



September 1, 2014

REC'D 09/10/14 10:09

Mr. James W. Clifford
Director
Division of Nuclear Materials Safety
United States Nuclear Regulatory Commission
Region 1
2100 Renaissance Blvd., Suite 100
King of Prussia, PA 19406-2713

Reference: Response to an Apparent Violation in NRC Investigation Report (1-2013-13)
NMED No. EA-14-030

Dear Mr. Clifford:

In response to NRC's letter dated August 11, 2014, Dominion Engineering Associated, Inc. (DEA) has implemented numerous policies and procedures to improve our Radiation Safety Program to be compliant with our Virginia License as well as NRC regulatory requirements.

DEA does not take any exception with the charges presented and takes full responsibility for our past actions. The entire experience has been a "lesson learned" and while our infractions were not deliberate, they were careless. As the owner and President of the company, the most important lesson learned is that as the leader of the company, knowledge of license requirements and unwavering compliance must come from the top down.

So as they say, "Some things happen for a reason", and DEA as a company needed to improve our Radiation Safety Program, and we have, and as a result, we will be and are a better company.

DEA and it's owners are committed to complying with our Virginia license and NRC requirements and made it clear to our Radiation Safety Officer that DEA wants and will have a Radiation Safety program that is Fully Compliant, and that the RSO has our full support to oversee and discipline as necessary to include termination if policy and procedures are not followed.

Details and supporting documentation is provided herein and attached. If you should have any questions with the information provided or require additional information or documentation, please do not hesitate to contact us.

Respectfully:
Dominion Engineering Associates, Inc.

A handwritten signature in black ink, appearing to read "KLP", is written over the name Kevin L. Parris.

Kevin L. Parris
President

A handwritten signature in black ink, appearing to read "R. Boyd", is written over the name Raymond Boyd.

Raymond Boyd
Radiation Safety Officer

The following measures detailed below were initiated immediately after consultation with Mr. Michael Welling, Director, Virginia Radioactive Materials Program, and have been in place now for well over a year.

DEA believes the major factors for the violations (other than owner commitment) were due to a lack of continuing training and awareness with regard to NRC regulations pertaining to reciprocity.

DEA took immediate corrected measures in addressing these apparent violations. These corrective measures have been implemented with the goal of educating, reinforcing and personal accountability with regards to our Radiation Safety Program. The corrective measures that have been implemented are as follows:

- 1) Steps were taken in replacing the former RSO and delegated the duties to our project manager (Ray Boyd) who has gone through and completed the RSO training and has numerous years of experience dealing with portable gauges. By Ray being in the office he is able to keep a closer eye on when gauges are signed out, which job they are signed out, and when they are returned. The previous RSO was out of the office most of the day.
- 2) Monthly technician meetings have incorporated nuclear safety topics with regards to safety, security, transporting, labels on cases, in the event of an incident what to do and who to contact. The initial topic was on reciprocity. Everyone was made aware of the apparent violations and the requirements of reciprocity. Gauge users were also made aware of the differing governing agencies and of the different places such as Quantico or neighboring states that we may not use gauges unless reciprocity is obtained first. A sign in sheet is utilized for attendance purposes and handouts of topics discussed are also given out. These monthly safety and training meetings always have a topic related to the use of the gauges and reciprocity is re-covered to account for employee turnover.

One of the owners of the company (Kevin Parris or Russ Harris) attends the monthly safety meeting to support the monthly Radiation Safety Topic as well as other training topics.

- 3) On November 14, 2013, DEA purchased a non-nuclear gauge from TransTech Systems, Inc. to use in other states or Federal Bases, or where DEA may not have a license. The sales receipt is attached. Additionally, we have rented a non-nuclear gauge over the past year when DEA had more than one project outside our Virginia license and the one non-nuclear gauge was not enough. The rental receipt is attached as well.

DEA intends to purchase additional Non-nuclear gauges each year as the technology improves and as profits allow.

- 4) Changes made in the daily sign-in book. The individual sign out sheets were edited by adding another column allowing for morning and evening inspection checks by the RSO. The RSO can place a check mark or x in the AM slot and PM slot to aid in keeping track of gauges. This also

creates in the technician mind a sense of accountability with regard to signing out and signing in as required. This enables the RSO and/or the owner to quickly identify a potential problem in the event a gauge is missing and is not signed out.

