

June 13, 2014

Ms. Linda Howell

Regional Administrator

United States Nuclear Regulatory Commission, Region IV

1600 E. Lamar Blvd.

Arlington, TX 76011-4511

RE: Confirmatory Action Letter Dated May 30, 2014— Acuren USA, INC.

Dear Ms. Howell,

In response to the May 30, 2014, letter and in accordance with a telephone conference with your staff on May 23, 2014, Acuren USA, Inc. is providing a supplemental response to our May 14, 2014 Confirmatory Action Letter (CAL) response.

Item 1:

All future radiographic operations at the Kenai, Alaska field station will only take place in the laydown area, with the gate closed and locked.

In addition:

1. Adequate controls will be in place which will include the erection of physical barriers (signs, cones, caution tape etc).
2. Pursuant to 10CFR 20.1301 surveys will be conducted and documented to ensure that the barriers are placed at locations where a member of the public will not be exposed to radiation in excess of the regulatory limits.
3. Prior to the radiographic operation, a walk down of the immediate and surrounding areas will be conducted to ensure no unauthorized individuals are present.
4. Constant surveillance of the camera and area will be maintained at all times to ensure that no individual enters the area where radiographic operations are being conducted
5. Prior to the conduct of any radiographic operation at the Kenai field station building tenants will be notified and postings will be made which identifies the times and locations of the radiographic operations.
6. Postings will contain Acuren USA Inc. contact information in the event that there are questions or concerns regarding the operations.
7. The Acuren Director of Radiation Safety will be present to observe, evaluate, and train during the initial implementation of these improved procedures.

Furthermore, the following actions have been already been completed.

1. Following the event of April 10, 2014, lessons learned document was issued to all Acuren radiographic personnel summarizing the event.
2. Refresher training was provided to all radiographic personnel operating under the Acuren USA, Inc. license and the Acuren leadership team. This refresher training included a review of all requirements associated with the conduct of radiographic operations. Specific emphasis was placed on the requirements associated with constant surveillance and placement of radiation barriers.
3. A full radiation safety audit was conducted of activities authorized by the Acuren USA, Inc. license. This was led by the Acuren Director of Radiation Safety with support by several other Acuren Radiation Safety Officers. Any identified deficiencies have been corrected and corrective actions will be monitored to ensure continued compliance. Subsequent to that audit two unannounced radiation safety audits were conducted by the Acuren Director at temporary jobsites of crews from the Kenai station. No deficiencies were identified.
4. Acuren has established a Golden Rule policy which summarizes specific radiation safety requirements which must be followed. This policy has zero tolerance associated with any non-compliance associated with the rules. All Acuren radiographic personnel (1011 radiographers) have been trained on the Golden Rules. An examination was also provided which required a 100% passing score and any failure required additional retraining and examination. All personnel have passed.
5. Acuren has established RSO oversight of the day to day operations within Acuren USA Inc. This RSO oversight meets and exceeds the requirements outlined in 10 CFR Part 34.

Item 2:

Attached are the calculations necessary to support our conclusion that no member of the public occupying any adjacent space (office) to the Kenai station received doses in excess of NRC limits at its Kenai station due to past licensed activities. These calculations and evaluations meet the requirements of 10 CFR 20.1302 and date back to April 18, 2013. Acuren does recognize however, that while remote, a potential did exist on April 10, 2014, for a member of the public who gained access to the laydown yard to exceed the limits specified in 10 CFR 20.1302. Based on the evaluation of the event Acuren is confident that the control gaps were not common practice and was isolated to April 10, 2014.

In addition to the actual physical measurements taken on May 6<sup>th</sup>, 2014 during a reenactment conducted under the observations of the NRC inspectors our evaluation

included interviews of radiographic personnel, and interviews of tenants occupying space adjacent to the Acuren Kenai station.

Those interviews revealed the following.

