Northeast Gateway Energy Bridge, LLC
Draft Air Permit RG1-DPA-CAA-01
Response to Comments

On February 8, 2007, EPA Region 1 published in the Boston Globe a notice for public review and comment of a proposed clean air act permit for Northeast Gateway Energy Bridge, LLC's (NEG LLC) Deepwater Port off the coast of Massachusetts. In addition, on March 8, 2007, EPA Region 1 held a public hearing on the proposed permit at the Region 1 office in Boston Massachusetts. EPA has prepared this document known as the "response to comments" (RTC) that briefly describes and addresses the significant issues raised during the comment period and what provisions, if any, of the draft permit have been changed and the reasons for the changes.

In addition, the RTC also includes several general issues not raised during the comment period that affect NEG LLC's final permit and a brief description of the actions EPA took to address those issues.

The RTC will accompany the final permit for NEG LLC. EPA will mail the response to comments and the final revised permit to everyone who commented on the draft permit or who requested a copy.

GENERAL ISSUES

State and Federal Authority

In section IV.D.1 of the Statement of Basis (SOB), EPA stated that the February 21, 2006, Northeast Gateway Energy Bridge, L.L.C (NEG LLC) application included a Best Available Control Technology (BACT) analysis to comply with the Massachusetts Department of Environmental Protection's (DEP) Plan Approval rules at 310 Code of Massachusetts Regulations (CMR) 7.00. The BACT analysis applied to the main and auxiliary boilers (units B1, B2 and Aux 1, respectively of the permit) and the 1st and 2nd

generation diesel engines (GE1 and GE2). EPA determined that the limits proposed in the analysis would constitute BACT. In the draft permit, EPA focused on the role of those proposed limits in enforcing the cap on emissions from NEG LLC's deepwater port (NEG) to limit its potential to emit to minor source levels. In this final permit, EPA is confirming that the industrial regasification operations on these vessels are part of NEG. Therefore, EPA will regulate emissions from those operations pursuant to the stationary source requirements of the CAA and the Massachusetts State Implementation Plan (SIP). The final permit meets all requirements of the DEP's 310 CMR 7.02 - Minor Source Permitting Regulations, including the requirement to install BACT. As indicated in the SOB for the draft permit, EPA has reviewed the BACT analysis provided in the application and concludes that the limits proposed in the application and the draft permit meet BACT. The final permit's emission rates for main and auxiliary boilers and for the 1st and 2nd generation diesel engines represent BACT for these emission units.

In addition to the preconstruction permitting requirements of 310 CMR 7.02 addressed by this permit, NEG is subject to, and NEG LLC's application indicates it will comply with, the following state and federal stationary source regulations:

Federal New Source Performance Standard 40 Code of federal Regulations (CFR) 60, Subpart 60 Subpart Db;

310 CMR 7.02(8)(H) - Particulate Emission Limitation for New Fossil Fuel;

310 CMR 7.05 - Sulfur Content of Fuels;

310 CMR 7.06 – Visibility;

310 CMR 7.09 - Dust, Odor: Construction and Demolition;

310 CMR 7.10 – Noise;

310 CMR 7.22 - Sulfur Dioxide Emission Reduction for the Purpose of Reducing Acid Rain;

310 CMR 7.24 - Organic Material Storage and Distribution;

310 CMR 7.26 Industrial Performance Standards for Engines and Turbines; and

310 CMR 8.00 - Prevention and Abatement of Emergency episodes.

Revisions

EPA has added the following condition to limit opacity as required by 310 CMR 7.06.

Condition V.A.10: The Permittee shall not discharge into the atmosphere from any single source of emission whatsoever any emissions of smoke with a shade, density or appearance equal to or greater than No. 1 of the Ringelmann Chart for a period in excess of (6) minutes during any one (1) hour, provided that at no time would visible emissions be equal or greater than No. 2 on the chart.

EPA revised Section XII.A to include the state and federal regulations listed above.

