calendar Quarter?	/			
(a) Does this include condition of trench cap?	/			
(b) Changes in radiation levels?	/			
(c) General condition of disposal facility?	/			
(d) Status of security measures? (ROP's 502 & 503)	/			
2. Is the perimeter of the operation area of the facility surrounded with a eight-foot high chain link fence topped with barbed wire?	/			
(a) Is the entrance gate kept locked or under surveillance during working hours and locked during non-working hours?	/			
(b) Is distribution of keys to personnel controlled by the Facility Manager?	/			<i>FSM 6.8.2B</i>
(c) Are keys distributed per ROP-801?	/			<i>ROP-801 4.2.2 Trailer keys distributed by ARPM</i>
(d) Are vehicles secured at the end of each workday? (ROP-801)	/			
Additional Comments:				



RADIOLOGICAL CONTROL AND SAFETY AUDIT REPORT

Site:

US Ecology – Washington

Richland, Washington

Period:

2nd Semi-Annual 2017

Audit Dates:

November 28 and 29, 2017

Prepared By:



Tim Jenkins, Corporate Health Physicist

Date: 12/8/2017

Introduction

The second semi-annual Radiological Control and Safety Audit for calendar year 2017 was performed on November 28 and 29, 2017 at the US Ecology-Washington (USEW) facility by Tim Jenkins (Corporate Health Physicist). The audit was performed in accordance with the current USEW Facility Standards Manual (FSM, February 2014) and Richland Operations Procedure (ROP) No. 105, Revision 0, "Radiological Controls and Safety Audits".

Audit Performance Areas

ROP 105 Attachment 1 (Rev 0) contains an audit checklist of radiation protection program areas for the USEW site that are as a guide for reviewing particular program elements. Portions of this checklist were used for the second 2017 semi-annual audit, with focus placed in the following areas:

- ALARA Program
- Posting
- Instrument Check Sources
- Respiratory Protection
- Personnel Training
- Package Confirmation and Storage
- Radiation Safety Committee

A completed copy of the audit checklist is attached to this report. Also attached is a RC&S Program Area Focus Matrix that shows the portions of USEW's program that have been audited on a semi-annual basis since the focused subject area approach was implemented (1S2011).

Observations

General

All of the areas reviewed in this audit were found to be compliant with the requirements of the FSM and applicable ROPs. US Ecology Washington staff were very helpful in providing assistance and answering questions during the audit.

ALARA Program

The annual 2016 ALARA report was submitted by June 30th as required. There have not been any non-routine activities since the TNRAM project. ALARA practices are used to maintain doses ALARA. As reported in the report, the ALARA goals for 2016 were met, even though the doses were higher than previous years. This is attributed to the high dose rate material that was received during the TNRAM project. Without any high dose rate shipments scheduled as of now, the worker doses should return to levels as seen in previous years.

Posting

All of the postings on the outer perimeter fencing were posted as required and were legible. There were not any radiation areas or high radiation areas at the time of the audit, so there were no postings for these areas. Notice to employees and emergency procedures were posted on the bulletin board in the kitchen area.

Instrument Check Source

The requirements on the check list and in the FSM were all in compliance with respect to the instrument check sources. One thing that was observed in section 2.13 of the FSM was an incorrect ROP reference for the Instruments Check Source procedure. The FSM references ROP 52, but should reference ROP 608.

Respiratory Protection

In reviewing the respirator program, it appeared to be very well organized. The records of each respirator used has its own file which contains all of the required information from the FSM and ROP 209. Notes of any maintenance performed on the respirator are kept on file as well.

While reviewing ROP-209-1, a typo was observed in Section 4 where it discusses performing positive and negative pressure fit checks. Section 4.b should be titled for the Negative pressure check and not the Positive.

Personnel Training

Personnel training records are kept for each USEW employee. Each file reviewed indicated that the proper training as per the FSM and the ROPS is given by one of the qualified trainers and in accordance with the frequency required.

Package Confirmation and Storage

There were no package inspections during the audit. Four containers (Bates # 24764) were received on November 27th and were in storage until November 28th, when they were disposed of.