1. Walk downs of areas surrounding radiographic operations at the Kenai station were routinely conducted to ensure no individuals are present in areas where dose rates could exceed regulatory limits. These areas include Acuren offices as well as other rented office space within the station complex. The radiographic personnel involved in the event on April 10, 2014, indicated that a walkdown was conducted and no one was present prior to the first radiographic exposure.
2. The laydown yard area is primarily used as storage by other companies with no routine work being conducted there. As such there is a very low occupancy rate.
3. The fence surrounding the laydown yard is normally locked during radiographic operations to prevent access to the laydown area.
4. The doors of the garage where radiographic operations are conducted approximately 50% of the time are normally kept open so that constant surveillance can be maintained.
5. Radiation signs and barriers (cones and tape) are normally put up at the 2mr boundary.
6. Several tenants indicated that they have observed postings and barriers in place during the conduct of operations at the Kenai station.

The placements of radiation signs and barriers at the 2mr boundary and maintaining constant surveillance during past radiographic operations at the Kenai station and temporary jobsites working from the Kenai station was confirmed by reviewing radiation records from April 18, 2013. These records are available for review.

Our evaluation also included a review of several of our other facilities operating under our other licenses within the United States. The review was focused to determine if situations similar to Kenai existed. None were identified.

Item 3:

Attached are the calculations necessary to support our conclusion that no member of the public received doses in excess of NRC limits at its Anchorage, Alaska, field station or temporary jobsites due to past licensed activities. These calculations were generated using the inverse square law and meet the requirements of 10 CFR 20.1302. They date back to December 3, 2013.

In addition to the calculations our evaluation also included interviews of radiographic personnel and a review of radiation survey records from December 3, 2013.

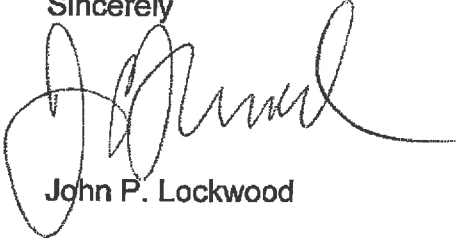
Our evaluation determined that radiographic operations at the Anchorage station occur very infrequently and when conducted are primarily for training purposes. Since December 3, 2013, there were only 16 occasions when radiographic operations were conducted. Based on the review of the radiation records for those 16 occasions and the

interviews it was determined that appropriate radiation postings, barriers, and constant surveillance of operations was routine practice. The conclusion is that no member of the public received radiation doses in excess of the limit. Those radiation records are available for review.

In addition, radiation records for temporary job site activities performed out of the Anchorage station also revealed that appropriate radiation postings, barriers, and constant surveillance of operations was routine practice during radiographic operations and that no member of the public received an exposure in excess of the limit. Those records are also available for review.

We believe we have addressed all of the items agreed upon in the May 14, 2014, CAL. Should you have any questions please feel free to contact me or Mr. Chris Dixon. We also would support if you desire an in person meeting to review any of the information being provided in this letter or its attachments.

Sincerely

A handwritten signature in black ink, appearing to read 'J. Lockwood', with a large, stylized loop at the beginning and a long, sweeping tail.

John P. Lockwood

Acuren USA, Inc.

43 Arch Street

Greenwich, CT 06830

On 5/6/14 Acuren and the NRC performed a re-enactment of the event, utilizing a 73.4-curie strength source.

The actual measured dose rate at 50 feet (red circle) source to South garage wall was 0.005 R/hr. In this direction the source is completely protected by collimator.

Acuren has reviewed all work done at the Kenai facility in the past year. For each job, Acuren has data for the source strength, the number of exposures taken and the time per exposure.