Particulate Matter Emission Rates

EPA is currently developing New Source Review (NSR) regulations that apply to the National Ambient Air Quality Standard (NAAQS) for Particulate Matter with aerodynamic diameters smaller than 2.5 microns ($PM_{2.5}$). As part of the rule development, EPA intends to initiate a program to improve the performance test method used to measure condensable Particulate Matter (PM) emissions. Until these improvements are completed, EPA is not requiring NSR permits, including minor source NSR permits, to account for condensable emissions in any permitted PM emission rate or to require the condensable PM emissions performance test method (i.e., 40 CFR Part 51, method 202).[1]

Since NEG LLC's draft permit included PM_{10} emission rates for the boilers that were based on filterable and condensable emissions, EPA offered NEG LLC the option to keep the existing PM_{10} emission rate and compliance requirements or to revise the final PM_{10} emissions rate based on filterable PM_{10} emissions only and to remove the associated method 202 test from the final permit. NEG LLC chose the second option to remove

[1] As of this date, EPA has not promulgated regulations to implement the NSR program requirements for $PM_{2.5}$. In an October 23, 1997 memorandum from John Seitz, Office of Air Quality Planning and Standards, EPA addressed the interim use of PM_{10} as a surrogate for $PM_{2.5}$ in meeting NSR requirements under the Clean Air Act. All PM emission rates in the NEG LLC permit are based on PM_{10} emissions.

condensable emissions from the boilers in its final PM_{10} emission rate. EPA has revised the permit accordingly. EPA notes that these revisions did not adversely affect the PM_{10} air quality impact analysis since the analysis was based on the higher proposed PM_{10} emission rate. In addition, the PM_{10} BACT analysis was unaffected because the final permitted operational or control requirements did not change.

Revisions:

EPA is revising the following conditions:

Condition V.A.1.e. PM_{10}:
0.0019 lb/MMBtu or a maximum of 1.7 lb/hr whichever is more stringent

Condition V.A.2.e. PM_{10}:
0.0019 lb/MMBtu or a maximum of 1.7 lb/hr whichever is more stringent

Condition VI.C.1.a.ii.D:
Remove the term "Method 202"

Endangered Species Act Consultation

In the SOB for the draft permit, EPA noted that the U.S. Coast Guard and MARAD were consulting with NOAA under the Endangered Species Act (ESA) and the Marine Mammals Protection Act (MMPA) to address possible impacts the port might have on protected marine mammals. EPA anticipated that those consultations would be completed prior to issuance of this permit, and that EPA could rely on the results of that consultation in addressing the requirements of the ESA.

NOAA and USCG have completed their consultation under the ESA, and NOAA has issued a biological opinion finding that the project will not jeopardize protected species. In addition, however, NOAA concluded that there would be a take of the species by

acoustic harassment. NOAA did not include an incidental take statement in its biological opinion which would identify any conditions necessary to authorize the take because the National Marine Fisheries Service (NMFS) needs to complete a separate consultation under the MMPA before establishing those conditions. NMFS has completed its consultation and has issued an incidental harassment authorization (IHA) under the MMPA that is effective from May 8, 2007 through May 7, 2008. Based on this IHA NOAA expects to amend the biological opinion to complete the incidental take statement, thereby establishing the conditions under which the project may proceed despite the risk of a take. In addition, EPA understands that NOAA will undertake a rulemaking during the year for which the IHA is effective to determine whether a longer-term authorization for the take is appropriate. That process has not yet been completed.

Therefore, EPA is prepared to issue this permit subject to the condition that the permit will not take effect until NEG LLC obtains a completed incidental take statement from the National Marine Fisheries Service. In addition, the permit will remain effective only as long as NEG LLC continues to hold an effective incidental take statement. This condition will assure that the project cannot commence or continue construction or operation pursuant to this permit unless NEG LLC has obtained and continues to hold an incidental take statement, and NEG LLC will be required to comply with any terms and conditions therein.

Revisions

The second paragraph of the signature page is modified as follows:

The design, construction and operation of NEG shall be subject to the attached permit conditions and permit limitations. This permit becomes effective on the date of issuance or the date the Permittee obtains an incidental take statement from the National Marine Fisheries Service, whichever comes last, and shall remain in effect only as long as NEG LLC continues to hold an incidental take statement or until rescinded by or surrendered to EPA. This permit becomes invalid if the Permittee does not commence construction within 18 months after receipt of permit issuance. EPA may extend the 18-month period

upon a satisfactory showing that an extension is justified. This permit does not relieve the Permittee from the obligation to comply with applicable state and federal air pollution control rules and regulations.

Add a new provision to section XII. "OTHER APPLICABLE REGULATIONS AND LAWS" as follows:

The Permittee shall provide EPA a copy of the incidental take statement from the National Marine Fisheries Service which the Permittee must obtain. Permittee's receipt of the incidental take statement is sufficient to make this permit effective, and Permittee must supply EPA a copy within 2 business days of receiving it.

