



## I. STATUTORY AND REGULATORY FRAMEWORK

Section 502(d)(1) of the Act, 42 U.S.C. § 7661a(d)(1), calls upon each state to develop and submit to EPA an operating permit program intended to meet the requirements of CAA title V. The State of Georgia originally submitted its title V program governing the issuance of operating permits on November 12, 1993. EPA granted interim approval to the program on November 22, 1995. See, 60 Fed. Reg. 57836 (November 22, 1995). Full approval was granted by EPA on June 8, 2000. See, 65 Fed. Reg. 36358 (June 8, 2000). The program is now incorporated into Georgia's Air Quality Rule 391-3-1-.03(10). All major stationary sources of air pollution and certain other sources are required to apply for title V operating permits that include emission limitations and other conditions as necessary to assure compliance with applicable requirements of the Act, including the requirements of the applicable implementation plan. See, 42 U.S.C. §§ 7661a(a), 7661c(a).

The title V operating permit program does not generally impose new substantive air quality control requirements (referred to as "applicable requirements") on sources but does require permits to contain monitoring, recordkeeping, reporting, and other conditions to assure compliance by sources with existing applicable requirements. See, 57 Fed. Reg. 32250, 32251 (July 21, 1992). One purpose of the title V program is to "enable the source, States, EPA, and the public to better understand the requirements to which the source is subject, and whether the source is meeting those requirements." Id. Thus, the title V operating permit program is a vehicle for ensuring that existing air quality control requirements are appropriately applied to facility emission units in a single document, therefore enhancing compliance with the requirements of the Act.

Under section 505(a) of the Act, 42 U.S.C. § 7661d(a), and 40 CFR § 70.8(a), states are required to submit each proposed title V permit to EPA for review. Upon receipt of a proposed permit, EPA has 45 days to object to final issuance of the permit if it is determined not to be in compliance with applicable requirements or the requirements of title V. 40 CFR § 70.8(c). If EPA does not object to a permit on its own initiative, section 505(b)(2) of the CAA, 42 U.S.C. § 7661d(b)(2), and 40 CFR § 70.8(d) provide that any person may petition the Administrator, within 60 days of the expiration of EPA's 45-day review period, to object to the permit. These sections also provide that petitions shall be based only on objections to the permit raised with reasonable specificity during the public comment period (unless the petitioner demonstrates that it was impracticable to raise such objections within that period or the grounds for such objections arose after that period).

Section 505(b)(2) of the Act, 42 U.S.C. § 7661d(b)(2), requires the Administrator to issue a permit objection if a petitioner demonstrates that a permit is not in compliance with the requirements of the Act, including the requirements of part 70 and the applicable implementation plan. See, 40 CFR § 70.8(c)(1); New York Public Interest Research Group, Inc. v. Whitman, 321 F.3d 316, 333 n.11 (2d Cir. 2003). If, in responding to a petition, EPA objects to a permit that has already been issued, EPA or the permitting authority will modify, terminate, or revoke and reissue the permit consistent with the procedures in 40 CFR §§ 70.7(g)(4) or (5)(i) and (ii)

for reopening a permit for cause. A petition for review does not stay the effectiveness of the permit or its requirements if the permit was issued after the expiration of EPA's 45-day review period. See, 42 U.S.C. §§ 7661d(b)(2)-(b)(3); 40 CFR § 70.8(d).

## **II. PROCEDURAL BACKGROUND**

### **A. Permitting Chronology**

EPD originally issued a title V permit for the Cargill Soybean Oil Mill, located in Gainesville, Georgia on April 30, 2002 ("Main Permit"). On March 21, 2002, Cargill submitted an application for a title V permit amendment to EPD. EPD determined that the application was administratively complete on May 20, 2002. On December 31, 2002, EPD published a public notice providing for a 30-day public comment period on the draft title V permit amendment for Cargill. The public comment period for the draft permit amendment ended on January 30, 2003. Petitioners submitted public comments on the draft permit amendment to EPD on January 28, 2003. Additionally, Petitioners requested a public hearing on the proposed title V permit amendment. On February 24, 2003, EPD published a public notice providing 30 days' notice of the public hearing. On March 27, 2003, EPD held a public hearing to receive more public comments on the draft title V permit amendment. Both Petitioners and their counsel from the Georgia Center made oral and written comments at the public hearings. After considering the written and oral comments, EPD subsequently issued a final Part 70 Operating Permit Amendment (No. 2075-139-0002-V-01-1) to Cargill on April 25, 2003. The Petitioners' comments, received by EPD during both the public comment period and the public hearing, serve as the basis for this petition.

### **B. Timeliness of Petition**

EPA's 45-day review period for the Cargill permit amendment ended on August 4, 2003 (the amendment was proposed to EPA on June 20, 2003). The sixtieth day following that date, which was the deadline for filing any petitions requesting that the Administrator object to this permit amendment pursuant to section 505(b)(2) of the CAA, was October 3, 2003. As noted previously, on October 7, 2003, EPA received a petition from Petitioners, requesting that EPA object to the permit amendment. Since the petition was postmarked by the U.S. Postal Service on October 3, 2003, EPA considers this petition to be timely.

## **III. FACILITY BACKGROUND**

Cargill owns and operates a vegetable oil mill and refinery, located in Gainesville (Hall County), Georgia. The vegetable oil mill consists primarily of a vegetable oil extraction process, which produces crude soybean oil, hulls, and soymeal. The oil refining process includes operations for bleaching, deodorizing, hydrogenation, and blending. The facility includes mechanized operations for transporting, storing, cleaning, hulling, drying, cracking and flaking, and chemical application. Hexane is utilized primarily to extract oil from processed beans. The

Cargill oil mill emission unit of primary concern in this petition is the Henry Vogt spreader stoker coal-fired boiler, which was originally installed at the facility in 1980 to meet the steam demands of the extraction plant and the refinery. The boiler was originally permitted under Prevention of Significant Deterioration (PSD) regulations. Best available control technology analyses were required for emissions of particulate matter and sulfur dioxide. The boiler has a heat input rating of 145 mmBtu/hr and steam production capacity of 120,000 lbs/hr. The primary air emissions from this facility are oxides of nitrogen (NO<sub>x</sub>), volatile organic compounds (VOCs), sulfur dioxide (SO<sub>2</sub>), particulate matter less than or equal to ten micrometers in diameter (PM<sub>10</sub>), and hazardous air pollutants (HAPs). The HAP of concern from this facility is n-hexane.

The facility is subject to the following federal requirements: 40 CFR Part 60, Subpart Dc - *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units*, 40 CFR Part 63, Subpart A - *General Provisions*, and 40 CFR Part 63, Subpart GGGG - *National Emission Standards for Hazardous Air Pollutants: Solvent Extraction for Vegetable Oil Production*. The facility is subject to the following State Implementation Plan (SIP) requirements: Georgia Rules 391-3-1-.02(2)(b), *Visible Emissions*; (d), *Fuel-burning Equipment*; (e), *Particulate Emissions from Manufacturing Process*; (g), *Sulfur Dioxide*; (n), *Fugitive Dust*; (tt), *VOC Emissions from Major Sources*; and (yy), *Emissions of Nitrogen Oxides from Major Sources*.