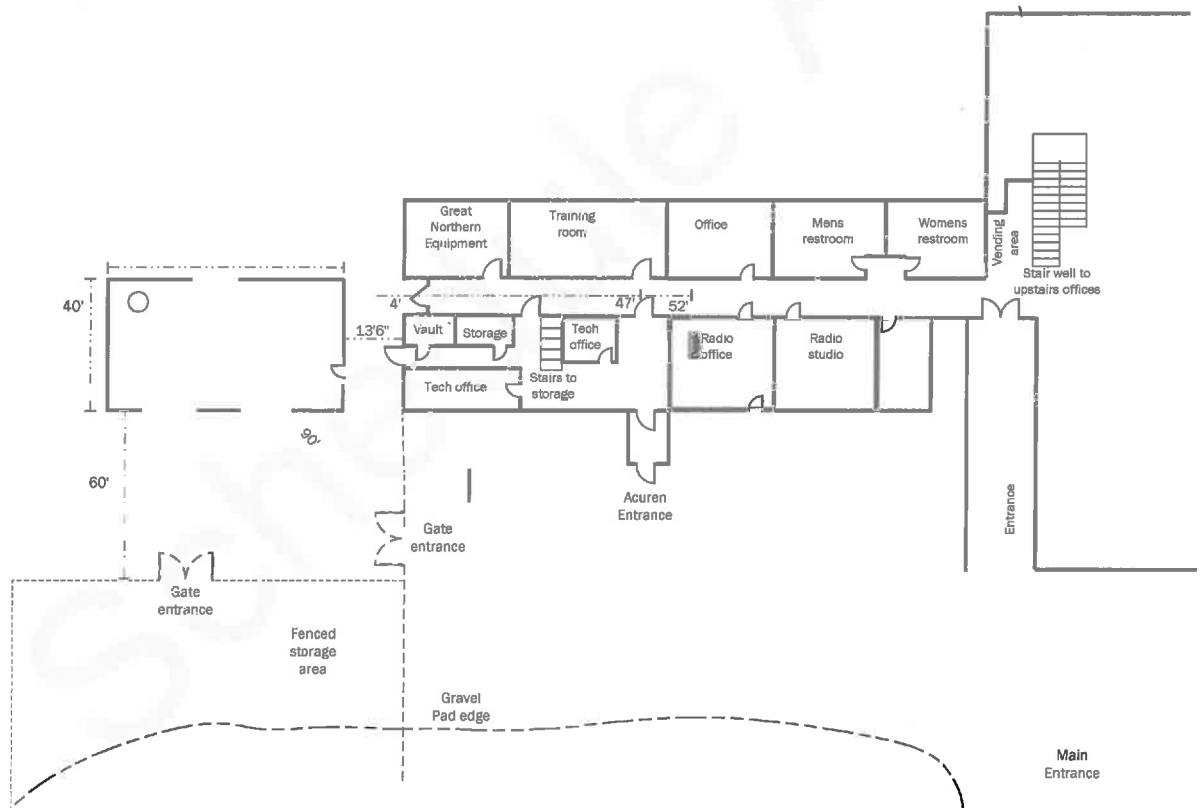
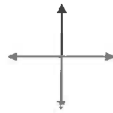
Using this information and the actual measured dose rate at 50 feet from the re-enactment, Acuren can determine a direct linear relationship to calculate the actual dose rates at 50 feet for all the work performed in the past year.

Taking the actual measured dose rate at 50 feet and dividing it by the curie source strength we calculate a constant of 0.000068 R/hr/Ci.

Multiplying this value by the source strength used for each job will give us the R/hr at 50 feet for each of those jobs. Converting this to R/seconds (3600 seconds/hr) and then multiplying by the number of exposures taken and the time per exposure in seconds, we can determine the actual dose ( R ) for each job at the south garage wall.



