



MID-ATLANTIC ENVIRONMENTAL LAW CENTER

Comments of the Sierra Club
to the U.S. Department of Justice -
Environment and Natural Resources Division
Concerning a Proposed Second Addendum for a Consent Decree
Concerning the Motiva Delaware City Refinery

In the matter of United States v. Motiva Enterprises LLC.,
D.J. Ref. 90-5-2-1-07209

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Sierra Club Delaware Chapter
Debbie Heaton, Conservation Director
100 West 10th Street, Suite 1107.5, Wilmington DE 19801
(302)425-4911; <http://delaware.sierraclub.org/>

Counsel to Sierra Club:
Mid-Atlantic Environmental Law Center
Lyman C. Welch, General Counsel
4601 Concord Pike, Wilmington DE 19803
lcw0300@mail.widener.edu
(302)477-2072; (302)477-2032 fax
<http://www.maelc.org/>

Prepared by Alexander J. Sagady & Associates
PO Box 39, East Lansing, MI 48823
(517)332-6971; ajs@sagady.com <http://www.sagady.com>

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1 Introduction

The Sierra Club writes to oppose the proposed changes to the Motiva Consent Decree. The proposed delay in the implementation of the original Consent Decree requirements will result in continued excessive emissions of air pollutants from Motiva's Delaware City refinery. The Sierra Club also remains concerned about the potential for water pollution by cross-media transfer from wet scrubbing systems, the discharge of such pollutants to the Delaware River through the Motiva Refinery wastewater system and the potential for subsequent harm to aquatic and human health. There are several serious defects in the proposed Second Addendum to the Consent Decree that are contrary to the public interest and the interests of Sierra Club members. The proposed changes to the decree fail to fully achieve the goals of the Clean Air Act as described in more detail in the following comments.

The Delaware Chapter of the Sierra Club represents about 2,000 members in Delaware and the national organization has 750,000 members across the U.S. and Canada. A majority of the Delaware chapter members live in New Castle County and are affected almost daily by the emissions from Motiva's refinery at Delaware City. Sierra Club members both in and outside of Delaware enjoy recreation along the Delaware River and could be harmed by adverse water quality impacts allowed by the proposed addendum.

2 Implications of Motiva Refinery NOX Emissions and NOX Aspects of Motiva's Past Unlawful FCCU and FCU Major Modification in Light of Non-Attainment New Source Review and Non-Attainment SIP Requirements

2.1 When Motiva is Historically Alleged to have Made Major Modifications to the FCU and FCCU in a Manner and Under Circumstances in which Lowest Achievable Emission Rate Control Technology and Emission Limitations Should have been Required, both the Existing Consent Decree and Proposed Addendum Undermine the LAER Requirements by Allowing Motiva to Use BACT Instead

Sierra Club asserts that the appropriate remedy is to require a level of emission control equivalent to LAER and to ensure other emission reductions commensurate with the previous requirements for offsets and reasonable further progress. Neither the original consent decree, nor the proposed addendum, provide such relief.

Condition #54 of the original EPA complaint indicates that the Motiva Delaware City refinery was located in a non-attainment area for ozone at times relevant to EPA's complaint. Condition #56 of the original EPA complaint indicates that the Motiva refinery made changes in its FCU and FCCU units that constituted a major modification under the Clean Air Act that would subject the facility to requirements for Lowest Achievable Emission Rate control technologies, emission offsets and a requirement for reasonable further progress.

Motiva apparently carried out such major modifications at the time and did not obtain a new source review permit, did not install LAER, did not provide offsets and did not provide reasonable further progress. At the time Motiva made such major modifications, Motiva provided no countervailing demonstration of other contemporaneous emission increases and reductions as would be required.

LAER level of control will involve combinations of existing control technologies and application of control technology transfer that will be able to reduce NOX emissions below that which would be provided by mere imposition of a BACT control measure. A complete LAER analysis would include review of other technologies and considerations of emission control technology transfer from a worldwide perspective and detailed review of other state implementation plan requirements and state air rules throughout the United States. For example, one such technology would be use of selective catalytic reduction (SCR) after the sulfur dioxide control train and/or combination of using both SNCR, SCR and use of NOX-reducing catalyst.

Condition 8(b) of the proposed addendum contemplates installation of selective non-catalytic reduction (SNCR) technology as the minimum (and sufficient) requirement for NOX add-on control technology for the FCU. Moreover, if Motiva elects SNCR, there is no immediate guarantee in the consent decree that such a system will achieve a known emission limitation reflecting either a LAER or Best Available Control Technology level of control upon commencement of operation.

