CERTIFIED MAIL-RETURN RECEIPT REQUESTED
NOTICE OF VIOLATION

June 6, 2024

Mr. Pete Hernandez, Radiation Safety Manager
ProTechnics, a Division of Core Laboratories
6510 West Sam Houston Parkway N.
Houston, Texas 77041

Re: License No. TA-172-30 – SpectraTek

Dear Mr. Hernandez,

This letter documents an investigation conducted by New Mexico Environment Department ("NMED") employees Michael Ortiz, Carl Sullivan, Victor Diaz, and James Hesch of an incident at SpectraTek (the "Licensee") on October 22, 2019. NMED, on May 23, 2020, became aware of October 22, 2019, SpectraTek incident by a phone call from the DOE NNSA Program Manager Kent Gray and began its investigation that continued through February 11, 2022. The investigation delays occurred due to the SpectraTek employee's health issues after the incident, his availability to discuss the incident, the limited access to information, and the COVID pandemic. The investigation reviewed the actions taken by the licensee to comply with activities authorized under New Mexico Radioactive Material License Number TA 172-30. The investigation relates to radiation safety and compliance with the New Mexico Radiation Protection Regulations (20.3 NMAC).

The investigation identified the following violations:

1. 20.3.4.404 RADIATION PROTECTION PROGRAMS:

A. Each licensee or registrant shall develop, document, and implement a radiation protection program commensurate with the scope and extent of licensed or registered activities and sufficient to ensure compliance with the provisions of this part (see 20.3.4.441 NMAC for recordkeeping requirements related to these programs.)

B. The licensee or registrant shall use, to the extent practical, procedures and engineering controls based upon sound radiation protection principles to achieve occupational doses and doses to members of the public that are ALARA.

Licensee failed to follow its radiation safety and emergency procedures to protect its employees from exposure to ionizing radiation and failed to implement its Radiation Protection Program on October 22, 2019. Licensee failed to comply with 20.3.4.404 NMAC Radiation Protection Program requirements quoted above. Licensee failed to comply with their emergency procedures (i.e., failed to perform bioassay to determine internal and external doses, failed to survey the employees to determine the external exposure rates, and failed to retain the dosimeter for one of the employees and instead disposed of it in hot trash). The licensee's emergency procedures with comments pertaining to the violation follow:

"SPECTRATEK SERVICES, INC. OPERATING & EMERGENCY PROCEDURES, Revised 6/15/15"

1.0 INTRODUCTION

It is important that decontamination be completed as soon as possible.

Licensee did not decontaminate any of the contaminated surfaces on the day of the incident.

2.0 GENERAL METHODS OF DECONTAMINATION

2.1 All personnel will be monitored before leaving a contaminated area.

Licensee did not monitor the victim of the incident at any point of time on the day of the incident.

3.0 PERSONNEL MONITORING

3.2 Bioassays will be performed if internal exposure to radioactive material is a possibility.

Licensee did not perform any bioassay on the victim of the subject incident.

8.0 PERSONNEL DECONTAMINATION

To properly decontaminate personnel, it is necessary to first define the areas of decontamination by means of monitoring.

Licensee did not monitor the victim of the incident, so contaminated areas on the person were not known nor decontaminated by the licensee's officials.

2. 20.3.4.405 OCCUPATIONAL DOSE LIMITS FOR ADULTS:

A. Annual limits. The licensee or registrant shall control the occupational dose to individual adults, except for planned special exposures pursuant to 20.3.4.410 NMAC, to the following dose limits:

(i) the annual limits to the lens of the eye, to the skin of the whole body, and to the skin of extremities which are:

(a) a lens dose equivalent of 15 rems (0.15 sievert); and

(b) a shallow dose equivalent of 50 rems (0.5 sievert) to the skin of the whole body or to the skin of any extremity.