Recordkeeping Requirements

The draft permit provided that NEG LLC had the option of keeping records onboard their vessels or at an on-shore location in Massachusetts that provides reasonable access. During our continued discussions with NEG LLC and the sister agencies regulating this deepwater port, it became increasingly clear to EPA that entries on to NEG's vessels will be a complicated matter. As this permit makes clear in Section IX, the Clean Air Act provides EPA authority to make unannounced inspections at reasonable times to access records, whether located on a vessel or on land. But having the compliance records located several miles out to sea will inevitably complicate any inspection of the records, and requiring EPA to enter the vessels for a record review may lead to unnecessary disruption of the port's operations. Therefore, EPA is eliminating the option to keep the compliance records on the vessels, and requiring that all records be kept at an on-shore location.

Revisions

Modify Condition IV.D.1. as follows:

The Permittee shall keep records of the following parameters or items. Unless otherwise specified, the records shall be maintained for a period of five years following the date of such measurements, purchases, maintenance activities, or reports. The original records shall be kept ~~onboard the LNGRV or such other~~ at an on-shore location within the Commonwealth of Massachusetts as the Permittee ~~might~~ shall arrange to provide

reasonable access to the records. At a minimum, the records maintained onshore shall be updated on a monthly basis. The original records and the copies must be in a permanent form suitable for review and inspection.

RESPONSE TO COMMENTS

1St Commenter

Northeast Gateway Energy Bridge, LLC
February 28, 2007

Comment 1: NEG LLC asked EPA to revise Condition II and VIII.D of the permit to clarify that the permit only applies to the vessel's emissions from the regasification process. NEG LLC also requested that emission units unrelated to regasification be removed.

Response: In responding to NEG LLC's comment, EPA asked the Massachusetts Department of Environmental Protection (DEP) to clarify how its regulations apply to vessel emissions not associated with the regasification process. The DEP stated that the regulations do not apply to emissions that result from in-transit vessel operations. The DEP also clarified that it interprets its stationary source permitting regulations to provide that hotelling emissions from the vessels while they are docked and not engaged in regasification are properly associated with the vessels' routine in-transit operations. This interpretation is consistent with the scope of the Deepwater Port Act. Therefore, those emissions should not be included in the cap designed to limit the potential to emit from NEG as a stationary source.

NEG LLC has stated that there will be periods when its vessel are moored at the port but not regasifying. All emissions during these periods are unrelated to the regasification process; therefore, EPA will revise the permit and exclude emissions during these periods from the permit conditions designed to limit NEG's potential emissions as a stationary source. In addition, EPA will remove from the permit those emission units that are clearly not associated with the regasification process (i.e., In1, EmGen1, Lif1 and Res1).

EPA also understands that NEG LLC's main boilers and diesel generators will supply power for non-regasification activities during periods when the vessels are moored at NEG and regasifying. It may be possible to quantify those emissions attributable to the non-regasification activities with sufficient particularity that there would be a basis for excluding them from the permit's limits on potential emissions. However, NEG LLC's permit application does not provide sufficient information to allow EPA to determine the amount of emissions that result from non-regasification activities during the regasification process. Without this information, EPA can not develop practicably enforceable conditions that can clearly differentiate between regasification and non-regasification emissions. Therefore, EPA's permit will continue to apply to all emissions while NEG LLC's vessels are moored and regasifying at NEG.

Finally, NEG LLC has indicated that its hotelling emissions that are no longer capped by this permit will not need to be addressed in a conformity determination because those emissions are well under the de minimus levels below which general conformity requirements do not apply and any additional hotelling emissions allowed outside the limits of the permit's emissions cap will be very low, about 0.45 TPY of NOx. As a result, there is no need to revisit the conformity determination on which EPA is relying to issue this permit. This emissions estimate assumes that NEG LLC will be operating its SCR control equipment while the vessel is moored to NEG, even when not regasifying. To preserve the integrity of the conformity demonstration, EPA has added a condition to this permit to require operation of the SCR controls whenever a vessel is moored to NEG, whether or not it is engaged in regasification.

Revisions:

EPA revised or removed the following conditions:

Condition II. Equipment List – Removed references to In1, EmGen1, Life1, and Res1, and modify the last sentence as follows:

"Except as specifically provided otherwise, the requirements of this permit apply to each of these emission units on any EBRV or LNGRV while moored and regasifying at NEG."