Radiation Safety Committee

Past RSC meeting minutes were reviewed. The review of these minutes made it evident that the RSC reviews and discusses all aspects of the site. No compliance issues were found.

Findings

None.

Recommendations / Follow-up Items

1. As discussed in the Instrument check source section, it is recommended that the ROP reference in section 2.13 of the FSM is corrected.
2. Change the heading in Section 4.b of ROP-209-1 to indicate the section is for negative pressure fit check.

Attachments

1. Completed 2S17 Audit Checklist
2. USEW Semi-Annual RC&S Audit Program Focus Area Matrix

RICHLAND OPERATIONAL PROCEDURES

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RADIOLOGICAL AUDIT COVER SHEET

INSPECTION NUMBER: 252017

AUDIT CONDUCTED BY: Tim Jenkins

START DATE 11/28/2017 STOP DATE 11/29/2017

DATE OF LAST INSPECTION: 7/21 - 7/22/2017 INSP. NUMBER: _____

TYPE OF INSPECTION – SEMI-ANNUAL: UNANNOUNCED:

FACILITY REPRESENTATIVE: Sean Murphy

SIGNATURE:  DATE: 11/29/2017

Audit reports are Due 30 days after audit completion.

RICHLAND OPERATIONAL PROCEDURES

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REVIEW OF ALARA PROGRAM	SAT	UNSAT	N/A	COMMENTS
1. Have all non-routine preplanned activities been reviewed by the RPM/ARPM to ensure adherence to the ALARA policy?			X	no non-routine activity since TURN, but Archive
(a) Are reviews documented?	X			File Show
2. Do reviews address:				Proper reviews for past activities
(a) Description of activity?	X			
(b) Collection and evaluation of data?	X			
(c) Evaluation of hazards?	X			
(d) Establishment of criteria including staffing?	X			
(e) Protective clothing requirements?	X			
(f) Training?	X			
(g) Monitoring?	X			
3. Has the Radiation Safety Committee made annual ALARA report by June 30 for previous calendar year?	X			
4. Have radiation exposures to adults been contained to the administrative limits as specified in the FSM?	X			
5. If administrative limits were exceeded, were exposures investigated by the RPM?	X			no limits exceeded
6. Were exposures to minors and members of the public limited to 0.1 REM per year?	X			
PERSONAL AIR MONITORING	SAT	UNSAT	N/A	COMMENTS
1. Is a minimum of one air sampler downwind and one air sampler for breathing zone air operated continuously in areas where people work in close proximity to waste?				
2. Does this include:				
(a) Vehicle unloading areas?				
(b) Cask handling operations?				
(c) In-trench operations?				
3. Were levels measured less than as specified in Table 6.1 of the FSM:				
(a) If reporting levels were exceeded, was WDOH				
(b) Were copies of a written report submitted to WDOH within 30 days?				
(c) Did the RPM evaluate most restrictive DAC on the shipment from the manifest?				

NOT REVIEWED

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(d) If levels exceeded 10% of a DAC, was the need for bioassay evaluated and conducted if appropriate.				
INTERNAL MONITORING	SAT	UNSAT	N/A	COMMENT
1. For newly hired radiation workers, within one month:				
(a) Has a urinalysis been conducted				
(b) Has an in-vivo thyroid assay				
(c) Has a whole body scan been conducted				
2. Has a whole body count been performed each year for site radiation workers?				
3. Has a thyroid scan been performed each calendar year for site radiation workers?				
4. Has a urinalysis been performed each calendar quarter for site radiation workers?				
(a) Are urinalysis analyzed for tritium, carbon-14, gross alpha and gross beta minus potassium-40?				
5. When a radiation worker terminates employment, is a whole body gamma scan and bioassay made?				
(a) If not possible, is an entry made in the individual's record?				
EXTERNAL RADIATION MONITORING	SAT	UNSAT	N/A	COMMENTS
1. Are whole body dosimeters worn on the frontal area of the chest or waist?				
2. Do all personnel who handle radioactive material wear extremity dosimetry?				
3. Are all personnel dosimeters, except pocket ionization chambers, processed by an organization accredited by NVLAP?				
4. Are personnel dosimeters (except pocket ion chambers) and extremity dosimeters processed at least once each quarter?				
5. Are pocket ion chamber dosimeters checked for accuracy and drift at least every six months?				
POSTING	SAT	UNSAT	N/A	COMMENT
1. Are all radiation areas properly posted?	X			NO Rad areas to post
2. Are all high radiation areas properly posted?	X			no High Rad areas to post
3. Are all airborne radioactivity area properly posted?	X			
4. Are Radioactive Material Storage areas properly posted?	X			

