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November 15, 2019

Cynthia S. Bertocci
Executive Analyst
Board of Environmental Protection
17 State House Station
Augusta, Maine 04333-0017 Ref. 4518

Re: Sound Data Anticipated, Previously Requested, a Discussion of Incomplete Responses from the Proponent, Rationale and the Remaining Data Needs List

Dear Cindy:

Tech Environmental, Inc. (Tech) has been waiting patiently to receive the noise source data that DEP has requested in writing to the proponent on multiple occasions, so that Tech can provide Upstream Watch with an evaluation of potential adverse impacts. For a project of this size, duration, and magnitude, these noise data "requests" are not optional, simply stated they are required for submission, "when appropriate" per 06-096 Chapter 375.

In Chapter 375, submissions for providing the noise that are plainly described in 06-096 Chapter 375 (10)(D)(2) are bolded below:

> *"**Technical information shall be submitted** describing the applicant's plan and intent to make adequate provision for the control of sound. **The applicant's plan shall contain information such as the following, when appropriate:***
>
> *(a) Maps and descriptions of the land uses, local zoning and comprehensive plans for the area potentially affected by sounds from the development.*
>
> ***(b) A description of major sound sources, including tonal sound sources and sources of short duration repetitive sounds, associated with the construction, operation and maintenance of the proposed development, including their locations within the proposed development.***
>
> *(c) **A description of the daytime and nighttime hourly sound levels and, for short duration repetitive sounds, the maximum sound levels expected to be produced by these sound sources** at protected locations near the proposed development.*
>
> ***(d) A description of the protected locations near the proposed development.***
>
> ***(e) A description of proposed major sound control measures, including their locations and expected performance.***

> ***(f)*** ***A comparison of the expected sound levels from the proposed development with the sound level limits of this regulation.***
>
> *(g) A comparison of the expected sound levels from the proposed development with any quantifiable noise standards of the municipality in which the proposed development will be located and of* ***any municipality which may be affected by the noise****."*

The proponent submitted the results of a noise model to demonstrate compliance with Chapter 375. Please note the Preamble to the noise compliance section, 06-096 Chapter 375 (10).

> "A. **Preamble**. The Department recognizes that the **construction, operation and maintenance** of developments **may cause excessive noise that could degrade the health and welfare of nearby neighbors**. It is the intent of the Department to **require adequate provision for the control of excessive environmental noise** from developments proposed after the effective date of this regulation."

The proponent submitted a total of 68 words of text in their application to justify their sound, and an Appendix that relies heavily on the modeled noise of the proposed sources. It is clearly "**appropriate**" for the proponent to provide the assumptions of a noise model that was the only reference used to demonstrate compliance.

In the most recent and direct request yet from DEP for equipment and sound information, the proponent chose to directly ignore the equipment information request by providing a response that reads "See response to Question 2". While this may be the first true and obvious **complete refusal to provide the required information**, it is not the first partial, incomplete, or closely-guarded response to requests to provide the simple noise source and analysis data necessary to demonstrate, as 06-096 Chapter 375(10) is so aptly titled, **"Control of Noise"**. The following is a chronology of the noise information provided to-date, the requests from DEP, and the responses from Nordic Aquafarms.

1. The SLODA application was submitted to DEP on May 17, 2019. On the DEP website there is a date stamp of May 24, 2019 for the "SLODA" folder and all of its components. There have been no formal updates to the posted application since May 24, 2019.

    a. The first file in the "Section 05 – Noise/" folder is Section 5 text.pdf", which contains a total 68 words of text that simply references the Appendix. It does not include any discussion or justification of how, what, why, or when the project will satisfy 06-096 Chapter 375(10) **"Control of Noise"**. Why is this important? Because the sound consultant and the proponent are completing two different tasks. The sound consultant's task is to take the information provided by the proponent and complete a sound study. A discussion of that is below in bullet (b). It is the proponent's job, not the consultant's, to describe in the application how the sound study is applicable to their proposal. Part of that discussion typically discusses the input parameters (sound data sources, locations, and construction, operation, and maintenance scenarios) and how they are representative of the proposed project.

