



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
REGION I
475 ALLENDALE ROAD – SUITE 102
KING OF PRUSSIA, PA 19406-1415

November 22, 2022

Scott Mitchell
Southern Earth Sciences, Inc.
7500 McElvey Road, Suite A
Panama City Beach, FL 32408

**SUBJECT: SOUTHERN EARTH SCIENCES, INC., REQUEST FOR ADDITIONAL
INFORMATION, MAIL CONTROL NO. 633492**

Dear Mr. Mitchell:

This is in reference to your application dated November 4, 2022, requesting a new NRC license, with assigned License No. 09-35689-01. Several items below reference NUREG-1556, Volume 1, Revision 2, which can be found online at: <https://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1556/v1/index.html>. In order to continue our review, we need the following additional information:

1. Regarding your submitted Form 313, Item 2 “Name and Mailing Address of Applicant,” you provided an address in Mobile, Alabama. Consistent with our phone call on November 10, 2022, you stated that you wished to revise your application’s request so the NRC license reflects a mailing address that matches your Panama City Beach, Florida address. Please confirm this is the case, or else clarify what you wish your mailing address to be.
2. Regarding your submitted Form 313, Item 3 “Address Where Licensed Materials Will Be Used or Possessed,” and your supporting documents describing a facility located at 7500 McElvey Road, Suite A, Panama City Beach, Florida:
 - a. It is the NRC’s understanding that Panama City Beach facility is located within the jurisdiction of the State of Florida, and as such cannot be licensed by the NRC as a location of storage. While you may continue to store and dispatch portable nuclear gauges from this location, that storage is under the authority of the State of Florida, rather than the NRC. No response is required for this item, unless the above conclusion is not true.
 - b. Your application did not include a request for “Temporary Jobsite” authorization, as described in NUREG-1556, Volume 1, Revision 2, Section 8.3. The NRC understands that you will need this authorization. Please confirm this is the case, or else clarify your needs.

3. Regarding your application and the occupational monitoring program: you submitted contradictory statements and commitments in your application. The completed Appendix B checklist committed to neither provided statement and elected to provide alternative procedures. Your application included a copy of a letter, dated November 29, 2017, to the Florida Department of Health, Bureau of Radiation Control, requesting the discontinuation of your radiation monitoring program on account of the low radiation dosimetry results. Finally, your application included Florida Regulatory Guide 1.10 (Revision 6) Appendix F “[Model] Operating Procedures,” which required in Section III that: *“A whole body personnel monitoring (PM) badge (film, TLD or OSLO) must be worn at all times whenever handling, transporting, operating a portable gauging device.”*

Based on prior conversations, the submitted November 29, 2017, letter, and our discussion on November 22, 2022, we would understand that you do not intend to provide radiation monitoring devices to your staff. Consistent with this, please commit to the following language:

“We will maintain, for inspection by the NRC, documentation demonstrating that unmonitored individuals are not likely to receive a radiation dose in excess of the limits in 10 CFR 20.1502(a).”

If the NRC’s understanding is not correct, please submit additional information clarifying Southern Earth Sciences, Inc.’s intended program to achieve compliance with NRC occupational radiation monitoring requirements. Note that you may consider revising your Florida procedures to revise Section III’s commitments regarding the use of personnel monitoring devices to reflect your current practices.

4. Regarding your commitments related to operating and emergency procedures, you elected in the Appendix B checklist to use the NRC’s model procedures captured in NUREG-1556, Volume 1, Revision 2, Appendix G. However, you also submitted a set of procedures that are from the Florida Regulatory Guide 1.10 (Revision 6) Appendix F “[Model] Operating Procedures,” and Appendix G “[Model] Emergency Procedures.” Based on a phone call on November 22, 2022, you described that you intend to use the NRC’s model procedures contained in NUREG-1556, Volume 1, Revision 2, Appendix G. Consistent with this phone call, please clearly state:

“Notwithstanding the procedures in use in other jurisdictions, we will implement and maintain the operating, emergency, and security procedures in Appendix G to NUREG–1556, Volume 1, Revision 2, “Consolidated Guidance About Materials Licenses: Program-Specific Guidance About Portable Gauge Licenses.” Copies of these procedures will be provided to all gauge users and will be available at each jobsite.”

The highlighted text above is in addition to the text suggested by the NUREG to clarify your application’s inclusion of the above-referenced Florida Regulatory Guide 1.10 in your application.

5. Your application included five copies of your Bill of Lading, which was not required to be submitted consistent with NUREG-1556, Volume 1, Revision 2, Section 8.10.9. Please note that your Bill of Lading quotes the source strengths of the Troxler devices as 8 mCi of Cs-137 and 40 mCi of Am-241/Be. Please be aware that the Sealed Source and Device Registry entry for the Troxler Electronics Laboratory Model 3400 Series includes authorization for *up to* 9 mCi of Cs-137 and 44 mCi of Am-241/Be, and as such will be authorized on your pending new NRC license that way. No response is required to this item.

We will continue our review upon receipt of this information. Please reply using a signed letter. A pdf copy of a signed letter may be sent to my attention at Jason.VonEhr@nrc.gov. If you prefer to send a hard copy by regular mail, that may be sent to:

Jason vonEhr
Mail Control No. 633492
USNRC, Region I
Division of Radiological Safety and Security
475 Allendale Road – Suite 102
King of Prussia, PA 19406

In order to continue prompt review of your application, we request that you submit your response to this letter within 30 calendar days from the date of this letter.

An electronic version of the NRC's regulations is available on the NRC Web Site at: www.nrc.gov. Additional information regarding use of radioactive materials may be obtained on the NRC Web Site at: <http://www.nrc.gov/materials/miau/mat-toolkits.html>. This site also provides the link to the toolbox for updated information on the revised regulations for naturally-occurring and accelerator-produced radioactive materials (NARM).

In accordance with 10 CFR 2.390 of the NRC's "Agency Rules of Practice and Procedure," a copy of this letter will be available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS). ADAMS is accessible from the NRC Web Site at: <http://www.nrc.gov/reading-rm/adams.html>. Please be aware that you may request that certain portions of your submittal to NRC be withheld from public disclosure as proprietary information. To do this, you must execute an affidavit as specified in 10 CFR 2.390. You must list all portions that you wish to be held proprietary, along with your reasoning as to why that is appropriate. While it is allowable, please refrain from submitting proprietary information in support of a license unless necessary. Keep in mind that all NRC licenses are considered to be in the public domain, and therefore may be viewed by any member of the public who requests to see them.

S. Mitchell

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If you have any questions regarding this request for additional information, please contact me at (610) 337-5256 or via electronic mail at Jason.vonEhr@nrc.gov.

Thank you for your cooperation.

Sincerely,

Jason vonEhr, Health Physicist
Commercial, Industrial, R&D
and Academic Branch
Division of Radiological Safety and Security
Region I

License No. 09-35689-01

Docket No. 030-39326

Mail Control No. 633492

cc: Lewis Copeland, Jr., President
Logan Fowler, Branch Manager

SOUTHERN EARTH SCIENCES, INC., REQUEST FOR ADDITIONAL INFORMATION, MAIL CONTROL NO. 633492 DATED NOVEMBER 22, 2022

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SUNSI Review Complete: JEV

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NAME	Netra Patel NSP		Jason vonEhr					
DATE	11/22/2022		11/22/2022					

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