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5. Are Radioactive Material Containers (for onsite waste) properly labeled?	X			
6. Are the following posted:				
(a) WDOH Notice to Employees? (WAC246-222-020)	X			
(b) Notice as to location of license and operating procedures?	X			
(c) Emergency procedures?	X			
(d) Notice of violation from WDOH?	X			
NOTIFICATION TO INDIVIDUALS	SAT	UNSAT	N/A	COMMENTS
1. Are notifications of radiation exposure furnished on written request and annually? (NRC form 5)				<i>Not Reviewed</i>
(a) At request of former employees?				
(b) Within 30 days from request or 30 days after exposure determined? (see WAC 246-222-040)				
(c) Do the letters have the person's name, exposure data and the required statement? (WAC 246-222-040)				
2. Is notification to individual made in the event a report is required to NRC/WDOH?				
INSTRUMENT CHECK SOURCES	SAT	UNSAT	N/A	COMMENTS
1. When not in use, are instrument check sources located in source storage locker?	X			
(a) Is locker locked when unattended?	X			
(b) Is locker posted with current list of personnel authorized to have access?	X			
2. Are source locker radiation levels maintained at less than two mrem per hour?	X			
(a) Is a quarterly radiation survey of the storage locker performed?	X			
(b) Is a survey performed immediately after receipt of additional check sources?	X			<i>No New Sources for quite some time</i>
3. If sources were disposed, were they disposed in accordance with (IAW) ROP-415?	X			<i>No Disposed for long time</i>
4. Has a physical inventory of sources been conducted quarterly?	X			

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5. Are procurement history of each source including copies of purchase orders and seller certification available? (ROP-608)	X			
6. Is the total activity of all check sources less than the license limit (100 mCi)?	X			
EXTERNAL CONTAMINATION	SAT	UNSAT	N/A	COMMENTS
1. Do personnel survey themselves before leaving radiologically controlled area?				
(a) If levels exceeding 10,000 dpm per 100 square centimeter beta gamma or 1000 dpm per 100 square centimeter alpha detected was non-routine monitoring conducted? (FSM 2.15)				<i>Not Reviewed</i>
(b) If so, was bioassay conducted?				
RESPIRATORY PROTECTION	SAT	UNSAT	N/A	COMMENTS
1. Is only NIOSH approved respiratory protection equipment furnished? (X			
2. Is respiratory protection equipment furnished if:	X			
(a) Contamination levels greater than 10,000 dpm per 100 square centimeters beta gamma or 1,000 dpm per 100 square centimeters alpha?	X			
(b) Any sample within 50 feet indicates greater than applicable DAC in WAC 246-221-290 Table 1?	X			
(c) Respiratory protection is a specific requirement of an operational procedure or required by the RPM or ARPM?	X			
3. Have all personnel required to use respiratory protection equipment received training on an annual basis?	X			
(a) Is training by RPM or individual approved by RPM?	X			
(b) Are personnel advised they may leave work area for relief from physical or psychological distress or significant deterioration of operational conditions?	X			
4. Is work being performed using respiratory protection always done under supervision of an individual qualified to wear respiratory protection and is such equipment readily available?	X			