SNCR represents a Best Available Control Technology (BACT), not LAER, level of control. It can achieve 30-50% control when provided alone and 65-75% control when applied in conjunction with low NOX burners and other combustion controls.¹ Notwithstanding the wide range of potential control achieved by such technology, the proposed addendum provides no effectiveness floor that must be achieved if SNCR is installed. This failure further undermines national control technology achievement objectives in nationally significant enforcement cases that EPA has plainly articulated as set forth later in this section.

¹ See <http://www.epa.gov/ttn/catc/dir1/fsncr.pdf>

Condition 21(a) of the proposed consent order and the original order envision NOX adsorbing catalyst addition and combustion controls for the refinery's FCC unit. Such control measures, again, reflect a BACT level of control rather than LAER.

Failure of EPA and Delaware to require and obtain emission control technology relief appropriate to the LAER requirement for non-attainment areas that was plainly required in the present case contravenes EPA national enforcement policy:

“In order to effectuate the purpose of the NSR programs, EPA generally should, at a minimum, require the installation and operation of control technology or process changes that result in emission reductions equivalent to the best available control technology (BACT) in PSD cases and the lowest achievable emission rate (LAER) in nonattainment cases when resolving NSR enforcement actions. When the case involves a source that failed to obtain any type of permit or limit at the time of construction, the source should not be allowed to avoid the installation and operation of pollution control equipment or process changes by obtaining a “synthetic ” minor limit (usually a permit) after the fact unless compelling circumstances exist (see below).”²

EPA's enforcement guidance was intended for major, nationally significant cases in order to level the playing field. The Motiva settlement was undisputably such a case. Neither the original consent decree, nor the proposed addendum, will provide a LAER level of NOX control appropriate for this situation. Moreover, Sierra Club notes that Motiva's November, 2002 permit application attempted to portray the facility as netting out of LAER and thus continuing to evade this requirement. Paragraph 168a of the Proposed Addendum alludes to permitting that will incorporate “.....other contemporaneous or related projects...” which Sierra Club asserts may be reductions offered in the future in an attempt to have what would be a remedy to a past unlawful major modification for the FCU and FCCU units to net out of LAER. Sierra Club deems this intended evasion of LAER contemplated by Motiva with apparent approval by EPA unacceptable and a circumstance that undermines national requirements for ozone precursor control programs in non-attainment areas and rewards a source for making unlawful major modifications by allowing less stringent control technology for such pollutants.

Finally, in reviewing the BP-Amoco consent decree NOX control provisions applicable to FCCU units, EPA insisted on targeting a strong presumption in both SNCR and SCR systems for 20 ppmvd emission reduction performance in that

² Guidance on the Appropriate Injunctive Relief for Violations of Major New Source Review Requirements, Eric Schaeffer, Director, Office of Regulatory Enforcement, U.S. EPA, November 17, 1998

nationally significant proceeding. However, nothing of the sort was established in the Motiva order which, instead, allows Motiva to set their own emission limitation after an optimization study. We can find no basis for EPA treating Motiva with favoritism on this count and we question why such differential treatment between Motiva and BP-Amoco was permitted.

2.2 Section 21(a) Provisions on FCCU CO Boiler Excess Oxygen Control Practices and Study for NOX Reduction are Unreasonably Delayed

The proposed Consent Decree Addendum allows Motiva to delay commencement of a study for NOX minimization on excess oxygen controls in the FCCU CO boiler until as late as December 31, 2004 under Section 21(a). Combustion excess oxygen controls for minimizing NOX formation are a Reasonably Available Control Technology (RACT) measure that Delaware Rule 12 either did or should have required of Motiva since 1995. As long as Motiva is presently operating their FCCU, there is no excuse why such a minimal level of control that would not require significant capital expense should be delayed for commencement until the late date proposed. Such a delay is unreasonable under the circumstances, particularly in light of the pre-existing Consent Decree requirements for commencing NOX adsorbing catalyst after September 30, 2001 and the optimization study on NOX emissions and FCCU/CO boiler conditions implicit in these pre-existing requirements.

2.3 The Proposed Addendum and EPA/State Practice Should Not Allow Any NOX Emission Reduction Derived from this Enforcement Program to be Used for Offsets and Netting

The last paragraph of Section 8(b) of the proposed Consent Decree Addendum provides:

“If Motiva installs an alternative NOX control technology under this Paragraph, it may utilize no more than fifty (50) percent of the additional NOX reductions for offsets and in netting that such technology achieves in excess of 245 tons per year reduced.”

