



ADVANCED TENORM SERVICES

April 5, 2016

VIA FIRST CLASS MAIL & ELECTRONIC MAIL

Ms. April Webb  
Energy and Environment Cabinet  
Department for Environmental Protection  
Division of Waste Management  
200 Fair Oaks Lane, 2<sup>nd</sup> Floor  
Frankfort, Kentucky 40601

Re: Response to Request for Information  
Advanced TENORM Services, LLC  
West Liberty, KY 41472; AI # 125200

Dear Ms. Webb:

Pursuant to DEP's request for information dated February 25, 2016 ("Request"), Advanced TENORM Services, LLC ("ATS" or "Respondent") submits this response with the enclosed supporting documents. Three hard copies and one electronic copy are submitted. Pursuant to Jackie Quarles' e-mail dated March 23, 2016,<sup>1</sup> Respondent has been granted an extension of time through April 8, 2016 in which to provide this Response. Responses to Questions No. 8, 10, 11, 12, 15 and 16 were provided to the Division of Waste Management (Division) on March 25, 2016. Courtesy copies of these materials are also being provided to Barbara Whaley of the Kentucky Attorney General's office.

At the outset, considering the press attention to this matter, the scope of this Request, and language within the recent cease and desist letter issued to "BES, LLC d/b/a ATS," Respondent would like to clarify and otherwise provide specific input on certain overarching or broad matters.

First, Respondent strenuously objects to the scope of this Request resulting from the overbroad definition of ATS as "all facilities owned or operated or historically owned or

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<sup>1</sup> Attachment 1 to Respondent's March 25, 2016 Response.

operated by Mr. Cory Hoskins.” ATS is a distinct limited liability company formed under the laws of Kentucky. To expand the definition of that entity to any and all other “facilities” (an undefined term) owned or “operated” (also undefined) or historically owned or operated by Mr. Hoskins would require Respondent to provide all manner of information irrelevant to this matter and outside the scope of ATS’s control. Notwithstanding this, ATS understands the importance of this matter and the Commonwealth’s need to fully investigate the underlying facts. Therefore, in the interest of cooperation, Respondent provides as its response to Question No. 1 below, information regarding the businesses with which Mr. Hoskins is currently or has previously been affiliated as an owner or employee. With respect to matters relating to the importation or disposal of oil and gas industry wastes in Kentucky, Respondent represents that of the businesses listed, only ATS and, to a substantially lesser extent, BES, LLC have factual knowledge relating to such matters and Respondent has therefore limited this Response accordingly. If further information regarding other listed businesses is desired, Respondent respectfully requests that specific requests directed to those businesses be made.

Second and relatedly, Respondent wishes to clarify that ATS and BES, LLC are separate and distinct business entities. BES, LLC does not “do business as” ATS. Notwithstanding this, and as detailed in this Response, BES has provided limited services relevant to this matter. Accordingly, and in the interest of cooperation, additional information relating to BES, LLC is also provided in this Response where relevant. Outside of the activities and information detailed in this Response, the undersigned represents that BES has provided no Kentucky brokering or other services relating to disposal, transportation or solidification to clients in the oil and gas industry and otherwise does not have knowledge or information relating to disposal of oil and gas wastes in Kentucky.

Third, as explained in detail throughout this Response, ATS wishes to make clear that it has not actively collected, treated, transported, stored, disposed or otherwise managed any waste, including the waste that is the subject of the present investigation, destined for disposal at a Kentucky landfill.<sup>2</sup> ATS has provided only environmental consulting and limited brokering services to generators of the waste at issue. ATS at no time had title to the waste that is the subject of this investigation. Similarly, with the exception of two instances in which it served as a transporter, BES has not actively disposed, collected, treated, transported, stored or otherwise managed the waste that is the subject of the present investigation (or similar waste). BES, a business focused primarily on a different industry segment than ATS, provides consulting and

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<sup>2</sup> As explained more fully below, ATS is certified to conduct NPDES wastewater laboratory services. That aspect of the business does not service the oil and gas industry or otherwise provide testing services for oil and gas industry wastes. As also explained below, ATS also provides limited “quick turn” Radium 226/228 testing for clients in the oil and gas industry. Any material handled for testing is returned to the generator. The aspects of Respondent’s “quick turn” testing business are discussed separately beginning at page 12 of this Response.

brokering services to waste generators and other businesses with general environmental permitting or consulting needs not requiring a professional engineering license.