#### **IV. ISSUES RAISED BY PETITIONER**

##### **A. NO<sub>x</sub> RACT Determination for Boiler B001**

Petitioners' Comment: Petitioners allege that the NO<sub>x</sub> limit for Cargill's coal-fired boiler B001 should be lower than Cargill's part 70 permit emission limit of 0.41 lb/mmBTU, and that selective catalytic reduction (SCR) or selective non-catalytic reduction (SNCR) should be the control technology. Petitioners specifically contend that the cost estimates for pollution control equipment were based on incorrect flowrate, temperature, and related exhaust figures provided by Cargill and resulted in a "faulty analysis" and an "overstatement" of cost estimates for pollution control equipment. Petitioners also claim that the narrative does not provide a complete factual and legal basis for the permit conditions, particularly for the RACT determination.<sup>1</sup>

Background - Boiler 001 and the Relevant State Implementation Plan (SIP) Provisions: Cargill's boiler B001 emits approximately 92 tons of NO<sub>x</sub> during the ozone season (May 1

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<sup>1</sup> EPA construes this objection to include only the NO<sub>x</sub> RACT conditions and not the VOC RACT conditions because the remaining portion of the Objection focuses only on NO<sub>x</sub> and because Petitioners' present no argument or information about VOC RACT or any other non-NO<sub>x</sub> condition. EPA addresses the Narrative issue for the NO<sub>x</sub> RACT requirement for boiler B001 in this section and the Narrative for the NO<sub>x</sub> RACT requirement for emission units B002, HPB2, HR01, and L11A in the next section.

through September 30) (or 0.6 tons per day) and is a 145 mmBTu/hr coal-fired stoker boiler which was installed around 1981. The boiler accounts for approximately 85% of the Facility's NOx emissions. Permit Amendment Narrative at 6. The NOx RACT limit for B001 in Cargill's part 70 permit was set by EPD pursuant to GA Rule 391-3-1-.02(2)(yy) ("GA NOx RACT Rule"). The GA NOx RACT Rule, which was enacted by Georgia on September 8, 1999, and approved by EPA into Georgia's State Implementation Plan ("SIP") on July 10, 2001, does not contain specific emission limitations but provides the EPD Director with broad discretion to set NOx RACT limits for emissions units. The GA NOx RACT Rule states: "No person shall cause, let, permit, suffer or allow the emissions of nitrogen oxides from any source to exceed the levels specified in paragraph 2 below [50 tons per year for sources in certain counties and 100 tons per year for sources in other specified counties] unless such source has been approved by the Director as meeting the appropriate requirement for all reasonably available control technology in controlling those emissions of nitrogen oxides." GA NOx RACT Rule, §§ 1 and 2. This Rule applies to sources in certain Georgia counties regardless of the counties' National Ambient Air Quality Standard (NAAQS) attainment status and specifically to all sources in Hall County, Georgia, the county in which the Cargill facility is located. GA NOx RACT Rule, § 3(ii).

The GA NOx RACT Rule required sources like Cargill to submit their NOx RACT final control plan and application for a permit to construct/modify by April 1, 2001. GA NOx RACT Rule, § 3(ii)(II). A one-year extension was granted by EPD until April 1, 2002. Cargill submitted its initial NOx RACT plan to EPD in September 2000 and submitted its final control plan and application to modify its title V permit to incorporate the NOx RACT requirements to EPD on April 1, 2002. Letter from Todd Cloud of Trinity Consultants to Mr. James Capp of EPD (April 1, 2002) ("Cargill April 2002 Letter"). EPD's NOx RACT determination for Cargill's boiler B001, as incorporated into the part 70 permit, was a NOx RACT limit of 0.41 lb/mmBTU. Condition 3.4.1.

Record Information on the Permit Amendment: Based on a cost analysis for control technology, Cargill submitted to EPD a NOx RACT determination of "good combustion practices" for boiler B001 (rather than SCR or SNCR) with a NOx emission limit of 0.41lb/mm BTU. Cargill April 2002 Letter. The proposed limit was based on a combination of the boiler's actual coal usage in 1999 and the estimated actual NOx emissions using the most recent emissions factors provided in the EPA's AP-42 Compilation of Air Pollutant Emission Factors, Fifth Edition. Id. Both Cargill and EPD estimated the uncontrolled NOx emissions from the boiler to be 0.41 lb/mm BTU using the emissions factors in AP-42, rather than using source-specific test data for B001. Id. and Internal EPD Memorandum from James A. Capp to Jimmy Johnston (April 4, 2002). This is because no source-specific test data for B001 appears to have been available at the time of the NOx RACT determination, presumably because Cargill had never tested the boiler for NOx emissions. The NOx RACT determination submitted by Cargill considered control technologies such as SCR, gas reburn, and conversion to natural gas-firing. Cargill April 2002 Letter. Cargill provided detailed cost analyses as a basis for rejection of the these technologies for use in establishing RACT requirements for B001. Id. In particular, Cargill provided a cost of \$13,400 per ton of NOx removed using SCR. Id.

The permit record reflects that Cargill initially submitted a cost analysis that showed the cost effectiveness for installing SCR on B001 to be approximately \$7,000/ton of NOx removed.<sup>2</sup> Id. EPD reviewed that initial submittal and concluded that NOx control could be achieved with a cost effectiveness of \$4,900/ton of NOx removed. Letter from Ronald C. Methier, Chief Air Protection Branch of EPD to Mike Dobeck, Plant Superintendent at Cargill (April 8, 2002). EPD noted that its analysis was based on cost assumptions developed from SCR retrofits at large scale pulverized coal-fired electric utility boilers. Permit Amendment Addendum to Narrative, at 1. Subsequently, however, Cargill submitted a “site-specific cost analysis” which indicated that the cost effectiveness of NOx control using SCR for B001 exceeded \$13,400/ton of NOx removed. Letter from Todd Cloud of Trinity Consultants to Mr. James Capp of EPD (July 17, 2002). Cargill’s site-specific analysis, however, did not use actual emission data from the boiler, but relied on AP-42 estimated emissions.<sup>3</sup> This is a concern since the amount of uncontrolled NOx emissions affects the economic analysis performed for the selection of the control technology. In addition, Cargill’s “site-specific” cost analysis was based on a cement kiln roller mill rather than a coal-fired boiler. See, Letter from Bill Powers, P.E. of Powers Engineering to Curtis Cox of Georgia Center for Law in the Public Interest (October 3, 2002). Further, the cost analysis included the cost of continuous emissions monitoring, which may or may not have already been required depending on the boiler’s actual NOx emissions.

The permit record contains no discussion or explanation by EPD of why it considered Cargill's "site specific" cost analysis to be sufficient or accurate, including: why or how the use of cement kiln combustion characteristics (flow rate and temperature) are more appropriate than actual design specifications for the boiler, or for that matter, more appropriate than EPD's previous use of large scale pulverized boilers to determine the cost effectiveness of SCR. Further, there is no discussion or explanation by EPD of why it considered AP-42 emission factors to be more appropriate than actual test data in establishing an emissions baseline to be used in the cost-effectiveness calculations.<sup>4</sup>

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<sup>2</sup> The formula to determine cost effectiveness for a particular RACT technology is total annual cost divided by amount of NOx removed on a tons per year basis.