    b. The second file, the Appendix, is promisingly titled "Construction, Operation, and Maintenance Noise Impact Assessment". A brief summary of some of the sound study

text is provided below with some discussion to frame whether this sound study can stand alone to demonstrate compliance with "Control of Noise":

i. **Construction:** On page 4, Section 4, Paragraph four it states: "*Construction equipment noise levels are presented here for informational purposes. Maine's Site Location of Development Law Regulations and the City Ordinances do not regulate noise levels generated by daytime construction activities."*

This statement is inaccurate and therefore the numerical results of this study do not address what is proposed in its title. SLODA regulations clearly state that construction sound is specifically included in the requirements of 06-096 Chapter 375 10(C)(2) titled "Sound from Construction of Development". Since the potential construction activities limitations as a result of achieving "Control of Noise" will affect all aspects of the "No Adverse Impacts" requirements mentioned throughout the SLODA regulations, this study must be updated to reflect this obvious omission prior to the hearings.

ii. Construction: On page 5, Section 6. Noise Abatement, bullet 3, it states: **"***A majority of all exterior construction activities will occur during daytime hours from 7:00 a.m. to 7:00 p.m. or during daylight hours, whichever is longer."*

During the construction season, daylight hours are obviously much longer than the 12 hour window from 7 AM to 7 PM, so this response appears somewhat vague. It is unclear what definition of "daylight hours" are proposed, and what construction activities will occur in the dark. Meteorologically, daylight hours are specifically defined as sunrise to sunset, but the common usage includes at least some twilight, which as we know can last until nearly 10 PM in early summer in Maine; therefore, at times construction activities will be subject to nighttime noise restriction in 06-096 Chapter 375 10(C)(2)(i), where it states "Sound from nighttime construction activities shall be subject to the nighttime routine operation sound level limits…". However, an assessment demonstrating "control of noise" for nighttime construction has not been provided. Therefore, the construction sequencing, hours of operations, activities to be completed, and equipment must be provided for daytime and nighttime activities so that the DEP and public can understand what is being proposed.

iii. Construction: On page 4, Section 4, paragraph one states: "*Construction of Phase 1 is expected to start within a few months after receiving all necessary approvals and to continue for about two years. Phase 2 will include additional smolt and grow out tanks. Total construction time for both phases is expected to be about six years."*

This statement suggests that there will be long periods of time when noise may be a concern and any study should examine noise over that timeline. It also infers that there will be a period of time when Phase 1 Operations and Phase 2 Construction will occur concurrently, yet no assessment has been provided

for this scenario. This is an example of why it is imperative that the proponent provide the construction, operation, and maintenance equipment to be used throughout the project so that the public and intervenors can complete this assessment prior to the hearings.

Construction: On page 4, Section 4, paragraph two it states: *"Initial activities will include site clearing, earth moving, excavation, infrastructure connections, and foundations. This will be followed by concrete pouring and steel erection and then by installation of machinery and piping inside and outside of the new buildings. Later stages of construction will include siding installation, completion of interior systems, paving, finishing, testing and commissioning of systems, and final grading."* **The statement clearly indicates that at least broad level decisions have been made with respect to construction staging and sequencing that should be part of any construction noise assessment. This project construction information has not been provided.**

iv. **Operation:** *Sound associated with routine operation of the proposed Project will be produced by electric motors, water pumps, fans, filters, water flow, boilers, chillers, and engine-driven electric generators with all to be located inside industrial-grade Project buildings. Sounds associated with routine operation of exterior equipment will be produced by ventilation intakes and exhausts, cooling towers, and registered over-the-road trucks coming to and from the Project site."*

The proponent discussed 180 sounds sources that have been evaluated in their sound model as part of their most recent response to DEP's request for actual equipment and its sound data. It is a requirement to provide these sound sources to DEP per the submission section provided at the top of this letter, specifically Chapter 375 10(D)(2)(b), *"A description of major sound sources, including tonal sound sources and sources of short duration repetitive sounds, associated with the construction, operation and maintenance of the proposed development, including their locations within the proposed development."*

v. Operation*:* On Page 6, Section 5, paragraph three, it states: "*Presented in Figure 3 are contours of the A-weighted hourly equivalent Leq sound levels that will not be exceeded from regulated equipment during future operation of Project Phases 1 and 2."*

Two concerns with respect to this statement, and how it reinforces the data needs required for submission, (1) it acknowledges that this figure is limited to "future operations" only, and (2) why the word regulated? This choice of wording suggests that the facility has decided that there are "unregulated" sound sources, in which case omitted equipment needs to be identified.

vi. Operation: Pages 5 and 6, Section 6, titled: "*Noise Abatement*".

