

FREEPORT-MCMORAN SULFUR, LLC

IBLA 2003-190

Decided February 16, 2006

Appeal from a letter of the Minerals Management Service (MMS), notifying a lessee of an approval of a Revised Development Operations Coordination Document (Control No. R-03186), for operations on an oil and gas lease OCS-G 12362, and implementing a requirement that on days when a facility scrubber was shut down for maintenance, the lessee was required to reduce production to a level that limited SO₂ emissions to 4.7 tons per day. OMMG-2003-01.

Set Aside and Remanded.

1. Oil and Gas: Generally--Oil and Gas Leases: Production

To determine whether a Development Operations Coordination Document for a new or modified facility operating on a Federal offshore oil and gas lease is consistent with offshore regulations implementing the Clean Air Act, MMS was required, for a particular pollutant, to make a specific determination regarding projected emissions of that pollutant, as defined in 30 CFR 250.204(b)(14), from the facility. If projected emissions did not exceed permitted amounts annually, nothing further was required. If they did exceed that amount, MMS was then required to determine whether the pollutant concentration exceeded the significance levels established at 30 CFR 250.303(e). If not, nothing further was required. If they did exceed significance levels, then MMS was required to determine whether the adjacent affected land is within an attainment (or unclassifiable) or non-attainment area. In either case, MMS was required to ensure under 30 CFR 250.303(g) that Best Available Control Technology (BACT) was applied, and, in an attainment or unclassifiable area, to determine whether, after application of BACT, the emissions exceeded the maximum allowable increases

over the baseline concentrations established in 40 CFR 52.21, as defined in 30 CFR 250.303(g)(2)(i). If they did so (more than once for the daily and 3-hour standard), MMS was required to impose additional controls.

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OPINION BY ADMINISTRATIVE JUDGE HEMMER

Freeport-McMoRan Sulfur, LLC (Freeport), appeals from a letter dated December 16, 2002, of the Regional Supervisor for Field Operations, Gulf of Mexico Outer Continental Shelf (OCS) Region, Minerals Management Service (MMS), notifying Freeport of MMS' December 11 approval of a Revised Development Operations Coordination Document (DOCD) (Control No. R-03186), for Freeport's operations on oil and gas lease OCS-G 12362, Block 299, Main Pass Area. The December 16 letter explained MMS' approval of Freeport's installation and operation of a hydrogen sulfide (H₂S) absorption system to replace a "Claus Sulfur Recovery System" (Claus system or SRU) for reduction of H₂S and sulfur dioxide (SO₂) emissions from its lease operations facility, but also reduced production levels on days when a scrubber element of the new system was shut down for maintenance. MMS issued a site-specific environmental assessment, SEA No. R-3816, to consider the proposed action on December 9, and the proposed action was approved in a Finding of No Significant Impact (FONSI) on December 11, 2002.

The issues in this case arise from application of rules governing air quality on the OCS. OCS air emissions are managed under rules implemented by MMS in a manner consistent with rules implementing the Clean Air Act, as amended, 42 U.S.C. §§ 7401-7671q (2000), administered onshore by the Environmental Protection Agency (EPA) and appropriate State regulatory agencies. Generally speaking, the EPA established primary and secondary ambient air quality standards for lands within the United States pursuant to the Clean Air Act. 42 U.S.C. § 7409 (2000). Lands onshore are designated as attainment areas, non-attainment areas, and "unclassifiable" areas, the latter resulting from a lack of available, relevant information, for a specific pollutant based upon pollutant concentrations on particular dates, 42 U.S.C. § 7407(d)(1) (2000). An attainment area is one in which air quality modeling shows that levels of a pollutant do not exceed primary or secondary ambient air quality standards established by the EPA. Id.; 30 CFR 250.302. By contrast, a non-attainment area has pollutant levels which exceed those standards. 42 U.S.C. § 7407(d)(1) (2000); 30 CFR 250.302.

For purposes of determining the contribution of offshore facilities to pollutants onshore, MMS defines “existing [OCS] facilities” as those for which exploration or development plans were approved or submitted before June 2, 1980. 30 CFR 250.302; see also 42 U.S.C. § 7411 (2000) (defining “new source”). For any “new facilities” for which approval is sought after that date, or for any existing facility for which modification approval is sought, requirements for air quality are to be based on findings to be made under 30 CFR 250.303(d)-(i).