Finally, given this limited role, Respondent believes it is important to state its reading of the statutes and regulations at issue in this investigation. The cease and desist letter with which Respondent has been served generally indicates that this matter is being investigated for compliance with KRS 211.863(1) and (3). Section (1) of this statute places a number of specific restrictions on the importation, exportation, acceptance and disposal of "low level radioactive waste" (LLRW) and includes explicit provisions assigning liability to persons who "arrange" such acts. In contrast, Section (3) of this statute generally prohibits the importation and disposal of naturally occurring radioactive material (NORM) (specifically defined to include technologically enhanced NORM) not regulated under the Atomic Energy Act in a manner inconsistent with the policies of the Central Midwest Interstate LLRW Commission. No arranger liability provision is included in Section (3) of the statute or in the NORM/technologically enhanced NORM provisions of the Commission's policies. Diffuse NORM and technologically enhanced NORM generated by the oil and gas industry are not regulated under the Federal Atomic Energy Act. 72 Fed. Reg. 55864, 55870 (Oct. 1, 2007). Accordingly, for any oil and gas industry waste at issue in this investigation that is found to constitute NORM or technologically enhanced NORM, only compliance with KRS 221.863(3) is at issue. Additionally, for purposes of Kentucky DEP regulatory programs, oil and gas exploration and production wastes as identified at 40 CFR 261.4(b), are exempt from RCRA Subtitle C requirements.

Subject to the above, Respondent further responds to the Division's Requests as set forth below. Each question is responded to individually. The person responding to these information requests on behalf of Respondent is Cory Hoskins. Given the breadth of these requests and Respondent's continuing ongoing investigation of these matters, Respondent reserves the right to supplement this Response.

#### **GENERAL FACILITY PROCESS**

**QUESTION 1:** Provide a list of all facilities owned, operated, or historically owned or operated by Mr. Cory Hoskins.

**RESPONSE:** As set forth above, Respondent objects to the broad scope of this request resulting from the Division's definition of ATS. Further, here and throughout this Request, the Division uses the term "facilities" to define the scope of information requested. This term is not defined and, in the context of what Respondent believes to be under investigation does not have an apparent meaning. Here and throughout the remainder of this response, please note that Respondent has assumed that the term facility is intended to mean business or land and structures used for an industrial or other business purpose and that the term ATS, means ATS the business

entity, and not as also including all other businesses with which Mr. Hoskins has ever held an ownership or operator role.<sup>3</sup>

Subject to these objections, Respondent states that Mr. Hoskins does not, and has not ever, owned or operated any "facility" in his personal capacity. Notwithstanding this please see the below list of businesses with which Mr. Hoskins is affiliated, or has previously been affiliated, (as an owner or employee) and that own, operate, or historically owned or operated a facility in Kentucky:

- BES, LLC ("BES"), a general environmental consulting business. BES's office is located at 32 Crestview Drive, West Liberty, KY 41472. Based on information reviewed to date, aside from the activities detailed in this response, BES has not provided brokering or other consulting services relating to waste disposal for clients in the oil and gas industry or for waste known or suspected to constitute NORM.
- ATS, an oil and gas exploration and production waste consulting and brokering business. Separately, ATS also provides limited NPDES wastewater testing services.<sup>4</sup> ATS's office is located at 151 University Drive, West Liberty, KY 41472.
- BES Technical Solutions, LLC, an environmental consulting business providing services requiring a professional engineer. This business was recently dissolved. Based on information reviewed to date, BES Technical Solutions has never, to Mr. Hoskin's knowledge, provided brokering or other consulting services relating to waste disposal for clients in the oil and gas industry or for waste known or suspected to constitute NORM.
- SRG Global, a manufacturer of chrome plated plastic parts for the automotive, commercial truck and household appliance industries. Cory Hoskins was previously employed as the environmental coordinator and radiation safety officer at SRG's Morehead, Kentucky facility.

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<sup>3</sup> Again, Respondent has however, in the interest of cooperation, provided relevant information relating to BES, LLC in this response where appropriate.

<sup>4</sup> ATS's wastewater testing laboratory and the services provided by that laboratory are not related to the issues that are the subject of this investigation. See Response to Question No. 5. Accordingly, except as otherwise specifically noted, ATS has limited all responses in this document to ATS's oil and gas exploration and production consulting and brokering services. Upon request, ATS will respond with information relating to its wastewater laboratory testing services separately.

**QUESTION 2:** Provide name, position title and job duties of all employees of any facilities provided in response to question 1 for the last two (2) years.

**RESPONSE:** Subject to the above objections as well as use of the undefined term “employees,” Respondent states neither ATS nor BES have any salaried employees.

**QUESTION 3:** Provide any and all training documents that have been in effect at the facilities from question 1 for the last two (2) years relating to waste management activities.