Licensee failed to follow its emergency procedures on October 22, 2019, and could not provide an accurate assessment of TEDE (total effective dose equivalent) to assure compliance with occupational dose requirements. Licensee failed to provide occupational doses for the employee involved in the October 22, 2019, incident.

By failing to monitor the victim, it was unknown to the licensee that he was contaminated and failed to establish a reliable baseline for defendable dose reconstruction. The dose reconstruction created several months after the incident, had obvious errors and was based on assumptions that cannot be verified as correct by failing to collect bioassay samples from the individuals and failing to monitor the individual's external contamination and perform decontamination of each individual on October 22, 2019. SpectraTek failed to follow the requirements in their manual 3.0 Personnel Monitoring i.e., 4.1.7 Unintentional exposure must be reported to the Radiation Safety Officer immediately to calculate the actual exposure received by the personnel involved in the October 22, 2019, incident. In addition, the badge for one

individual involved in the incident was disposed of by someone other than the employee involved in the incident.

3. 20.3.4.406 COMPLIANCE WITH REQUIREMENTS FOR SUMMATION OF EXTERNAL AND INTERNAL DOSES

A. If the licensee or registrant is required to monitor pursuant to both Subsections A and B of 20.3.4.417 NMAC, the licensee or registrant shall demonstrate compliance with the dose limits by summing external and internal doses. If the licensee or registrant is required to monitor only pursuant to either Subsection A or Subsection B of 20.3.4.417 NMAC, then summation is not required to demonstrate compliance with the dose limits. The licensee or registrant may demonstrate compliance with the requirements for summation of external and internal doses pursuant to Subsections B, C and D of this section. The dose equivalents for the lens of the eye, the skin and the extremities are not included in the summation but are subject to separate limits.

B. Intake by Inhalation. If the only intake of radionuclides is by inhalation, the total effective dose equivalent limit is not exceeded if the sum of the deep dose equivalent divided by the total effective dose equivalent limit, and one of the following, does not exceed unity:

(1) the sum of the fractions of the inhalation ALI for each radionuclide; or

(2) the total number of derived air concentration-hours (DAC-hours) for all radionuclides divided by 2,000; or

(3) the sum of the calculated committed effective dose equivalents to all significantly irradiated organs or tissues (T) calculated from bioassay data using appropriate biological models and expressed as a fraction of the annual limit; for purposes of this requirement,

an organ or tissue is deemed to be significantly irradiated if, for that organ or tissue, the product of the weighting factors, w_T, and the committed dose equivalent, $H_{T,50}$, per unit intake is greater than 10 percent of the maximum weighted value of $H_{T,50}$, that is, $w_T H_{T,50}$, per unit intake for any organ or tissue.

C. Intake by Oral Ingestion. If the occupationally exposed individual receives an intake of radionuclides by oral ingestion greater than 10 percent of the applicable oral ALI, the licensee or registrant shall account for this intake and include it in demonstrating compliance with the limits.

Licensee failed to comply with the requirements for summation of external and internal doses and failed to follow its only emergency procedures for the October 22, 2019, incident. Licensee failed to comply with 20.3.4.406 Compliance with Requirements for Summation of External and internal Doses. Licensee failed to implement "SPECTRATEK SERVICES, INC. OPERATING & EMERGENCY PROCEDURES, Revised 6/15/15":

9.0 Injuries to Personnel Involving Radiation Hazard

9.2 Report all radiation accidents to personnel (wounds, overexposure, ingestion, inhalation) to the Radiation Safety Officer as soon as possible.

9.3 Arrangements have been made with a local hospital to treat radiation injuries.

9.4 Permit no person involved in a radiation injury to return to work without the approval of the Radiation Safety Officer and the attendant physician.

4. 20.3.4.407 DETERMINATION OF EXTERNAL DOSE FROM AIRBORNE RADIOACTIVE MATERIAL:

A. Licensees or registrants shall, when determining the dose from airborne radioactive material, include the contribution to the deep dose equivalent, lens dose equivalent and shallow dose equivalent from external exposure to the radioactive cloud (see 20.3.4.461 NMAC, table notes 1 and 2).

