

October 9, 2015

Via Electronic Filing

Wendy Jacobs
Bureau of Air Management
Department of Energy and Environmental Protection
79 Elm Street
Hartford, Connecticut 06106-4064

Subject: NRG Comments on the CT DEEP Draft new Section 22

Dear Ms. Jacobs:

Montville Power LLC, Connecticut Jet Power LLC, Middleton Power LLC and Devon Power LLC (collectively, the "NRG Connecticut Subsidiaries" or "NRG"), hereby submit comments on the Connecticut Department of Energy and Environmental Protection's ("CTDEEP") Draft State Implementation Plan for Air Quality; Reasonably Achievable Control Technology (RACT) proposed draft of new Section 22.

General comments:

1. At the outset of this rule making, the CTDEEP outlined a plan with 2 phases. Phase 1 would allow considerable compliance flexibility while physical changes are made to comply with the much tighter emissions in Phase 2. As this regulation has developed, NRG notes that compliance with the new seasonal limits in phase 1 have evolved to a point of being very challenging and unworkable. We do not believe that it is possible to generate or purchase enough discrete emission reduction credits (DERCs) to make use of this compliance option through Phase 1. The other compliance options all have various requirements that run counter to already-established operational commitments. Because of this, NRG strongly urges the CTDEEP to consider extending the existing trading order construct through Phase 1, to allow both DERC use and production. Additionally, the CTDEEP should consider extending the current seasonal limits through Phase 1.
2. NRG is disappointed with the removal of the start-up and shut-down provisions which appeared in a previous versions of the draft regulations. Start-up/shut-down provisions would have allowed us necessary compliance



flexibility for short term operations. For electric generating units (EGUs) that serve a peaking function, the start-up and shut-down time can be a significant portion of a daily averaging period. EGUs that provide peaking operations should be allowed a longer averaging period to take into consideration this operation. EGUs should be allowed to exempt any calendar day average period that contains a start-up or shut-down period.

3. In Section 22a-174-22e(g) (3)(F) the CTDEEP has cited 40 CFR 63 Subpart DDDDD and allowed compliance with this regulation as an alternative to meeting the specific NOx emissions limits in these proposed regulations. NRG agrees with this approach and would like the CT DEEP to consider a similar approach with the boilers serving EGU's. 40 CFR 63 Subpart UUUUU allows exemptions for "limited use" boilers. This NOx regulation should follow the same provisions in 40 CFR 63 Subpart UUUUU and allow exemptions to this regulation for limited use boilers.
4. In the absence of the ability to produce DERCs through Phase 1, NRG would like to have the option to use existing NOx allowances or some other accepted NOx currency for compliance purposes while preparations are made to comply with Phase 2.

Specific Comments on new sections of the new draft of Section 22.

Section (d)(2)(D): Please include details in this section describing how a dual-fuel unit meets this seasonal average.

Section(d) (4)(C) : This section is confusing, with section (C) defining the emissions limitations, and section (D) defining the non-ozone season emission limitations. It appears that there is no ozone season average emission limit, and that the daily block average applies. Please add a note to this section making this clear.

Section(d)(4)(D): if the daily block average defined in section (2)(C) applies, please state that in this section.

Section (d)(10)(C): This section refers to compliance with a daily block average and references section (m)(3). Section (m)(3) states that emissions data shall not



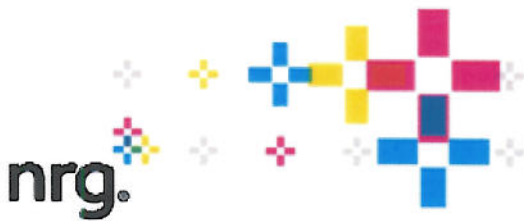
include periods of time when the unit is not operating. Does this mean that the “daily block average” is really an average of the time during which the unit is running – even if it is less than 24 hours? Using the “0” emission rate for the time within the 24-hour block that the unit was not firing is an important piece of the daily block average compliance equation, as it relates to peaking units.

Section (g)(2)(A): This section offers a 40% reduction in the NO_x rate from a baseline year emission rate as a phase 1 compliance option. NRG believes that 40% is much too aggressive and essentially penalizes the regulated community for operating any NO_x controls in 2014. Very preliminary NO_x control analysis shows that this kind of reduction is out of reach for our EGUs. NRG suggests this reduction should be a maximum of 25% to make this a realistic compliance option. Alternatively, perhaps the DEEP would consider a 40% reduction from the 2014 allowable emission rate.

Section (g)(2)(B): This section offers a 40% reduction in the NO_x rate from a 2019 baseline emission rate as a phase 2 compliance option. NRG believes that this additional 40% is much too aggressive. An 80% reduction in emission rate from a 2014 baseline emission rate is essentially unobtainable with the technologies available today.

Section (g)(2)(C): This section allows the use of existing, banked DERCs to comply with the applicable emissions limitations. Phase 1 should allow the production of DERCs. The trading orders should be extended through phase 1 with provisions for both production and consumption of DERCs, with consideration being taken for the new phase 1 emissions limits.

Section (g)(2)(D): this section describes an enforceable cap on NO_x tons emitted. Current wording states, “The enforceable cap shall achieve the lower of a 40% reduction in subject emission unit 2014 allowable emissions or the average of the actual emissions for the two non-overlapping consecutive 12-month periods between January 1, 2014 and March 1, 2017...”. NRG would like to see this wording changed to, “The enforceable cap shall achieve either a 40% reduction in subject emission unit 2014 allowable emissions or the average of the actual emissions for the two non-overlapping consecutive 12-month periods between January 1, 2014 and March 1, 2017...”.



Section (g)(2)(D): this section should be revised as above, allowing either a 40% reduction in allowable 2019 emissions or the actual emissions between June 1, 2018 and March 1, 2020.

Section (g)(4)(A) and (g)(4)(B): NRG would like more specific language stating that installing and operating water injection on a simple-cycle combustion turbine is RACT. While NRG does not disagree that the system shall be designed to comply with the referenced limits, experience has shown that often there is a discrepancy between design and as built performance. With no other emission reduction technology reasonably available, water injection must be considered RACT. Without stating this very clearly in the regulation, NRG may well be forced to submit an alternate RACT limit for all of the simple cycle turbines, as there is no technology available to mitigate NOx at a cost anywhere near the \$13,635/ton referenced in section(h)(1)(A)(iii). Please see the proposed revisions below:

(A) To satisfy the **ozone and** non-ozone season emission limitations in subsections (d)(4)(B) and (d)(4)(D) of this section, install and operate water injection technology. Water injection technology, **which is considered RACT for simple cycle turbines**, shall be operated at all times the simple cycle combustion turbine is operating, and the water-to-fuel ratio shall be continuously monitored. The water-to-fuel ratio that is acceptable during operation shall be established during the initial performance test, or, if the emission unit has a CEM system, during the initial relative accuracy test audit.

Additionally, **sections (d)(4)(B) and (d)(4)(D)** could be annotated stating that installation and operation of a water injection system is considered RACT for simple cycle turbines.

Section (g)(4): Simple cycle combustion turbine compliance options. The CTDEEP should consider an additional compliance option. This option should offer a permitted runtime or NOx emissions tonnage limit.



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NRG appreciates the opportunity to participate in the stakeholder process to craft a new Section 22. If you have any questions or require additional information please contact me at

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Respectfully Submitted,

A handwritten signature in blue ink that reads "R. Spooner".

Robert Spooner

Regional Environmental Supervisor