Condition V.A.5: Remove references to IN1, EmGen1, Life1 and Res1

Condition V.A.7: Remove references to IN1, EmGen1, Life1 and Res1

Remove Condition V.B.11: Operational limits for In1, EmGen1, Life1 and Res1.

Condition VI. B.1.c: Remove references to IN1, EmGen1, Life1 and Res1

Condition VI.B.1.d: Remove references to IN1, EmGen1, Life1 and Res1 from the last equation. Also, remove the last sentence from the "Note."

Remove Condition VI.B.7: Operational records for to IN1, EmGen1, Life1 and Res1

Remove Condition VI.D.1.a.l: The hours of operation each day for units IN1, EmGen1, Life1 and Res1

Add new Condition VI.D.1.a.o:

"The time and date that regasification begins and ends for each LNGRV."

Remove Condition VII.D.3.e:

"The total hours of operation for units IN1, EmGen1, Life1 and Res1."

Revise Condition VIII.D. to read,

"Any EBRV or LNGRV while moored and regasifying at NEG must comply with this permit, and this permit applies while the EBRV is moored and regasifying at NEG. In addition, the requirements of the following sections apply when any EBRV or LNGRV is moored at NEG and not regasifying."

i. V.A.1.a.

ii. V.A.2.a.
iii. V.A.3.a.
iv. V.A.4.a.
v. V.A.9.
vi. V.B.1 & 2.
vii. VI.B.6. & 7
viii. VI.D.1.j. & k.

Comment 2: NEG LLC asked EPA to clarify that the permit applies to LNG regasification vessels other than NEG LLC's own trademark Energy Bridge™ Regasification Vessels (EBRV). NEG LLC also recommended that the permit include a statement that allows vessels similar to the EBRV to use NEG provided that the vessel's emissions (expressed in lbs/hr) are less than or equal to the limits specified in the permit. In addition, EPA should specifically allow the use of the LNG regasification vessels described in EPA's draft permit for the Neptune LNG LLC facility.

Response: EPA's permit approves the use of any vessel that meets the terms and conditions of this permit. To clarify this intent, EPA will include the more inclusive term "Liquid Natural Gas Regasification Vessel (LNGRV) " and clarify in the permit that an LNGRV that has a configuration substantially similar to an EBRV and can comply with all the permit terms can use the port. However, if NEG LLC intends to use an LNGRV not described in its application, it must first apply for and receive approval from EPA if that LNGRV is not substantially similar to the EBRV identified in NEG LLC's application and cannot comply with all the emission limits, operational restrictions, and monitoring requirements in this permit. While in the abstract, it would be attractive to allow any vessel that limits its emissions to the levels provided for in this permit, it is impossible to enforce those emissions limitations without a carefully designed set of limits and compliance conditions. If another vessel type can meet the requirements of this permit, including the monitoring and other compliance conditions, then there is no need to revisit the permit. But a differently configured vessel may require modified or enhanced compliance conditions that will necessitate a revision of this permit.

In addition, NEG LLC's permit will not approve the use of Neptune's vessels. EPA is permitting two separate deepwater ports in its review of NEG LLC's and Neptune's permit applications, and we cannot treat the terms and conditions of those two permits as generically interchangeable. Neptune's vessels are differently configured than NEG LLC's, and therefore require substantially different operational limits than provided for in NEG LLC's permit. For example, NEG LLC expects to run its diesel generators relatively seldom in normal operations, whereas Neptune will be running diesel generators routinely. EPA expects that our thorough review of the Neptune permit application should make it easier to address the use of Neptune's vessels at NEG, if that scenario should arise, but that is not the application EPA has before it now. When the time comes to address that scenario, NEG LLC must seek approval from EPA before it allows Neptune vessels to use NEG.

Revisions:

Revise the last sentence in Condition II. to read:

> "Except as noted, the requirements of this permit apply to each of these emission units on any EBRV of LNGRV while moored and regasifying at NEG."

Include a new definition in Condition IV:

Liquid Natural Gas Regasification Vessel (LNGRV): Any vessel that regasifies LNG.

Modify the Definition of EBRV in Condition IV:

NEG LLC's trademark fleet of specially design liquid natural gas regasification vessels.