B. Airborne radioactivity measurements and DAC values shall not be used as the primary means to assess the deep dose equivalent when the airborne radioactive material includes radionuclides other than noble gases or if the cloud of airborne radioactive material is not relatively uniform. The determination of the deep dose equivalent to an individual shall be based upon measurements using instruments or individual monitoring devices.

Licensee failed to monitor the airborne radioactive material during the October 22, 2019, incident to determine the deep dose equivalent to the individuals involved. Licensee failed to comply with 20.3.4.407 Determination of External Dose from Airborne Radioactive Material.

5. 20.3.4.408 DETERMINATION OF INTERNAL EXPOSURE:

A. For purposes of assessing dose used to determine compliance with occupational dose equivalent limits, the licensee or registrant shall, when required pursuant to 20.3.4.417 NMAC, take suitable and timely measurements of:

(1) concentrations of radioactive materials in air in work areas; or

(2) quantities of radionuclides in the body; or

(3) quantities of radionuclides excreted from the body; or

(4) combinations of these measurements.

B. Unless respiratory protective equipment is used, as provided in 20.3.4.423 NMAC, or the assessment of intake is based on bioassays, the licensee or registrant shall assume that an individual inhales radioactive material at the airborne concentration in which the individual is present.

Licensee failed to determine internal exposure and comply with the regulation cited above and its emergency procedures on the October 22, 2019, incident involving two of its employees. Licensee failed to adequately monitor the materials in the air and failed to determine quantities of radionuclides in the body. A report submitted by Carlsbad Environmental Monitoring and Research Center on July 17, 2020, nine months after the incident, noted that 4.12 nano-Curie of Ir192 was present in the body of one of the employees involved in the incident. The presence of the isotope in the body is proof that the victim did ingest the radioactivity and is the basis that required a bioassay to be performed.

6. 20.3.4.416 GENERAL REQUIREMENTS FOR SURVEY AND MONITORING

A. Each licensee or registrant shall make, or cause to be made, surveys of areas, including the subsurface, that:

(1) may be necessary to demonstrate compliance with this part; and

(2) are necessary under the circumstances to evaluate:

(a) the magnitude and extent of radiation levels;

(b) concentrations or quantities of radioactive material and residual radioactivity

(c) the potential radiological hazards of the radiation levels and residual radioactivity detected; and

(d) notwithstanding 10 CFR 20 or equivalent state regulations of this part, records from surveys describing the location and amount of subsurface residual radioactivity identified at the site must be kept with records important for decommissioning, and such records must be retained in accordance with the applicable regulations in 10 CFR parts 30, 40, 50, 70, or 72.30 or equivalent state regulations.

B. The licensee or registrant shall ensure that instruments and equipment used for quantitative radiation measurements (e.g. dose rate and effluent monitoring) are calibrated at intervals

not to exceed 12 months, except when a more frequent interval is specified in another applicable part of this chapter or in a license condition.

C. All personnel dosimeters (except for direct and indirect reading pocket ionization chambers and those dosimeters used to measure the dose to the extremity) that require processing to determine the radiation dose and that are used by licensees and registrants to comply with 20.3.4.405 NMAC, with other applicable provisions of this chapter or with conditions specified in a license or registration shall be processed and evaluated by a dosimetry processor.

Licensee failed to implement a general survey and monitoring prior to and after the October 22, 2019, incident to all employees involved in the unnecessary exposure to Ir-192, and based on the information provided by the employees involved in the incident they were given "specific orders to get the order out" by the Radiation Safety officer the day of the incident. The RSO knew the manual arm in the hot cell was not working but required the employee involved in the incident to get the order out, and as a result of the order, a hand drill was used to drill into the pressurized container resulting in ceramic beads coming into contact with the employee. The RSO remained in his office and did not follow the SpectraTek Operating and Emergency procedures. Cleanup and decontamination of the license locations were not initiated until October 23, 2019, by Patrick Gonzales and Nick Riley.