RICHLAND OPERATIONAL PROCEDURES

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5. Have all personnel qualified to wear respiratory equipment received an annual quantitative fit test?	X				
6. Are personnel instructed in proper procedure for positive and negative fit tests?	X				ROP-204-1 4/6. is labeled wrong
(a) Are tests performed immediately after donning respirators?	X				
(b) If user of respirator requires glasses, are respiratory prescription lenses available and worn?	X				
7. Is respiratory protection equipment issued only by RPM or designee?	X				
(a) Are outside contractors and other non-facility personnel required to adhere to the respiratory protection procedure?	X				
(b) Are decontamination, sanitization, inspection noted in Respiratory Monthly Inspection Record Log?	X				
8. Is respiratory protection equipment inspected prior to each use?	X				
(a) Is respiratory protection equipment cleaned after each use?	X				
9. Are respirators inspected once a month?	X				
10. Are medical evaluations performed on personnel each year as part of or prior to fit testing? Medical evaluation documentation in individual dosimetry file? (ROP-306)	X				
11. Respiratory protection issuance maintained in log with name, date of issue, reason, initials of person issuing, and date bioassay kit issued if needed?	X				
AUDITING PROGRAM	SAT	UNSAT	N/A	COMMENTS	
1. Management audits conducted at least once a year?					
(a) Do audits cover two working days?					
(b) Has the facility manager responded to any item requiring corrective actions IAW the FSM?				<i>not reviewed</i>	
2. Has the facility manager or designee conducted and documented a weekly inspection of the facility?					

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(a) Does inspection include tour of restricted area and inspection of random selection of documents?				
3. Have radiological control and Safety audits been performed at least twice a year, with at least 4 months between audits?				
PERSONNEL TRAINING	SAT	UNSAT	N/A	COMMENTS
1. Do escorted visitors receive the following orientation: (ROP-208)	X			
(a) Restricted area location?	X			
(b) Any other controlled areas and potential for dose?	X			
(c) Methods of marking and posting?	X			
(d) Requirements for dosimetry?	X			
(e) Escort requirements?	X			
(f) Completion of exposure authorization form?	X			
(g) Review of USNRC Regulatory Guide 8.13?	X			
(h) Need to frisk upon exit, and procedure to frisk?	X			
2. Do unescorted visitors also receive orientation in the above plus:	X			
(a) Facility security?	X			
(b) US Ecology notice to personnel?	X			
(c) Radiation and risk?	X			
3. Are non-occupationally exposed facility personnel provided with general orientation and:	X			
(a) Facility security?	X			
(b) US Ecology notice to personnel?	X			
(c) Radiation and risk?	X			
(d) Is this training re-administered biennially?	X			
4. Have Radiological Workers received training as specified in the FSM?	X			
(a) Completion of Occupational Radiation Exposure Questionnaire? (ROP 201)	X			
(b) Is training repeated every two years?	X			
(c) Does qualification require passing a written test?	X			
(d) Does training include 12 hrs classroom and 4 hrs of practical factors?	X			
5. Is specialized radiological worker training conducted in the event a worker is required to work on a special project?	X			
6. Is RC&ST training as described in the FSM?	X			
(a) Does training include 40 hours of classroom study?	X			

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(b) Are RC & ST re-qualified and tested every two years?	✗				
7. Is a weekly safety meeting conducted? (ROP's 206 & 201)	✗				
8. Is a list of qualified instructors and areas of expertise maintained at the facility?	✗				
9. Does the Management training meet the requirements of the FSM and ROP 204?	✗				
INCOMING VEHICLE INSPECTION	SAT	UNSAT	N/A	COMMENT	
1. Are incoming vehicles surveyed as minimum at the following points:					
(a) Two smears each on right, left, rear and inside?					
(b) Three smears of cargo?					
(c) 200 mR/hr contact at sides and underneath?					
(d) 10 mR/hr at 2 meters from sides?					
(e) 2 mR/hr in cab?					
2. Are following documents available:					
(a) Waste shipment and disposal manifest?					
(b) LLRW shipment certification form RHF-31?					
(c) NARM determination letters?					
(d) DOE/NCR 741 if required?					
(e) Exclusive use instruction?					
(f) Specific exemption letters from DOH?					
(g) WSP Vehicle inspection form?					
3. In the event of hazard to personnel safety or the environment are operations ceased until approval granted by WDOH?					
(a) Are administratively correctable violations corrected, documented and brought to attention of WDOH on site inspector?					
4. Does the Facility Manager or designee ensure the wastes:					
(a) Meets packaging and wastes form requirements?					
(b) Are containers inspected for physical integrity and compliance with marking IAW the FSM?					
(c) Are all waste packages checked to ensure correlation to the manifest?					
5. Are HIC users manuals on file for HIC waste received?					
6. Are the cask owner's manuals available?					
7. Are site vehicles and items for unconditioned release surveyed and decontaminated in accordance with ROP 504?					
a Do they meet the release limits of Table 6.2 of FSM?					