<sup>3</sup> EPA has consistently stated that AP-42 factors do not yield accurate emissions estimates for individual sources and that use of these factors to develop source-specific permit limits and/or to determine compliance with permit requirements is not recommended. This is because the emission factors essentially represent an average of a range of emission rates from all available data - and are generally assumed to be representative of long-term averages for all facilities in the source category. Emissions factors in AP-42 are neither EPA-recommended emission limits (*e.g.* best available control technology or BACT, or lowest achievable emission rate or LAER) nor standards (*e.g.*, National Emission Standards for Hazardous Air Pollutants or NESHAP, or New Source Performance Standards or NSPS). In contrast, emission factors may be appropriate to use in some permitting applications, such as in applicability determinations and in establishing operating permit fees. See EPA, AP-42 Compilation of Air Pollutant Emission Factors, Fifth Edition, Introduction at 1-2 (Jan. 1995); *White Paper for Streamlined Development of Part 70 Permit Applications* (July 10, 1995) at 6-7.

<sup>4</sup> As part of its review of this Petition, EPA requested that EPD articulate the reasons and rationale for accepting Cargill’s NOx RACT cost analysis figures for B001. In its June 14, 2004, response, EPD provided no new information but referred EPA back to the Addendum to the Permit Narrative, which EPA had previously reviewed.

Discussion: EPA first considers the adequacy of the narrative or statement of basis for the numerical RACT limit. EPA's title V regulations state that "the permitting authority shall provide a statement that sets forth the legal and factual basis for the draft permit conditions (including references to the applicable statutory or regulatory provisions). The permitting authority shall send this statement to EPA and to any other person who requests it." 40 C.F.R. § 70.7(a)(5). Commonly referred to as a "statement of basis," this provision is not part of the permit itself, but rather a separate document which is to be sent to EPA and to interested parties upon request.

As for content required under section 70.7(a)(5), EPA interprets this section as requiring that a statement of basis describe the origin or basis of each permit condition or exemption. However, it is more than just a short form of the permit. It should highlight elements that EPA and the public would find important to review. Rather than restating the permit, it should list anything that deviates from simply a straight recitation of applicable requirements. Thus, it should include a discussion of the decision-making that went into the development of the title V permit and provide the permitting authority, the public, and EPA a record of the applicability and technical issues surrounding the issuance of the permit. See e.g., In Re Port Hudson Operation Georgia Pacific, Petition No. 6-03-01, at pages 37-40 (May 9, 2003) ("Georgia Pacific"); In Re Doe Run Company Buick Mill and Mine, Petition No. VII-1999-001, at pages 24-25 (July 31, 2002) ("Doe Run"). Finally, EPA has interpreted section 70.7(a)(5) to require that the rationale for the selected monitoring requirements be documented in the permit record. See, In Re Fort James Camas Mill, Petition No. X-1999-1, at page 8 (December 22, 2000) ("Ft. James"); Region V Letter to State of Ohio (December 20, 2001) (available at "<http://www.epa.gov/rgytgrnj/programs/artd/air/title5/t5memos/sbguide.pdf>"); and Notice of Deficiency to State of Texas, 67 Fed. Reg. 732 (January 7, 2002).

The failure of a permitting authority to meet the procedural requirements of section 70.7(a)(5), however, does not necessarily demonstrate that the resulting title V permit is substantively flawed. In reviewing a petition to object to a title V permit because of an alleged failure of the permitting authority to meet all procedural requirements in issuing the permit, EPA considers whether the petitioner has demonstrated that the permitting authority's failure resulted in, or may have resulted in, a deficiency in the content of the permit. See, CAA § 505(b)(2) (objection required "if petitioner demonstrates ... that the permit is not in compliance with the requirements of this Act, including the requirements of the applicable [SIP]"); see also, 40 CFR § 70.8(c)(1). Where the record as a whole supports the terms and conditions of the permit, flaws in the statement of basis generally will not result in an objection. See e.g., Doe Run at 24-25. In contrast, where flaws in the statement of basis resulted in, or may have resulted in, deficiencies in the title V permit, EPA will object to the issuance of the permit. See e.g., Ft. James at 8; Georgia Pacific at 37-40.

Here, the narrative and permit record provide little explanation for the numerical RACT

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See, Attachment 1, Email from Diane DeShazo to Ellen Rouch entitled "Questions from US EPA and Responses from EPD RE: Cargill" (June 14, 2004).

chosen. The failure to provide greater explanation, particularly given the nature of the issues, may have resulted in a permit flaw. Without information in the permit record, for example, explaining why EPD considered Cargill's site-specific cost analysis for SCR for B001 to be sufficient when based on AP-42 emission factors rather than source specific data, EPA is concerned that the RACT chosen may not be the "appropriate requirement" under the GA NOx RACT Rule and the GA SIP. Thus, at a minimum, EPA cannot conclude that the permit is in compliance with the requirements of this Act, including the requirements of the applicable [SIP]". See, CAA § 505(b)(2); see also, 40 CFR § 70.8(c)(1). For this reason, EPA grants Petitioners' claim based on the inadequacy of the narrative and permit record on the numerical RACT limit for boiler B001.

## **B. NOx RACT "Annual Tune-Up" Requirement for Boilers B002, HPB2, HR01, and L11A**

Petitioners' Comment: Petitioners allege that the "Annual Tune-Ups" Requirement in Condition 3.4.10 is insufficient under CAA RACT requirements for units B002, HPB2, HR01, and L11A. In particular, Petitioners assert that use of low NOx burners is more appropriate for meeting RACT requirements and that natural gas with propane as a back-up and additional controls, particularly combustion technologies, should have been considered in the RACT determination process. In addition, Petitioners claim that the narrative does not provide a complete factual and legal basis for the permit conditions, particularly for the RACT determination.

Background - Other Units Subject to RACT Tune-ups and the Relevant State Implementation Plan (SIP) Provisions: Besides the coal-fired boiler (B001), there are five additional sources of NOx emissions at the Cargill Facility. The units are small in size, low in individual potential emissions, and the primary fuel for each unit is natural gas (e.g., HPB1 has a capacity of 8 mmBTU/hr and a maximum potential emissions of 3.44 tons per year when firing natural gas). See, Permit Amendment Application. In total, these five sources account for 15% of Cargill's NOx emissions. Id. and Permit Amendment Addendum to Narrative at 3. As with B001, the requirement to establish NOx RACT for these additional boilers is contained in the GA NOx RACT Rule.

Record Information on the Permit Amendment: Under the GA NOx RACT Rule, Cargill proposed, and EPD agreed, that the NOx RACT requirement for these sources is an annual tune-up. See, Condition 3.4.10.

