COMMENTS BY ECO POWER SOLUTIONS [USA] CORP.

ON

THE PREVENTION OF SIGNIFICANT DETERIORATION AND TITLE V GREENHOUSE GAS TAILORING RULE; PROPOSED RULE (FEDERAL REGISTER VOL. 74, NO. 206, OCTOBER 27, 2009 AT 55292 *ET SEQ*)

EPA DOCKET ID NO. EPA-HQ-OAR-2009-0517

AND ON

AGENCY INFORMATION COLLECTION ACTIVITIES; PROPOSED COLLECTION; COMMENT REQUEST; PROPOSED INFORMATION COLLECTION REQUEST ON THE STEAM ELECTRIC POWER GENERATING EFFLUENT GUIDELINES; EPA ICR NO. 2368.01, OMB CONTROL NO. 2040-NEW (FEDERAL REGISTER VOL. 74, NO. 208, OCTOBER 29, 2009 AT 55837 *ET SEQ*)

EPA DOCKET ID NO. EPA-HQ-OW-2009-0819

Eco Power Solutions [USA] Corp. ("Eco Power") has developed innovative technology that has been shown in tests conducted at the Brookhaven National Laboratories to achieve a 96% or greater reduction of SO_2 and NO_x (as well as similar reductions in mercury – Hg and particulate matter ›PM_2). By contrast Selective Non-Catalytic Reduction achieves only a 35% reduction in NO_x from coal fired plants. Eco Power's technology also achieves equal or better SO_2 reduction compared to Wet Flue Gas Desulfurization but drastically reduces the effluent normally associated with the use of SO_2 scrubbers. Finally, by capturing waste heat, Eco Power's technology helps to pay back the capital costs of the equipment's installation. A description of Eco Power, its technology, and the test data from the Brookhaven National Laboratories is Attachment 1 to these comments and made a part hereof.

We file these comments because:

1) The Best Available Control Technology (BACT) procedures summarized by EPA's Climate Change Workgroup as part of the Greenhouse Gas Tailoring Rule's information gathering strategy do not adequately provide for the evaluation of innovative technology.

2) Similarly, the EPA Proposed Information Collection for Steam Electric Power Generating Effluent Guidelines does not gather information regarding innovative technologies that would reduce effluent discharges from those facilities.

Background

A range of EPA documents, including EPA's Regulatory Impact Analysis (RIA) to OMB for the SO_2 rule, as well as its RIA for the Ozone rule presuppose control strategies based on the use of Wet Flue Gas Desulfurization scrubbers for SO_2 and Catalytic or Non-Catalytic Reduction for NO_X. As shown below, EPA's "top-down" BACT determination process as set forth to the Climate Change Workgroup (which is operating under the Tailoring Rule) effectively screens out innovative technology. Similarly, the Information Collection Proposal's focus is limited to deployed technology, even though the asserted goal of the study is the collection of information to characterize waste streams and "assess the availability and affordability of treatment technologies." (74 Fed. Reg. 208 at 55839).

Greenhouse Gas Tailoring Rule

EPA has proposed to tailor the major source applicability thresholds for greenhouse gas emissions under the Prevention of Significant Deterioration (PSD) and Title V Programs of the Clean Air Act and set a PSD significance level for greenhouse gas emissions. In the proposed tailoring rule, EPA specifically states that it "plans to compile and make available technical and background information on GHG [greenhouse gas] emission factors, control technologies… for key GHG source categories. This information will be particularly helpful to permitting authorities in making BACT determinations for GHG for sources that trigger PSD during the phase-in period…. In addition, we will pursue using this information to develop presumptive BACT levels for selected source categories." (74 Federal Register No. 206 at 55348). That process has been linked on EPA's webpage to the workings of EPA's Climate Change Work Group (www.epa.gov/air/caaac/climatechangewg.html).

The BACT Determination Process

Under Section 169 of the Clean Air Act, 42 U.S.C. § 7479(3):

> "The term "best available control technology" means an emission limitation based on the maximum degree of reduction of each pollutant subject to regulation under this chapter emitted from or which results from any major emitting facility, which the permitting authority, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such facility through application of production processes and available methods, systems, and techniques, including fuel cleaning, clean fuels, or treatment or innovative fuel combustion techniques for control of each such pollutant."

While it is true that Congress mandated consideration of "innovative" technologies associated with combustion techniques, it also used the word "including",

thereby making it clear that that was only one example and in no sense did Congress rule out the consideration of innovative technologies in determining BACT. Similarly, in its own regulations, 40 C.F.R. Ch. 1 § 51.65(xl), EPA defines best available control technology as:

> "an emission limitation….based on the maximum degree of reduction for each regulated NSR pollutant which would be emitted from any proposed major stationary source or major modification which the reviewing authority, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such source or modification through application of production processes or available methods, systems, and techniques, including fuel cleaning or treatment or innovative fuel combustion techniques for control of such pollutant."