- 5) Another check sheet was created and placed on a separate clipboard listing all the gauges, showing the days of the week from Monday through Sunday. Whenever a gauge is checked out the technician must put a check in the appropriated box showing the gauge is out. This was created that anyone at a glance can see if a gauge is in or out.
- 6) The owner meets with the RSO at least a couple times a year to discuss any concerns with the Radiation Safety Program, Employee Compliance, and to evaluate if the RSO is maintaining and performing the responsibilities and requirements of our Virginia license and NRC.
- 7) Attachments: Monthly Technician Safety Meeting Sign-In Sheets

Monthly Safety Topic - Reciprocity

Letter of RSO Change

Non-Nuclear Gauge purchase receipt

Non-Nuclear Gauge rental receipt

New Gauge Sign Out sheet

New Gauge Check sheet

Recent Inspection report by Virginia

RSO Certification

Owner checklist of RSO evaluation

Confirmation of Virginia "Fine" Payment

Confirmation of Maryland "Fine" Payment

Radiation Safety Brief

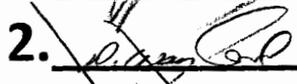
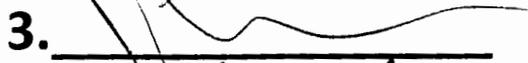
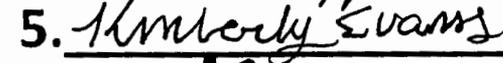
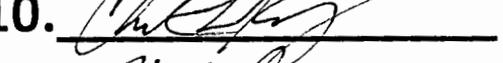
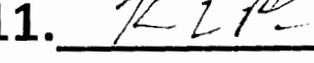
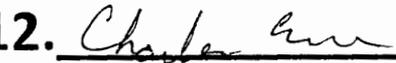
Date: 2/20/2014

Reciprocity

PRINT

SIGNATURE

1. Ryan Eldsedge
2. D. WAYLAND
3. J. PONT
4. Nicholas Stoffey
5. Kimberly Evans
6. Karen M.
7. Josh Curran
8. Robert Rosemond
9. Russ HARRIS
10. Chris Kelly
11. Kevin PARRIS
12. Charles Ennis
13. _____
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8

Reciprocity

Taking Your Gauge into Another State

Reciprocity is another name for requesting and receiving permission from another state's regulatory agency to enter and use your gauge in that state. Your license allows you to use your gauge in your state, and, as long as you receive permission, in any other state.

You spent a lot of time and effort – and money – to let your state know all there is to know about you and your company. Other states do not have that information. But they are willing to honor a valid license from your state without putting you through the complete license application process again. Reciprocity is in essence a short term license from another state. And the fee for reciprocity usually matches the fee to obtain a license in that state. Reciprocity usually limits the amount of time you are permitted to use the gauge in another state, usually 30-365 days. If you will be conducting business on a longer term basis in another state you will be required to obtain a full-time license in that state as well.

If you do anticipate a long term job in another state you may be better off to go ahead and obtain a license in that state. You don't want to put yourself in a position where you pay a reciprocity fee only to end up paying a license fee six months into the job.

If you have a license in an Agreement State and you are looking to do business on a U.S. Government installation you will need to check whether you need reciprocity from the NRC. The NRC maintains regulatory authority over most military installations as well as many other U.S. Government sites.

NRC licensees are not required to obtain reciprocity from another NRC state.

You do not need reciprocity to pass through a state on your way to the state for which you have acquired reciprocity. Make sure you do not use the gauge or overnight in a state for which you do not have reciprocity.

The typical requirements of reciprocity are as follows – you will want to check with the given state for their exact requirements – see the "View My State" listings for contact and requirement information. For your initial visit to another state you will need to provide information to that state. Be prepared with the following:

- A copy of your Radioactive Materials License

- A copy of the your operating & emergency procedures

- Gauge manufacturer and model, radionuclides, source models, and activity.

Current leak test reports

Reciprocity Fee

Name of company for who service will be performed

Name and contact information of individual representing that company

Exact temporary address and storage where you will be using the gauge

Starting date

Duration of service

Type of service to be performed

Name of individuals using the gauge, ID's and training certificates

Local address (Hotel name, address, phone) of individuals responsible for the gauge

A 3+ day written notification of your intent to bring the gauge into the state

Every time you bring the gauge in and out of the state you will need to notify the agency. You'd be better off establishing a temporary storage site if the job is of any duration. You will also want to have contingency plans in place in the event you need to quickly supply a gauge to the site. For example, the gauge you have on site dies and you need another gauge ASAP. Call the agency, explain the situation and expedite a new reciprocity request. Have agency contact information on hand.