Sierra Club objects to this provision and any other that allows Motiva to qualify for escaping from BACT or LAER requirements on future projects by using emission reductions provided under the Consent Decree or Consent Decree Addendum as emission offsets or netting emission reduction elements.

Sierra Club's first equity-based objection is to note that Motiva has unlawfully delayed its duties under the Delaware State Implementation Plan and non-attainment provisions of the Clean Air Act to provide "reasonable further progress" and "emission offsets" for the major modifications they carried out at their facility. For many years, the public has been subjected to greater NOX emissions/ozone precursor emissions than what was required under the Act because of Motiva's evasion of New Source Review. It is against the public interest to allow Motiva to use, at such delayed future late dates, emission reductions for netting and offsets that it should have provided many years ago. In making such allowance for netting and offsets, Motiva will be undoubtedly using such emission reductions to escape stringent control technology reviews on future modifications that are physical changes or changes in the methods of operation.

Moreover, Sierra Club objects to any future permit request by Motiva that attempts to invoke recent changes in new source review procedure to escape required review to which the company is agreeing in this Consent Decree.

Sierra Club also objects to the use of any NOX emission reduction over and beyond what would be provided as SNCR for netting and offset purposes given objections stated in a prior section of this comment in which Sierra Club asserts that SNCR is not sufficient to qualify as a LAER technology which Motiva should have been required to provide in the first place. Emission sources should not be allowed to claim emission reductions which are ostensibly required under the Delaware SIP to be used for netting and offsets. Motiva was required to provide a LAER level of emission control at the time they made their unlawful major modifications at the Delaware City Refinery FCCU and FCU. Allowing Motiva to benefit from emission reductions by using them for netting and offsets when they should have previously provided such reductions under the rules, essentially rewards a significant violator for evasion of the Clean Air Act non-attainment new source review requirements. This is not in the public interest in light of the excess emissions Motiva released upon the public.

Sierra Club notes the following two provisions of Rule 25 which, to the best of the Club's knowledge, is part of the Delaware State Implementation Plan:

Rule 25-1.9(C) defines a "net emission increase" and it contains the following qualification at Rule 25-1.9(C)(6):

6. A decrease in actual emissions is creditable only to the extent that:

- i. The old level of actual emissions or the old level of allowable emissions, whichever is lower, exceeds the new level of actual emissions;
- ii. It is enforceable at and after the time that actual construction on the particular change begins; and
- iii. It has approximately the same qualitative significance for public health and welfare as that attributed to the increase from the particular change.
- iv. It has not been adopted by the Department as a required reduction to be made part of the SIP or it is not required by the Department pursuant to an existing requirement of the SIP.

Sierra Club first argues that the emission reductions from this program to address Motiva's unlawful conduct will not be immediately enforceable at the time the change is made because of the failure of the Consent Decree and its Proposed Addendum to ensure that there is, in fact, a firm emission limitation for NOX arising from control programs at the FCCU and FCU. There is no enforceable time rate of mass emission limitation for one hour and annual averaging times. Therefore no such NOX emission reductions would violate the Delaware SIP rules if they were used for netting. Secondly, Sierra Club argues that the Delaware SIP actually required such reductions long ago when the modification was made and that such reductions were an existing SIP requirement for major modification. Thus use of the NOX emission reductions from this control program should be disallowed for netting purposes.

Similarly, the Delaware Rule 25-2.5(A) & (D) require:

“Criteria for Emission Reductions Used as Offsets

- A. All emission reductions claimed as offset credits shall be real, surplus, permanent, quantifiable, and federally enforceable;
- D. Credit for an emission reduction may be claimed for use as an offset to the extent that the Department has not relied on it in issuing any permit under this regulation and has not relied on it for demonstration of attainment or reasonable further progress;”

Sierra Club again asserts that no enforceable time rate of mass emissions limitation in pounds per hour and tons per year is provided by the Consent Decree or its Proposed Addendum and thus, these instruments cannot authorize the taking of any of the planned NOX emission reduction elements as proper and approvable emission

offsets under the Delaware SIP approved rules. Finally, given that these reductions should have occurred years ago and were required by the Delaware SIP's inherent provisions for non-attainment New Source Review LAER requirements and the required provision for "reasonable further progress," the Consent Decree and its Proposed Addendum should not authorize use of the control program NOX reductions as emissions offsets.