Date of Work	Service Call	CI	Exposure time [Sec.]	# of exp	Actual Source Strength @ re-enactment on 5/6/14 [Curies]	Actual Dose Rate measured @ 50' w/4HxI @ re-enactment on 5/6/14 [R/hr]	R/hr @ 50' w/4HxI	R/hr @ 50' w/4HxI	R/sec @ 50' w/4HxI	Dose Received R/sec @ 50' w/4HxI X Exposure time X exposures						
4/18/2013	349550	54	6	4	73.4	0.005	0.000068	0.0037	0.0000202	0.000025						
4/18/2013	349562	59	52	21	73.4	0.005	0.000068	0.0061	0.00000170	0.001860						
4/29/2013	351130	85	50	8	73.4	0.005	0.000068	0.0058	0.00000161	0.000643						
4/30/2013	351130	84	52	1	73.4	0.005	0.000068	0.0057	0.00000159	0.000983						
W	352291	79	50	7	73.4	0.005	0.000068	0.0054	0.00000149	0.000523						
5/8/2013	352516	78	80	6	73.4	0.005	0.000068	0.0053	0.00000148	0.000708						
5/21/2013	354136	70	82	6	73.4	0.005	0.000068	0.0048	0.00000132	0.000852						
5/20/2013	354136	70	82	2	73.4	0.005	0.000068	0.0048	0.00000132	0.000217						
5/17/2013	353810	72	11	6	73.4	0.005	0.000068	0.0049	0.00000138	0.000090						
6/12/2013	357189	106	120	3	73.4	0.005	0.000068	0.0072	0.00000201	0.000722						
7/18/2013	361853	75	7	12	73.4	0.005	0.000068	0.0051	0.00000142	0.000119						
7/19/2013	362034	72	11	6	73.4	0.005	0.000068	0.0049	0.00000138	0.000090						
8/28/2013	366886	50	10	6	73.4	0.005	0.000068	0.0034	0.00000095	0.000057						
8/28/2013	367573	50	30	10	73.4	0.005	0.000068	0.0034	0.00000095	0.000284						
8/27/2013	366886	50	12	9	73.4	0.005	0.000068	0.0034	0.00000095	0.000102						
8/23/2013	366886	50	12	36	73.4	0.005	0.000068	0.0034	0.00000095	0.000409						
9/5/2013	366886	50	14	23	73.4	0.005	0.000068	0.0034	0.00000095	0.000305						
9/10/2013	366886	50	14	24	73.4	0.005	0.000068	0.0034	0.00000095	0.000318						
10/28/2013	374399	124	8	10	73.4	0.005	0.000068	0.0084	0.00000235	0.000188						
10/30/2013	377062	76	350	3	73.4	0.005	0.000068	0.0052	0.00000244	0.000647						
10/30/2013	376470	76	80	3	73.4	0.005	0.000068	0.0052	0.00000244	0.000388						
11/1/2013	376925	118	22	4	73.4	0.005	0.000068	0.0080	0.00000223	0.000795						
11/20/2013	376470	88	60	6	73.4	0.005	0.000068	0.0067	0.00000185	0.000668						
11/27/2013	380862	92	150	3	73.4	0.005	0.000068	0.0063	0.00000174	0.000783						
11/15/2013	378681	103	60	8	73.4	0.005	0.000068	0.0070	0.00000195	0.000936						
12/2/2013	381126	88	63	11	73.4	0.005	0.000068	0.0060	0.00000167	0.001354						
12/14/2013	336679	78	4	8	73.4	0.005	0.000068	0.0053	0.00000148	0.000047						
12/14/2013	336679	78	6	4	73.4	0.005	0.000068	0.0053	0.00000148	0.000035						
12/16/2013	336679	77	4	1	73.4	0.005	0.000068	0.0052	0.00000146	0.000006						
12/16/2013	383146	77	5	9	73.4	0.005	0.000068	0.0052	0.00000148	0.000066						
2/24/2014	392566	39	310	6	73.4	0.005	0.000068	0.0027	0.00000074	0.001373						
2/27/2014	392566	38	315	3	73.4	0.005	0.000068	0.0026	0.00000072	0.000679						
2/28/2014	393345	38	317	9	73.4	0.005	0.000068	0.0026	0.00000072	0.002051	0.00105	Utilization log indicated source was out for 2 hours				
2/28/2014	393345	38	16	4	73.4	0.005	0.000068	0.0026	0.00000072	0.000046						
2/27/2014	393166	38	15	9	73.4	0.005	0.000068	0.0026	0.00000072	0.000097						
3/11/2014	394815	89	68	4	73.4	0.005	0.000068	0.0061	0.00000168	0.000458						
3/11/2014	394809	89	157	6	73.4	0.005	0.000068	0.0061	0.00000168	0.001586						
3/19/2014	395879	38	23	40	73.4	0.005	0.000068	0.0026	0.00000072	0.000842						
2/20/2014	392073	41	280	3	73.4	0.005	0.000068	0.0028	0.00000078	0.000005						
3/27/2014	397360	76	140	6	73.4	0.005	0.000068	0.0052	0.00000144	0.001208						
3/27/2014	397359	76	95	10	73.4	0.005	0.000068	0.0052	0.00000144	0.001366						
4/7/2014	398895	98	93	18	73.4	0.005	0.000068	0.0065	0.00000182	0.003041	0.00007	Utilization log indicated source was out for 4.5 hours				
4/10/2014		93.7	129	6	73.4	0.005	0.000068	0.0064	0.00000177	0.001372						