NOT REVIEWED

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8	Are transport vehicles surveyed, decontaminated and released in accordance with ROP 504?				
	(a) If FSM table 6.2 criteria can not be met, are attempts made to decontaminate transport vehicle to FSM Table 6.2 criteria?				
	(b) Do all released transport vehicles meet DOT criteria?				
	(c) Are all transport vehicle release in excess of FSM Table 6.2 criteria documented and approved by facility management?				
9	Is waste generated from decontamination processed, packaged and manifested in accordance with the license?				
10	Are instruments calibrated in accordance with ROP 605?				
11	Is a person qualified as a RC & ST present during receipt and disposal operations?				

PACKAGE CONFIRMATION AND STORAGE	SAT	UNSAT	N/A	COMMENT
1. Are the contents of a package confirmed at the frequency of the FSM?	X			
(a) If possible, are package contents confirmed in package inspection facility? (ROP 413)	X			No packages inspected during audit
(b) Is any violation reported to WDOH by the Facility Manager or designee?	X			
(c) Are records available for the inspection room survey after the confirmation?	X			
2. Are all packages stored above ground been disposed of accordance with license criteria?	X			Entry # 247641
(a) Is storage within license possession limits?	X			
(b) Is storage in accordance with ROP's 408?	X			
3. Is ROP 417 followed for over packaging containers?	X			

DIRECT GAMMA MONITORING (fenceline)	SAT	UNSAT	N/A	COMMENTS
1. Was direct gamma monitoring conducted (ROP 707)?				
(a) Are results compared to WDOH values in Environmental report?				
(b) Were fenceline dosimeters posted and exchanged quarterly at N, S, E & W fence lines?				
2. If fenceline dosimeters reporting limits were exceeded, was WDOH verbally notified within 24 hours?				

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(a) Written notification within 30 days?				
ENVIRONMENTAL MONITORING	SAT	UNSAT	N/A	COMMENTS
1. Is a scaled map showing all environmental monitoring locations available?				
2. Is a record of all routine and special calibration of airflow or volume metering devices available?				
3. Have monthly burial reports been forwarded to WDOH?				
4. Have interim trench markers been installed at each end of the disposal trenches IAW the FSM?				
5. Are continuous air monitoring stations located along the fence line IAW the FSM?				
(a) Is this in accordance with the scaled map?				
(b) Are airflows set IAW ROP 701?				
(c) Are tritium samplers set IAW ROP 701?				
(d) Are gross alpha, gross beta counted weekly?				
(e) Is the gamma spectroscopy counted quarterly?				
(f) Are iodine air samples taken and counted as required?				
(g) Is tritium taken and counted as required?				
(h) Is the Environmental Air Sampling Daily Check Form filled out properly?				
6. Are results within action levels of FSM table 6.1?				
7. If reporting levels were exceeded, was immediate verbal notification made to WDOH?				
(a) Was letter sent to WDOH within 30 days?				
8. Is air sampling equipment calibrated so that the cumulative error in the determination of the total volume is less than 20%?				
(a) Is a linear change in flow rate assumed?				
OPERATIONAL ACTIVITIES	SAT	UNSAT	N/A	COMMENT