This rule establishes a formula for determining whether any new facility or facility modification is exempt from further air quality review.

To determine whether a facility described in a new, modified, or revised Exploration Plan or Development and Production Plan is exempt from further air quality review, the lessee shall use the highest annual-total amount of emissions from the facility for each air pollutant calculated in * * * §250.204(b)[(14)](i)(A)^{1/} of this part and compare these emissions to the emission exemption amount “E” for each air pollutant calculated using the following formulas * * *.

30 CFR 250.303(d). “E” is the emission exemption amount expressed in tons of pollutant per year. The formula to determine “E” for SO₂ is “E=33.3D,” where D equals the distance of the proposed facility from the closest onshore area of a State expressed in “statute miles.” Id.

The referenced rule at 30 CFR 250.204(b) defines what information is required to be listed in an offshore development and production plan. Subpart (b)(14) requires such plans to provide information necessary to perform calculations, including information necessary to describe “projected emissions from each proposed or modified facility for each year of operation and basis for all calculations * * *” for purposes of determining the exemption level in 30 CFR 250.303(d).

The parties agree that the Main Pass facility is located 16.28 miles from the closest point onshore. Accordingly, to calculate the exemption level “E” for SO₂ emissions, $E = 33.3D$; in this case, the calculation is $33.3(16.28) = 542.12$ tons per year. This means that under 30 CFR 250.303(d) a facility described in a new, modified, or revised development and production plan is exempt from further air quality review for SO₂ if projected emissions are less than 542.12 tons per year.

^{1/} MMS notes that the rule relating to calculation of projected emissions from development and production plans is incorrectly cited as 30 CFR 250.204(b)(12)(i)(A), while the reference should have been to 30 CFR 250.204(b)(14)(i)(A). We cite to the rule as corrected.

If a facility is not exempt under (d), the rules go on at 30 CFR 250.303(e)-(i) to describe calculations the lessee must make to determine what, if any, steps must be taken to reduce emissions. Thus, if the Main Pass facility's projected emissions are greater than 542.12 tons per year of SO₂, the lessee must determine whether projected emissions will result in "an onshore ambient air concentration above the following significance levels" for SO₂: these are 1 microgram per cubic meter (µg/m³) SO₂ per year, 5 µg/m³ per 24-hour period, and 25 µg/m³ per 3-hour period. 30 CFR 250.303(e).

If projected emissions "result in an onshore ambient air concentration above the significance level determined under paragraph (e)" then the emissions are deemed to significantly affect the air quality of the onshore area for that pollutant. 30 CFR 250.303(f). Subpart (g) describes what the lessee must do if such a "significant effect" is generated, depending on whether the effects are found in a non-attainment area (subpart (g)(1)), or an attainment or unclassifiable area (subpart (g)(2)).

If such emissions significantly affect a non-attainment area, they "shall be fully reduced." 30 CFR 250.303(g)(1). This shall be done through the application of best available control technology (BACT) and, if additional reductions are necessary, through the application of additional emission controls or the acquisition of onshore offsets.^{2/}

Conversely, subsection (g)(2) explains that if the projected emissions significantly affect attainment (or unclassifiable) areas, the projected emissions of SO₂ must be reduced through the application of BACT. But the lessee must then use an approved air quality model to determine whether the emissions of SO₂ that remain after the application of BACT cause "the following maximum allowable increase over the baseline concentrations established in 40 CFR 52.21 to be exceeded in the attainment or unclassifiable area." 30 CFR 250.303(g)(2)(i). The maximum allowable concentration increases are established as annual, daily and 3-hour µg/m³ concentrations for Class I, II and III attainment areas.^{3/} For class I attainment areas,

^{2/} BACT is defined at 30 CFR 250.302 as an emission limitation based on the maximum degree of reduction for each air pollutant subject to regulation, taking into account energy, environmental and economic impacts, and other costs.