Include the following language at the beginning of Condition II. Equipment List: "This permit applies to the following list of equipment aboard any EBRV or any Liquid Natural Gas Regasification Vessel (LNGRV) with similar equipment. For all other LNGRVs with different equipment configurations that intend to use NEG, NEG LLC must first apply for and receive approval from EPA Region 1 before the LNGRV moors and regasifies at NEG.

Comment 3: NEG LLC requested EPA to remove the monitoring and testing requirements related to analysis of sulfur content of boil off gas for each shipment, emissions performance testing for PM_{10} emissions during gas firing operations, and emissions performance testing for sulfur dioxide (SO_2) emissions.

Response: Considering the inherently low SO_2 and PM_{10} emissions resulting from natural gas use, EPA agrees to remove the mandatory initial performance testing requirements for PM_{10} and SO_2 emissions during gas-fired operations. However, EPA retains the right to conduct the above mentioned performance testing at its discretion.

Also, in the general comments, EPA affirmed that the CAA stationary source requirements apply to the diesel generators during the regasification process. The draft permit required mandatory initial PM_{10}, VOC and SO_2 performance test for these units. The draft permit also restricted total yearly operations for all engines at NEG to 370 hours. EPA asked the DEP about its requirements for performance testing on emission units with restricted operations. In response, the DEP staff indicated that it would typically not require mandatory performance testing for units with hourly operations restricted to these levels. Therefore, EPA will remove the mandatory initial performance testing requirements for PM_{10}, VOC and SO_2 emissions for the engines. EPA will continue to require initial performance tests for NOx and CO to ensure compliance with the emission limits. As before, EPA retains the right to require performance testing for all pollutants at its discretion.

In addition, EPA identified a discrepancy in the application regarding the sulfur content of the fuel oil used by the engines. Chapter 3 of the application indicated that 0.5% sulfur in fuel by weight will be used for both the 1st and 2nd generation vessel engines. However, Appendix C "Calculations" of the application referenced 4.5% sulfur in fuel by weight for determining emissions from the 1st generation engines. NEG LLC confirmed that 0.5% sulfur in fuel was used in determining the emissions rates for 1^{st} and 2^{nd} generation engines. EPA will revise the permit to reflect the use of 0.5% sulfur in fuel for both the 1^{st} and 2^{nd} generation engines.

Also, as noted above, EPA affirmed that the CAA stationary source requirements apply to the diesel generators during the regasification process. Therefore, EPA will revise the draft permit to include the CO emissions from GE1 and GE2 in NEG's CO monthly and annual emission limit. In addition, EPA will change the permitted CO emission rates for GE1 and GE2 in Section 5 from lbs/MMBtu to grams per kilowatt-hour to reflect how NEG LLC will determine CO emissions from the engines in the monthly and annual CO emissions limit. EPA will also revise the semi-annual reporting conditions to include the emissions from GE1 and GE2.

Also, EPA will include GE2 in Condition VI..B.1.c to make it consistent with Condition VI.B.1.d.

Revisions:

Revise Condition V.A.3.b to read, "3.3 g/kWh or a maximum of 26.9 lb/hr whichever is greater."

Revise Condition V.A.4.b to read, "2.1 g/kWh or a maximum of 26.9 lb/hr whichever is greater."

Revise Condition V.A.6 to read, "For the first 11 months of operation, the monthly CO emission from units B1, B2, Aux1, GE1 and GE2 shall not exceed 24.75 tons."

Revise Condition V.B.9 to read, "The sulfur content of diesel fuel oil used in GE1 shall not exceed 0.5 % by weight."

Revise Condition VI.B.1.c to read, "Within fifteen days following the end of each calendar month, the Permittee shall determine monthly emissions of NOx from units B1, B2, Aux1, GE1, and GE2 during the first 11 months of operation."

Revise the first sentence of Condition VI.B.1.e to read,
"Within fifteen days following the end of each calendar month, the Permittee shall determine monthly emissions of CO from B1, B2, Aux 1, GE1 and GE2 during the first 11 months of operations."

Revise Condition VI.B.5.a: to read, " The permittee shall have the sulfur content of the BOG analyzed upon written request from EPA."

Condition VI.C..1.a.i:

Remove PM_{10} from the list of pollutants in the first row of the table.

Remove PM_{10} and SO_2 from the list of pollutants in the third row of the table.