Just the simple fact that there is a need for noise abatement section justifies the DEP submission requirement for the proponent to provide not only the

sound source information discussed above, but also the mitigation measures. It is completely unclear what sources are located on-site that may need mitigation, where these sources are located, what degree of tonal mitigation is required, and how this mitigation will be assessed and deemed acceptable. The submission of these mitigation requirements are required specifically in Chapter 375 10(D)(2)(e). *"A description of proposed major sound control measures, including their locations and expected performance."*

vii. Maintenance: There is a single statement about maintenance that dismisses it as a non-concern, but does not include it in their sound assessment. On Page 5, Section 6, paragraph five, it states: *"Maintenance of the Project will include operations such as snow removal, machinery inspections, and machinery maintenance. Maintenance activities are not expected to require operations that produce significant off-site sounds that will be intrusive to residential neighbors."*

This extremely general statement does not address the number one concern associated with maintenance of a facility that has proposed to enclose and mitigate sound, and that is to perform maintenance often requires that buildings or activities that are normally enclosed or mitigated must be opened for maintenance. This concern is not limited to maintenance activities, there are also construction and operation activities that may require routine or unusual noise considerations. For example, a solid waste transfer station may be required by permit to keep its doors closed when not in use to minimize sound, but the reality of operations with incoming and outgoing material suggests that at least some fraction of the doors must be open at any one time simply to perform its operations. In those cases it is prudent to assume some fraction of doors open in the noise model, to represent the potential exposure to nearby uses. The proponent must describe, what construction, or routine operations or maintenance activities will occur that may reduce any sound mitigation measures assumed.

2. On July 3, 2019, the first formal request for information (RFI) was provided by DEP. There were two noise-related questions posed by DEP, Items 4 and 5, from the Site Law section of the questions. On August 22, 2019, seven weeks later, Ransom Consultants responded to DEP's RFI on Nordic Aquafarm's behalf. The questions and answers are discussed below:

   a. Item 4 – DEP asked "*4. In Table 2 of the Noise Impact Assessment, calculated numeric values should be submitted from the CadnaA computer sound model results for each of the protected locations, instead of a statement that the sound levels will be less than applicable noise standards. (Section 5 Noise.)"* **The one line response and table was:** "*A revised Table 2 including the calculated numeric values has been included as Attachment K.*"

   We accept that although lacking detail, this answer provides what was requested.

   b. Item 5 – DEP asked "*5. Please clarify that any construction activities occurring between 7:00 pm and 7:00 am would meet the noise control provisions of Site Law Rule Chapter 375(10)(C)(2). Additionally, please clarify whether any nighttime construction activities*

would occur on the water. If construction activities for pipe installation that would occur on the water would take place during nighttime hours, please provide noise assessment data for those activities. (Section 5 Noise.)" **Again, the proponent provided a minimal response.** *"All construction on-site will comply with the noise control provisions of Site Law Rule Chapter 375(10)(C)(2). In addition, no nighttime construction between 7:00 pm and 7:00 am is planned to take place on the water."*

Unfortunately, this time the short one line answer contradicts their study. Although they make no formal assessment for construction noise, they do provide a table in their report of representative "workday" equivalents of construction equipment; however, without any information on the number of each equipment type. While Tech will reserve a discussion of the applicability of the "workday" sound data metric for determining compliance with the Site Law Rules for a later date, regardless, if any piece of this equipment is operating within 500 feet of the fenceline, this table clearly shows an exceedance of the referenced "Rule". Their response to this question alone reinforces the need for construction sequencing, scheduling, and equipment source data, as required per the Rule.