^{3/} Congress established that certain lands, including national parks, will be designated as Class I areas, 42 U.S.C. § 7472 (2000), to achieve the highest level of ambient protection, and that all remaining attainment and unclassifiable areas are to be designated as Class II areas with a lesser level of protection. *Id.* The appropriate State or Federal regulatory agency may reclassify lands into different Class designations, including a Class III designated for a lower level of protection, in

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these emissions for SO₂ are an annual mean of 2 µg/m³; a maximum of 5µg/m³ in a 24-hour period, and a 3-hour maximum of 25 µg/m³. For class II areas, these emissions are an annual mean of 20 µg/m³; a maximum of 91 µg/m³ in a 24-hour period, and a 3-hour maximum of 512 µg/m³. If the emissions exceed the maximum allowable increases, the lessee shall apply whatever additional emission controls are necessary to reduce or offset the remaining emissions of SO₂ so that increases in concentrations of the pollutant in the attainment or unclassifiable area do not exceed the maximum allowable increases. 30 CFR 250.303(g)(2)(ii). For the daily and 3-hour periods, however, the “applicable maximum allowable increase may be exceeded during one such period per year at any one onshore location.” 30 CFR 250.303(g)(2)(i).

[1] To summarize, in order to determine whether to approve the DOCD, MMS was required, first, to make a specific determination regarding projected emissions, as defined in 30 CFR 250.204(b)(14), from the facility. If projected emissions did not exceed 542.12 tons SO₂ annually, nothing further was required. If they did exceed that amount, MMS was then required to determine whether the pollutant concentration of SO₂ exceeded the significance levels established at 30 CFR 250.303(e). If not, nothing further was required. If they did exceed significance levels, then MMS was required to determine whether the adjacent affected land is within an attainment (or unclassifiable) or non-attainment area. In either case, MMS was required to ensure under 30 CFR 250.303(g) that BACT was applied, and, in an attainment or unclassifiable area, to determine whether, after application of BACT, the emissions exceeded the maximum allowable increases over the baseline concentrations established in 40 CFR 52.21, as defined in 30 CFR 250.303(g)(2)(i). If they did so (more than once for the daily and 3-hour standard), MMS was required to impose additional controls.

With this background, we turn to the facts. The Main Pass production facility was a new facility in 1991, and located approximately 16 miles from shore, east of the Mississippi River Delta and Plaquemines Parish, Louisiana. The facility is located within 100 miles of the Breton National Wildlife Refuge and Wilderness Area and also the Chandeleur Islands, which apparently are subject to Class I designations.^{4/}

^{3/} (...continued)

specified circumstances. 42 U.S.C. §§ 7473-74 (2000). Further, Congress expressly provided for the “prevention of any future, and the remedying of any existing, impairment of visibility in mandatory class I Federal areas which * * * results from manmade air pollution.” 42 U.S.C. § 7491(a)(1) (2000).

^{4/} The parties agree regarding, and MMS presumed, such facts, see e.g., Statement of Reasons at 13, SEA at 5, but nothing in the record verifies this, particularly with respect to the Chandeleur Islands.

The land closest to the facility is called Pas (or Pass) a Loutre, and the parties seem to agree that it is an attainment area, though the record is not clear on this point.

After its operation and production plan was approved, the facility employed the Claus system to remove sulfur from a gas stream high in H₂S. The record reflects that by 1993, considerable problems had developed as a result of the employment of the Claus system, resulting in necessary “flaring” of SO₂, which contributed to SO₂ pollutants in the air. See, e.g., Record Page (R.) 123 (Gulf of Mexico Air Emissions Calculation Spreadsheets (discussing sulfur emissions from flaring)).

MMS became aware of Freeport’s high volume flaring incidents, and sent letters to Freeport identifying these problems and notifying Freeport of MMS’ policy on flaring of SO₂. (R. 151-59.) A December 17, 1993, letter indicated concerns about the effects of the emissions from the Main Pass facility on the Breton National Wildlife Refuge and Wilderness Area Class I designated area. MMS expressed concern that the flaring incidents would increase in number due to the corrosive effects of the high-sulfur operations at the facility, and that Freeport had “already exceeded [its] permitted emission level of 1,582.6 tons [of SO₂] per year and may have exceeded the significant [sic] levels established by 30 CFR 250.45(e).”^{5/} (R. 157.) This letter advised Freeport that it was not permitted to produce in excess of 5,500 barrels of oil per day “until such time as the Claus unit is functioning properly to remove elemental sulfur from the gas stream.” Id.