Revise Condition VI..C.1.b.i to read,

"The permittee shall conduct performance tests on the exhaust stack gases from units B1, B2, Aux1, GE1, and GE2 for all pollutants upon written request from EPA."

Modify Condition VI.B.1.f:

For B1 and B2:
(fuel usage (kg)) x (0.052682 MMBtu/kg) x
(0.044 lb/MMBtu) x (Tons/2000 lbs)

For Aux1:
(fuel usage (kg)) x (0.052682 MMBtu/kg) x
(0.044 lb/MMBtu) x (Tons/2000l lbs)

For GE1:
(power output(kw-hr)) x (3.34 g/kw-hr)
(0.002205 lbs/gram) x (tons/2000 lbs)

For GE2:
(power output(kw-hr)) x (2.1 g/kw-hr)
(0.002205 lbs/gram) x (tons/2000 lbs)

Total CO emissions = B1 + B2 + Aux1 + GE1 + GE2

Revise condition VII.D.3.d to read,

"a written statement showing the actual emissions of NOx and CO from units B1, B2,Aux1, GE1 and GE2."

Comment 4: NEG LLC asked EPA to define the term "initial startup" in Section IV of the draft permit to clarify that the permit does not apply to an LNG vessel until the vessel has gone through one full regasification event at the port. NEG argues that each vessel requires one full regasification event at the port to check equipment and to ensure all vessel operations are working according to specifications.

Response: EPA agrees with NEG LLC's request and will revise the term "initial startup." This period of operation is essentially similar to shake-down periods of operation typically provided in NSR permits for land-based facilities.

Revisions:

Revise Condition IV. Definitions: "Initial Startup" to read,

"The moment at which the first piece of permitted equipment on the EBRV is set in operation at NEG after the first full regasification event for that particular EBRV at NEG."

Comment 5: NEG LLC requests that EPA revise the term "routine shutdown event" as an event that begins at the continuous operating level of a piece of equipment and ends at flame off. The revised revision would be similar to the current term "routine startup event."

Response: EPA has clarified the definition of routine shutdown event by providing that "The duration of each routine shutdown event shall not exceed one hour prior to flame off." This change specifies how to determine the timing of a shutdown event.

Revisions:

Revise Condition IV. Definitions : "Routine shutdown event" to read,

"The duration of each routine shutdown event shall not exceed one hour <u>prior to flame off."</u>

Comment 6: NEG LLC requests that EPA remove all emission limits expressed as lbs/MMBtu or g/kWh but retain the lb/hr emission limits. NEG LLC notes that mass per

energy input or output limits are unnecessary since all air quality demonstrations are based on the lb/hr emission limits. In addition, NEG LLC notes that the lbs/MMBtu or g/kWh can not be guaranteed over all loads as was indicated in the application.

Response: EPA does not agree with the comment and will retain both types of emission limits. As mentioned in the general comments, EPA has affirmed that BACT applies to all emission units engaged in regasification during the regasification process. The DEP's definition of BACT closely follows the federal definition and requires an emission limitation based on the maximum degree of reduction for a given pollutant. Only mass per unit energy input or output emission limits (or concentration limits) ensure a degree of reduction for any given operation.

EPA understands that NEG LLC might not be able to comply with the draft BACT emission limits for all loads, specifically for CO and NO_x. NEG LLC has indicated that boiler operations during transitional periods (i.e., increasing or decreasing heat input) require higher oxygen concentrations to maintain flame stability. The higher oxygen concentrations may result in higher NO_x emissions per unit input or output. CO emissions can also fluctuate during these times. However, NEG LLC has stated that it can meet the draft permit's lbs/hr emission limits for all emissions for all loads.

Since the end of the comment period, EPA has worked with NEG LLC on appropriate BACT limits. In the final permit, EPA will retain the draft CO and NO_x lbs/MMBtu and g/kWh emission limits. However, EPA will increase the averaging time from one hour to three hours. EPA believes the longer averaging time provides NEG LLC operational flexibility to address its concerns about compliance during transitional periods of operation while ensuring continuous emission compliance and a rate of emissions reduction that represents BACT.

In addition, consistent with the policy of the DEP in permitting units controlled with selective catalytic reduction, EPA will maintain the requirement in section V.A.9. to limit

ammonia emissions, and EPA is clarifying that this condition applies to the boilers on the 1st and 2nd generation EBRV's or LNGRV.