**RESPONSE:** Respondent objects the term “training documents” as vague and overbroad. Notwithstanding this, over the past two years, neither BES nor ATS have conducted formal waste management training. Both BES and ATS are consulting and/or brokerage businesses. Neither business performs on-site management of waste.

**QUESTION 4:** Provide a flow chart of the chain of command of ATS.

**RESPONSE:** ATS is a small family-owned business that only started operations in 2015. There is no formal “chain of command” for the business. High level business decisions are made primarily by Cory Hoskins. Beginning in July 2016, Jason Hoskins served as a project manager and otherwise contributed to business operations and activities.

**QUESTION 5:** Provide a list of all services ATS offers as a company.

**RESPONSE:** Subject to previous objections, Respondent provides the following information:

- **ATS:** As noted above, ATS operates a wastewater testing laboratory that provides non-oil and gas industry NPDES wastewater effluent testing services. Separately, ATS provides oil and gas industry consulting and brokering services as well as “Quick Turn” Radium 226/228 testing services. ATS also contracts with Klytec and Dr. Leong Ying for other radiation testing services and other related consulting services. The only brokerage services provided by ATS to date have been those relating to waste disposal, solidification, engineering, and radiation safety officer services. Since February 4, 2016 ATS has not offered or performed any consulting, brokerage, testing or other services in Kentucky.
- **BES:** BES is a general environmental consulting business, providing permitting and other consulting advice as well as limited disposal and transportation brokering services. The only brokering or other services provided for clients in the oil and gas industry that, to Respondent’s knowledge, have disposed of waste in Kentucky, are detailed in this response. Since February 4, 2016, BES has not offered or performed any business services in Kentucky.

**QUESTION 6:** Provide a list of all Permit/authorization/certifications ATS has been issued and the source.

**RESPONSE:** Subject to previous objections and use of the undefined term “all permits/authorizations/certifications” as vague and overbroad, ATS responds as follows. With regard to environmental permits or other authorizations, ATS is certified by the Kentucky Division of Water as a wastewater testing laboratory pursuant to KRS 224.10-670 and regulations promulgated thereunder.<sup>5</sup> ATS’s and BES’s consulting and brokerage businesses do not otherwise hold environmental permits or authorizations and are not required to hold any such permits or authorizations. At the Division’s request, information concerning non-environmental business licenses or authorizations can be provided. With respect to ATS’s quick turn radiation testing services, please see the Response to Question No. 17.

**QUESTION 7:** Provide documentation of the financial status and liability insurance of ATS.

**RESPONSE:** ATS is a new business that began operations in 2015. ATS agrees to share its 2015 tax returns upon completion. Investigation of business insurance coverage is ongoing and this response will be updated as appropriate as soon as possible.

**QUESTION 8:** Provide a list of all facilities that ATS is associated with that dispose or have disposed of waste in Kentucky and each location associated with that disposal.

**RESPONSE:** See Response provided by ATS on March 25, 2016.

**QUESTION 9:** Explain the type and kind of activities ATS has with each facility provided in response to number 7. Identify each company's roles and responsibilities as well as remuneration, associates, and transactions performed in the past two (2) years.

**RESPONSE:** Subject to previous objections as well as the use of the term “type and kind of activities ATS has with each facility” as vague, ATS responds as follows. To the extent this request seeks information relating to the services that ATS has provided to the waste generators listed in response to Question 8 in the last two years, the below information is provided. Any and all services listed were provided before February, 2016:

- E&R Energy, LLC: ATS has provided limited brokerage services to E&R for disposal of certain non-hazardous oil and gas exploration and production (E&P) wastes. See manifests and chart provided at March 25, 2016 Response, Attachments 2 and 3. ATS offered quick turn radiation testing services to E&R and services were accepted for most

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<sup>5</sup> ATS timely applied for renewal of that certification. ATS is awaiting confirmation that its certification has been renewed.

waste brokered. Upon information and belief, E&R attached results of such testing to applicable manifests. ATS did not provide transportation, solidification or any other brokering services to E&R relating such waste. E&R also retained Respondent to conduct a survey of occupational radiation exposure at E&R's Ohio facility. See March 25, 2016 Response, Attachment 4. ATS has also provided oil and gas permitting and related, non-disposal consulting services to E&R.