There is nothing in that regulation which would justify focusing on existing widely deployed technology or that would justify ruling out innovative technology.

Climate Change Workgroup

EPA's top-down BACT process is described in the New Source Review-BACT Review Climate Change Workgroup document dated October 6, 2009, a copy of which is Attachment 2 to these comments and made a part hereof.

The New Source Review and BACT Review purports to require identification of all control options, but as to innovative technologies, indicates "innovative technologies (not required)". (October 6, 2009 New Source Review, p. 9). The obvious question is why should a review of innovative technology not be required? There is simply nothing in the statute or regulations to justify this anti-new technology bias.

Additionally, as part of the screening out of "infeasible controls" the analysis requires a determination as to whether technology is "demonstrated", defined as previously installed and operated successfully on a similar facility. If undemonstrated in that narrow sense, the technology is not to be considered unless it is found to be "<u>both</u> available and applicable". The determination of availability, however, is subjective and focuses on review of existing controls in the RACT/BACT/LAER Clearinghouse and "other reliable sources" and the determination of what is "applicable" is not explained. The Clearinghouse once again focuses on already installed technology.

In other words, there is built in to the BACT determination process a bias against innovative technology that has no basis either under the Clean Air Act or under EPA's regulation defining BACT and other Clean Air Act standards such as reasonably available control technology (RACT) or lowest achievable emissions rate (LAER).

Additionally, EPA is in the process of reconsidering the sulfur dioxide standards (Federal Register Vol. 74, No. 234, December 8, 2009, p. 64810 *et seq*). Although in the rulemaking for SO_2, EPA's focus is on whether the national ambient air quality standards for SO_2 need to be tightened in order to be protective of human health, EPA itself has acknowledged that implementation of any such changes will have technology and cost implications. Thus, EPA has acknowledged that if the SO_2 national ambient air quality standards are revised as a result of this review:

> "Certain states would then be required to develop SIPs that identify and implement specific air pollution control measures to reduce ambient $S0_2$ concentrations to attain and maintain the revised SO_2 NAAQS, most likely by requiring air pollution controls on sources that emit oxides of sulfur ($S0_x$)." (Proposed rule at 64813)

Additionally, if a state fails to meet the national ambient air quality standards after EPA determined that it has not achieved national ambient air quality standards, the state would need to submit an implementation plan revision within one year of EPA's determination. This submission must demonstrate that the standard will be attained as expeditiously as practicable, but no later than five years from the effective date of EPA's finding that the area failed to attain national ambient air quality standards. The "SIP revision must include any specific additional measures as may reasonably be prescribed by EPA including 'all measures that can be feasibly implemented in the area in light of technological achievability, costs…'" (Proposed rule at 64860).

Moreover, Section 172(c) of the Clean Air Act states that nonattainment areas must submit a SIP that provides "for the implementation of all Reasonably Available Control Measures (RACM) as expeditiously as practicable (including such reductions in emissions from existing sources in the area as may be obtained through the adoption, at a minimum, of Reasonably Available Control Technology (RACT))" (Proposed Rule at 64861). Under the Prevention of Significant Deterioration (PSD) Program SIPs must require "Installation of Best Available Control Technology (BACT)" (Proposed rule at 64861). Additionally, prior to adoption of the SIP revision addressing major source nonattainment NSR for SO_2 the SIP must provide for "installation of Lowest Achievable Emission Rate (LAER) control technology" (Proposed rule at 64863).

The proper determination of RACT, BACT and LAER needs to consider innovative technology on an equal footing with widely installed technology.

Proposed Information Collection Notice

EPA's review of the current national effluent guidelines regulations, which were last updated in 1982, indicates the current regulations "do not adequately address the pollutants being discharged and have not kept pace with changes that have occurred in the electric power industry." (74 Federal Register at 55839).

EPA's information collection request (ICR), as presently formulated, will not provide information necessary to "assess the availability and affordability of treatment technologies" (Id.) which is the ICR's purported goal, nor will it provide sufficient data "to perform detailed technical and economic analysis that will support EPA's rulemaking." (Id.) That is because EPA's proposal only covers information gathering from existing electric power plants and makes no provision at all for the collection of information regarding innovative control technology.

Accordingly, the ICR should be reformulated so as to secure information regarding technologies that are now becoming available rather than simply surveying existing technologies.