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May 24, 2010

United States Nuclear Regulatory Commission
Ms. Vivian Campbell, Chief
Region IV
612 East Lamar BLVD, Suite 400
Arlington, Texas 76011-4125

Subject: Reply to Notice of Violation 030-37426/10-01
License Number: 49-29255-01

Dear Ms. Campbell,

This is in response to the notice of violation received on April 20, 2010 by Sinclair Wyoming Refining Company. The Notice of Violation was in reference to an inspection conducted on January 20, 2010. The following is in response to four citations issued by the NRC:

1. Violation of Condition 10 "Radiation Safety Program – Occupational Dosimetry" states that an evaluation of unmonitored workers was not performed.
 - a. At the time of the inspection electronic dosimetry was being used, therefore an evaluation was not performed. During the inspection the NRC personnel informed the RSO that the electronic dosimeters in use are not adequate for monitoring of personnel and therefore do not meet the NRC's requirement for dosimetry.
 - b. Immediately following the NRC inspection a dose assessment was completed (attached). The assessment shows that workers will be exposed well below allowable limits.
 - c. There are no further steps required in order to achieve compliance.
 - d. The assessment was completed January 21, 2010 bringing Sinclair into compliance. A periodic evaluation of the assessment will be performed in order to ensure continued compliance.

2. Violation of 10CFR 20.1302(b)(1) no public dose assessment
 - a. Sinclair had not performed a Public Dose Assessment at the time of the NRC inspection. A contractor had been scheduled to perform the assessment but had not been on site at the time of the NRC inspection.
 - b. Immediately following the NRC inspection a Public Dose Assessment was completed (attached) and forwarded to the NRC auditor, Larry Donovan, for approval.
 - c. There are no further steps required in order to achieve compliance.
 - d. The assessment was completed January 21, 2010 bringing Sinclair into compliance. A periodic evaluation of the assessment will be performed in order to ensure continued compliance.

Sinclair Wyoming Refining Company

P.O. BOX 277, SINCLAIR, WYOMING 82334
AREA CODE (307)324-3404

3. Violation of License Condition 15 “physical inventory every 6 months”
 - a. The physical inventory had not been performed due to not having a system in place to allow for the RSO to be unavailable. The RSO was physically unable to perform the inventory.
 - b. In order to assure that 6-month inventory occurs in the event the RSO is unavailable to perform the inventory four additional authorized users have been trained to help perform the inventory. The inventory has also been placed on the RSO’s calendar and on the department head’s calendar in order to be reminded of the need. Additionally the RSO performed the inventory (attached) immediately following the NRC inspection.
 - c. The corrective steps are outlined above.
 - d. The 6-month inventory was performed January 26, 2010 and will be completed again in July of 2010 bringing Sinclair into compliance.

4. Violation of License Condition 16 “6-month shutter checks”
 - a. The 6-month shutter checks had not been performed due to not having a system in place to allow for the RSO to be unavailable. The RSO was physically unable to perform the shutter checks.
 - b. In order to assure that 6-month shutter checks occur in the event the RSO is unavailable to perform the task four additional authorized users have been trained to help perform the shutter checks. The shutter checks have also been placed on the RSO’s calendar and on the department head’s calendar in order to be reminded of the need. Additionally the RSO performed the shutter checks (attached) immediately following the NRC inspection.
 - c. The corrective steps are outlined above.
 - d. The 6-month shutter checks were performed on January 26, 2010 and will be completed again in July of 2010 bringing Sinclair into compliance.

Should you have any questions concerning this Response to the Notice of Violation please contact Mandi Safford at 307-328-3536 or myself at 307-328-3543.

Sincerely,



Michael P. Bellinger
Refinery Manager

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Attachments:

1. Dosimetry Assessment
2. Public Dose Survey
3. 6-month Inventory and Shutter Check

This dose survey is meant to represent normal activities performed by the operations department on the Coker Unit. It has been determined that the operations department does not access the sources on a regular basis and in fact the only contact they might have with the sources would be walking by to access upper levels of the structures the sources are located on. For the Fracinator Tower chance of contact is little because of source location. For the Coke Drums the closest the operations personnel will get to the sources is the time it takes the operator to climb the stairs 10-15 feet from the sources. The stairs are only used twice per shift and only when the elevator is out of service. For these reasons the numbers represented in box 9 A-C are considered generous exposure times. Additionally operations personnel only work 4-12 hour shifts then have 4 days off. This would further decrease the time for potential exposure to the sources.

For non-routine work near the sources (repairing insulation, turn around work, confined space entry) the dose will be determined on a case by case basis. To determine the dose a "Real-Time" reading will be taken using a survey meter. This dose will be recorded on the permit issued for the work. If the determined dose is near the 2 mrem/hr limit a electronic dosimeter will be required to alert the workers. If the determined dose is well below the 2 mrem/hr (due to the shutter being closed or the distance from the source is sufficient) then electronic dosimeters will not be required. In order to communicate the hazards fully to those working near the sources a Pre-Job Safety Analysis will be held with the Radiation Safety Officer or designee and those who will be performing the work.