3 Provisions of the Proposed Consent Decree Addendum Related to Regenerative Wet Gas Scrubber Installation, Control Technology Limit Setting and Sulfur Dioxide Limitation

3.1 The Proposed Consent Decree Addendum should be Revised to Incorporate a more Specific Definition of a "Regenerative Wet Gas Scrubber"

Sierra Club notes the change made with the addition in condition 35(b):

"A Regenerative WGS shall mean a process from which sulfur compounds are recovered in any usable form."

However, this proposed change does not sufficiently and clearly define the nature of the required regenerative wet gas scrubber technology. The proposed definition of a regenerative scrubber is too vague and does not specify the level of recovery or other measure of sulfur recovery from collected air contaminants in scrubber liquor that Motiva must meet. The Sierra Club is particularly concerned about the recovery and cross-media transfer issue given the history of this matter with Motiva attempting to dispose of collected air contaminants by disposal in the Delaware River. This definition is much too vague and non-specific; Sierra Club urges the definition of a "regenerative wet gas scrubber" be revised to provide clear specifications for the regenerative scrubber technology to be installed by Motiva, including sulfur waste recovery targets and effluent targets for discharge. The definition should be revised to encourage scrubber systems in which there is either no aqueous discharge or only a nominal/insignificant contribution to wastewater.

Sierra Club adds that the regenerative wet gas scrubber definition should allow a unit which recovers calcium sulfate or sodium sulfate as product materials. A Regenerative Wet Gas Scrubber must be considered to be broader than units which direct recovered sulfur flows for recovery in traditional refinery sulfur recovery units. Flue gas desulfurization scrubbing technology used in the electric utility industry must also be considered as a candidate technology under a technology transfer approach to the control technology decisionmaking process.

Sierra Club asserts for the record that a Regenerative Wet Gas Scrubbing System must not allow selection of a scrubbing system that will dispose the majority, or even a substantial amount, of sulfur collected into water pollution systems.

Sierra Club asserts that selection of a Regenerative Wet Gas Scrubbing system should not include methods and technologies that will divert toxic emissions into water pollution discharge systems without collecting and controlling such solid phase toxicants for waste disposal. In addition, selection of a Regenerative Wet Gas Scrubbing system should not be of technology which will have the effect of increasing potential hydrogen sulfide emissions that may cause or contribute to new or existing refinery community odor problems.

3.2 “Best Available Control Technology” Should be the Underlying Control Technology Context for Decisionmaking on Sulfur Dioxide Aspects of the Wet Gas Scrubber Control Program for the Motiva Refinery

As noted in a prior section, EPA national policy is to obtain BACT control requirements in injunctive orders in situations where a source evaded Prevention of Significant Deterioration NSR requirements for major modifications. It is not clear that either the pre-existing Consent Decree, nor the Proposed Addendum, will result in a decision in which BACT emission limitations will be properly selected. Under both the original Consent Decree and under the Addendum, the procedures for selecting emission limitations will effectively pre-judge, pre-constrain and pre-determine the BACT decision in the air permitting process, yet the standards, procedures and methodologies envisioned in both the original Consent Decree and the Proposed Addendum do not conform to recognized EPA decisionmaking processes for setting BACT emission limitations. BACT is defined as follows:

*“Best available control technology means an emissions limitation (including a visible emission standard) based on the **maximum** degree of reduction for each pollutant subject to regulation under the Act which would be emitted from any proposed major stationary source or major modification which the Administrator, 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.*

In no event shall application of best available control technology result in emissions of any pollutant which would exceed the emissions allowed by any applicable standard under 40 CFR parts 60 and 61. If the Administrator determines that technological or economic limitations on the application of measurement methodology to a particulate emissions unit would make the

imposition of an emissions standard infeasible, a design, equipment, work practice, operational standard, or combination thereof, may be prescribed instead to satisfy the requirement for application of best available control technology. Such standard shall, to the degree possible, set forth the emissions reduction achievable by implementation of such design, equipment, work practice or operation, and shall provide for compliance by means which achieve equivalent results.”³ (Emphasis added)

As a result, the definition of BACT requires consideration of the “maximum” degree of control and the balancing of considerations of economics, energy and environmental impact. The process for setting the final sulfur dioxide emission limitations for both the FCU and the FCCU under both the Consent Decree and the Proposed Addendum must be considered to contravene BACT technology decisionmaking because these provisions allow Motiva to opt for a less stringent limitation solely on the basis of cost alone without consideration of the need for a maximum level of control and without consideration of environmental impacts.