The record includes a summary of RACT regulations nationally which supports the position that an annual tune-up can be considered RACT for certain boilers (e.g., New York's RACT requirement for small boilers is, in fact, an annual tune-up). See, Report Submitted by O'Brien & Gere on Nitrogen Oxide RACT Determination (September 2000), Appendix D to Petitioners' Objections. In addition, in its response to comments on the draft Cargill part 70

permit, EPD explained that boiler B002 is a natural gas-fired standby boiler, that the high pressure boiler HPB1 and high pressure steam vaporizer HPB2 are smaller units that are fired primarily with gas, and that the five small boilers contribute only 15% of the Facility's total NOx emissions. Permit Amendment Addendum to Narrative, at 3. Given the five boilers contribute only 15% of the facility's total NOx emissions, EPD explained that it would not be cost effective to replace the burners in these units with Low NOx burners. Id. Further, as to the B0002, HPB1 and HPB2 units, EPD also concluded that it was "not cost effective to force these sources to use propane as a backup fuel" and that "since propane is derived from natural gas its supply is subject to the same uncertainty as that of natural gas. Hence, propane does not qualify to be considered as a backup fuel." Permit Amendment Addendum to Narrative, at 2.

Discussion: EPA reviews the narrative claim here in the same manner as that described above for the numerical RACT requirement. In contrast to the permit record on the numerical RACT requirement, the permit narrative and record for the tune-up RACT requirement are not devoid of details in support of the decision made, and EPD adequately responds to comments raised on the draft permit amendment. Here, EPD explains that given the size and nature of the units regulated and the emissions anticipated from these units, annual tune-ups are adequate RACT standards. Moreover, that decision to impose tune-ups as RACT for these units is noted in the record as being consistent with other decisions on similar units in other regions of the United States.

EPA also considers the adequacy of the RACT tune-up requirement, and concludes that EPD's choice of the tune-up requirement in this case, given the nature of the units, their expected emissions, and the costs of the alternatives proposed by Petitioners, to be reasonable. Petitioners have not demonstrated otherwise. Further, EPD adequately addresses Petitioners objections to use of tune-ups as RACT for these smaller units, and Petitioners present no additional reasons to question the adequacy of EPD's decision to impose tune-ups as RACT for these units. For all of the above reasons, EPA denies Petitioners' petition based on their claims on the adequacy of tune-ups as RACT and as to the adequacy of the narrative explaining EPD's choice of this requirement.

### **C. Insufficient Monitoring and Reporting Requirements**

Petitioners' Comment: Petitioners allege that Cargill's part 70 permit has insufficient monitoring and reporting requirements and is inadequate for assuring compliance because: (1) Conditions 2.2.5 and 5.2.7d. lack adequate monitoring requirements; (2) Condition 5.2.6 does not adequately require Cargill to report NOx monitoring results to EPD; (3) Condition 5.2.7 is practically unenforceable because it fails to include manufacturing specifications; and (4) the NOx limit for boiler B001 lacks adequate monitoring and reporting requirements and is practically unenforceable.

Background - Title V Monitoring: Two provisions of part 70 require that title V permits contain monitoring requirements. The "periodic monitoring rule," 40 CFR § 70.6(a)(3)(i)(B), requires that "[w]here the applicable requirement does not require periodic testing or

instrumental or noninstrumental monitoring (which may consist of recordkeeping designed to serve as monitoring), [each title V permit must contain] periodic monitoring sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the permit.... Such monitoring requirements shall assure use of terms, test methods, units, averaging periods, and other statistical conventions consistent with the applicable requirement. Recordkeeping provisions may be sufficient to meet the requirements of [40 CFR § 70.6(a)(3)(i)(B)].” The “umbrella monitoring” rule, 40 CFR § 70.6(c)(1), requires that each title V permit contain, “[c]onsistent with [section 70.6(a)(3)], ...monitoring ... requirements sufficient to assure compliance with the terms and conditions of the permit.” EPA has interpreted section 70.6(c)(1) as requiring that title V permits contain monitoring required by applicable requirements under the Act (e.g., monitoring required under federal rules such as MACT standards and monitoring required under SIP rules), and such monitoring as may be required under 40 CFR § 70.6(a)(3)(i)(B). 69 Fed. Reg. 3202, 3204 (Jan. 22, 2004); see also, Appalachian Power Co. v. EPA, 208 F.3d 1015 (D.C. Cir. 2000). Petitioners’ allegations about the monitoring required in the Cargill part 70 permit concern both monitoring required as part of applicable requirements and monitoring added to the permit by EPD pursuant to the periodic monitoring rule.

**1. Condition 2.2.5.** Petitioners specifically identify Condition 2.2.5 as “lack[ing] adequate monitoring requirements” and assert that “Part 70 requires monitoring as a condition of the Title V permit. Under Part 70 and Title V, the public is entitled to review and comment on the monitoring during the permit review process.” Petitioners do not indicate what monitoring is lacking in Condition 2.2.5, but EPA notes that Condition 2.2.5 exclusively concerns the National Emission Standard for Hazardous Air Pollutants for Solvent Extraction for Vegetable Oil Production (the Vegetable Oil Maximum Achievable Control Technology standard or Vegetable Oil MACT). EPA therefore reads this objection as asserting a lack of adequate monitoring requirements under the Vegetable Oil MACT and a lack of public review and comment on those monitoring requirements during the title V permit issuance process.

Background - Condition 2.2.5 and the Vegetable Oil MACT: Condition 2.2.5 of Cargill’s part 70 permit states: “The Permittee shall develop and implement a site-specific plan that specifies detailed procedures that will be followed for monitoring and recording data necessary for demonstrating compliance with all applicable provisions of the Vegetable Oil MACT, 40 CFR, Subpart GGGG and Subpart A. The Permittee shall keep the plan on-site and readily available as long as the source is operational. Any changes made to the plan for demonstrating compliance will involve retaining all previous versions of the plan and making them readily available for inspection for at least five years after each revision. The compliance demonstration plan shall include the items in paragraphs (a)(1) and (a)(7) of 40 CFR 63.2851.” Subsections 63.2851(a)(1) through (a)(7) of the Vegetable Oil MACT require descriptions of all methods of measurement, examples of calculations used to determine compliance status, example logs, and a plan to ensure that data continue to meet compliance demonstration needs. The contents of this plan are critical components of the monitoring and recordkeeping necessary for ensuring

compliance with the Vegetable Oil MACT.<sup>5</sup>

While Condition 2.2.5 requires Cargill to develop and implement a site-specific compliance demonstration plan containing the elements specified in the Vegetable Oil MACT, Condition 2.2.5 does not contain other important aspects of the Vegetable Oil MACT. Specifically, Condition 2.2.5 fails to reflect a time frame for the development and implementation of a site-specific compliance demonstration plan. Section 63.2851(a) of the Vegetable Oil MACT states “You must develop and implement your own site-specific plan for demonstrating compliance *before the compliance date for your source.*” 40 CFR § 63.2851(a) (emphasis added). Under the Vegetable Oil MACT provisions, the compliance date for Cargill, as an existing source, was April 12, 2004. 40 CFR § 63.2834. Thus, by the terms of the MACT regulation, the compliance demonstration plan was required to be developed and implemented sometime before April 12, 2004.<sup>6</sup> Condition 2.2.5 fails to include language indicating this time frame for the development and implementation of Cargill’s compliance demonstration plan.