7. 20.3.4.417 CONDITIONS REQUIRING INDIVIDUAL MONITORING OF EXTERNAL AND INTERNAL OCCUPATIONAL DOSE: Each licensee or registrant shall monitor exposures from sources of radiation at levels sufficient to demonstrate compliance with the occupational dose limits of this part. As a minimum, the following requirements shall be met.

A. Each licensee or registrant shall monitor occupational exposure to radiation from licensed and unlicensed radiation sources under the control of the licensee or registrant and shall supply and require the use of individual monitoring devices by:

(1) adults likely to receive, in 1 year from sources external to the body, a dose in excess of 10 percent of the limits in Subsection A of 20.3.4.405 NMAC; Definition: "Bioassay" (Radiobioassay) means the determination of kinds, quantities or concentrations, and, in some cases, the locations of radioactive material in the human body, whether by direct measurement (in vivo counting) or by analysis and evaluation of materials excreted or removed from the human body.

B. Each licensee or registrant shall monitor (see 20.3.4.408 NMAC) the occupational intake of radioactive material by and assess the committed effective dose equivalent to:

(1) adults likely to receive, in 1 year, an intake in excess of 10 percent of the applicable ALI(s) in columns 1 and 2 of table I of 20.3.4.461 NMAC.

C. Each licensee or registrant shall ensure that individuals who are required to monitor occupational doses in accordance with Subsection A of this section wear individual monitoring devices as follows:

(1) an individual monitoring device used for monitoring the dose to the whole body shall be worn at the unshielded location of the whole body likely to receive the highest exposure; when a protective apron is worn, the location of the individual monitoring device is typically at the neck (collar)

Licensee failed to provide a dosimeter that would indicate whole-body exposure. Licensee failed to perform a bioassay after the event to determine if the victims inhaled or ingested radioactive material. Licensee failed to implement engineering controls (e.g., real-time effluent monitoring in the Processing Lab and individual effluent monitoring for each staff member while manually processing Ir-192) and failed to notify

the department when unintentional radiation exposure was conducted when the robotic arm failed to operate, and the staff manually breached the canisters with a hand-held standard drill.

8. 20.3.4.442 RECORDS OF SURVEYS:

A. Each licensee or registrant shall maintain records showing the results of surveys and calibrations required by 20.3.4.416 NMAC and Subsection B of 20.3.4.432 NMAC. The licensee or registrant shall retain these records for 3 years after the record is made.

B. The licensee or registrant shall retain each of the following records until the department terminates each pertinent license or registration requiring the record:

(1) records of the results of surveys to determine the dose from external sources of radiation and used, in the absence of or in combination with individual monitoring data, in the assessment of individual dose equivalents;

(2) records of the results of measurements and calculations used to determine individual intakes of radioactive material and used in the assessment of internal dose;

(3) records showing the results of air sampling, surveys and bioassays required pursuant to Subparagraphs (a) and (b) of Paragraph (3) of Subsection A of 20.3.4.423 NMAC;

(4) records of the results of measurements and calculations used to evaluate the release of radioactive effluents to the environment; and

(5) records from surveys describing the location and amount of subsurface residual radioactivity identified at the site must be kept with records important for decommissioning, and such records must be retained in accordance with 20.3.3 NMAC as applicable.

Licensee failed to provide records of any surveys performed following the incident of October 22, 2019, and indicated that many of the records for October of 2019 are missing.