In addition, this process does not provide for consideration of process feed alternatives and alternate fuels and feedstocks with lower sulfur content that would be inherent in a “top down” BACT review. Under much of the procedures envisioned in paragraph 39 through 50 in the proposed Addendum for the FCU and under other procedures in the original decree for the FCCU, Motiva is free to make most any assumption it wishes concerning the sulfur content of FCCU and FCU feed. If Motiva changes the design input assumptions on uncontrolled sulfur dioxide inlet loading to influence the very first part of the decision chain, for example in paragraph 39 of the proposed order, or during operations in the optimization program envisioned in paragraphs 44 and 46 (and other similar paragraphs in the original Decree for the FCCU), then the entire decision will hinge on such assumptions which are outside the public and EPA decisionmaking process. Motiva already stated in a submittal to the Delaware agency:

“Motiva has estimated the emission increases from each of these units based on the difference between their 2000/2001 actual emissions and their potential to emit following completion of the project. The post-project potential to emit is based on the maximum capacity of each unit including existing emission limits and/or the emission limits described in section 5.0 of this application.”

“Subsequent to completion of the Refinery Pollution Control Upgrade Project, Motiva expects to operate a different crude slate and may produce a different product distribution. Thus, although the purpose of the project is primarily to comply with the requirements of the consent decrees, the substantial reduction

³ 40 CFR §52.21(b)(12); See also 42 USC §7479(3)

in SO₂ emissions from installing WGS systems on the FCU and FCCU will shift economics of the refinery's crude slate, and this shift could result in a change in utilization of some refinery units. Motiva also estimated the change in emissions associated with such a shift. These emissions changes are also included in Table E-1."⁴

Thus Sierra Club is concerned that Motiva plans even greater reliance on heavy sour crude and Motiva's assumptions in this "crude slate" can be used to influence the final sulfur dioxide emission limit determination process for the FCU and FCCU **at its sole unannounced discretion** within the procedures of the Consent Decree and the Proposed Addendum. We also note that this November, 2002 Motiva permit application failed to show significantly decreased potential to emit limits for both sulfur dioxide and nitrogen oxides in the unit by unit emission calculations.

In summary, the "alternate regenerative WGS" provisions of paragraph 39 through 50 of the Proposed Addendum are, for all practical purposes, based solely on cost considerations and decisions by Motiva which are not transparent to either the public and/or EPA and thus cannot be considered a BACT decisionmaking process for setting final BACT limits after installation of the wet gas scrubbers.

3.3 There has been No Showing as to Why Motiva Should Not be Required to Incorporate Additional Hydrogen Treatment of FCCU and FCU Feed for Feed Sulfur Content Reduction as Part of the Control Technology Decision

Hydrogen treatment of petroleum process feeds is a well known and accepted technology for reducing the sulfur throughput in petroleum refining processes. In the present case of the Motiva FCU and FCCU, there appears to have been no consideration of this technology for reducing the sulfur feed content to these processes in order to reduce sulfur dioxide emissions. A process of removing sulfur from FCU and FCCU feed should be considered preferable to attempting to remove such sulfur after it has passed through the combustion processes inherent in FCU and FCCU operation.

⁴ November 22, 2002 Application for Permit to Construct, Refinery Pollution Control Upgrade Project, Appendix E, Page E-2, 3

3.4 Provisions of the Proposed Addendum Undermine BACT Control for PM and H₂SO₄

Paragraph #38 of the Proposed Addendum is an unacceptable delegation by EPA and Delaware to Motiva's vendor to set applicable emission rates for particulate matter and sulfuric acid aerosol when the control technology provided should provide BACT controls as an equitable injunctive response to past failure to obtain a new source review permit and comply with BACT review requirements. Instead a BACT-like control technology determination process should be used to set final emission limitations for PM, H₂SO₄ and Carbon Monoxide in addition to our prior comments to our sulfur dioxide BACT.

4 Cross-Media/Multi-Media Transfer Issues

4.1 Coordination of Motiva Consent Decree Addendum, Air Permitting and NPDES Permit Issuance Proceedings

If the sulfur dioxide wet gas scrubbing system that is selected for the Motiva FCU and FCCU incorporates an aqueous discharge to the Motiva wastewater control system, then Sierra club asserts that decisionmaking in the matter of the Consent Decree Addendum, the air permit and Motiva's NPDES permit re-issuance must be coordinated with a concurrent review and simultaneous proposal and issuance. Further, the Consent Decree Addendum should be revised to include a concurrent and specific schedule dealing with the process of reissuance of the refinery wastewater NPDES permit in the circumstance of a scrubber discharge to the refinery wastewater system. Please note that Motiva has been operating on an expired wastewater permit since August 31, 2002. In the circumstance where there is such an aqueous discharge, aspects of the recovery and wastewater control system of the wet gas scrubbers are required decision elements on the appropriate Best Available Technology (BAT) level of water pollution control to abate such discharges and the proposed Consent Decree Addendum should require this determination in the future coordinated permitting process.

