



1551 Green Valley Drive, Ashland, Kentucky 41102
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March 17, 2016

Division of Waste Management
Attn. Mr. Rodney Maze, Environmental Scientist IV
Morehead Regional Office
525 Hecks Plaza Drive
Morehead, KY 40351

**Re: Preliminary Response to March 8, 2016 Notice of Violation
Request for Additional Information
Request for Meeting to Discuss Survey and Compliance Plan**

Mr. Maze:

Consistent with the directives of your March 8, 2016, Notice of Violation and Findings of Inspection, Green Valley Landfill Limited Partnership (Green Valley) is providing this response and submission within seven (7) working days of the Notice.

As we have stated since discussions began on this topic, Green Valley is committed to cooperating with the Kentucky Department for Environmental Protection (Department) and Cabinet for Family and Health Services (Cabinet). We place the utmost importance on compliance, and protection of human health and the environment. However, we respectfully disagree with several of the findings of the Notice. We believe that Green Valley operates, and has operated, the Green Valley Landfill in full compliance with all applicable requirements and disagree with the Department's allegation that the landfill accepted NORM / TENORM from Ohio.

We are not able to fully assess and respond to the allegations of the NOV without receiving additional information from the Department. Additionally we are not able to prepare the Compliance Plan requested by the Notice without a better understanding of the basis for the allegations of noncompliance.

Please take this letter as an Open Records Request under KRS § 61.872 for any and all documentation and information related to the alleged presence of NORM and TENORM in the waste received at Green Valley Landfill, including but not limited to any analytical results in the possession of the Department.

Upon receipt of that information we will provide a full response to the allegations of the NOV, including a proposed Compliance Plan if appropriate.

We also request a meeting with the Department to discuss the basis for the allegations in the NOV and the appropriate components for the Compliance Plan requested by the NOV. We

would propose setting the meeting directly following our full response so that we may work with the Department to promptly and fully resolve this matter.

We agree that it is imperative that the Department and the public have a clear understanding of the landfill's compliance, and the continued safety of our operations. We were pleased that the radiation survey performed last week by the Cabinet confirmed the absence of increased radiation at the landfill and the absence of any risk to the public or landfill employees.

The Department has requested that Green Valley perform a Radiation Survey and Site Investigation for the landfill property to "determine the level and extent of contamination and include measurement of background radiation sources from an analysis of underlying geology." Based upon the already completed survey and the site's operation of radiation scanners as part of its standard practice, we do not think that an additional survey is necessary to demonstrate compliance. We would like the opportunity to meet with you to discuss whether the additional survey is needed. However, in the interest of working with the Department and the Cabinet, we engaged Auxier & Associates to prepare a proposal and QAPP for a Radiation Survey and Site Investigation and have enclosed that with this Response.

We welcome the opportunity to discuss this with you at the meeting we have requested. We would be happy to include representatives from Auxier in any meeting with the Department and the Cabinet.

Request for Coordination Meeting

In conclusion, Green Valley requests a coordination meeting between Green Valley and our outside experts, the Department and the Cabinet. That meeting would allow the sharing of information requested by this response, facilitate preparation of a compliance plan meeting the Department's expectations and coordinate performance of the proposed survey.

We look forward to hearing from you regarding your availability for an in person coordination meeting.

Sincerely,

 3-17-16

Green Valley Limited Partnership
By: Dane Miller
Green Valley Landfill General Manager

Mr. Rodney Maze
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Enclosures

cc William Chlebowy, Environmental Manager
John Nickerson, Senior Corporate Counsel
Dennis Conniff, Frost Brown Todd LLC



March 17, 2016

Mr. Dane Miller
Green Valley Limited Partnership
1551 Green Valley Drive
Ashland, KY 41102

Re: Proposal and QAPP for Site Characterization

Mr. Miller:

Pursuant to your request, Auxier and Associates, Inc. (Auxier) has prepared this Proposal to conduct a Site Characterization at the Green Valley Landfill, located at 1551 Green Valley Drive, Ashland Kentucky. It is our understanding that the Kentucky Department of Environmental Protection has alleged that NORM waste was sent to the landfill between the time period of May 2015 to January 2016. We understand that information is not currently any available regarding the specific radiological content of the waste alleged to have been disposed of at the site.

You have identified the relevant landfill unit as Unit 2 and the enclosed map reflects the area covered by the gamma walk conducted March 9, 2016, by the Cabinet for Public Health. We have reviewed the sampling results of that walkover which did not appear to identify any areas of elevation.