9. 20.3.4.446 RECORDS OF INDIVIDUAL MONITORING RESULTS:

A. Record Keeping Requirement. Each licensee or registrant shall maintain records of doses received by all individuals for whom monitoring was required pursuant to 20.3.4.417 NMAC, and records of doses received during planned special exposures, accidents and emergency conditions. Assessments of dose equivalent and records made using units in effect before May 3, 1995 (see 20.3.4 NMAC codified as of May 3, 1995) need not be changed. These records shall include, when applicable:

(1) the deep dose equivalent to the whole body, lens dose equivalent, shallow dose equivalent to the skin and shallow dose equivalent to the extremities;

(2) the estimated intake of radionuclides (see 20.3.4.406 NMAC);

(3) the committed effective dose equivalent assigned to the intake of radionuclides;

(4) the specific information used to assess the committed effective dose equivalent pursuant to Subsections A and C of 20.3.4.408 NMAC, and when required by 20.3.4.417 NMAC;

(5) the total effective dose equivalent when required by 20.3.4.406 NMAC; and

(6) the total of the deep dose equivalent and the committed dose to the organ receiving the highest total dose.

B. Record Keeping Frequency. The licensee or registrant shall make entries of the records specified in Subsection A of this section at intervals not to exceed 1 year.

C. Record Keeping Format. The licensee or registrant shall maintain the records specified in Subsection A of this section on department form occupational dose record for a monitoring period, in accordance with the instructions to the form, or in clear and legible records containing all the information required by the form.

E. The licensee or registrant shall retain each required form or record until the department terminates each pertinent license or registration requiring the record.

Licensee failed to provide records of deep dose equivalent, estimated intake of radionuclides, committed effective dose equivalent (CEDE) assigned to the intake of radionuclides, total effective dose equivalent (TEDE), nor committed dose to the organ that received the highest total dose from the October 22, 2019, incident.

10. 20.3.4.452 NOTIFICATION OF INCIDENTS:

A. Immediate Notification. Notwithstanding other requirements for notification, each licensee or registrant shall immediately report each event involving a source of radiation possessed by the licensee or registrant that may have caused or threatens to cause any of the following conditions:

(1) an individual to receive:

(a) a total effective dose equivalent of 25 rems (0.25 sievert) or more; or

(b) a lens dose equivalent of 75 rems (0.75 sievert) or more; or

(c) a shallow dose equivalent to the skin or extremities or a total organ dose equivalent of 250 rads (2.5 grays, 250 rem) or more; or

(2) the release of radioactive material, inside or outside of a restricted area, so that, had an individual been present for 24 hours, the individual could have received an intake five times the occupational ALI; this provision does not apply to locations where personnel are not normally stationed during routine operations, such as hot-cells or process enclosures.

B. Twenty-Four Hour Notification. Each licensee or registrant shall, within 24 hours of discovery of the event, report to the department each event involving loss of control of a licensed or registered source of radiation possessed by the licensee or registrant that may have caused, or threatens to cause, any of the following conditions:

(1) an individual to receive, in a period of 24 hours:

(a) a total effective dose equivalent exceeding 5 rems (0.05 sievert); or

(b) a lens dose equivalent exceeding 15 rems (0.15 sievert); or

(c) a shallow dose equivalent to the skin or extremities or a total organ dose equivalent exceeding 50 rems (0.5 sievert).

Licensee failed to notify any regulatory agency of the incident from October 22, 2019, until May 2020. Even then, Licensee only responded after RCB informed Licensee of the need to report the incident; RCB was informed by a third party of the incident not affiliated with SpectraTek.

11. 20.3.4.453 REPORTS OF EXPOSURES, RADIATION LEVELS AND CONCENTRATIONS OF RADIOACTIVE MATERIAL EXCEEDING THE CONSTRAINTS OR LIMITS:

A. Reportable Events. In addition to the notification required by 20.3.4.452 NMAC, each licensee or registrant shall submit a written report within 30 days after learning of any of the following occurrences:

(1) incidents for which notification is required by 20.3.4.452 NMAC; or

(2) doses in excess of any of the following:

(a) the occupational dose limits for adults in 20.3.4.452 NMAC;

(d) the limits for an individual member of the public in 20.3.4.413 NMAC;