Condition 2.2.5 also fails to include important language requiring that the compliance demonstration plan be incorporated into Cargill’s part 70 permit. The Vegetable Oil MACT requires sources to “incorporate the plan for demonstrating compliance by reference in the source’s title V permit and keep the plan on-site and readily available as long as the source is operational ....” 40 CFR § 63.2851(a). No time frame is provided by the Vegetable Oil MACT for incorporating the compliance demonstration plan into a source’s title V permit. Condition 2.2.5 contains no requirement that the compliance demonstration plan be incorporated by reference into Cargill’s part 70 permit, and the plan is not incorporated by reference.

Discussion - Condition 2.2.5 and the Vegetable Oil MACT: As stated in 40 CFR 63.2851(a), the compliance demonstration plan described there is to provide the “detailed procedures you will follow to monitor and record data necessary for demonstrating compliance”

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<sup>5</sup> Condition 2.2.4 specifically requires the Permittee to meet all of the requirements in 40 CFR 63.2850(a) and Table 1 of 40 CFR 63.2850, and comply with the schedules for demonstrating compliance for existing sources under normal operation in Table 2 of 40 CFR 63.2850. The Vegetable Oil MACT requirements in Table 1 include monitoring requirements relating to the extraction solvent loss in gallons from the source, the volume fraction of hazardous air pollutants (HAPs) present at greater than 1 percent by volume and gallons of extraction solvent in shipment received, the tons of each oilseed type processed, the weighted average volume fraction of HAP in extraction solvent received, the actual solvent loss, the weighted average volume fraction HAP, the oilseed processed and compliance ratio for each 12-month period, the timing and submittal of Deviation Notification Reports, and the submittal of periodic start-up, shutdown, malfunction reports. These specific monitoring and recordkeeping requirements are also included in Conditions 5.2.8 through 5.2.11.

<sup>6</sup> The facility is also subject to State Rule 391-3-1-.02(2)(tt) requiring RACT for VOC control from all sources having a potential VOC emission of 1 ton/year or more. The VOC RACT limit applies to all isomers of hexane. EPD determined that the VOC RACT for this facility is the Vegetable Oil MACT at 40 CFR Part 63, thus, the Vegetable Oil MACT limit was adopted by Georgia as RACT for VOC control. An emission limit of 0.2 gallons of hexane per ton of soybean processed is the VOC RACT limit for Cargill. Compliance with this VOC RACT limit began on May 1, 2003. Condition 2.2.5 does not, explicitly or implicitly, deal with this VOC RACT provision and Petitioner does not raise any issues related to the permit’s VOC RACT provisions.

with the Vegetable Oil MACT. Thus, by its express terms, the procedures detailed in the compliance demonstration for a facility are monitoring requirements that are both part of the applicable requirement and therefore necessary to assure compliance with the applicable requirement. However, Condition 2.2.5 fails to require that the compliance demonstration plan be developed and implemented before the source's compliance date with the Vegetable Oil MACT (April 12, 2004) and fails to require that the compliance demonstration plan, once developed, be incorporated by reference into the title V permit.<sup>7</sup> For this reason, Petitioners' objection to Condition 2.2.5 is granted.

Reopening the permit to incorporate by reference the compliance plan containing the source specific procedures to be followed to monitor and record data necessary to determine compliance will require use of significant permit modification procedures. See, 40 CFR § 70.7(e)(2)(i)(A)(2), 70.7(e)(4)(i) (requiring use of significant permit modification procedures for applications requesting permit modifications that do not qualify as minor permit modifications, including modifications that involve significant changes to existing monitoring, reporting, or recordkeeping requirements in the permit). Part 70 significant permit modification procedures provide the public, state and EPA reviewers an opportunity to review and comment on the draft terms and conditions, including those addressing, e.g., applicable MACT provisions and such other terms and conditions as may be required under title V and part 70 to assure compliance. Thus, the public will have an opportunity to raise any concerns with the compliance plan during the public comment period on the draft permit revision, including concerns regarding the

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<sup>7</sup> EPA notes that Condition 2.2.4 requires that the Permittee meet "all of the requirements of 40 CFR 63.2850(a)," and that paragraph (2) of section 63.2850(a) requires the development and implementation of "a plan for demonstrating compliance in accordance with 63.2851." Thus, Condition 2.2.4 arguably might be read to incorporate by reference all of the requirements of 63.2851, including the requirements for developing and implementing a compliance demonstration plan before the source's compliance date and for incorporating that plan into the title V permit by reference. However, such referencing is only appropriate where it is specific enough to define how the applicable requirement applies and assures compliance with the applicable requirement. See, White Paper No. 2 for Improved Implementation of the Part 70 Operating Permits Program at 1, 37-41 (Mar. 5, 1996); and see, Letter from J. Seitz, EPA, to R. Hodanbosi, STAPPA/ALAPCO, enclosure B at 5 - 6 (May 20, 1999). The two requirements of 63.2851(a) at issue, development and implementation of the plan by April 12, 2004 and incorporation by reference of the plan in the title V permit, are important requirements of the Vegetable Oil MACT, yet Cargill's obligations in relation to these requirements are not clear from Condition 2.2.4; the compliance date for development, implementation and incorporation of the plan by reference in the permit is not specifically identified in the permit and there is no express requirement to incorporate by reference the plan. Because of the importance of these two requirements and the inability to discern the source's compliance plan obligations from the Cargill permit's broad incorporation by reference, EPA determines that the need to specifically and unambiguously include them in the permit outweighs any streamlining benefits that may be achieved by incorporating the requirements by reference through Condition 2.2.4. EPA finds it significant that, in this case, the compliance plan has not been proposed for incorporation by reference into the permit, which is an indicia of the vagueness of the permit terms. Balancing streamlining benefits against the need for an unambiguous description of the applicable requirement is consistent with EPA's interpretation of CAA Section 504(a). See, id. at 37-38; see also, Public Citizen, Inc. v. USEPA, 343 F.3d 449, 460 (5th Cir. 2003) (upholding EPA's determination that incorporation of applicable requirements by reference was consistent with Section 504(a) where the State specifically identified the documents being incorporated and made such documents available to the public, and streamlining benefits of incorporation by reference outweighed the value of a more detailed Title V permit due to exceptionally large number of minor new source review permits to be incorporated into numerous Title V permits.)

adequacy of the MACT requirements reflected in the permit.

**2. Condition 5.2.7.** Petitioners allege that Condition 5.2.7 is practically unenforceable because manufacturers' specifications are not included in the permit file. Petitioners also allege that Condition 5.2.7d. lacks adequate monitoring requirements.

Background - Condition 5.2.7, Adequacy of Monitoring and Practical Enforceability: Condition 5.2.7 requires the Permittee, within 60 days of permit issuance, to perform a tune up of certain boilers using specified procedures. Tune-ups are then required for each emission unit no more than 30 days prior to May 1 of each ozone season (May 1 through September 30) provided the emission unit will be operated during the ozone season. The Condition also contains data collection and reporting requirements, which are periodic monitoring provisions under 40 CFR § 70.6(a)(3)(i)(B), including inspections, adjustments, cleaning or replacement of fuel-burning equipment, and inspections and adjustments of the air-to-fuel ratio control system to ensure proper calibration and operation. In addition, Condition 5.2.7 requires the Permittee to utilize EPA procedures to establish the lowest practical oxygen level at which an emission unit may be safely operated and at which NO<sub>x</sub> emissions are minimized, and further requires the Permittee to utilize EPA procedures for measurements of concentrations of NO<sub>x</sub> and oxygen.