We are proposing a Radiation Survey and Site Investigation for the landfill property that is adequate to evaluate the risk posed to on-site and off-site receptors from current site conditions. All monitoring activities will be conducted by trained and certified Auxier personnel and according to established Auxier procedures. CVs for the Certified Health Physicist and the Project Manager are included with this proposal. All samples will be analyzed by a laboratory certified for the required analyses. A site-specific Sampling and Analysis Plan (SAP) which includes all required elements for a field sampling plan (FSP) and a Quality Assurance Project Plan (QAPP) will define data quality objectives, specify analytical requirements, and guide all investigation activities.

The scope of the investigation will include the identification of areas producing gamma radiation that is above an action level. This action level is a defined factor above background levels (~ two times background). Radiological surveys will be performed using Ludlum 44-10 (2" x 2") Sodium Iodide (NaI) detector coupled to a Ludlum 2221 survey meter modified to integrate and transfer data from the detector at a rate of once per second to a Trimble GeoPositioning Systems (GPS) which stores the gamma reading and the location of that reading. The detector will be hung approximately six-inches above the ground surface and advanced at a rate of 0.5 meters per second. Separation between the scanned transit lines will be approximately 1.5 meters unless influenced by terrain. Stored data will be downloaded and processed using commercially available software applications and plotted on a map of the area. Individual points will be assigned colors based on the magnitude of the instrument's response at that location.

Areas will be identified and marked where gamma surface scan measurements are greater than the action level. Exposure rate measurements will be collected at the surface and at one meter, and soil samples will be collected from identified locations. These samples will be analyzed for gamma emitting radionuclides via gamma spectroscopy. [is that correct?]

In addition, an appropriate area will be selected for determination of the Site's background gamma radiation levels soil radionuclide concentrations. Background gamma radiation and soil concentration information will be collected using the same methodology for the investigation area.

Surface water samples will be collected upstream and downstream of the investigation area to evaluate the concentrations of radioactive materials in storm water runoff. Samples will also be collected from any potentially impacted sedimentation ponds or leachate. These samples will be analyzed for gamma emitting radionuclides via gamma spectroscopy.

A summary report will be submitted to at the end of the project and will include all survey, sampling and analytical results. A map will be provided showing sample locations; survey maps generated from portable survey results married with GPS location data, field and analytical data tables, and data validation summaries. Analytical laboratory documentation, case narratives and all supporting documentation for a Level IV package deliverable will also be provided as part of the report.

Should you have any questions, please feel free to contact me. Thank you for your time and consideration.

Sincerely,



Cecilia H. Greene
Senior Health Physicist

MICHAEL K. BOLLENBACHER, CHP, REA

Professional Qualifications

Mr. Bollenbacher has over 25 years of experience performing a wide range of environmental work with radiological materials and hazardous chemicals on contaminated sites in over 24 states. He has been the principal investigator or task manager for site characterizations, fate and transport modeling, risk assessments, and feasibility studies. As a project engineer and health physicist he has been involved in site remediations, and has actively participated in decontamination and decommissioning of land, buildings and equipment. He has also designed specialized equipment used by the U.S. Environmental Protection Agency (EPA) to measure the permeability of soil to radon gas.

Education

M.S., Environmental Engineering, Clarkson University, Potsdam, New York; 1982.
B.A., Biology, New York State University College at Oswego, New York; 1976.

Registrations/Certifications

Certification by the American Board of Health Physics 1992 through 2012.
OSHA 40-hour Hazardous Waste Operations Training and 8-hour Hazardous Waste Supervisor Training meeting the requirements of 29 CFR 1910.120.
Over 40-hours fire-fighting training.

Experience and Background

- 2008 - ***Vice President, Auxier & Associates, Inc., Knoxville, TN.***
Present Directs and manages health physics and environmental projects for a variety of clients.
- 1993 - ***Senior Scientist, Auxier & Associates, Inc., Knoxville, TN.***
2008 Provides consultant services in health physics and environmental science, with particular emphasis on site characterization and remediation, dose reconstruction, environmental auditing, due-diligence and both long-term and short-term risk assessment. Project management and technical activities include site characterization and remediation, work plan preparation, dosimetry, radiological risk analysis, environmental transport modeling, derivation of cleanup levels, radiological support during planning and field operation phases of site and equipment remediation, interaction with regulatory agencies and the public, and data evaluation, validation, and analysis.

