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August 8, 2016

Mr. Michael Wood
Burrillville Town Manager
105 Harrisville Main St.
Harrisville, RI 02830

Reference: L-2024-080616-0

Subject: Invenergy Clear River Energy Center
Invenergy Peer Review Responses on Noise and Community Noise Impacts

Dear Mr. Wood:

We have reviewed Invenergy's recent responses to the peer review comments on noise and consider them satisfactory.

In particular, they have agreed or otherwise provided assurances that:

- The noise emissions from the completed plant will be measured as a condition of the construction contract to demonstrate that the facility is compliant with the effective Town Ordinance noise limit of 43 dBA under all operating conditions¹. The testing will be monitored by the lender's independent engineer to verify the validity of the test results and permission has been granted for any parallel or additional testing that may be desired by the Town.
- They will pursue, as recommended, a field test of an existing facility with a similar steam turbine bypass system in order to witness and measure the actual acoustical performance of the low noise valves planned for the CREC project – rather than rely entirely on the valve supplier's noise guarantees – so that an appropriate acoustical design for the system can be developed during the design phase of the project.

¹ This specific performance has been previously guaranteed in writing by Invenergy in earlier data request responses and in subsequent oral testimony.



- They will take whatever appropriate steps are required to adequately mitigate noise during steam turbine bypass to maintain compliance with the nighttime Ordinance noise limit. The decision on Invenergy's part to only erect an enclosure over the ACC steam duct if testing at a prototype plant or credible field data from the valve supplier indicates that it is necessary is considered a reasonable approach. Our suggestion to build it as a precaution was only in the event that no pre-construction verification measurements could be taken to ascertain ahead of time what the sound emissions were going to be. However, in the event that such measurements are not possible and the sound emissions are higher than currently estimated, we would expect that a noise enclosure or other appropriate retrofit mitigation has been pre-designed and is ready to install immediately.
- In general, we believe the point has been made with regard to transient noise and that Invenergy has been adequately alerted to the extreme significance of steam turbine bypass noise and will act accordingly to successfully mitigate it.

Because compliance with the Town Ordinance at the nearest residences will be a contractual obligation of the engineering, procurement and construction (EPC) contractor and, in addition, a requirement that must be satisfied as a condition of the loan to finance the project, it appears to be a virtual certainty that the plant's noise emissions will meet the town's overall nighttime noise limit of 43 dBA. As explained in our supplemental comments letter to the Town dated July 7, 2016, there is no need to require compliance with the octave band noise limits also contained in the Ordinance because doing so would not make the plant any less audible but, importantly, would impose an essentially unachievable condition on the project. This recommendation is not in any way an endorsement of the project but simply the right and fair approach from a completely impartial technical viewpoint. The overall Ordinance limit of 43 dBA in and of itself is an appropriately protective noise limit for this particular facility because its low frequency sound emissions will be inherently insignificant.

Of course, please let me know if you have any questions.

Sincerely,

David M. Hessler, P.E., INCE
Principal Consultant
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