Condition 5.2.7d. deals with the reporting aspects of the tune-up requirements. With regard to reporting this data, Condition 5.2.7d. requires that "within 30 days following the completion of the tuning of the emission units governed by this condition, the Permittee shall submit to the Division a report containing the emission data, a description of the operating parameters which were adjusted to achieve the minimum NO<sub>x</sub> emissions from each emission unit, the parameter values/setting at which minimum NO<sub>x</sub> emissions were achieved for each emission unit, and a description of the procedures which the Permittee will use to ensure that the emission units are operated within the parameter values/settings established during the tuning." Condition 5.2.7(d). Those procedures have been received by EPD and are contained in Cargill's permit file.

Discussion - Condition 5.2.7, Adequacy of Monitoring and Practical Enforceability: Consistent with EPD's citations of authority in the Cargill part 70 permit, EPA reads the monitoring, recordkeeping and reporting provisions in condition 5.2.7d. as periodic monitoring provisions added to the permit under 40 CFR § 70.6(a)(3)(i)(B). See, Condition 5.2.7. Upon review, EPA finds that those requirements in Condition 5.2.7d. assure the performance of the annual tune-up NO<sub>x</sub> RACT requirement established by EPD under the GA NO<sub>x</sub> RACT Rule in accordance with the proper procedures and therefore constitute monitoring sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the permit. Petitioners provide no specific reasons in support of their claim that the monitoring in Condition 5.2.7d. is inadequate. Because Petitioners have not made the requisite demonstration under section 505(b)(2) of the Act, EPA denies Petitioners' objection relating to the adequacy of the periodic monitoring under Condition 5.2.7d. for assuring compliance with the tune-up requirement.

However, EPA reviewed the public record, as provided by EPD, and could not find where or whether the manufacturer's specifications referenced in Conditions 5.2.7a. and b. as part of the procedures for conducting the tune-up had been included. Nor were the specifications referenced in the permit in specific detail. Because Conditions 5.2.7a. and b. specifically require that certain aspects of the tune-ups be done "as specified by the manufacturer," such manufacturer's specifications must be specifically referenced in the permit to satisfy 40 CFR 70.6(a)(3)(i)(B), which requires that permits contain monitoring or recordkeeping requirements that "assure use of terms, test methods, units, averaging periods, and other statistical conventions consistent with the applicable requirement." EPA grants the Petitioners' objection for this reason. EPD is directed to revise Conditions 5.2.7a. and b. of the permit to provide a specific citation for the manufacturer's specifications and to make such specifications part of the permit record.

For the foregoing reasons, Petitioners' objections to Condition 5.2.7 are denied in part and granted in part.

**3. Condition 5.2.6.** With regard to the numerical NOx monitoring requirement, Petitioners allege that the NOx limit for boiler B001 under Condition 3.4.1c. of Cargill's part 70 permit is not practically enforceable and does not assure compliance with the applicable requirement because it lacks adequate monitoring and reporting requirements. Petitioners also allege that the Narrative fails to explain all of the NOx monitoring techniques considered by EPD and EPD's reasons for choosing the test method of gas fired boilers for B001. Petitioners further allege that Condition 5.2.6f. does not adequately require Cargill to report NOx monitoring results to EPD. Petitioners also assert that Condition 5.2.6a. is not enforceable because it fails to adequately state or specify any mandatory operating conditions during Cargill's NOx testing.

With regard to the reporting of NOx monitoring results to EPD, Petitioners assert that under Condition 5.2.6f., Cargill is only required to keep its results on-site. Petitioners contend that to meet the requirements of the CAA, Cargill's permit must include regular and open reporting of its emission testing results and that Cargill must report its deviations more frequently than every six months to adequately fulfill the requirements of the CAA.

Background - Record on Condition 5.2.6, Adequacy of Monitoring for Assuring Compliance with the Numerical NOx RACT: Condition 5.2.6 contains the monitoring requirements for boiler B001, a coal-fired boiler which is subject to a NOx RACT limit of 0.41 lb/mmBTU. EPD cites 40 CFR 70.6(a)(3)(i) as its legal authority for this condition. Condition 5.2.6a. requires weekly monitoring that utilizes a portable analyzer to monitor the NOx emissions from boiler B001. However, this monitoring method is for gas-fired boilers. Condition 5.2.6a. provides the equation for determining NOx emissions. Conditions 5.2.6c., d. and e. include provisions on the timing for the measurements taken. Condition 5.2.6f. includes provisions for maintaining records subject to inspection or submittal.

Petitioners provided comments on the draft permit amendment. In those comments,

Petitioners state that EPD needs to explain why it chose a gas-fired monitoring method for a coal-fired unit and that as a result of the method chosen the NO<sub>x</sub> RACT limit of 0.41 lb/mmBTU is generally inadequate and unenforceable as a practical matter. Hearing Comments, Center for Law in the Public Interest, at 3 (March 27, 2003) and Comments, Center for Law in the Public Interest, at 2 (January 29, 2003). EPD responds to some of Petitioners' comments on the enforceability of the numerical NO<sub>x</sub> RACT limit, but does not provide any explanation for its choice of monitoring methods.

Discussion - Adequacy of Monitoring Method for Assuring Compliance with the Numerical NO<sub>x</sub> RACT Requirement: The record contains no discussion of the factual basis for the selection of the NO<sub>x</sub> monitoring method, nor any rationale or technical basis for choosing a test method designed for gas-fired boilers to be used for unit B001, which is a coal-fired boiler. A review of the record also fails to indicate that any testing or research was conducted by EPD or Cargill in support of the selected monitoring. This is significant since actual test data is typically needed in order to appropriately select a monitoring method for a coal-fired boiler, such as B001, and to determine the margin of compliance for the source. The margin of compliance is particularly relevant to determining whether weekly portable monitoring is sufficient to assure compliance as opposed to continuous monitoring. If there is little or no margin of compliance, weekly portable monitoring is not likely to be appropriate. Thus, without a monitoring history or any other supporting data for boiler B001, the chosen monitoring is not likely to assure compliance with the NO<sub>x</sub> RACT limit.

Because the record fails to explain EPD's rationale for choosing the portable analyzer method for monitoring NO<sub>x</sub> emissions from a gas-fired boiler for Cargill's coal-fired boiler, EPA agrees with Petitioners that the narrative or statement of basis is inadequate on this issue. As EPA explained in the discussion of the NO<sub>x</sub> RACT limits in section IV(A) of this Order, where the record as a whole supports the terms and conditions of the permit, flaws in the statement of basis generally will not result in an objection. See e.g., Doe Run at 24-25. In contrast, where flaws in the statement of basis resulted in, or may have resulted in, deficiencies in the title V permit, EPA will object to the issuance of the permit. See e.g., Ft. James at 8; Georgia Pacific at 37-40. For the reasons noted above, EPA believes that the lack of explanation in the narrative on the basis for the monitoring chosen by EPD may have resulted in a permit flaw. In reopening the permit, EPD shall require Cargill to conduct testing so that an appropriate monitoring requirement for boiler B001 can be selected and EPD shall explain the rationale for choosing the monitoring method in the statement of basis.