- Date of Work (column A): Date radiographic operations were performed by Acuren USA radiographic personnel.
- L II (column B): The Acuren USA RT LII that performed the work.
- Isotope (column C): Isotope used.
- Ci (column D): Curie strength of isotope used.
- Total Exposure Time (min) (column E): Total exposure time in minutes as detailed on the daily radiation reports.
- R/hr @ 1' (column F): Dose rate per hour at 1 foot for each of the isotopes used.
- R/hr @ 1' w/4Hvl (column G): Calculated dose rate per hour applying the 4 half value layers
- R/hr @ 30' w/4Hvl (column H): Calculated dose rate at 30 feet (closest distance to fence to the left as you look out the back of shop).



Date of Work	L II	Isotope	Ci	Total Exposure time (min)	R/Hr @1' (I1)	R/Hr @1' w/4 Hvls	R/hr @ 30' w/4 Hvls	Exposure @ 30' w/4Hvls	Exposure @45' w/4hvls	Exposure @67' w/4Hvls	Exposure @75' w/4Hvls
12/8/2013	L Saylor	Ir-192	52	40:00	270.4000	16.9000	0.018777778	0.000522	0.000232	0.000105	0.000083
12/9/2013	L Saylor	Ir-192	51.5	12:00	267.8000	16.7375	0.018597222	0.000155	0.000069	0.000031	0.000025
12/10/2013	J Monnin	Ir-192	51	26:00	265.2000	16.5750	0.018416667	0.000333	0.000148	0.000067	0.000053
12/12/2013	D Husband	Ir-192	50.1	44:00	260.5200	16.2825	0.018091667	0.000553	0.000246	0.000111	0.000088
12/12/2013	B Fales	Ir-192	50.1	18:00	260.5200	16.2825	0.018091667	0.000226	0.000101	0.000045	0.000036
1/15/2014	J Maenpaa	Se-75	70.9	10:00	155.9800	9.7488	0.010831944	0.000075	0.000033	0.000015	0.000012
1/16/2014	J Wohlers	Se-75	70.5	11:00	155.1000	9.6938	0.010770833	0.000082	0.000037	0.000016	0.000013
1/18/2014	J Wohlers	Se-75	69.7	4:00	153.3400	9.5838	0.010648611	0.000030	0.000013	0.000006	0.000005
1/19/2014	J Wohlers	Se-75	69.3	155:00	152.4600	9.5288	0.0105875	0.001140	0.000507	0.000228	0.000182
1/19/2014	J Wohlers	Ir-192	35.1	12:00	182.5200	11.4075	0.012675	0.000106	0.000047	0.000021	0.000017
1/20/2014	J Wohlers	Se-75	68.9	15:00	151.5800	9.4738	0.010526389	0.000110	0.000049	0.000022	0.000018
2/3/2014	T A. Morehead	Se-75	63.5	24:00	139.7000	8.7313	0.009701389	0.000162	0.000072	0.000032	0.000026
2/4/2014	R Jefferson	Cs-137	0.163	3:00	0.5542	0.0346	3.84861E-05	0.000000	0.000000	0.000000	0.000000
3/1/2014	T A. Morehead	Se-75	54.7	17:00	120.3400	7.5213	0.008356944	0.000099	0.000044	0.000020	0.000016
3/5/2014	R Ewing	Se-75	53	5:00	116.6000	7.2875	0.008097222	0.000028	0.000012	0.000006	0.000004
5/4/2014	T Coogan	Ir-192	76.2	2:00	396.2400	24.7650	0.027516667	0.000038	0.000017	0.000008	0.000006