3. On July 17, 2019, there was a meeting between the proponent and DEP to discuss the SLODA application. At that meeting, DEP made some additional verbal RFIs. Ideally, DEP would post the actual questions posed from meeting minutes to the applications page, if available, but without that resource we will assume the questions are as they were posed. On August 14, 2019 the proponent provided a detailed response in Q & A format for this meeting. The Q & A lists three noise-related RFI items, Items 12, 13, and 14.

    a. Item 12 – The question/request summarized was "*Noise – Confirm that no Northport requirements apply to the project."* **The answer/response provided was:** *"As indicated in the Acentech Noise Impact Assessment provided as part of the Site Law application materials, noise levels will be at or below 35 dBA at the Belfast/Northport line. This noise level is expected to comply with Northport requirements for noise."*

    Unfortunately, this response is not sufficient for the following reasons:

    i. It does not satisfy the Site Law Rule Chapter 375(10)(D)(2)(a), specifically, "Maps and descriptions of the land uses, local zoning and comprehensive plans for the area potentially affected by sounds from the development."

    ii. The response discusses the Belfast/Northport line, yet there are no receptors indicated in their application at this interface. Figure 3 does not even provide a property line for the Project, so determining sound impacts using the referenced Figure is challenging at best.

    iii. The project must provide compliance at and beyond the Town line.

    iv. The Acentech report only addressed "Future Operations" as the figure title indicates. This indicates that there will be some initial operations that have also not been considered for sound impacts.

v. The sound isopleth contours for operations <u>do not</u> suggest that noise levels will be at or below 35 dBA as claimed, since the 35 dBA contour represents sound level pressures between 35 and 40 dBA.

b. Item 13 – The question/request summarized was, *"Noise – Are there any permanent noise-producing features on the north side of Building 1?"* **While this was a simple yes or no question as posed, the response was anything but. While a detailed response is always preferred, it is not helpful when the response is contradictory. The response reads,** *"Most permanent noise producing features are located inside the buildings, and the building layout has been developed so that outdoor noise producing features (such as diesel generators) are located between Buildings 1 and 2 so that noise impacts are minimized. Some permanent noise producing features (building exhausts) are in roof top penthouses stepped greater than 90 feet inward from the northern edge of Building 1."*

Let us summarize this response, the answer is "Yes". This response alone reinforces the need to receive the requested sound source information for the following reasons:

i. On a typical rooftop there are intakes, exhausts, and HVAC related equipment. For this project, <u>given the site restrictions and the size of the buildings proposed, this equipment must go on the rooftop, there are no other locations available</u>, which is in essence a noise-producing feature "on the north side of the Building".

ii. It is interesting that the proponent can offer that the HVAC equipment will be greater than 90 feet inward from the northern edge of the building. That seems unusual given the layout of this building, but could be explored as part of a mitigation package. To be clear, this comment suggests many sound modeling iterations were likely performed to get this "just right" layout.

iii. The response discusses "outdoor noise producing features" but focuses on generators. It is still completely unclear how oxygen demand will be met. What "outdoor noise producing features" equipment will be used? And where? And at what height?

iv. <u>Again, the location of the sound producing equipment is required to determine whether this response has any merit.</u>

c. Item 14 – The question/request summarized was, *"Noise – Please confirm that sounds from the WTP are included in the noise model results."* **DEP was correct to ask this question since the noise modeling does not suggest that it is included, yet the response was simply:** "Yes, sounds from the WTP are included in the noise model results."

First and foremost, it is assumed that WTP stands for Water Treatment Plant, and in this application it refers to both the water treatment operations and the wastewater treatment operations that are proposed to be collocated in this building down by Route 1. From the appearance of Figure 3 in the Acentech Report No. 0480r3, any

experienced acoustic consultant could tell that these sound emissions could not have been adequately represented for the following reasons:

i. **There is a 2 million gallon per day water treatment plant that must take City, groundwater, and/or surface water and filter/treat it so it has no residual chlorine, no pathogens and or other concerns that could infect the monoculture proposed. The sound power from the equipment necessary is not insignificant and cannot be mitigated away by "insulation" as inferred in the isopleths.**

ii. **There is an 8 million gallon per day wastewater treatment plant proposed with more than three levels of processes included. The sound power from the equipment necessary is not insignificant and cannot be mitigated away by "insulation" as inferred in the isopleths.**

iii. **There will be a huge 8 million gallon per day pump station that will need to push and pull ocean intake water and discharge water. The sound power from the equipment necessary is not insignificant and cannot be mitigated away by "insulation" as inferred in the isopleths.**

iv. **These two process trains will create air emissions, humidity, heat, and solid waste that will require a robust HVAC system and exhaust points. The sound power from the equipment necessary is not insignificant and cannot be mitigated away by "insulation" as inferred in the isopleths.**

v. **There will be demands that require access for construction, operations, and maintenance that will necessitate open doors. The sound power from the equipment necessary is not insignificant and cannot be mitigated away by "insulation" as inferred in the isopleths.**

vi. **Even if all of the above statements about the sound being more than insignificant are incorrect, the analyses provided still only examines operation, and not construction and maintenance.**