You will want to keep your reciprocity records on file.



August 2, 2013

Director Radioactive Materials Program
Michael Welling
109 Governor Street, Room 730
Richmond, VA. 23219

Dear Mr. Welling:

This letter is to inform you that I will be taking over the duties of Radiation Safety Officer here at Dominion Engineering Associates. I will be relieving Charles Ennis. Enclosed with this letter is a copy of my RSO course certification.

If you have any questions please feel free to call me at this number (540) 710-9339.

Sincerely,

A handwritten signature in black ink, appearing to be "Raymond Boyd", written over a horizontal line.

Raymond Boyd (RSO)
Project Manager

A handwritten signature in black ink, appearing to be "Kevin Parris", written in a cursive style.

Kevin Parris
President/Owner

Radiation Safety Officer Evaluation Checklist

RSO: _____

Date of Evaluation _____

1. ORGANIZATION AND SCOPE OF PROGRAM

- a. Does new **RSO** meet **NRC** training requirements? _____
- b. If the designated contact person for **NRC** changed, was **NRC** notified? _____
- c. Does the license authorize all of the **NRC**-regulated radionuclides contained in gauges possessed? _____
- d. Are the gauges as described in the Sealed Source and Device (**SSD**) Registration Certificate or Sheet? _____ Have copies of (or access to) **SSD** Certificates? _____ Have manufacturers' manuals for operation and maintenance? [**10 CFR 32.210**] _____
- e. Are the actual uses of gauges consistent with the authorized uses listed on the license? _____
- f. Is **RSO** fulfilling his/her duties? _____

2. TRAINING AND INSTRUCTIONS TO WORKERS

- a. Were all workers who are likely to exceed 100 mrem/yr instructed per [**10 CFR 19.12**]? _____
- b. Refresher training provided, as needed [**10 CFR 19.12**]? _____
- c. Did each gauge operator attend an approved course prior to using gauges? _____
- d. Are training records maintained for each gauge operator? _____
- e. Did interviews with operators reveal that they know the emergency procedures? _____
- f. Operating gauge? _____ Performing routine cleaning and lubrication? _____ Transporting gauge? _____ Storing gauge? _____
- g. HAZMAT training provided as required? [**49 CFR 172.700, 49 CFR 172.701, CFR 172.702, 49 CFR 172.703, 49 CFR 172.704**] _____

3. RADIATION SURVEY INSTRUMENTS

- a. If the licensee possesses its own survey meter, does it meet the **NRC's** criteria? _____
- b. Is the survey meter needed for non-routine maintenance calibrated as required [**10 CFR 20.1501**]? _____
- c. Are calibration records maintained [**10 CFR 20.2103(a)**]? _____

4. GAUGE INVENTORY

- a. Is a record kept showing the receipt of each gauge? [10 CFR 30.51(a)(1)] _____
- b. Are all gauges received physically inventoried every six month? _____
- c. Are records of inventory results with appropriate information maintained? _____

5. PERSONNEL RADIATION PROTECTION

- a. Are *ALARA* considerations incorporated into the radiation protection program? [10 CFR 20.1101(b)] _____
- b. Is documentation kept showing that unmonitored users receive <10% of limit? _____
- c. Did unmonitored users' activities change during the year which could put them over 10% of limit? _____
- d. If yes to c. above, was a new evaluation performed? _____
- e. Is external dosimetry required (user receiving >10% of limit)? _____
- f. And is dosimetry provided to users? _____
 - 1. Is the dosimetry supplier *NVLAP* approved? [10 CFR 20.1501(c)] _____
 - 2. Are the dosimeters exchanged monthly for film badges and at industry recommended frequency for *TLDs*? _____
 - 3. Are dosimetry reports reviewed by the *RSO* when they are received? _____
 - 4. Are the records *NRC* Forms or equivalent? [10 CFR 20.2104(d), 10 CFR 20.2106(c)] _____
 - NRC-4 "Cumulative Occupational Exposure History" completed? _____
 - NRC-5 "Occupational Exposure Record for a Monitoring Period" completed? _____
 - 5. If a worker declared her pregnancy, did licensee comply with [10 CFR 20.1208]? _____
- vi. Were records kept of embryo/fetus dose per 10 CFR 20.2106(e)? _____
- g. Are records of exposures, surveys, monitoring, and evaluations maintained [10 CFR 20.2102, 10 CFR 20.2103, 10 CFR 20.2106] _____

