

US EPA ARCHIVE DOCUMENT



July 17, 2009

Mr. David Conroy
Chief, Air Branch
U.S. EPA Region 1
One Congress Street, Suite 1100
Boston, MA 02114-2023

*Re: Amendment to Permit Modification Application
Northeast Gateway Energy Bridge, LLC (Permit Number RG1-DPA-CAA-01)*

Dear Mr. Conroy:

This letter represents an amendment to the modification application for the subject permit submitted to EPA Region 1 in October of 2008. We are hereby making two changes to the modification application: 1) withdrawing the request in the application for relief from operating the SCR at all times while moored to the buoy, and 2) increasing emissions limits for carbon monoxide (CO) from the dual fuel generator on the second generation vessels.

SCR Operation on Buoy

Section 1.2.4 of the October 2008 modification application explains that it is not technically feasible at all times to comply with Conditions VIII.D.i. through VIII.D.viii of the permit (these are conditions primarily requiring operation and monitoring of the SCR system as well as meeting the SCR-related emissions limits while on buoy and not regasifying) because the SCR vendor determined that an approximate 2 hour period of SCR catalyst regeneration is necessary while on buoy prior to urea injection in the SCR. With additional engineering study, the SCR vendor, in conjunction with Exmar, the vessel operator, has developed operational procedures which negate the need to regenerate the catalyst. We therefore withdraw the request for relief from permit conditions VIII.D.i. through VIII.D.viii as described in Section 1.2.4 of the October 2008 modification application. Note that we are not withdrawing the other request in Section 1.2.4 of the application, namely our request for clarification in the permit as to the significance of "initial startup" with regard to the defining the beginning of full applicability of permit conditions and stack emissions compliance testing.



CO Emissions Limits for Dual Fuel Generator

Over the past several months, Northeast Gateway Energy Bridge LLC has requested additional vendor testing of emissions from the Wärtsilä dual fuel generator (permit unit GE2) on Explorer, the initial second generation vessel which was commissioned last year. This supplemental testing was requested because the initial testing of GE2 (for purposes of establishing compliance with International Maritime Organization standards) indicated that emissions might be close to the limits specified in the air permit for GE2. The pipeline blockage which occurred during Explorer's cargo delivery earlier this year created an opportunity for Wärtsilä to conduct additional NO_x and CO testing of the dual fuel generator on Explorer while it was located off the Northeast Gateway Port. In addition, the next second generation vessel, Express, has undergone initial trials at sea near the shipyard in Korea and these trials have included emissions testing of GE2 on that vessel.

After several rounds of additional testing including testing under a variety of engine conditions, it is now clear that the CO emissions limit for GE2 established in the air permit based on vendor specifications for these engines cannot be met. We therefore request that the CO emissions limits for unit GE2 be adjusted upwards in the permit as part of the permit modification we are currently completing. As shown below, we are requesting that the CO emissions limits specified in the permit be increased by 30% based on the latest emissions test results. **These higher limits will not affect potential emissions from the Port or worst case dispersion modeling results (which have shown compliance with NAAQS) because these were based on the diesel generator (GE1) located on the first generation vessels instead of GE2. GE1 was used for permit compliance purposes because the diesel generator has significantly higher emissions of all pollutants than GE2.**

The existing and proposed new CO emissions limits for GE2 are:

Existing Permit CO Limit = 2.1 g/kWh or a maximum of 15.3 lb/hr, whichever is greater.

Modified Permit CO Proposed Limit = 2.7 g/kWh or a maximum of 19.9 lb/hr, whichever is greater.

No change is proposed to the 370 hour Port-wide operational limitation for GE1 and GE2 combined on a 12-month rolling average basis.



Thank you in advance for your assistance and feel free to call Keith Kennedy at 617-803-7809 or me at 832-813-7629 if you have any questions.

Sincerely,

A handwritten signature in black ink that reads "Mike Trammel". The signature is written in a cursive, flowing style.

Mike Trammel
Director – Environmental
Excelerate Energy, L.L.C