EPA and Delaware may not authorize a system of wet gas scrubbing and subsequent aqueous discharge of sulfates which are non-conventional pollutants without providing the required level of water pollution control technology for such sulfate discharges reflecting....

“best available technology economically achievable for such category or class, which will result in reasonable further progress toward the national goal of

eliminating the discharge of all pollutants, as determined in accordance with regulations issued by the Administrator...”⁵

EPA has issued regulations requiring that best available technology (BAT) be determined by best professional judgement (BPJ) as it is applicable to sulfate as a non-conventional pollutant; the rule specifies:

“For all pollutants which are neither toxic nor conventional pollutants, effluent limitations based on BAT....for permits issued on a case-by-case (BPJ) basis under section 402(a)(1)(B) of the Act after February 4, 1987 establishing BAT effluent limitations compliance is required as expeditiously as practicable but in no case later than three years after the date such limitations are established and in no case later than March 31, 1989.” 40 CFR §125.3(a)(2)(v)(B)

EPA further requires that best professional judgement decisions be made in the following way:

“Technology-based treatment requirements may be imposed through one of the following three methods..... On a case-by-case basis under section 402(a)(1) of the Act, to the extent that EPA-promulgated effluent limitations are inapplicable. The permit writer shall apply the appropriate factors listed in §125.3(d) and shall consider: (i) The appropriate technology for the category or class of point sources of which the applicant is a member, based upon all available information; and (ii) any unique factors relating to the applicant.” 40 CFR §125.3(c)(2)

Permit writers must consider the following in making such best professional judgement decisions:

“In setting case-by-case limitations pursuant to §125.3(c), the permit writer must consider the following factors:”

“(3) For BAT requirements:

- (i) The age of equipment and facilities involved;
- (ii) The process involved;
- (iii) The engineering aspects of the application of various types of control techniques;
- (iv) Process changes;
- (v) The cost of achieving such effluent reductions; and

⁵ 33 USC §1311(b)(2)(A)

- (vi) Non-water quality environmental impact (including energy requirements).” 40 CFR §125.3(d)(3)

Accordingly, any NPDES permit for the discharge of sulfate from Motiva must provide, at a minimum, for specific effluent limitations reflecting Best Available Technology (BAT) determined by Best Professional Judgement (BPJ).

In addition, EPA regulations clearly require that a BAT technology determination doesn't have anything to do with conditions of water quality compliance:

“Technology-based treatment requirements are applied prior to or at the point of discharge.” 40 CFR §125.3(e)

In summary, to the extent that the selected wet scrubber system discharges an aqueous waste stream, the Federal Clean Water Act and EPA regulations binding on EPA, Delaware and Motiva require that Motiva use Best Available Technology to control its discharges of sulfate pollution, that BAT requirements must be expressed as numerical effluent limits and that a requirement for the permit and the applicant to conform to the BAT requirement must be immediately effective upon issuance by Delaware/EPA.

Sierra Club further asserts that Motiva must not be allowed to portray its system of mixing cooling water with process wastewater as a BAT technology for sulfates and that such “flow augmentation” may not be used in such a manner:

“(f) Technology-based treatment requirements cannot be satisfied through the use of ‘non-treatment’ techniques such as flow augmentation and in-stream mechanical aerators.”⁶

Sierra Club further adds that Motiva must not use its current flow augmentation scheme as a basis for complying with any water quality standard, either numerical or narrative (including water quality requirements for whole effluent toxicity), if they have not provided BAT technology to control all such non-conventional pollutants in their current refinery process wastewater.

The Delaware River already receives a substantial amount of pollution from this plant under previously issued NPDES permits and through Motiva's repeated accidents and recent explosions. Any alternative scrubber technology that allows for increased water pollution is not acceptable, particularly if such pollution relies on Motiva's schemes of flow augmentation and pollution dilution. Pea Patch Island, a heronry

⁶ 40 CFR §125.3(f)

opposite the Motiva plant, will have an increased threat to its survival if more pollution is allowed into the Delaware River just a short distance from the birds. No complete documentation or exposition of facts has been provided to show what the cumulative effects and impacts of the various technologies being considered would be. Such documentation should be required before changes are made to the original Consent Decree.