4. On October 9, 2019, DEP sent another letter requesting sound information. On November 4, 2019, four weeks later, Ransom Consulting provided a response on Nordic Aquafarm's behalf. The Q&A process included two specific noise data requests, Items 2 and 3.

a. Item 2 – The question/request per DEP's letter was, *"2. Please submit sound level specifications for all outside sound-generating machinery and explain whether the resulting sound will comply with the corresponding Site Law standards. Will it be necessary to mitigate for the generation of noise from outside sound-generating machinery (e.g., cooling towers, generators, ventilation systems, etc.) by enclosing these noise sources?"*

The question specifically requested sound level specifications for all outside sound generating equipment AND a demonstration of how this will comply with the Site Law Standards AND any mitigation necessary to comply. The response contained nearly six times as many words as the original text discussing the sound study.

It did mention that both interior and exterior sound sources were considered in the model since all interior sound power must also be considered exterior sound, as it is emitted from intakes, exhausts, and through open and closed doors, open and closed windows, ceilings, walls, etc.

It also did mention that mitigation was necessary but it did not propose where or how it would answer the request that specifically asked "whether the resulting sound will comply with the corresponding Site Law standards." This response reinforces the need for DEP to go back again, and have the proponent provide the required information for the following reasons:

i. **Again, there is a reference to the Acentech Report and the updated numbers in Table 2. Unfortunately, there is no discussion of the "protected locations" or whether the six receptors were appropriately placed to best represent the potential off-site sound impacts. Because the proposed project is so large with large buildings very near its fenceline with respect to their size, placing receptors in the shadows of their buildings may, or may not, be appropriate to demonstrate proper "Control of Noise" at protected locations. <u>One cannot tell without the site terrain, building elevation and dimension information, and sound sources' data and locations.</u> The sound modeling information must be provided.**

ii. **The proponent still references the Acentech report that includes construction, operation, and maintenance in the title, but this comment still acknowledges that the analysis was ONLY performed for "*routine operation*" as noted again in the first line of the response.**

iii. **The response acknowledges: "*The sound model was based on project-supplied information, which identified the ventilation systems, generator system, building construction, attenuators, and equipment layout.*" Okay then, these are obviously available. They are required. And they should be provided.**

iv. **The response acknowledges that: "*The 180 sources in the sound model cover primarily air inlet fans, air outlet fans, and open vents for the various tank buildings with attenuators as necessary to provide a typical sound power level for each individual source of 60 to 65 dBA.*" Really this whole letter request simply boils down to an examination of this sentence because:**

   1. **There are many, many sound sources ("180 sources"). With this many sources no one, not even acoustic experts, can simply make a determination of whether the modeling provided is representative or demonstrates compliance, without examining it. It really is that simple.**

2. **The building inlets, outlets, and openings have been identified in the model. Where these penetrations are located will matter tremendously to those that live nearby. It really is that simple.**

3. **It mentions that some of these openings will need mitigation. The how, where, and why for mitigation matters for a project of this size, with these buildings proposed so close to residences, nature trails, etc. It really is that simple.**

4. **Mitigation is not one size fits all. Some is more effective than others. It works more or less effectively for different octave bands. Some is more costly than others. The bottom line is that the effectiveness of each piece cannot be examined by looking at this broad picture. It really is that simple.**

5. **With 180 sources, it is extremely important that the regulatory authority, the proponent, and the public understands what is proposed and what is expected. Later, if something is a little out of sync, this is the source information used as the baseline for any future compliance concerns. It really is that simple.**

b. ***Item 3*** **–** The question/request was, as per DEP's letter *"3. Please submit sound level specifications for all outside sound-generating machinery. And the response was "Please see above answer to Question 2 for response."*

This is not our first project, so this sequence of questions is very telling. The posed question is a repeat of Question 2 above with respect specifically, and only, to a demand to provide the required information. When a question is repeated again with only the request for specifications, there is no ambiguity. The proponent chose to ignore the unmistakable and obvious request for specifications.