Not Reviewed

RICHLAND OPERATIONAL PROCEDURES

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1.	Observation of operating and maintenance activities. List activities observed: <hr/> <hr/> <hr/>				
2.	Interviews with Radiation Protection personnel List personnel interviewed: <hr/> <hr/> <hr/>				
3.	Interviews with Operations/Maintenance personnel List personnel interviewed: <hr/> <hr/> <hr/>				

Not Reviewed

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RADIATION SAFETY COMMITTEE (RSC)	SAT	UNSAT	N/A	COMMENTS
1. Are minutes on file for current year RSC meetings?	X			
2. Does the RSC review safety evaluations for new/revised procedures?	X			
3. Does the RSC review draft license and FSM changes?	X			
4. Does the RSC review events that lead to unplanned exposures to individuals?	X			
5. Does the RSC consist of the minimum required participants specified in the FSM either in person or by telecom?	X			
6. Have items of noncompliance (audit findings, NCR's, inspection findings, etc.) been reviewed by the RSC?	X			Audit are discussed in meeting notes. NW-Non-compliance in 2017
DIRECT RADIATION SURVEYS	SAT	UNSAT	N/A	COMMENTS
1. Were direct surveys conducted IAW the FSM and ROP 501?:				
(a) Controlled facilities?				
(b) Operational trench?				
(c) Normal traffic areas?				
(d) Site equipment outside area?				
(e) Site equipment outside area?				
(f) Non-rad buildings, monthly?				
2. Was at least one of each type of instrument in use in the area in which receipt, handling and disposal operations were conducted:				
(a) Portable instruments for measuring high levels (0-500 R/hr) beta-gamma?				
(b) Portable instrument for measuring low levels (0-2000 mR/hr) beta-gamma?				
(c) Portable instruments for measuring beta-gamma contamination?				
3. Did these instruments meet 10% full-scale linearity and 10% calibration stability?				
4. Do beta-gamma contamination instruments meet 10% calibration stability and window of 1.2 - 2.0 mg/cm ² ?				
5. Was calibration of instruments at one-third and two-thirds of each scale?				
6. Were portable instruments source checked prior to use?				

Not Reviewed

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(a) Were contamination instruments checked for response every other day and other instruments checked once each week?				
(b) Is a battery check performed each time instrument is turned on?				
(c) Is any instrument found to respond improperly taken out of use until repaired?				
QUARTERLY INSPECTION AND SECURITY	SAT	UNSAT	N/A	COMMENTS
1. Are a visual inspection and radiation survey performed on completed disposal units each calendar Quarter?				
(a) Does this include condition of trench cap?				
(b) Changes in radiation levels?				
(c) General condition of disposal facility?				
(d) Status of security measures? (ROP's 502 & 503)				
2. Is the perimeter of the operation area of the facility surrounded with a eight-foot high chain link fence topped with barbed wire?				
(a) Is the entrance gate kept locked or under surveillance during working hours and locked during non-working hours?				
(b) Is distribution of keys to personnel controlled by the Facility Manager?				
(c) Are keys distributed per ROP-801?				
(d) Are vehicles secured at the end of each workday? (ROP-801)				
Additional Comments:				

Not Reviewed



INTEROFFICE MEMORANDUM

TO: MIKE AULT, USEW GENERAL MANAGER
FROM: BRIAN LINDMAN, ENVIRONMENTAL REGULATORY DIRECTOR
SUBJECT: 2017 USEW MANAGEMENT AUDIT REPORT (ROP-104)
DATE: 11/23/3017

The Annual US Ecology Washington (USEW) Management Review was completed on November 14 and 15, 2017 as prescribed in Section 3.1.3 of the USEW Facility Standards Manual (FSM) and USEW ROP-104.

During the course of the audit, personnel from site management, operations, and radiation safety and control departments were interviewed or contacted for information. Overall, the facility staff demonstrated a strong understanding of the requirements of the License, FSM, ROPs and Quality Assurance program. All staff members consulted during the audit provided information in a timely and professional manner. No major findings were documented during this audit.