4.2 Sierra Club Raises Questions as to the Fate of Ammonia Process Gas Flows that Presently are Burned in Heaters 21-H-703 and 21-H-701

Motiva apparently plans to eliminate the combustion of a rich ammonia process gas stream from the sour water treatment unit that is presently directed to Heaters 21-H-703 and 21-H-701 under its Delaware consent order and as shown in their November, 2002 permit application. Although NOX reductions associated with elimination of this practice are laudable, Sierra Club is concerned about the fate of this ammonia rich gas stream in the overall context of community odor problems from this facility.

The narrative to the November, 2002 permit application indicates that this ammonia-rich sour water stripper output gas stream will be sent to the sulfur recovery unit, but there is no indication of its fate in the SRU. A schematic diagram of the SRU and TGU area shows an ammonia line directed to stack 28-S-203, but the comment in this schematic indicates that the ammonia line is being double blocked and abandoned in place. Ammonia directed to the SRU should not be released uncontrolled and if it is burned it will produce NOX which will offset reductions from burning in the aforementioned heaters. If this ammonia stream is being reacted to produce hydrogen and nitrogen in some type of hydrogen-forming production process, this should be specifically stated. Under no circumstances should the facility be allowed to release uncontrolled gaseous emissions of ammonia which could cause or contribute to community odor problems.

5 Consent Decree Enforcement, Penalty and Monitoring Issues

5.1 Motiva Seeks to Benefit from Delay in the Implementation of Air Pollution Controls through Dilatory and Delaying Tactics

Motiva apparently entered the Consent Decree in 2001 in response to EPA's national enforcement action focused on the petroleum refining industry. In this Consent Decree, Motiva committed to the installation of regenerative wet scrubber technology to control emissions from the Delaware City Refinery FCU and FCCU.

The Motiva Consent Decree contained a provision at paragraph #40 which required submittal of plans and specifications for a regenerative wet gas scrubber no later than 18 months prior to the installation of this device and a procedure of consultation between EPA and Motiva on the final proposal. As near as Sierra Club can determine, Motiva never made this submission to EPA.

The Motiva Consent Decree also contain a provision at paragraph # 193 which they accepted and which provided the following:

“Unanticipated or increased costs or expenses associated with the performance of Motiva’s obligations under this Consent Decree shall not constitute circumstances beyond their control, or serve as a basis for an extension of time under this part.”

Instead of diligently pursuing their responsibilities to comply with the 2001 Consent Decree, Motiva pursued a continuing program to escape the requirements to which they agreed by pressuring Delaware and EPA officials to accept non-regenerative scrubber technology for the FCU and FCCU at the Delaware City Refinery and to allow a massive cross-media transfer of air pollutants to be directed to their wastewater system and discharge to the Delaware River. After Sierra Club and others vigorously objected, this Motiva proposal was dropped, but apparently the company, in bad faith, failed to pursue all of the engineering, planning and construction needed to comply with the actual provisions and the original deadlines in the Consent Order to which it agreed in year 2001.

Now Motiva seeks extensive delays in final compliance dates in the order for both sulfur dioxide and nitrogen dioxide controls and for applicability of NSPS Subpart A and J. These are long delays of up to two and a half years during which time Motiva will financially benefit from not having to spend capital and operating expenses for emission control requirements they were subject to in previous years and which Motiva had unlawfully avoided. Motiva seeks delays to fit the company’s schedule for future equipment turnarounds when they apparently missed earlier turnaround times during which they could have conducted such work had they diligently worked to fulfill their responsibilities and compliance deadlines under the 2001 Consent Decree. During this delay, the public and environment will be exposed to emissions which should have been controlled years ago had Motiva lawfully carried out their air pollution permitting and emission control responsibilities.

In particular, the long delay of Subpart A and J requirements when these should have come into play when the facility made triggering changes years ago to the FCU, FCCU and SRU is particularly offensive. Much of the refinery should be able to comply with these requirements as it is presently constituted in its existing configuration. These provisions contain important environmental and compliance

monitoring requirements that the facility will again escape under the delayed compliance schedule for up to two additional years.

Sierra Club rejects as invalid any Motiva excuses for such delay and reject any Motiva argument that any receptivity on the part of Delaware and/or EPA officials to accept a non-regenerative wet gas scrubber system was a valid basis for failing to comply with the original provisions and deadlines of the 2001 order.