SWRC Public Dose Survey Fracinator Tower
 Performed by Mandi Safford RSO 1/21/2010

Shutter Open Gauge #	3200 GK	2424 GK
1. Dose received in an hour at known distance	1.3	1.3
2. Square of distance at which dose was measured	1	1
3. Square Distance from source to employee	9	9
4. Step 1 * Step 2	1.3	1.3
5. Step 4/Step 3 Hourly Dose (mrem/hr)	0.144444444	0.144444444
6. Step 5*24*365 Annual Dose (mrem/yr)	1265.333333	1265.333333
7. Total Hourly Dose (Add all #5 Together)	0.288888889	
8. Total Annual Dose (Add all #6 Together)	2530.666667	
9. A. Average numbers of hours per day in area	1	
B. Average number of days per week in area	1	
C. Average number of weeks per year	52	
10. 9A*9B*9C	52	
11. Step 7 * Step 10 Annual dose considering realistic time spent (mrem/yr)	15.02222222	

SWRC Public Dose Survey Coke Drums

Performed by Mandi Safford RSO 1/21/2010

Shutter Open

Gauge #	5082 CM	5047 CM	5068 CM	5081 CM	5048 CM	5076 CM
1. Dose received in an hour at known distance	1.49	2.49	1.65	1.8	1.72	2.18
2. Square of distance at which dose was measured	1	1	1	1	1	1
3. Distance from source to employee	100	100	100	100	100	100
4. Step 1 * Step 2	1.49	2.49	1.65	1.8	1.72	2.18
5. Step 4/Step 3 Hourly Dose (mrem/hr)	0.0149	0.0249	0.0165	0.018	0.0172	0.0218
6. Step 5*24*365 Annual Dose (mrem/yr)	130.524	218.124	144.54	157.68	150.672	190.968
7. Total Hourly Dose (Add all #5 Together)	0.1133					
8. Total Annual Dose (Add all #6 Together)	992.508					
9. A. Average numbers of hours per day in area	0.5					
B. Average number of days per week in area	7					
C. Average number of weeks per year	52					
10. 9A*9B*9C	182					
11. Step 7 * Step 10 Annual dose considering realistic time spent (mrem/yr)	20.6206					

Nuclear Level Gauges 6 month Inventory and Shutter Checks

Name: *Mandi Safford*

Signature: *Mandi Safford*

Date: 1/26/10

Location	Serial Number	Activity	Position Found	Visual Inspection	Shutter open	Shutter Closed	Comments
Top Of West Drum	5048CM	1000 mCi	open	✓	✓	✓	Verified Radiation drop when shutter closed
Top of East Drum	5076CM	1000 mCi	open	✓	✓	✓	"
Middle of West Drum	5082CM	1000 mCi	open	✓	✓	✓	"
Middle of East Drum	5068CM	1000 mCi	open	✓	✓	✓	"
Bottom of West Drum	5047CM	1000 mCi	open	✓	✓	✓	"
Bottom of East Drum	5081CM	1000 mCi	open	✓	✓	✓	"
Top on Frac Tower	3200GK	70mCi	open	✓	✓	✓	"
Bottom on Frac Tower	2424GK	70mCi	open	✓	✓	✓	"

Sinclair Wyoming Refining Company
Dose Assessment for Radiation Workers
Performed by Mandi Safford, RSO 1/21/2010

Dosimetry Evaluation for Cs 137 1000 mCi Model SHLG-1 Fixed Gauge

Time needed to perform shutter checks and inventory	10 min/60	0.167 hr
Expected whole body dose rate		17 mrem/hr
Hours*mrem/hr=est mrem		2.839 mrem
# of shutter checks per year		2
Whole body dose		5.678 mrem
# of CS 137 1000 mCi Gauges		6
Yearly dose from shutter checks/inventory		34.068 mrem

Dosimetry Evaluation for Cs 137 70 mCi Model SH-F1-45 Fixed Gauge

Time needed to perform shutter checks and inventory	10 min/60	0.167 hr
Expected whole body dose rate		38 mrem/hr
Hours*mrem/hr=est mrem		6.346 mrem
# of shutter checks per year		2
Whole body dose		12.692 mrem
# of CS 137 1000 mCi Gauges		2
Yearly dose from shutter checks/inventory		25.384 mrem

Total yearly dose for both model types	59.452 mrem
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The use of the fixed gauges is such that the gauges need to only be accessed for shutter checks and inventory every six months and for leak tests every three years. There is no routine access requirement in order to operate the gauges.