- **Fairmont Brine Processing:** ATS has provided brokerage services to Fairmont for disposal, solidification and transportation of certain non-hazardous oil and gas E&P wastes. Fairmont retained ATS to prepare a disposal plan for said wastes based upon generator's characterization as oil and gas E&P waste and plan was approved by the generator and, upon information and belief, the state of West Virginia. ATS offered radiation testing services to Fairmont Brine and Blue Ridge Landfill relating to the waste but services were declined. ATS does not have knowledge regarding whether Fairmont had testing otherwise performed. Upon asking (multiple times) the landfill manager, Billy Bowles, if the landfill wanted ATS to test the boxes or require that Fairmont have testing performed, Bowles repeatedly told ATS personnel that the landfill "was going to be adding radiation portals", and "no testing was required at this time". Also, according to the landfill manager, through his contacts, "the state was going to be changing the regulation soon and he would no longer be able to accept this waste any more". See also March 25, 2016 Response at Attachments 2 and 3 for manifest and invoice information.<sup>6</sup> Thereafter, in December 2015, Respondent understands that the State of West Virginia requested that Fairmont Brine perform a survey of occupational radiation exposure at their West Virginia facility. Fairmont retained Respondent to conduct the survey and to otherwise provide related radiation safety specialist services (provided with services from Dr. Leong Ying). See March 25, 2016 Response at Attachment 4. No other services have been provided to Fairmont by ATS or BES.
- **Cambrian Well Services.** ATS has provided limited brokerage services to Cambrian for disposal of certain non-hazardous oil and gas E&P wastes. See March 25, 2016 Response at Attachments 2 and 3. ATS offered quick turn radiation testing services to Cambrian and Blue Ridge Landfill and services were declined. BES transported 2 disposals and at time of transport measured radiation levels at less than 8 and 10

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<sup>6</sup> Please note that with regard to the Fairmont Brine manifests provided with the March 25 Response at Attachment 2, Cory Hoskins signed three manifests (on July 28, 2015, July 22, 2015 and one other to be determined date) as agent for the Generator. Other Fairmont Brine manifests include Mr. Hoskins signature as generator agent. However, all signatures aside from the aforementioned signatures are copies and were not personally signed or otherwise reviewed by Mr. Hoskins. Mr. Hoskins does not have direct knowledge regarding who made the copies of his signature. The three aforementioned signatures were made strictly as authorized agent for the Generator (Fairmont Brine).

millirems with Thermofisher Scientific Riiideye g technology (a level that meets standards for general public safety). ATS did not provide any other services to Cambrian relating to said waste. Later, Cambrian retained Respondent to survey occupational radiation exposure to waste in the nature of that disposed. The results of that survey are provided at Attachment 4 to the March 25, 2016 Response. Separately, ATS also provided other oil and gas permit-related consulting services to Cambrian (non-disposal)

- Nuverra Environmental Consulting. ATS has provided limited brokerage services to Nuverra for disposal of certain non-hazardous oil and gas E&P wastes. See March 25, 2016 Response at Attachments 2 and 3. ATS offered radiation testing services to Nuverra and Blue Ridge Landfill and services were declined. Upon information and belief, Nuverra had radiation testing otherwise performed and the results of that testing were attached to the manifest by the generator. ATS did not broker transportation of the waste and has not provided other brokering or other consulting services to Nuverra.
- Greenhunter Resources. ATS has provided limited brokerage services to Mountain States Environmental (Greenhunter's contract transporter) for disposal of certain non-hazardous oil and gas E&P wastes ATS understands to have been generated by Greenhunter. See March 25, 2016 Response at Attachments 2 and 3. ATS offered quick turn radiation testing services to Mountain States and Blue Ridge Landfill but services were declined. ATS does not have knowledge regarding whether the Generator or Mountain States had testing otherwise performed. ATS did not broker transportation of the waste and has not provided other brokering or consulting services to Greenhunter.
- Pressure Tech. In 2015, BES provided non-disposal related consulting services to Pressure Tech, a business with a facility located in Worthington, Kentucky. Upon information and belief, Pressure Tech disposed of oil and gas exploration and production wastes in the nature of the above described wastes at landfills in Kentucky. Respondent did not broker and did not otherwise provide services relating to those disposals and accordingly does not have documentation relating to such events.

**QUESTION 10:** Provide a list of all landfills in Kentucky that have received TENORM waste or any other waste ATS has arranged for disposal in Kentucky. Identify each company's roles and responsibilities as well as remuneration, associates, and transactions performed in the past two (2) years. Include in your documentation:

- a. Name of landfill operator;
- b. Landfill address;

- c. Contact Person: name, and email address;
- d. Waste volume;
- e. Shipment documentation; and
- f. Radiation level of the waste.

**RESPONSE:** See March 25, 2016 Response. See also response to Question 9.

**QUESTION 11:** Identify when, how, and where solidification of the TENORM waste or any other waste ATS has arranged for disposal in Kentucky has been or will be performed and who is or was responsible for those activities.

**RESPONSE:** See March 25, 2016 Response.

**QUESTION 12:** Explain step by step the solidification treatment process of TENORM waste or any other waste ATS has arranged for disposal in Kentucky. Include description of the required equipment and training need to perform such activity.