Revisions:

Revise Condition V.A Emission limits to read:

"Nitrogen Oxide and Carbon Monoxide emission limits are based on a three-hour average. All other emissions are based on a one-hour average."

Revise section V.A.9.to read:

The Permittee shall not allow the discharge of ammonia (NH_3) into the Atmosphere in excess of 10 parts per million by volume on a wet basis (ppmvw) @ 3% O_2(1-hour average) from the SCR systems controlling B1, ~~and~~ B2, and Aux 1.

Comment 7: NEG LLC requested that EPA increase the NOx and CO monthly emission limit that applies during the first 11 months of operation from 4.1 tpy to 12.3 tpy and from 8.25 to 24.75 tpy respectively. NEG has indicated that the draft monthly cap does not allow for full operation during high demand periods that may occur during any given month.

Response: Considering that NEG LLC will most likely not operate NEG at full capacity during the first year of operations and that the permit tracks annual emissions using maximum allowable emission rates for NOx and CO, EPA will make the revisions. EPA notes that the 12-month rolling cap on annual emissions continues to apply, so that for any month during which NEG emits at these higher levels, it will need to limit its emissions correspondingly during the balance of that 12-month period.

Revisions:

Revise condition V.A.7 to read, " For the first 11 months of operation, the monthly NOx emissions from units B1, B2, Aux1, GE1 and GE2 shall not exceed 12.3 tpy.

Revise condition V.A.8 to read, "For the first 11 months of operation, the monthly CO emissions from units B1, B2, Aux1, GE1 and GE2 shall not exceed 24.75 tpy.

Comment 8: NEG LLC requests that EPA base the equations in conditions VI.B.1.d and f on kilograms rather than volume since fuel flow is measured in kilograms. In addition, NEG LLC recommends that the permit rely on actual emissions data from the CEMs versus assuming the maximum allowable emission rate for compliance with the NOx and CO annual emissions limits.

Response: EPA will revise the condition and replace volume with kilograms. To maintain a safety factor for compliance with the annual emission limit, EPA will continue to use maximum allowable emission rates in the permit. While EPA is prepared to rely on the continuous monitors NEG LLC is using for the purposes of ensuring compliance at NEG, these monitors are not subject to the entire suite of quality assurance measures that a fully certified continuous emissions monitor would have to meet at a land-based facility. Therefore, EPA is not prepared to use these monitors as the sole basis for measuring compliance with the emissions cap, and will retain the emissions factors proposed in the draft permit.

Revisions:

Revise Condition VI.B.1.d to read:

For B1 and B2:
(fuel usage (kg) x (0.052682 MMBtu/kg) x
(0.018 lb/MMBtu) x (Tons/2000 lbs)

For Aux1 :
(fuel usage (kg) x (0.052682 MMBtu/kg) x
(0.018 lb/MMBtu) x (Tons/2000 lbs)

Revise Condition VI.B.1.f to read:

For B1 and B2:
(fuel usage (kg) x (0.052682 MMBtu/kg) x

(0.044 lb/MMBtu) x (Tons/2000 lbs)

For Aux1 :
(fuel usage (kg) x (0.052682 MMBtu/kg) x
(0.044 lb/MMBtu) x (Tons/2000 lbs)

Comment 9: NEG LLC provided revisions to clarify the parametric monitoring requirements.

Response: EPA agrees that NEG LLC's proposed edit more succinctly states what EPA intended to require with this condition. EPA does not interpret this revision to change the content of the requirement EPA had proposed in the draft permit.

Revisions:

Revise Condition VI.B.2 to read, "In addition to the gas analyzer, no less than 60 days before initial startup, the permittee shall submit a plan for monitoring the operational parameters for units B1, B2 and Aux1. The plan will identify the operational ranges that indicate compliance within the emission limits for NOx, VOC, SO_2 and PM_{10}. The plan may include the following operational parameters factors: flue gas oxygen concentration, flue gas temperature, pressure differential at the SCR catalyst interface, or other factors as approved by EPA."

Comment 10: Condition VI.B.3 Monitoring requirements: NEG LLC asked EPA to replace the Part 75 requirements for flow meters with the Part 60 accuracy requirements.

Response: EPA agrees and will make the revision. While Part 75 is EPA's most up-to-date set of requirements for ensuring the accuracy of monitoring equipment, the corresponding requirements in Part 60 for flow meters are sufficiently robust to assess the accuracy of monitoring under this permit and to assure compliance with the permit terms.