Sierra Club urges rejection rather than adoption of the revised and delayed compliance schedule provided in the Proposed Addendum. Sierra Club further urges that, if such an Addendum is adopted with the revised/delayed compliance schedule, that Motiva be required to pay a significant non-compliance penalty that removes the financial benefit Motiva has accrued by delaying compliance or to be required to finance a substantial supplemental environmental project that will reduce environmental impacts of the Motiva refinery and/or increase public access and awareness to both information and future decision-making concerning this industrial facility.

The proposed Consent Decree Addendum changes improperly impose no penalty on Motiva for its delay in compliance. The Consent Decree included stipulated penalties of \$100,000 per quarter per scrubber for failure to timely install the regenerative wet gas scrubbers and \$100,000 per quarter for failure to timely install SNCR. The original Consent Decree contains additional stipulated penalties for Motiva's failure to comply with other consent decree requirements that are now proposed to be delayed. At a minimum, Motiva should have to pay these stipulated penalties for its failure to meet the original deadlines. It is unfair and contrary to the public interest to impose zero penalties for Motiva's failure to meet the original deadlines. Motiva entered into the original agreement in March of 2001 and they were an active participant in the negotiations of the current Consent Decree requirements. Motiva did not submit an application for the work outlined in the Consent Decree until summer 2002. The application Motiva proposed was for non-regenerative scrubbers, instead of the regenerative technology required by the Consent Decree. Motiva had more than a year to prepare a project that met the terms of the Consent Decree but instead came forward with a proposed project that was in violation of that decree. Now Motiva is seeking permission for more time to prepare a permit application and complete construction. Imposing no penalties allows Motiva to receive an unfair competitive advantage and economic benefit from its delays in complying with the law.

5.2 Motiva Must be Required to Conduct a Stack Test for Compliance Purposes in Addition to Using Continuous Emission Monitoring for Compliance

Neither the original Consent Decree, nor the revised Proposed Addendum, appear to require compliance stack testing for NOX, SO₂, H₂SO₄ or PM at the FCU

and FCCU units. The only stack testing required appears to be relative accuracy testing to verify the accuracy of continuous emission monitoring equipment. Such tests need not be conducted under conditions of maximum process operation and throughputs.

The Proposed Addendum should add comprehensive stack testing requirements for the pollutants cited in the prior paragraph and for sulfur dioxide percentage control efficiency and stack concentration requirements (and also to enforce any subsequent mass rate of emission limitations imposed in the permit process). The compliance stack testing requirements should plainly require stack test demonstrations to be done at the maximum process rate and sulfur dioxide inlet rates to be expected. The facility should not be authorized for process rates that exceed what has been demonstrated by a prior compliance stack test unless the facility conducts another stack test demonstration at the higher process rate and/or sulfur dioxide inlet rate. In any case, a compliance test should be required for the pollutants cited above not less than once every 3 years.

6 The Sierra Club has been Prejudiced in Preparing and Submitting these Comments by Failure of U.S. EPA to Provide Proper and Timely Disclosures of Information

Although the Sierra Club has gained significant information about Motiva and the Consent Order process from Motiva's November 2002 permit application for a non-regenerative scrubber, the Sierra Club has been prejudiced by U.S. EPA's failure to properly and timely disclose pertinent information from its files concerning Motiva and the Consent Decree Addendum negotiations.

Sierra Club submitted a federal Freedom of Information Act request on April 9, 2003 by and through its counsel of record, Attorney Lyman Welch and the Mid-Atlantic Environmental Law Center. However, no documents have yet been produced in response to this FOIA request, notwithstanding the pendency of the current comment deadline on the Consent Decree Addendum lodged with the District Court.

On June 5, 2003, Sierra Club filed a motion in the District Court to intervene in this case which would have enabled the Club to gain access to all pertinent documents. However this motion is still pending before the District Court.

Sierra Club and its consultants wanted to gain access to detailed EPA records concerning this proposed Addendum to more fully analyze issues before the EPA and the District Court. The failure of EPA to provide timely disclosure in response to a valid FOIA request has prejudiced the Club's ability to most fully and completely participate in the public comment proceeding on the Addendum. Should Sierra Club attain full party status and gain access to further records through that process and/or

through the FOIA process, the Sierra Club reserves the right to raise further and refined comments prior to District Court ruling on the proposed amendment to the consent order.

Thank you for the opportunity to submit these comments.