**RESPONSE:** See Response to Question 11.

### **SHIPMENTS AND TRANSPORTATION**

**QUESTION 13:** Provide a step by step process description of shipment arrangements of TENORM or any other waste ATS has arranged for disposal in Kentucky.

**RESPONSE:** Respondent objects to the term "shipment arrangements" as vague. Notwithstanding this, with regard to the current matter, ATS provided transportation brokerage services only to Fairmont Brine. This response is limited accordingly. Fairmont Brine would notify ATS when it wished to transport oil and gas E&P waste for disposal. Client was provided a copy of U.S. EPA guidance to follow in order to confirm proper characterization as oil and gas E&P waste. Radiation testing on all waste was recommended. Testing services by ATS were declined but ATS does not have knowledge regarding whether radiation testing was otherwise performed or contracted for by the generator. ATS recommended that any such testing results be attached to the manifest. Upon authorization, ATS brokered transportation. See March 25, 2016 Response at Attachment 3 for further information.

To further clarify this response, there appears to be a substantial degree of confusion among the regulated community (at least those with which ATS has had relationships or otherwise had contacts with) regarding Kentucky law obligations relating to disposal of oil and gas E&P waste. ATS made every reasonable effort to assure itself that its clients were managing their oil and gas

waste in accordance with Kentucky law. Indeed ATS reached out to others in the industry, both the Green Valley and Blue Ridge landfills, and even from Division of Waste Management and Kentucky Radiation Health Branch personnel and, in each instance, those sources stated or otherwise indicated that oil and gas E&P waste is subject only to solid/special waste disposal requirements in Kentucky and that there is no requirement under Kentucky law to test oil and gas E&P waste radiation levels. Indeed, despite reaching out on this issue multiple times, no individual at the state or the landfills at issue, to the undersigned's knowledge, informed ATS that disposal of out-of-state oil and gas wastes is restricted in Kentucky by statutes or regulations governing NORM or TENORM.

On July 9, 2015, Cory Hoskins contacted Lindsey Briggs of the Kentucky Division of Waste Management by telephone and requested information regarding the requirements and restrictions that would be applicable to disposal of oil and gas E&P waste from Ohio in Kentucky. Mr. Briggs asked if the waste at issue constituted TENORM and Hoskins informed him that some may and some may not. Mr. Briggs informed Hoskins that the landfill must be permitted to accept solid waste from the county of origin and that the waste could not be a liquid. Previously, Hoskins had also reached out to the Kentucky Department of Public Health. The Department indicated that Kentucky had not yet promulgated regulations governing TENORM. Written correspondence documenting these and other conversations (where available) with the state or others are provided at Attachment 1.

In addition, the landfills at issue held themselves out repeatedly as being authorized to accept oil and gas E&P waste.

- Cory Hoskins has had multiple discussions with Blue Ridge Landfill manager, Billy Bowles, during which Hoskins represented that ATS had the capability to perform testing relating to Radium 226/228 levels in the subject waste and that if needed by the landfill, ATS would require this of ATS clients. Bowles declined, stating that testing is not required for disposal of oil and gas E&P waste in Kentucky. Notwithstanding this, it was ATS's practice to always recommend that generators test waste radiation levels and to attach results to applicable manifests so that appropriate determinations regarding acceptability could be made by the landfill. (See, for example, Attachment 2, showing analyticals attached to the manifest by Nuverra.)
- In speaking with Bowles to set up the profile for oil and gas E&P waste shipments, ATS learned that the person or persons that review and approve such profiles for Blue Ridge Landfill are located in Pennsylvania, which is the heart of the fracking industry. It was ATS's understanding that the profile reviewer knew that in other states where Advanced Disposal owns or operates landfills testing is required under state regulations. Bowles noted to ATS that generators "pay big bucks" to dispose of oil and gas E&P waste in

Pennsylvania and other states because other states, unlike Kentucky, require radiation testing for disposal.

- Through discussions with Bowles, it is ATS's understanding that other entities had reached out to Blue Ridge Landfill to dispose of out of state oil and gas E&P waste. The outcome of such contacts is unknown.
- In early 2015 Pressure Tech notified ATS that oil and gas E&P wastes could be disposed of in Kentucky at Blue Ridge Landfill and Green Valley Landfill through 40 CFR 261.4(b). Upon contacting Green Valley landfill, Respondent was instructed regarding how to setup the profile sheet for oil and gas E&P wastes and given a copy of an existing profile of a business from Ohio. The profiles were prepared identically and according to landfill recommendations.