While Tech will not attempt to understand why the proponent chose to purposely ignore a clear, unambiguous, and understandable data request that is specifically mentioned in DEP's rules in this case, Tech can possibly provide some insight into possible reasons why proponents in general often do not want to provide required information completely at first blush. It is often not until we explain why (1) it is the right thing to do to comply, but also (2) how it is beneficial for them, the regulatory agency, and the general public going forward during construction, and later on a day-to-day basis, that a proponent we are assisting stops resisting or minimizing information requests, and embraces them as transparency and insurance for their project. Tech will use a hypothetical Q&A format below to illustrate the potential reluctance and our typical response.

1. *Q: We are only in conceptual design, therefore we do not know exactly what piece of equipment will be specified, and what if we want to provide different equipment than is included in the list?*

A: The equipment specified for the sound analysis does not need to be the final selected piece of equipment. It is standard practice to submit "representative" equipment with an "or

equal" clause. The key here is that the "or equal" need only apply to sound, so Tech often recommends that if a proponent is considering a few options they chose the one with the largest sound footprint that they would consider.

2. *Q: Okay fine, but what if later, we learn that a piece of equipment is needed that exceeded our original conceptual design or we need to move something from its originally proposed location?*

   A: No problem, the model is already built out, it can be easily rerun to demonstrate compliance. It is a simple update that again shows compliance.

3. *Q: Okay, but what if we are right on the edge of compliance and this change puts us over the top?*

   A: No problem, there are always other mitigation alternatives that can be considered. The key is that if this change does occur, and you had not provided the information and then rerun the model, you would have had no idea that your facility, as per the final design, was going to be out of compliance. There are typically many more options available for compliance when still in design, than after construction. A proactive approach typically means more mitigation options at the time, which will result in a better fit for your project, and typically less costs than adding mitigation in response to complaints. And more importantly, you do not risk complaints, compliance concerns, process interruptions, and fines this way.

4. *Q: But if we simply promise to meet the regulatory threshold, aren't we all set for sound?*

   A: No, unfortunately you must not only meet the regulatory thresholds but you must also not be a nuisance with respect to noise. If you are dramatically changing the sound in an existing area, it is your responsibility to consider the unique aspects of the area. Most minimum regulatory threshold are based on health criteria, if there are other specific activities in use you may need to provide additional mitigation to address those needs. (This is why the first bullet in the submission process at the beginning of this letter is so important.) If you do not provide your assessment and the individual assumptions, and how you plan to meet the regulatory requirements and any additional needs, in an open format, especially if the permitting rules require it, or a regulatory agency requests it more than once, you are putting your project in jeopardy for an easy appeal or a potential lawsuit going forward.

5. *Q: Why can't we just agree to limit our sound at the fenceline to the limits in the regulations and ask for a performance condition for sound instead of providing the required information?*

   A: You can, but it is up to the regulators and not you to decide if that is a reasonable approach for this project, so until you provide the required information they cannot possibly determine whether a performance approach is applicable to your unique project and site circumstances. If you do not provide it, you are putting the regulators in an awkward position, as you are essentially asking the regulatory authority to approve a study that they have no idea how was set up, what was included, where it was included, etc.

6. *Q: Okay, but shouldn't we ask for a performance specification at first? Isn't that in our best interest for design flexibility?*

A: No, it is not in your best interest if the potential for audible sound exists, the project is to be located in an area that is currently pristine or does not have a significant industrial sound profile in all directions, and/or there are many, many potential sound sources proposed as part of your project. Unfortunately, the public does not understand that a project becomes noticeably audible at only a 3 dBA increase in sound over background. They also do not understand that a 10 dBA or even a 20 dBA increase in sound may still meet the regulatory permitting thresholds but still be 10 times, or a 100 times as loud, respectively, as the previous background conditions. Therefore, if the sound in the area is currently much less than the project sound, you should anticipate complaints, and the need for compliance demonstrations. The best way to do that is to have baseline of sound for each sound producing piece of equipment that you proposed to the regulators and they approved as part of the permit process.