Background - Condition 5.2.6, Adequacy of Reporting of Monitoring: Petitioners allege that Condition 5.2.6f. does not adequately require Cargill to report NO<sub>x</sub> monitoring results to EPD. Petitioners assert that under Condition 5.2.6f., Cargill is only required to keep its results on-site. Petitioners contend that to meet the requirements of the CAA, Cargill's permit must include regular and open reporting of its emission testing results and that Cargill must report its deviations more frequently than every six months to adequately fulfill the requirements of the CAA.

Pursuant to Condition 5.2.6, Cargill is required to monitor NOx emissions from boiler B001. The Cargill Permit Amendment, which is the subject of this Petition, is part of Georgia Permit No. 2075-139-0002-V-01-0., Cargill's part 70 Main Permit.<sup>8</sup> Condition 5.3.1 of Cargill's Main part 70 permit states: "[t]he Permittee shall, in accordance with requirements of Nos. 6.1.1 to 6.1.6 of this permit, maintain records of data and information required by Conditions in Section 5.2. Reports shall be submitted in accordance with requirements of Conditions 6.1.4 of this permit."<sup>9</sup> Condition 6.1.4 of Cargill's part 70 Main Permit states:

"The Permittee shall submit a written report containing any excess emissions, exceedances, and/or excursions as described in this permit and any monitor malfunctions for each semiannual period ending June 30<sup>th</sup> and December 31 of each year. All reports shall be postmarked by the 30<sup>th</sup> day following the end of each reporting period, July 30 and January 30, respectively. In the event that there have been any excessive emissions, exceedances, excursions, or malfunctions during a reporting period, the report should so state. Otherwise, the contents of each report shall be as specified by the Division's Procedures for Testing and Monitoring Sources of Air Pollutants and shall contain the following: (a) A summary report of excess emissions, exceedances and excursions, and monitor downtime, in accordance with Section 1.5(c) and (d) of the above referenced document, including any failure to follow required work practice procedures; (b) total process operating time during each reporting period; (c) the magnitude of all excess emissions, exceedances, and excursions computed in accordance with the applicable definitions as determined by the Director, and any conversion factors used, and the date and time of the commencement and completion of each time period of occurrence; (d) specific identification of each period of such excess emissions, exceedances, and excursions that occur during start-up, shut-downs, or malfunctions of the affected facility. The nature and cause of any malfunction (if known), the corrective action taken or preventive measures adopted; (e) the date and time identifying each period during which any required monitoring system or device was inoperative (including period of malfunction) except for zero and span checks, and the nature of the repairs, or adjustments, or replacement. When the monitoring system or device has not been operative, repaired, or adjusted, such information shall be stated in the report; (f) certification by a Responsible Official that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

Discussion - Condition 5.2.6, Adequacy of Reporting of Monitoring: As provided by 40 CFR § 70.6(a)(3)(iii)(A), each title V permit shall require "[s]ubmittal of reports of any required

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<sup>8</sup> The title page of the Cargill Permit Amendment states: "This Permit Amendment is further subject to and conditioned upon the terms, limitations, standards, or schedules contained in or specified on the attached, which pages are a part of the Permit Amendment, and which hereby become a part of Permit No. 2075-139-0092-V-01-0."

<sup>9</sup> EPD included Condition 5.3.1 in the Cargill Main part 70 permit to satisfy the requirement of Section 504(e) of the Clean Air Act.

monitoring at least every 6 months. All instances of deviations from permit requirements must be clearly identified in such reports.” This regulation implements Section 504(a) of the CAA which requires that each title V permit include “a requirement that the permittee submit to the permitting authority, no less often than every 6 months, the results of any required monitoring.”

Although Petitioners’ objection relates to the adequacy of reporting required under Condition 5.2.6f., EPA considers the adequacy of reporting required under the permit as a whole. Condition 5.2.6f. is but a portion of the reporting required under the permit. For example, Condition 6.1.4 was included by EPD in Cargill’s permit to satisfy the requirements of 40 CFR § 70.6(a)(3)(iii)(A) and includes considerable detail regarding what must be included in the monitoring reports. In essence, Condition 6.1.4 requires semiannual reporting of information related to deviations, malfunctions, operating time, monitor down time, and other information. Although the semiannual monitoring reports required by EPD focus on information related to deviations and monitoring device operation, it can reasonably be concluded that all monitoring results not reported as deviations show compliance with applicable permit terms and conditions. This interpretation is supported by the fact that the permit requires reports to affirmatively state when there are no deviations during a given reporting period. In addition, the emissions units and activities being monitored and the applicable emission limits and standards addressed in such reports are clearly described in the permit itself. Condition 6.1.4a also requires reporting of any failure to follow required work practice procedures and Condition 6.1.3 of the permit requires the Facility to provide a statement regarding any failure to comply with or complete a work practice standard or requirement contained in the permit with the semiannual monitoring reports. Therefore, the Facility is required to describe any monitoring that was not conducted in accordance with the permit for any reason. The reports must also contain the probable cause of any such failure, the duration of the failure, and any corrective actions or preventive measures taken. Condition 6.1.3 and 6.1.4d.

Within the language of 40 CFR § 70.6(a)(3)(iii)(A), EPD has permissibly interpreted the provision to require permittees to provide detailed information regarding the operation of monitoring devices and deviations from monitoring requirements to EPD semiannually. The information provided in the semiannual monitoring reports is used by EPD to determine whether a source has been operating within its emission limitations and whether more effective emission controls or more frequent monitoring is needed. Thus, EPA believes that EPD reasonably interpreted 40 CFR § 70.6(a)(3)(iii)(A) when it specified what Cargill’s semiannual monitoring reports must contain. As EPA has previously explained, the information required under Conditions 5.2.6.f and 6.1.4 satisfies the reporting requirements of 40 CFR § 70.6(a)(3)(iii)(A).<sup>10</sup> Petitioners’ objection is denied on this point.

With regard to Petitioners’ assertion that Cargill must report deviations more frequently than once every six months to adequately fulfill the CAA requirements, the Cargill Main part 70 permit addresses the “prompt” reporting requirement under permit Condition 6.1.2 and 6.1.3.

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<sup>10</sup> See, In re: Seminole Road Landfill, Pet. No. IV-2001-3 (EPA Order dated June 5, 2002).

These permit Conditions comply with the requirements in 40 CFR § 70.6(a)(3)(iii)(B). See also, Letter from Winston A. Smith, EPA Region IV to Robert Ukeiley, Georgia Center for Law in the Public Interest (March 29, 2002), Enclosure entitled “EPA Response to Comments from Georgia Center for Law in the Public Interest on Georgia’s Title V Operating Permits Program”, at 3. Petitioners’ objection on this point is denied as well.