**QUESTION 14:** Provide a list of all transporters used by ATS. Provide a list identifying the following items:

- a. Transporter EPA ID number
- b. Date of shipments
- c. Number and type of trucks
- d. Waste volumes
- e. Type of container
- f. Facility of Origination
- g. Time period from pick up to final facility destination
- h. Radiation level reported
- i. Name of any intermediary transfer facilities or consolidation in the process to transportation

**RESPONSE:** As set forth above, pertinent to this response, ATS has provided transportation brokerage services only to Fairmont Brine. In providing that service, ATS contracted with three transporters: LR Daniels Trucking, Salyer Branch Trucking and Mountain States Environmental. For other information within Respondent's control responsive to this Question, please see the March 25, 2016 Response at Attachment 2. With regard to part (e) of this Question, in no instance did Respondent broker or otherwise coordinate the rental of containers

for said shipments. Notwithstanding this it is Respondent's general understanding that waste was shipped in rented metal vacuum boxes (enclosed metal container). Respondent submits that the Generators listed in response to Question No. 8 may have other information responsive to this Question.

**QUESTION 15:** Provide copies of all shipment manifests.

**RESPONSE:** See March 25, 2016 Response at Attachment 2.

**QUESTION 16:** Identify any treatment performed on the waste during transportation.

**RESPONSE:** See March 25, 2016 Response.

### **WASTE PROFILE AND SAMPLING**

**QUESTION 17:** For each waste stream managed at ATS, provide a detailed description of the storage and disposal activities related to those waste streams for the last two (2) years, including but not limited to, a description of collection procedures, accumulation areas, accumulation methods, and disposal methods.

**RESPONSE:** For this and all other Questions in this section of this Request for Information, Respondent wishes to make clear that neither ATS nor BES provide services for on-site or other management of waste.<sup>7</sup> To Respondent's knowledge any accumulation or management of the waste discussed within this Response existed solely at the generator's site or during possession by the transporter. Generator's method of disposal included only landfill disposal to Respondent's knowledge.

Although not considered waste "management" ATS does wish to make clear that, as stated previously in this Response, ATS offers quick turn Radium 226/228 testing services to oil and gas industry clients. All samples are returned to the generator after testing by ATS.

To date, aside from test samples for calibration etc., ATS has provided quick turn testing services only for E&R Energy and only for ten (10) samples from that Generator. These testing services are not subject to regulation by the Cabinet for Health and Family Services. Even if Kentucky's current statutes reach to oil and gas E&P wastes, only importation and disposal is regulated and, regardless, ATS's laboratory services clearly fall below the exemption quantities established by 902 KAR100:080. See Attachment 3 for documentation summarizing the quantities in the

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<sup>7</sup> The only exception to this is that on two occasions BES transported waste. In both instances, BES measured the radiation levels of that waste to be at background levels.

samples tested for E&R. Quantities below those listed in that regulation are explicitly exempt from regulation under 902 KAR Chapter 100 pursuant to 902 KAR 100:045 Section 3(6).

**QUESTION 18:** Provide a profile questionnaire for each type of waste ATS manages or intends to manage.

**RESPONSE:** See Response to Question No. 17. ATS does not manage waste.

**QUESTION 19:** Provide a step by step description of the process and how sites for disposal of waste streams are determined and selected.

**RESPONSE:** Respondent does not generate or manage waste. Based on ATS's understanding of Kentucky's requirements in this area (see Response to Question No. 13), ATS provided the generators discussed in this response with information relating to the oil and gas E&P hazardous waste exemption and otherwise provided generators with information regarding its knowledge of the scope of that exemption as applicable here based on discussions with landfill personnel, Division of Waste Management personnel and others in the industry. The generator characterized the waste and ATS provided brokering services based on that characterization. The wastes here were characterized as meeting the hazardous waste exemption set forth at 40 CFR 261.4(b) and, after approval from the landfill, were brokered accordingly.

**QUESTION 20:** For the waste managed by ATS, describe the factors for determining the disposition of the following wastes:

- a. "Earthen material" from the drilling process;
- b. "Earthen material" with residual coating of refined-oil based muds;
- c. Recycled drilling mud;
- d. Recycled hydraulic fracturing water / flow back water including some Brine (likely concentrated);
- e. Spent tank bottoms;
- f. Filtrate, either liquid or solid, that results from, created during, processing and/or recycling of used hydraulic fracturing water, flow back water, or produced water;
- g. Used hydraulic fracturing sands;
- h. Production by pumping out gas, oil, brine and pipe scale (a separation station is used to separate the gas, oil, and brine.); and
- i. Others.