Revisions:

Revise the second sentence of condition VI.B.3 to read, " The flow meters must meet one of the procedures specified in 40 CFR Part 60, Appendix A, as appropriate for the type of meter installed."

Comment 11: NEG LLC requests that EPA provide a definition for the commissioning stage in Section IV of the permit.

Response: EPA intends to allow NEG the opportunity to perform any performance stack testing on or before "initial startup." For clarity, EPA will replace the term "commissioning stage" with "on or before initial startup."

Revisions:

Revise Condition VI.C.1.a.i to read,

> "On or before initial startup for each LNGRV, the Permittee shall conduct the following performance tests on the exhaust stack gases from Units B1, B2, Aux1, GE1 and GE2."

Comment 12: Condition VIII.D.1 Semi-annual Reporting: NEG LLC asks for a clarification on when semi-annual reports should start.

Response: EPA will revise the permit to include a beginning time for reports starting at the end of the initial startup event of the first vessel at the port.

Revisions:

Revise Condition VIII.D.1.to read, "Starting at the end of initial startup for the first vessel at the DWP and semi-annually thereafter, the Permittee . . ."

2nd Commenter

The Whale Center of New England
March 7, 2007

The commenter noted that NEG LLC's Final Environmental Impact Statement (FEIS) only analyzed two classes of vessels that would use the project. The commenter is concerned that NEG LLC is now asking for a permit from EPA that authorizes the use of other LNG vessels at NEG. The commenter believes that new vessels should be considered in a holistic environmental review that considers the different aspects of the new vessels (e.g., maneuverability, acoustic output).

Response: In our response to NEG LLC's second comment, above, EPA provided additional clarification regarding what vessels could use NEG. In general, the permit restricts NEG to the use of vessels that can comply with the requirements applicable to the fleet described in NEG LLC's permit application. The permit would allow the use of other LNGRV's that cannot comply with all the conditions of this permit provided that NEG LLC applies for and receives approval from EPA Region 1. In general, if NEG LLC applies for approval of an LNGRV with equipment specifications that differ from the specifications listed in Section II of the permit, such approval would likely require a permit modification subject to public review and comment. EPA and any other action agency that might need to assess that change in the port's operations could then assess whether further environmental review would be necessary. At that time, The Whale Center of New England could raise its concerns regarding the need to review the various environmental impacts that may result from the vessels.

3rd Commenter

Rosemary Maglu
Beverly, MA
March 7, 2007

Comment:

The commenter argues that approval of the NEG LLC and Neptune ports in their currently proposed locations amid three ocean sanctuaries should not be allowed. In addition, the commenter calculates that NEG's potential to emit is above the major source threshold levels. The commenter believes the applications show that air quality will be negatively impacted by the ports. In addition, the commenter believes that any air pollution has the potential to be transferred into the ocean during rainfall.

Response:

NEG LLC and Neptune have both filed applications for a Deepwater Port license with the U.S. Coast Guard. Those licenses will address concerns regarding the location of these projects. EPA's air permit addresses the air impacts from these projects. EPA has concluded that NEG LLC's project will comply with all applicable state and federal requirements applicable to its air emissions. In addition, air quality modeling shows that all air impacts from NEG and Neptune are well below state and federal air quality standards.

Further, as discussed above, EPA is relying on the consultations USCG and MARAD have undertaken with NOAA to assure that the project complies with the Endangered Species Act. As a result, this permit is specifically conditioned on the project receiving and holding a completed incidental take statement to assure that any possible harassment of protected species will take place consistent with any conditions NOAA requires to protect the species.

Regarding the commenter's potential to emit calculations, EPA notes that the calculations do not take into account the operational and control restrictions placed upon NEG and Neptune in their respective draft permits. EPA's final permits for both projects will make the operational and control restrictions federally enforceable through terms and conditions that limit the potential emissions for all pollutants to below major source threshold levels.

4th Commenter

Laurie Ure
Gloucester, MA 01930

Comment:

The commenter expressed concerns regarding the general long term impacts from NEG and the Neptune ports on fishermen, sea life, the environment, and global warming.

Response:

As noted in the response to the previous comment, EPA's air permit only addresses the air impacts from these projects as currently regulated under the Clean Air Act. As documented in the permit's SOB and this response to comments, EPA has concluded that the project meets all state and federal air requirements and that air quality impacts are well below all state and federal air quality standards.