Background - Condition 5.2.6, Enforceability, Lack of Operating Conditions: Finally, Petitioners object that Condition 5.2.6a. is not enforceable because it fails to adequately state or specify any mandatory operating conditions during Cargill’s NOx testing. Petitioners claim that as presently written, Cargill could even turn off the coal burner during NOx testing. Petitioners contend that, to be effective under the requirements of the CAA, Condition 5.2.6 must include a 100 percent load requirement for the coal burner during testing.

Condition 5.2.6a. specifies the procedures the Facility is to follow to monitor the NOx emissions. Condition 5.2.6a. requires NOx monitoring of the coal-fired boiler using the procedures of Gas Research Institute (GRI) Method GRI-96/0008, *EPA/EMC Conditional test method (CTM-30) Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Emissions from Natural Gas-Fired Engines, Boilers and Process Heaters Using Portable Analyzers*. Georgia has published Procedures for Testing and Monitoring Sources of Air Pollutants (Procedures) at Georgia Rules for Air Quality Control, Chapter 319-3-1-.02(6)(b), which have also been incorporated into its SIP. These Procedures are also referenced in the CTM-30 Method required by Condition 5.2.6a. Section 1.2(c) of the Procedures states: “performance tests shall be conducted under such conditions as the Director specifies to the owner or operator based on representative conditions (i.e. performance based on normal operating conditions) of the affected facility.” Additionally, Section 12(d) of the Procedures provides that operations during periods of shutdown shall not constitute representative conditions. These sections of the Procedures, which are a part of Condition 5.2.6.a by reference, preclude the permittee from conducting stack testing when the boiler is turned off. Finally, since the Facility is subject to National Emissions Standards for Hazardous Air Pollutants, Cargill must provide thirty (30) days prior notice to EPD before conducting any performance tests according to section 1.2(f) of the Procedures.

Discussion - Condition 5.2.6, Enforceability: Although CTM-30 testing procedures do not specify a load requirement, they do reference the testing procedures that specify testing conditions, such as operating load. Given the requirement to conduct monitoring in accordance with a specified method and to also follow specified and acceptable procedures, EPA finds that Condition 5.2.6a. adequately specifies operating conditions for Cargill’s NOx testing and is practically enforceable. Petitioners’ objection on this point is denied. However, EPA notes that EPD must ensure that either the monitoring method to be chosen in response to EPA’s objection on the adequacy of monitoring under 5.2.6 incorporates, or the permit amendment otherwise requires, these procedures and methods.

## V. CONCLUSION

For the reasons set forth above and pursuant to section 505(b)(2) of the CAA, I hereby deny in part and grant in part Petitioners' petition requesting that the Administrator object to the issuance of the Cargill part 70 permit amendment.

JUL 16 2004  
Dated:

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Michael O. Leavitt  
Administrator

**QUESTIONS FROM US EPA AND RESPONSES FROM GA EPD RE: CARGILL**

- 1) Did Ga. EPD agree or ever confirm Cargill's July 2002 "site-specific" cost figure for RACT or why it agreed with the \$13,400 ton figure for SCR, particularly since Ga. EPD's own correspondence in April, 2002 indicates it came up with a control cost of \$4,927 a ton -- which differed from Cargill's original \$7,181 ton estimate?

EPD Response: EPD reviewed and concurred with the site-specific cost analysis data presented by Cargill on July 17, 2002, regarding the cost effectiveness of NOx control using SCR for boiler B001. The reason for the difference between the site-specific cost analysis data, EPD's estimate and Cargill's analysis submitted on April 1, 2002, is discussed in the Addendum to the Narrative for Part 70 Operating Permit Amendment No. 2075-139-0002-V-01-1 at pages 1 through 3.

- 2) Permit condition 2.2.5 references a demonstration compliance plan. Do you know when Cargill developed the plan? Specifically, had the plan been developed before May 1, 2003?

EPD Response: Part 70 Operating Permit Amendment No. 2075-139-0002-V-01-1 ("Permit Amendment") was issued to Cargill, Inc., to incorporate the requirements of 40 C.F.R. Part 63, Subpart GGGG and Georgia Rules (tt) and (yy). Subpart GGGG contains the requirements to comply with the NESHAP for solvent extraction for vegetable oil production ("Vegetable Oil MACT"), which are incorporated by referenced into Georgia Air Quality Control Rule 391-3-1-.02(9)(b)95. Condition 2.2.5 of the Permit Amendment requires Cargill to develop and implement a site-specific plan for demonstrating compliance and to keep that plan on-site as required by Subpart GGGG at 40 C.F.R. § 63.2851(a). The Permit Amendment was issued on April 25, 2003. The date of required compliance by Cargill with the Vegetable Oil MACT was April 12, 2004. See [www.epa.gov/ttn/atw/mactfnl.html](http://www.epa.gov/ttn/atw/mactfnl.html). Therefore, Cargill was not required to develop the plan by May 1, 2003. EPD will review compliance with Cargill's plan at its next inspection of the facility.

- 3) In their Petition to Object to the Issuance of a Title V permit, Petitioners stated they wanted to see the manufacturers' specifications for the B001 boiler. Does Ga. EPD have those specifications in its file?

EPD Response: The Petition discusses manufacturers' specifications with regard to Condition 5.2.7 of the Permit Amendment. Condition 5.2.7 requires tune-ups for various boilers and emission units other than boiler B001 and specifies the procedures under which the tune-ups are to be performed. Monitoring requirements for boiler B001 are in 5.2.6. Information regarding boiler size, rating, fuel, etc., is included in the Title V application.

- 4) Permit condition 5.2.7(d) references additional procedures to be developed. What is Ga. EPD's plan to have these procedures developed?

EPD Response: Cargill was required by Condition 5.2.7 of the Permit Amendment to perform a tune-up of certain boilers and other emission units within 60 days of the issuance of the Amendment and to submit a report within 30 days following completion of those tune-ups. In the report, Cargill was required to describe the procedures it will use to ensure that the emission units tuned-up are operated within the parameter values/settings at which the minimum NOx emissions were achieved for each unit. See Condition 5.2.7.d. EPD received the report containing these procedures on July 22, 2003, and sent Cargill an approval letter on December 2, 2003.

- 5) When was the legislation (yy) that incorporated Ga. NOX RACT for the area of influence enacted by the Georgia Legislature?

EPD Response: No legislation was required for the Board of Natural Resources ("Board") to promulgate Georgia Air Quality Control Rule 391-3-1-.02(2)(yy). The Board has broad power under the Georgia Air Quality Act, O.C.G.A. § 12-9-1, et seq., to promulgate rules to abate or control air pollution, O.C.G.A. § 12-9-5(b)(1), including the power to "establish such . . . emission limitations . . . for sources or facilities as are necessary to prevent, control or abate air pollution, . . . to protect public health

and welfare, and to fulfill the [Act's] policy. . ."  
O.C.G.A. § 12-9-5(b)(3).

When did EPA approve Georgia's SIP revision  
incorporating this change?

EPD Response: Georgia Air Quality Control Rule  
391-3-1-.02(2)(yy) was approved by the Board on  
September 8, 1999. It was effective October 7, 1999.  
US EPA approved this Rule on July 10, 2001. See  
[www.epa.gov/region4/air/sips/ga/](http://www.epa.gov/region4/air/sips/ga/), click on  
[391-3-1.02.pdf](#).