Two shipments from Areva were received during the time of the management review. All processes I observed were conducted in accordance with site procedures and other regulatory requirements. I was briefed of the radiological hazards and provided with appropriate PPE prior to being escorted into the restricted area to observe landfill placement activities. I also observed the partial construction of a polyethylene secondary containment structures by the operations staff in order to comply with a USEW license condition involving shipments containing Uranium 235. Markings and signage on the restricted area fence were in good condition. There was some shrinkage in trench 13, but this was already noted in existing site inspections. The fourth quarter (4Q) groundwater sampling event was well underway as required.

A daily safety meetings were conducted first thing both days of the review. The second day the team reviewed aerial platform safety procedures. The last formal safety committee meeting was on September 26, 2017 and was document and posted on the bulletin board as required.

I appreciate the time and cooperation provided by the USEW staff during my visit. Attached you will find the Facility Management Checklist (ROP 104-1), documenting the complete list of the items reviewed during my visit.

If you have any questions, please do not hesitate to contact me.

ATTACHMENT

Transmitted via e-mail

ROP	REV.	LOW-LEVEL RADIOACTIVE WASTE DISPOSAL FACILITY MANAGEMENT CHECKLIST	EFFECTIVE DATE	PAGE
104-1	3		04/12/06	1 of 3

FACILITY: US Ecology Washington, Inc.

DATE OF INSPECTION: November 14 & 15, 2017 NUMBER: N/A

DATE OF LAST INSPECTION: October 25 & 26, 2017 NUMBER: N/A

NAME OF INSPECTOR: Brian Lindman

FACILITY REPRESENTATIVE: Sean Murphy

FACILITY MANAGEMENT AUDIT CHECKLIST 4-1				
A. SAFETY	YES	NO	N/A	COMMENTS
1. Is facility safety equipment inspected and readily available, including fire control?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. Are all personnel trained in the use of safety equipment and procedures?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. Are regular safety meetings conducted? Indicate date of last meeting.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9/26/2017
4. Are safety meetings documented?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5. Were any violations of good safety practices observed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No gloves while measuring water levels in GW wells.
6. Was proper protective clothing worn by personnel during disposal operations?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7. Have previous safety and management audits been reviewed for outstanding items?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8. Is an emergency plan for meeting potentially dangerous situations by evacuating the site posted on the bulletin board?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
9. Is all monitoring equipment properly used at entrance to disposal area?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
10. Are proper surveys conducted of facility equipment and personnel leaving the controlled area?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
B. EQUIPMENT AND TOOLS				
1. Is maintenance area orderly and free of safety hazards?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Very clean and organized.
C. SECURITY				
1. Is security fence in good repair?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	See note 1 below.
2. Are keys properly controlled?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
D. RECEIPT AND DISPOSAL OF WASTE				
1. Was State Inspector present during inspection?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. Were all waste shipments accompanied by properly executed shipment records certifications and permits including a Washington State Patrol or Washington State Utilities and Transportation Commission vehicle inspection certificate or a visible Washington State 90-day vehicle inspection seal?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. Was each shipment accompanied by a properly executed materials and certification properly executed by a representative of the shipper / generator of the waste?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. Was a survey of incoming vehicles conducted?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not witnessed during my visit.
5. Was a survey conducted during off-loading and handling operations to assess radiation and contamination levels and to identify problem situations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not witnessed during my visit.
6. Were surveys conducted of the vehicles before release?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not witnessed during my visit.
7. Were survey results documented?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8. Were open burial trenches surrounded by a chain link fence, 8 feet high, topped with barbed wire?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
9. Was waste off-loaded and placed in trench in accordance with procedures?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