- 1990 - ***Health Physicist, IT Corporation, Knoxville, TN.***
1993 Provided health physics, risk assessment, and environmental modeling services to government and private clients. Served as the principal investigator for the CERCLA risk assessment of the eight radioactive waste disposal areas known collectively as Operable Unit One during the Fernald Environmental Management Project. Provided radiological and risk assessment support for remedial investigations and feasibility studies at DOE and DOD facilities. Developed technical approaches used to model contaminant transport and exposures for a variety of projects. Developed health and safety plans for the excavation of a low-level mixed waste underground storage tank at Oak Ridge National Laboratory. Prepared the radiological sampling and analysis plan for a 300 acre soil survey. Provided technical support for negotiations with regulatory agencies. Designed the radon measurement system used by IT labs to determine radon emission rates from laboratory samples.
- 1985- ***Environmental Engineer, Rogers, and Associates Engineering Corp., Salt Lake***
1990 ***City, UT.*** Provided site characterization, decontamination and decommissioning, fate and transport modeling, dose and risk assessment, and laboratory services to a variety of private, industrial and government clients. Planned and conducted field sampling programs to characterize sites contaminated with hazardous or radioactive materials in nine states and the Gulf of Mexico. Actively participated in remediation of sites and decontamination/decommissioning of structures contaminated with radioactive materials. Established survey protocols, conducted equipment surveys, coordinated survey activities, and supervised dirt-moving operations. Participated in verification of cleanup for a 64,000 sq. ft. manufacturing facility. Characterized radon distribution and migration potential in soils and structures. Performed NESHAPS compliance surveys of radon fluence at a variety of federal and commercial facilities. Designed and built specialty sampling equipment, including radon/soil gas sampling and measurement equipment used by EPA to measure the movement of radon in soil. Established and maintained monitoring programs to track and document internal and external occupational exposures to 23 full time employees during a uranium mill tailings cover project. Performed radiological entrance and exit surveys to verify status of personnel and equipment. Wrote protocols on the shipping and handling of naturally occurring radioactive material (NORM) for a major oil company's domestic operations. Conducted dose and risk assessments for several disposal facilities at humid and arid sites handling mixed waste, low-level radioactive waste, and NORM. Ancillary work included modeling the fate and transport of environmental contaminants at these sites. Established and managed large project databases using FORTRAN, Excel, and dBase III.
- 1983 - ***Environmental Engineer, Aerojet Heavy Metals Company, Jonesborough, TN.***
1985 Coordinated environmental monitoring programs and supported the remediation of portions of a manufacturing and milling facility contaminated with uranium and thorium. Upgraded and maintained the site's compliance monitoring network, and expanded the existing environmental program. Set up and managed an on-site radiological soils laboratory. Improved runoff control for a 1.2 acre pond

contaminated with radioactive and chemical wastes. Operated 20,000 gpd industrial wastewater treatment plant during evening shifts. Prepared documentation for shipments of radioactive sludge and soil to a LLW disposal facility. Tracked costs for the final two stages of a three stage, two million dollar remediation project. Developed unique computer applications for analysis of waste, contaminated soils and building materials. Developed "Rapid Air Quality Analysis" computer code to subtract radon interference from air samples used to monitor occupational and environmental airborne levels of uranium. This application cut remedial response time from three days to one day, and reduced program manpower requirements by approximately 25%. Performed equipment decontamination and radiological surveys to verify status of equipment prior to release from the facility.

1980 - ***Research Assistant, Clarkson University, Potsdam, NY.***

1982 Used ion exchange resins to estimate bio-available phosphorous in river systems. Established and maintained project databases. Developed conceptual models describing the fate of pollutants in river, lake, and estuarine systems. Wrote computer codes to apply these models. Course work emphasized water/waste water processes and aquatic chemistry.

Prior to ***Various technician level positions.***

1980 Collected fish and small mammals for an Environmental Impact Statement (EIS) on the pesticide DIMILIN prepared by the SURCO Corporation, Oswego, New York. Collected data on near-shore fish populations for two EISs on proposed nuclear power plant complexes for Hazelton Environmental Services, Syracuse, New York. Tested and developed chemical coatings as an R&D technician at Strathmore Products, Syracuse, NY. Served as an open water volunteer instructor for Peace Corps sponsored courses in tropical marine biology at the University of Honduras at Tegucigalpa.

1976 ***Co-Recipient, National Science Foundation, Oswego, NY.***

Performed a baseline population survey of amphibians and reptiles along a 35-mile coastal zone shoreline. Co-authored the first comprehensive wildlife and habitat-based land-use plan ever developed for Oswego County's shoreline. This report was cited during the State's acquisition of 250 acres of highly sensitive wetlands. Co-authored the first student-originated research proposal from a NY State University College Center to be accepted for funding by the National Science Foundation (NSF).