7. *Q: We are concerned that if someone has all of our information they can copy our proprietary process, so can't we simply provide some, but not all of the information piecemeal to move on to permit review and approval, and best protect our interests?*

   A: No, most financiers require that proponents legally verify that they have complied with any obvious requests or requirements by the regulatory authorities as part of the permitting process at closing. We have provided you with a defendable study in anticipation of it being rigorously reviewed and critiqued. You have nothing to hide. Please note that just because someone can get ahold of the orders for food purchased by restaurant, it does not mean that they can copy or mimic its gourmet menu or service. Your intellectual property is the process approach and operations, not the equipment. That is why it is standard practice for regulatory agencies to make these requests. Your proposed equipment is proposed from a sound perspective, so you can always go through an exercise to pick like equipment, to throw someone "off your trail", if that is a real concern during design. Once constructed, the equipment will be obvious anyway.

8. *Q: Our model is very complicated and our equipment list is very long. Our model was run by experts, and we do not believe the City or Town, or other regulatory authorities have the software, the time, or expertise to run it, so why should we provide it?*

   A: Providing the model simply allows anyone potentially affected by your project to examine your approach and to comment on it during the permitting process. You need not worry yourself about their capabilities. As you know, most people are very busy. And while they may have heard about your project, it is unlikely that they are following it as closely as you are. It is not uncommon for an abutter to say later say "but I did not know how it would affect <u>me</u>! However, if the information is clearly presented as part of the process, and available for everyone to examine, and they chose not to review it or comment on it, it is much harder for them to suggest that they were not provided adequate opportunity to comment.

   As importantly from a regulatory perspective, the model is a key piece of information for the future, during construction, operation, or maintenance. If we are asked by a facility, or regulatory agencies, or local Board's of Health to respond to sound complaints that have

many, many sources, we immediately ask to see the original modeling and equipment sound assumptions, and start to examine the louder areas first, as they relate to their original assumptions. This allows us to quickly eliminate all the sources operating "normally" even if the perception is that they are loud. This baseline comparisons can prevent the facility from having to over-control loud sources after complaints, simply because they are described as noisome, not because they are out of compliance.

We hope this letter is helpful for DEP to understand how Upstream Watch has been waiting for this information from the FRIs, and we hope it can also help DEP justify once again to ask for the complete and specific list for sound producing equipment and its locations for construction, operations, and maintenance, as included in the proponent's sound model. To speed this process, the specific sound data needs are attached to this letter.

As discussed at the appeal hearing, noise impacts to the areas surrounding the proposed project is a topic for the hearings and is included in the bullet in the Third Procedural Order under the Site Law topics:

- Impacts to existing uses from construction and operations, including blasting and odor;

Therefore, the clock is ticking on this required information. Our hope is that this information can be provided within three business days, by Wednesday November 20, 2019. That would allow for one full week to digest this new information prior to the Thanksgiving weekend and the end of the month. Any later and there is simply not enough time to prepare testimony.

Tech understands that this is a large project proposal with many different processes, and many different stages of construction, operation, and maintenance, so it simply may take more time to put it together.

If this proposed deadline for data is acceptable and not met, can the testimony deadline be extended? And if so, until when?

If this proposed deadline is not as DEP and/or the proponent desires, can DEP please provide a different one? And if an alternative deadline is preferred by DEP and/or the proponent, and it is later than next Wednesday, would you please find out if the testimony deadline can be extended? And if so until when?

Please advise.

Sincerely,

TECH ENVIRONMENTAL, INC.

Michael T. Lannan, P.E.
President

Construction, Operation, and Sound Data Needs Request Attachment to Letter to DEP

