

STATE OF CONNECTICUT  
CONNECTICUT SITING COUNCIL

GRE GACRUX LLC petition for a declaratory ruling for the proposed construction, maintenance and operation of a 16.78-megawatt AC solar photovoltaic electric generating facility in Waterford, Connecticut. Reopening of this petition based on changed conditions.

Petition No. 1347A

August 3, 2020

SUPPLEMENTAL PRE-FILED TESTIMONY OF STEVEN D. TRINKAUS

**Q22. Why are you submitting supplemented testimony?**

A22. Last week, GRE submitted revised site plans to the Council. As that submission took place after I submitted my pre-filed testimony, I had not had the opportunity to comment on those plans in my original testimony.

**Q23. Do the revised site plans submitted by GRE change your conclusions with respect to GRE's failure to comply with water quality standards?**

A23. No. The revised plans still do not comply with many requirements of the 2004 Manual and the 2002 Guidelines.

**Q24. What is the basis for that conclusion?**

A24. I have not had time to review these plans in as much detail as those submitted with the motion to reopen this petition, but there are many examples of non-compliance. The forebays that were added, for example, are deficient in several ways described below.

- GRE apparently conceded that the 2004 Manual requires that each basin have forebays with a capacity of 25% of the WQV of each basin. Its new plans include forebays upstream of each basin. However, GRE has not provided, at least so far as I have seen, any calculations demonstrating that each forebay meets that 25% requirement, which is required by the 2004 Manual. If the forebays are not adequately sized, they will not serve their intended purpose.

- There does not appear to be any grading shown for any of the forebays, as required by the 2004 Manual. (See, e.g., Sheets C-4.2, C-4.5.)
- All but one of the forebays are shallower than permitted by the 2004 Manual, which requires them to be 4 to 6 feet deep; several are 2.5 feet shallower than is permitted. The forebay for Basin #1 is only 2 feet deep (Sheet C-4.2); the forebay for Basin #2 is only 3 feet deep (Sheet C-4.6); the forebays for Basins #3 and #4 are only 1.5 feet deep (Sheet C-4.6); the forebay for Basin #5 is only 2 feet deep (Sheet C-4.9); the forebay for Basin #6 is only 1.5 feet deep (Sheet C-4.9); the forebays for Basins #7 and #8 are only 2 feet deep (Sheet C-4.11); the forebays for Basin #s 9, 10, 11 and 12 are only 1.5 feet deep (Sheet C-4.7); one of the forebays for Basin #13 is only 2.5 feet deep (Sheet C-4.8); the forebays for Basins #14 and #16 are only 3 feet deep (Sheet C-4.5). None of these basins will serve their purpose as designed.
- Many of the forebays do not have the minimum length to width ratio of 2:1 or the preferred ratio of 3:1, per the 2004 Manual. In addition, GRE did not calculate the ratio correctly per the 2004 Manual; it is required to be from inlet to outlet, not from side to side as shown. The length to width ratio is less than 2:1 from inlet to outlet for forebays to Basins #1, #2, #3, #4, #7, #8, #9, #10, #11, #12, #13.
- The pretreatment forebay for Basin #2 is indicated as being located under solar panels. (Sheets C-4.3 and 4.6.) The same is true of the forebays for Basin #11 (Sheet C-4.7), Basin #13 (Sheet C-4.8), Basin #5 (Sheets C-4.8 and C-4.9), and Basins # 7 and #8 (Sheet C-4.11). How will those forebays be maintained to operate properly? I do not see anything in GRE's submission indicating how those will function properly.

- Not all runoff from the upland areas of the forebays is actually directed to the forebays, so untreated runoff will bypass some of the forebays and go right into the basins. This is true for Basins #1, #2, #4, #7, #8, #9, #10, #11, #13, #14, and #16.
- The plans do not indicate how the runoff will get from many of the forebays into the basins. That is true for Basins #2, #3, #14, and #16.

**Q25. Did you find any other problems with the revised plans?**

A25. Most of the original deficiencies I noted are still present in these revised plans.

Some other new problems I noted are as follows:

- The plans do not show grading for the temporary sediment traps that have been added;
- The sediment traps do not show inlets or outlets;
- The proposed 2 to 3 foot depth of the sediment traps will be insufficient to trap and remove sediments; and
- Sheet C-6.2 shows a cross section detail of the permanent basins that includes a downhill berm made of modified riprap, which is not consistent with the hydrologic model, which shows an elevated spillway above the bottom of the basin and the downhill berm being made of soil.

The statements above are true and accurate to the best of my knowledge.




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Steven D. Trinkaus

8/3/2020

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Date

CERTIFICATION

I hereby certify that a copy of the foregoing document was delivered by first-class mail and e-mail to the following service list:

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