Awards/Activities

IT Technical Associate, 1990 – 1993

Aerojet General's, R. B. Young Technical Innovation Award, 1985

Dean's List, State University College at Oswego, Spring, 73 through Spring, 76,

Graduated Cum Laude

Reviewer for Health Physics Journal

Professional Affiliations

American Academy of Health Physics (Director, 2009)
Health Physics Society
East Tennessee Chapter Health Physics Society (Past Treasurer, 2009)
American Chemical Society

Publications

Mr. Bollenbacher has prepared or contributed to hundreds of reports and publications in the fields of health physics and environmental science.

CECILIA H. GREENE, MPH, NRRPT

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Clinton, TN 37716

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Email: cgreene@auxier.com

ENVIRONMENTAL / SAFETY AND HEALTH / QUALITY ASSURANCE MANAGER

LEADERSHIP | COMPLIANCE | PERFORMANCE

Extensive management experience and proven leadership capabilities. Nineteen years ensuring regulatory and procedural compliance, and managing all aspects of Health, Safety, and Quality Assurance. Twenty-eight years of health physics, health and safety, and industrial hygiene experience. Excellent written and verbal communication skills with field personnel, client representatives, professionals and executives.

AREAS OF EXPERTISE

- Radiological Safety and Health
- Regulatory/Procedural Compliance
- Policy/Procedure Development
- Analytical data evaluation and validation
- EHS Systems
- Safety/QA Audits
- Corrective Actions
- Permit Process
- Training
- Waste Management
- Haz Mat Transportation
- Proposal Development

PROFESSIONAL EXPERIENCE

AUXIER AND ASSOCIATES March 2014-Present

SENIOR HEALTH PHYSICIST

- Project management
- Data validation
- Report preparation

KURION, INC, OAK RIDGE, TN JUNE 2013-MARCH 2014

Environmental Health, Safety and Quality Assurance Manager

- Radiation Safety, Chemical Hygiene
- Data evaluation
- Report preparation
- Mediation evaluation and column studies

FOUNTAINHEAD COLLEGE OF TECHNOLOGY, KNOXVILLE, TN APRIL 2011-JUNE 2013

Department Head, Radiation Protection Program Program development, scheduling and instruction

ENERGX, LLC, OAK RIDGE, TN 2011 – 2013

Environmental, Safety, Health and Quality Assurance Manager

- Developed corporate ESH&Q policies and procedures, ensured ASME NQA-1 compliance
- Department Head: Fountainhead College of Technology Radiation Protection Program

EBERLINE SERVICES 1994 – 2011

Deputy Laboratory Manager 2003-2011

- Managed all aspects of Health and Safety, Radiation Safety, Chemical Hygiene, and QA
- Count room supervisor
- Managed waste and transportation of hazardous materials
- Cost control and analytical data review, proposal development

Project/H&S Manager and RSO 1996-2003

- Managed field projects
- Developed industrial hygiene, health and safety, and radiation safety policies and procedures
- Developed and provided H&S, Industrial Hygiene, Radiation Safety, and HAZWOPER training
- Developed Sampling and Analysis Plans

Deputy PM/Environmental Compliance Officer 1994-1996

- Ensured procedural compliance with all DOE, Federal and State regulations
- Recruited, hired and trained field staff for the Formerly Utilized Sites Remedial Action Program (FUSRAP) teams

OAK RIDGE ASSOCIATED UNIVERSITIES 1987-1994

Senior Safety Technician 1990-1994

- Performed safety audits of facilities
- Provided health and safety/radiation safety training

Health Physics Technician 1987-1990

- Performed radiological and chemical surveys and instrument calibration, revised and reorganized procedure manuals
- Developed the curriculum and instructed staff in verification survey techniques
- Operated gamma spectroscopy system

EDUCATION AND TRAINING

Masters of Public Health, Occupational and Environmental Safety and Health, Industrial Hygiene Option, University of Tennessee, Knoxville, TN

Bachelor of Science, Technological and Adult Education, Industrial Training Option, University of Tennessee, Knoxville, TN

Associate of Science, Health Physics Technology, Roane State Community College, Harriman, TN

CERTIFICATIONS AND AWARDS

National Registry of Radiation Protection Technologists (NRRPT)

EnergX Award of Excellence for Creativity and Innovation in recognition of outstanding dedication and commitment

Health Physics Award

Physics Award

VOLUNTEER ACTIVITIES

ETCHPS (East Tennessee Chapter of the Health Physics Society) Secretary – 2013/2014