(e) the limit in the license or registration; or

(f) the ALARA constraints for air emissions established under Subsection D of 20.3.4.404 NMAC; or

(3) levels of radiation or concentrations of radioactive material in:

(a) a restricted area in excess of applicable limits in the license or registration

Licensee failed to deliver the required reports noted above. The only report was the dose reconstruction that was based on guesswork and missing key contributions to the dose received by the victim including exposure from the two half-cans during the victim's residence in the lab and exposure from contamination of the PPE during the time that the victim was in the lab during and following the incident. The victim was the only person to monitor his face and body for contamination for three months following the incident. On the first day, the exposure rate could not be determined as the instrument used was above the highest setting on time 100. Several days later it was indicated to be 175 mrem/hr. On or about February 1, 2020, Jay Dee Johnson interviewed the employee and learned that the employee was exposed to Ir-192and reported it to his contacts in Houston. It was reported by the victim that the exposure rate on February 1, 2020, was 10 mrem/hr. These two data points were used by a contractor to NRC to compute the external dose acquired. Licensee did not use this information for their dose reconstruction and generated a considerably lower value of radiation exposure to the victim.

12. 20.3.4.457 NOTIFICATIONS AND REPORTS TO INDIVIDUALS OF EXCEEDING DOSE LIMITS:

A. Requirements for notification and reports to individuals of exposure to radiation or radioactive material are specified in 20.3.10.1003 NMAC.

B. When a licensee or registrant is required pursuant to the provisions of 20.3.4.453 NMAC or 20.3.4.454 NMAC to report to the department any exposure of an identified occupationally exposed individual, or an identified member of the public, to radiation or radioactive material, the licensee or registrant shall also provide a copy of the report submitted to the department to the individual. This report must be transmitted at a time not later than the transmittal to the department and shall comply with the provisions of 20.3.10.1003 NMAC.

Licensee failed to notify the department of the incident, and failed to notify the individual who was the victim of the incident. (The level of exposure is yet to be confirmed due to gross oversight errors pointed out to the licensee.) The licensee failed to determine the level of contamination acquired by the victim. No radiation protection action was performed by Licensee. Licensee failed to implement decontamination of the employee, failed to monitor the radiation on the employee's body, and failed to follow its Operational and Emergency procedures.

13. 20.3.10.1003 NOTIFICATIONS AND REPORTS TO INDIVIDUALS:

A. Radiation exposure data for an individual and the results of any measurements, analyses and calculations of radioactive material deposited or retained in the body of an individual shall be reported to the individual as specified in this section. The information reported shall include data and results obtained pursuant to department rules, orders or license conditions, as shown in records maintained by the licensee or registrant pursuant to department rules. Each notification and report shall:

(1) be in writing;

(2) include appropriate identifying data such as the name of the licensee or registrant, the name of the individual and the individual's identification number, preferably social security number;

(3) include the individual's exposure information; and

(4) contain the following statement: "This report is furnished to you under the provisions of 20.3.10 NMAC. You should preserve this report for further reference."

B. Each licensee or registrant shall make dose information available to workers as shown in records maintained by the licensee under the provisions of 20.3.4.446 NMAC. The licensee or registrant shall provide an annual report to each individual monitored under 20.3.4.417 NMAC of the dose received in that monitoring year if:

(1) the individual's occupational dose exceeds 1 millisievert (100 millirems) TEDE or 1 millisievert (100 millirems) to any individual organ or tissue; or

(2) the individual requests his or her annual dose report.

C. At the request of a worker formerly engaged in department-licensed or regulated activities controlled by the licensee or registrant, each licensee or registrant shall furnish to the worker a written report of the worker's exposure to radiation or radioactive material or both as shown in records maintained by the licensee pursuant to 20.3.4.446 NMAC for each year the worker was required to be monitored under the provisions of 20.3.4.417 NMAC. The report must be furnished within 30 days from the time the request is made, or within 30 days after the exposure of the individual has been determined by the licensee or registrant, whichever is later. This report must cover the period of time that the worker's activities involved exposure to radiation from sources of radiation licensed or regulated by the department and must include the dates and locations of licensed or department regulated activities in which the worker participated during this period.