**RESPONSE:** See Responses to Question Nos. 13, 17 and 19. Respondent does not generate or manage waste. The generator characterized the waste as compliant with 40 CFR 261.4(b)5 and ATS provided brokering services based on that characterization.

**QUESTION 21:** Provide information on how ATS determines the primary constituents of concern (COCs) for Oil and Gas production and its radiological characterization. Identify any analytical methods used for the purpose of characterization of waste materials.

**RESPONSE:** See Responses to Question Nos. 13, 17 and 19. Respondent does not generate or manage waste. It is expected that information responsive to this Question is within the control of the Generators listed in response to Question No. 8.

**QUESTION 22:** Provide the procedures used to conduct field sampling of alpha, beta, and gamma screening measurements, and how sampling of various media of radiological and laboratory analyses are performed, identify sampling size, type, methods, location, and scope.

**RESPONSE:** See Responses to Question Nos. 13, 17 and 19. Respondent does not generate or manage waste. To the extent, this Question relates to Respondent's Quick Turn testing services, additional information can be provided upon request.

**QUESTION 23:** Explain what factors are used to determine a "representative sample".

**RESPONSE:** See Responses to Question Nos. 13, 17 and 19. Respondent does not generate or manage waste. To the extent, this Question relates to Respondent's Quick Turn testing services, additional information can be provided upon request.

**QUESTION 24:** Provide all sample documentation information found in the field logbook(s).

**RESPONSE:** See Responses to Question Nos. 13, 17 and 19. Respondent does not generate or manage waste. To the extent, this Question relates to Respondent's Quick Turn testing services, additional information can be provided upon request.

**QUESTION 25:** Provide an example of chain-of-custody form(s) documentation and procedures. How is a successful evaluation of a completeness and accuracy check of the chain-of-custody form(s) performed?

**RESPONSE:** See Responses to Question Nos. 13, 17 and 19. Respondent does not generate or manage waste. To the extent, this Question relates to Respondent's Quick Turn testing services, additional information can be provided upon request. See also Attachment 4.

**QUESTION 26:** What containers are used to collect samples? Provide an example of a container sample label.

**RESPONSE:** See Responses to Question Nos. 13, 17 and 19. Respondent does not generate or manage waste. To the extent this Question relates to Respondent's Quick Turn testing services, additional information can be provided upon request.

**QUESTION 27:** Provide information on how:

- a. A laboratory is selected;
- b. the laboratory performs the requested analyses; and
- c. the original chain-of-custody form(s) with final analytical results from laboratory are transmitted.

**RESPONSE:** See Responses to Question Nos. 13, 17 and 19. Respondent does not generate or manage waste. Respondent submits that information responsive to this request is within the control of the Generators listed in response to Question No. 8.

**QUESTION 28:** What is the specific analysis requested on any TENORM sample or any other waste ATS has arranged for disposal in Kentucky.

**RESPONSE:** Respondent objects to the term “arranged for disposal” as vague. Notwithstanding this, see Responses to Question Nos. 13, 17 and 19. Respondent does not generate or manage waste. It is expected that information responsive to this Question is within the control of the Generators listed in response to Question No. 8.

**QUESTION 29:** Provide a description as to how corrections to documentation are made. Provide examples of when these corrections are needed, and the procedures for such changes.

**RESPONSE:** Respondent requests clarification as to the meaning of “corrections to documentation” prior to response. To the extent this Question is related to the subject matter covered by the above questions relating to “waste profile and sampling” (Questions No. 17 through 28), it is expected that information responsive to this Question is within the control of the Generators listed in response to Question No. 8.

**QUESTION 30:** Provide a description of the type of sample containers destined for laboratory analysis, how they will be packaged and stored, the area of storage, and the time period between collection and shipment to the laboratory.

**RESPONSE:** See Responses to Question Nos. 13, 17 and 19. Respondent does not generate or manage waste. To the extent this Question relates to Respondent’s limited Quick Turn testing services, additional information can be provided upon request. Otherwise, it is expected that information responsive to this Question is within the control of the Generators listed in response to Question No. 8.

**QUESTION 31:** What are the retention procedures for original copies of field data, field records, analytical data, training records, and other specific documentation which are retained by ATS.

**RESPONSE:** See Responses to Question Nos. 13, 17 and 19. Respondent does not generate or manage waste. To the extent this Question relates to Respondent's limited Quick Turn testing services, additional information can be provided upon request. In general, Respondent's record retention period is five years.

**QUESTION 32:** Identify the criteria used by ATS to reject any shipment of waste destined for landfills.

**RESPONSE:** See Responses to Question Nos. 13, 17 and 19.

**QUESTION 33:** Provide documentation showing that ATS has determined the relative risks from radiation exposures for the personnel managing TENORM waste or any other waste ATS has arranged for disposal in Kentucky.