ROP 104-1	REV. 3	LOW-LEVEL RADIOACTIVE WASTE DISPOSAL FACILITY MANAGEMENT CHECKLIST	EFFECTIVE DATE 04/12/06	PAGE 2 of 3
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D. RECEIPT AND DISPOSAL OF WASTE (Cont.)	YES	NO	N/A	COMMENTS
10. Were any damaged packages observed during off-loading or disposal procedures?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
11. Were any damaged packages observed in the active trench?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
12. Was all waste stored above ground in accordance with the license?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
13. Is capability maintained for safely opening and inspecting contents of packages and for preparing damaged or leaking packages for disposal or return to shipper?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
14. Were proper notifications made regarding damaged packages?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	None witnessed.
15. Were proper personnel and radiation detection equipment available during receipt, handling, packaging, repackaging and disposal operations?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
16. Was specified waste segregated as required by the License?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
E. INSPECTION OF CLOSED TRENCHES				
1. Are all capped trenches surrounded by fence in good repair?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	See note 1 below.
2. Are all capped trenches completely covered with at least six inches of large gravel and rock, extending at least 10 feet beyond the edges of the trenches?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. Is a monument with prescribed information in place on each capped trench?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. Does a minimum of eight feet of earth (compacted where possible) separate the wastes and natural grade level of trench opening? (Trenches 1 through 6 excluded)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5. Is a permanent record of each trench or other waste disposal area boundaries maintained?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6. Was any erosion, shrinkage or settlement noted in trench caps?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Eastside settling of trench 13.
F. ENVIRONMENTAL MONITORING AND SURVEILLANCE CONDITIONS				
1. Has environmental monitoring been conducted as required?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. Have results of sample analyses been forwarded to the State as required?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. In the event action levels are exceeded, have the proper notifications been made?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. Have the personnel surveys been conducted as required?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5. Has the quarterly facility inspection maintenance program been completed and documented?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6. Are passive monitoring devices in place?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7. Have passive monitoring devices been replaced and analyzed as required with results recorded for inspection by the WDOH?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
G. TRENCH CONSTRUCTION				
1. Is immediate area surrounding perimeter of trench under construction graded level	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No existing construction.
2. Has the State of Washington been notified prior to use of all new trenches?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No existing construction.
H. GENERAL				
1. Has the WDOH been notified within 30 days of any changes in the disposal facility?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. Has the Facility Manager conducted and documented the weekly inspection of operating checklists and facility operations?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
I. QUALITY ASSURANCE PROGRAM				
1. A documented quality assurance program has been established.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. Is the QA matrix out of date?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	But update while onsite.
3. Items and services covered by the quality assurance program have been identified.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. Program provides for the indoctrination and training of personnel performing activities affecting quality.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5. Management regularly reviews the status and adequacy of the quality assurance	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

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program.				
J. DOCUMENT CONTROL	YES	NO	N/A	COMMENTS
1. Measures are established to control the issuance of documents that prescribe activities affecting quality. (Training)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. Measures are established to assure that documents, including changes, are reviewed for adequacy and approved for release by authorized personnel.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. Provisions for the appropriate document to be distributed to and used at the location where the prescribed activity is performed are established.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. Changes to documents are reviewed and approved by the same organizations that performed the original review and approved, unless other organizations are designated	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
K. QA RECORDS				
1. Records are maintained to furnish documentary evidence of the quality of items and of activities affecting quality.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. Records include, as appropriate, results of reviews, inspections, tests, audits, material analysis, and data, such as qualification of personnel procedures and equipment.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. Measures are established to assure that records are identifiable and retrievable	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. Measures include requirements and responsibilities for record transmittal, retention and maintenance subsequent to completion of work.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
L. AUDITS, SURVEILLANCE, AND MANAGERIAL CONTROLS				
1. Provisions are established for a system of planned and periodic audits to verify the implementation and effectiveness of the implementation of quality assurance programs (internal and external).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. External audits of quality related vendors are performed as appropriate.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. Audits are performed in accordance with written procedures, plans, and checklists.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. Do trained personnel not having direct responsibility in the area being audited perform audits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5. Audit results are documented and reviewed by management having responsibility in the area audited.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6. Follow-up action, including re-audit of deficient areas is performed as necessary.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

I. SUMMARY:
1) Some small varmint holes on the bottom of the fence and significant tumbleweed on the south fence so I could not see the fence condition.