6. PUBLIC DOSE

- a. Are gauges stored in a manner to keep doses below 100 mrem in a year? [10 CFR 20.1301(a)(1)] _____
- b. Has a survey or evaluation been performed per 10 CFR 20.1501(a)? Have there been any additions or changes to the storage, security, or use of surrounding areas that would necessitate a new survey or evaluation? _____

- c. Do unrestricted area radiation levels exceed 2 mrem in any one hour? [10 CFR 20.1301(a)(2)] _____
- d. Are gauges being stored in a manner that would prevent unauthorized use or removal? [10 CFR 20.1801] _____
- e. Records maintained? [10 CFR 20.2103, 10 CFR 20.2107] _____

7. OPERATING AND EMERGENCY PROCEDURES

- a. Have operating and emergency procedures been developed? _____
- b. Do they contain the required elements? _____
- c. Does each operator have a current copy (telephone numbers) of the operating and emergency procedures? _____
- d. Does each operator have a current copy (telephone numbers) of the operating and emergency procedures? _____

8. LEAK TESTS

- a. Was each sealed source leak tested every 6 months or at other prescribed intervals? _____
- b. Was the leak test performed as described in correspondence with *NRC* and according to the license? _____
- c. Are records of results retained with the appropriate information included? _____
- d. Were any sources found leaking and if yes, was *NRC* notified? _____

9. MAINTENANCE OF GAUGES

- a. Are manufacturer's procedures followed for routine cleaning and lubrication of gauge? _____
- b. Does the source or source rod remain attached to the gauge during cleaning? _____
- c. Is non-routine maintenance performed where the source or source rod is detached from the gauge? _____ If yes, was it performed according to license requirements (e.g., extent of work, individuals performing the work, procedures, dosimetry, survey instrument, compliance with *10 CFR 20.1301* limits)? _____

10. TRANSPORTATION

- a. DOT-7A or other authorized packages used? [49 CFR 173.415, 49 CFR 173.416(b)] _____
- b. Package performance test records on file? _____
- c. Special form sources documentation? [49 CFR 173.476(a)] _____
- d. Package has 2 labels (ex. Yellow-II) with TI, Nuclide, Activity, and Hazard Class? [49 CFR 172.403, 49 CFR 173.441] _____

- e. Package properly marked? [49 CFR 172.301, 49 CFR 172.304, 49 CFR 172.310, 49 CFR 172.324] _____
 - f. Package closed and sealed during transport? [49 CFR 173.475(f)] _____
 - g. Shipping papers prepared and used? [49 CFR 172.200(a)] _____
 - h. Shipping papers contain proper entries? {Shipping name, Hazard Class, Identification Number (UN Number), Total Quantity, Package Type, Nuclide, RQ, Radioactive Material, Physical and Chemical Form, Activity, category of label, TI, Shipper's Name, Certification and Signature, Emergency Response Phone Number, Cargo Aircraft Only (if applicable)} [49 CFR 172.200, 49 CFR 172.201, 49 CFR 172.202, 49 CFR 172.203, 49 CFR 172.204, 49 CFR 172.604] _____
-
-
- i. Shipping papers within drivers reach and readily accessible during transport? [49 CFR 177. 817(e)] _____
 - j. Secured against movement? [49 CFR 177. 834] _____
 - k. Placarded on vehicle, if needed? [49 CFR 172.504] _____
 - l. Proper overpacks, if used? [49 CFR 173.25] _____
 - m. Any incidents reported to DOT? [49 CFR 171.15, 16] _____

11. RECORD KEEPING FOR DECOMMISSIONING

- a. Records kept of information important to decommissioning? [10 CFR 30.35(g)] _____
- b. Records include all information outlined [10 CFR 30.35(g)] _____

12. BULLETINS AND INFORMATION NOTICES

- a. NRC Bulletins, NRC Information Notices, NMSS Newsletters, received? _____
- b. Appropriate training and action taken in response? _____

13. EVALUATION OF OTHER FACTORS

- a. RSO has sufficient time to perform his/her radiation safety duties? _____
- b. Licensee has sufficient staff to support the radiation protection program? _____
- c. Is RSO fulfilling his/her duties? _____