**RESPONSE:** See Responses to Question Nos. 13, 17 and 19. Respondent does not generate or manage waste. Respondent submits that it is the responsibility of the generator to determine risks associated with personnel exposed to its wastes.

**QUESTION 34:** Provide a list of all equipment used to measure TENORM levels by ATS.

**RESPONSE:** Respondent objection to the phrase "measure TENORM levels" as vague. Notwithstanding this ATS uses the following equipment to perform Quick Turn testing of Radium 226/228 levels and otherwise assess radiation of oil and gas E&P wastes or other materials at the request of clients: Thermofisher Scientific Riiideye g, and Kolga Shield (along with process specific patented Kolga containers).

**QUESTION 35:** Provide a summary table of all samples taken by ATS.

- a. Sample type,
- b. Sample Quantity;
- c. Medium;
- d. Container type;
- e. Analytical Parameter;
- f. Analytical Methods;
- g. Detection Limits; and Rationale

**RESPONSE:** Respondent objects to the term "all samples taken" as vague. Notwithstanding this, please see Attachment 3 which reflects a summary providing summary information on the 10 samples for which ATS has provided Quick Turn testing services to date. See also ATS's Standard Operating Procedures document provided at Attachment 5.

**QUESTION 36:** Provide a step by step description of how ATS assesses the potential risk of the management of waste streams.

**RESPONSE:** See Responses to Question Nos. 13, 17 and 19. Respondent does not generate or manage waste.

**QUESTION 37:** Provide any analytical results of any TENORM waste stream or any other waste ATS has arranged for disposal in Kentucky given to or performed by ATS for the last five (5) years.

**RESPONSE:** See Response to Question No. 35.

**QUESTION 38:** Provide the Quality Control Protocols followed by ATS employees or subcontractor employees to avoid cross contamination.

**RESPONSE:** See Response to Question No. 35. ATS's Quality Manual may also include information responsive to this request. That manual is voluminous. The table of contents from the manual is included within Attachment 5. A complete copy can be provided upon request.

**QUESTION 39:** Provide documentation related to the waste determination of all waste streams shipped and identify the point of generation for each waste and any associated EPA waste codes.

**RESPONSE:** Respondent objects to the term "waste determination" as vague. Notwithstanding this, please see the waste profiles provided at Attachment 6. Further information responsive to this Question may be within the control of the Generators listed in response to Question No. 8.

**QUESTION 40:** Provide any documentation provided to the laboratory that performed the sample analysis that set forth the constituents and the test methods for those constituents.

**RESPONSE:** See example chain of custody documentation at Attachment 4. Further information responsive to this Question may be within the control of the Generators listed in response to Question No. 8.

**QUESTION 41:** Provide a list of all hazardous waste constituents that could be released to the environment from the mismanagement of TENORM or any other waste ATS has arranged for disposal in Kentucky.

**RESPONSE:** Respondent objects to the term "arranged for disposal" as vague. Notwithstanding this, see Response to Questions 13, 17 and 19. Respondent does not manage waste. ATS does not provide consulting services relating to risk assessment of managing waste streams. It is expected that information responsive to this Question is within the control of the Generators listed in response to Question No. 8.

**QUESTION 42:** Describe all non-compliance items that have been identified in any of the Notice of Violations between February 2010 and the date of this request, and include, the exact

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date each noncompliance item was discovered at the facility and the current status of each noncompliance item.

**RESPONSE:** Neither BES nor ATS have ever received a notice of violation from the Kentucky Department for Environmental Protection, U.S. EPA or Cabinet for Family Health Services or other related agency.

**QUESTION 43:** Identify the Project Manager or the official supervisor responsible for waste certification and shipments.

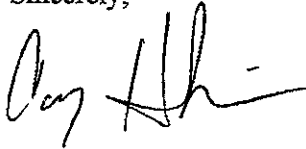
**RESPONSE:** ATS provided only brokering services relating to the waste at issue. The Generator was responsible for and otherwise oversaw shipments and certifications.

**QUESTION 44:** Provide written documentation explaining the procedure used by ATS to review the waste certification and shipments.

**RESPONSE:** See Response to Question Nos. 13, 17, 19 and 43.

If you have any additional questions or need additional information, please contact ATS's counsel, Kelly Bartley at (859) 288-4652 or [kbartley@bgdlegal.com](mailto:kbartley@bgdlegal.com).

Sincerely,



Cory Hoskins  
Advanced TENORM Services, LLC

cc: Jackie Quarles, Esq., Deputy Counsel, EEC  
Kelly D. Bartley, Esq., Bingham Greenebaum Doll LLP