1. What are the construction sequences and durations from the start of Phase 1 to end of Phase 1?
2. What are the construction sequences and durations from the start of Phase 2 to end of Phase 2?
3. Is there a proposed gap in time between Phases 1 and 2?
4. What specific type and quantity of non-road equipment will be used in each construction sequence? How does the response change if bedrock is identified? Please provide an alternative construction equipment list if bedrock/non-soil is identified in each sequence.
5. Please provide cutsheets and total and tonal sound for each piece of equipment proposed and used in the sound model.
6. What are the sound usage factors proposed for each piece of construction equipment in each sequence?
7. Please provide total truck traffic for each construction sequence.
8. How much material will be excavated daily and in total from each construction sequence?
9. What is the daily and total truck traffic expected from excavation materials in all phases?
10. How much gravel will be placed daily and in total from each construction sequence?
11. What is the daily and total truck traffic expected from gravel material delivery in all phases?
12. Will excavated bedrock be processed and converted to gravel on-site, and if so how, and by what equipment? Any on-site processing of soil, spoils, or rock should include the equipment cutsheets and noise assumptions in the model.
13. How much cement will be needed? Will it be made on-site or trucked in?
14. What is the cement and/or cement raw ingredient truck delivers on a daily and total basis?
15. How many trucks daily and total will bring in construction materials in each sequence?
16. How many trucks will bring in equipment for the project in each sequence?
17. How many trucks will bring in pipe for the project in each sequence?
18. How many trucks will bring in building materials in each sequence?
19. How many trucks will bring in asphalt for roadways in each sequence?
20. What other truck traffic is needed for construction in each sequence?
21. How many workers will be onsite in each sequence?
22. How much raw materials, spoils and other construction materials will be placed on-site and where from each sequence?
23. What type of non-road mobile equipment and how many of pieces of each will be used to excavate clay soils, top soil, or suitable fill?
24. What type of non-road mobile equipment and how many of pieces of each will be used to prepare and construct?
25. How many truck trips per day are assumed for constructing each sequence?
26. How many workers will be onsite when operating after Phase 1?
27. How many workers will be onsite when operating after Phase 1 and Phase2
28. How many trucks per day on average will be needed for construction building supplies, the mechanical systems, and process equipment in each sequence? Where will the make deliveries and queue?
29. How many total truckloads of soil will be removed from each sequence and up to how many trucks will be allowed to queue during soil removal in each sequence?
30. How many total truckloads of gravel will be required and up to how many trucks will be allowed to queue during gravel replacement in each sequence?

31. How many total truckloads of cement will be required and up to how many trucks will be allowed to queue during concrete placement in each sequence?
32. How many total truckloads of pavement will be required and up to how many trucks will be allowed to queue during pavement placement in each sequence?
33. How many total truckloads of pipe will be required in each sequence?
34. Where will the non-road and on-road equipment construction, operational or maintenance equipment be operated in each sequence?
35. How many truck trips per day are assumed for operating zones in each sequence?
36. How many truck trips per day are assumed for maintenance activities in each sequence?
37. What is the make, purpose, and model number of mechanical equipment, HVAC, or power producing equipment assumed for indoors or outdoors in each sequence?
38. What is the total sound data and tonal sound data in one third octave bands for equipment located indoors or outdoors that were used in the model in each building?
39. For equipment located indoors, was attenuation assumed for the buildings, and where was a conservative assumption of no attenuation made to keep it simple?
40. If attenuation was assumed for buildings, what were the attenuation assumptions for the walls and the roofs assumed in the model?
41. If attenuation was assumed for buildings, at what walls where the access doors in each building located?
42. If attenuation was assumed for buildings, where in the walls or rooftops were combustion exhausts included in each building located?
43. If attenuation was assumed for buildings, where in the walls or rooftops were intake and exhaust louvers located for modeling in each building?
44. If additional attenuation was assumed for mechanical equipment in the model, the specific attenuation equipment proposed with octave bad reductions or equal should be located in each building? The phrase beginning with specific is underlined for emphasis as attenuation can vary greatly for mechanical equipment not just in total sound, but across the sound spectrum, which when combined provide varying results.
45. Where were the heating and ventilation systems that will be installed in each building included in the model?
46. Where are the condensers to cool boilers, process equipment, ventilation equipment, air conditioning equipment, and/or power plant combustion processes that will be necessary in each building included in the model?
47. How does the significant increase in unsuitable soil removal extend the site preparation duration in Phases 1 and 2?
48. How will the unstable clay remaining adjacent to the clay excavation areas be stabilized in each phase?
49. If sheet pilings or other temporary measures are to be used to hold back the silt clay, where would they be located?
50. It is construction Best Management Practice (BMP) good construction to provide sound barriers for concentrated areas of construction, so where are sound barriers proposed for this facility?
51. Will sound barriers be permanent or temporary?
52. What other specific construction sound reduction BMPs?
53. Where are all the intakes, exhausts, opening, doors, and windows located in each building/enclosure?
54. What mitigation options were examined as part of the modeling and excluded?
55. Please provide the sound model electronically with a description of assumptions.
56. Please provide text he explains the items in the data request.