D. When a licensee or registrant is required pursuant to 20.3.4.452 NMAC, 20.3.4.453 NMAC or 20.3.4.454 NMAC to report to the department any exposure of an individual to radiation or radioactive material or both; the licensee or the registrant shall also provide the individual a written report on his or her exposure data included in the report to the department. The report must be transmitted no later than the transmittal to the department.

E. At the request of a worker who is terminating employment with the licensee or registrant that involved exposure to radiation or radioactive materials or both, during the current calendar quarter or the current year, each licensee or registrant shall provide at termination to each such worker, or to the worker's designee, a written report regarding the radiation dose received by that worker from operations of the licensee or registrant during the current year or fraction thereof. If the most recent individual monitoring results are not available at that time, a written estimate of the dose shall be provided together with a clear indication that this is an estimate.

No written report was ever provided to the victim pursuant to the incident of October 22, 2019, of the level of exposure and contamination of Ir-192 the employee received as a result of his exposure and contact with Ir-192 beads on his person, his nasal passages, his opening to the ears and his eyes.

14. 20.3.10.1002 INSTRUCTIONS TO WORKERS:

A. All individuals who in the course of employment are likely to receive in a year an occupational dose in excess of 100 millirems (1 millisievert) shall be:

(1) kept informed of the storage, transfer, or use of radiation or radioactive material or both;

(2) instructed in the health protection problems associated with exposure to radiation or radioactive material or both, in precautions or procedures to minimize exposure, and in the purposes and functions of protective devices employed;

(3) instructed in, and required to observe, to the extent within the worker's control, the applicable provisions of department rules and licenses for the protection of personnel from exposure to radiation or radioactive material or both;

(4) instructed of their responsibility to report promptly to the licensee or registrant any condition which may lead to or cause a violation of the act, department rules and licenses; or unnecessary exposure to radiation or radioactive material or both;

(5) instructed in the appropriate response to warnings made in the event of any unusual occurrence or malfunction that may involve exposure to radiation or radioactive material or both; and

(6) advised as to the radiation exposure reports which workers may request pursuant to 20.3.10.1003 NMAC.

B. In determining those individuals subject to the requirements of Subsection A of this section, licensees must take into consideration assigned activities during normal and abnormal situations involving exposure to radiation or radioactive material or both, which can reasonably be expected to occur during the life of a licensed facility. The extent of these instructions must be commensurate with potential radiological health protection problems present in the workplace.

Licensee failed to provide adequate training, written procedures, personal protective equipment, continuous air monitoring, and supervision of the activities that led up to the incident of October 22, 2019. Based on the oral descriptions of the events on October 22, 2019, it is clear that Licensee has not provided a high enough level of radiation training for its staff, as evidenced by the lack of comprehension of the severity of the incident. The victim was allowed to perform his work without supervision which resulted in not wearing sufficient personal protective equipment and was allowed to work directly on the half-cans without any protection from exposure to ionizing radiation. When the second half-can was breached during a hand drilling exercise, the contents, under pressure, were exhausted rapidly releasing radioactive beads and dust into the face of the victim.

Please provide a written response to the listed violations within 15 business days of receipt of this letter. A response can include information regarding the violation circumstances, means by which SpectraTek is now in compliance with the regulations and its license, or a corrective action plan. Failure to respond may result in heightened oversight and the issuance of an administrative compliance order, which can include civil penalties of up to $15,000 per day of non-compliance.

Thank you for the assistance and courtesy extended to our staff during the inspection and the interviews.

Should you have any questions, please contact the Bureau at (505) 476-8600.

Sincerely,

Santiago M. Rodriguez, Bureau Chief
Radiation Control Bureau
New Mexico Environment Department

cc: file