MMS issued another letter dated January 25, 1994. (R. 154-56.) For purposes of this matter, suffice it to say that MMS reiterated its 5,500 barrels production limitation addressed in the 1993 letter “to reduce SO₂ levels below the significant deterioration increment for a facility near a Class I area.” Id.; see also letters dated Apr. 28, 1994 (R. 153); Mar. 9, 1995 (R. 151-52).

In the ensuing years, MMS became concerned that the changing nature of the production stream was affecting SO₂ emissions. In particular, the gas/oil ratio in 1993 was 73 standard cubic feet per barrel, but by 2000 was 462 standard cubic feet per barrel. This discovery led to a series of meetings and letters, an appeal and dismissal, and culminated in a letter dated June 4, 2001, in which MMS set forth the parties’ agreement regarding permissible production during flaring episodes. Noting that the 5,500 barrel per day limit imposed in the 1993-95 time frame was no longer valid, the parties agreed that “lowering the threshold to 9.0 tons per day was reasonable based on existing information.” (June 4, 2001, MMS letter, R. 150A.) MMS’ letter explained its limitation:

^{5/} This rule was redesignated at 30 CFR 250.303(e) in 1998.

If the acid gas must be diverted from the Sulfur Recovery Unit (SRU) because of problems with that unit, [Freeport] may continue to produce oil at the normal production rate for a maximum of 2 hours * * *. At the end of this 2-hour period, [Freeport] shall immediately begin curtailing production such that the emission of SO₂ for that day and all subsequent days do[es] not exceed 9.0 tons per day.

Id. at 150B.

On January 22, 2002, MMS sent a letter to Freeport demanding that it update its air quality reporting for the Main Pass facility. MMS explained:

Reference is made to the revised Development Operations Coordination Document (DOCD), Control Number R 2890, approved April 28, 1994, for [the Main Pass unit].

Notice to Lessees and Operators (NTL) No. 2000-G21 states, in part, that you should revise your approved DOCD when you propose to "... increase the emission of an air pollutant to an amount that exceeds that in your approved OCS plan..." According to the flaring reports submitted to [MMS], the amount of air pollutants emitted at the MP 299 FP platform has increased significantly since the approval of the DOCD. Therefore, [the DOCD] should be revised.

(R. 149.)

At this direction, Freeport submitted a revised DOCD based upon operation of the Claus Unit. (Revised Air Quality Report, Development Operations Coordination Document, OCS-G-12362, Main Pass Area, Block 299, May 2002, R. 116-48.) In this document, Freeport followed the requirements of the rules above to determine the annual amount of emissions from its current operation at the Main Pass facility, based upon use of and flaring resulting from the Claus system during 2002. Freeport reported that the annual emissions of SO₂ were expected at a level of 759.07 tons per year for that year. (R. 117.) Noting that the exemption level is 542.12 tons per year, Freeport concluded that "the facility is therefore subject to further air quality review" under the rules at 30 CFR 250.45, the predecessor to 30 CFR 250.303.

In the context of filing this report, however, Freeport advised MMS of its plans to switch its sulfur recovery from the Claus Unit to a newer and improved H₂S scrubber system in December 2002. This system was designed to significantly reduce emissions from acid gas flaring. Freeport explained its plans to install the system beginning December 1, 2002. (R. 116.) Attaching emissions projections for 2003-2012, Freeport projected, based on anticipated production rates of 5,000 barrels per

day through 2012, emissions of 63.36 tons per year after the new scrubber system was installed. *Id.* at 118; *see also* Attachment 2, Gulf of Mexico Air Emissions Calculations, 2003-2012, R. 129. By comparison, the emissions calculations for 2002 were shown in that document as over 759 tons for the current year.

For reasons not entirely clear in the record, Freeport submitted a revision of the 2002 document under cover letter dated July 23, 2002, stating “[p]lease disregard the previous AQR Supplement for this lease dated May 31, 2002.” (July 23, 2002, letter from Freeport to MMS, R. 81.) In the cover letter, Freeport explained that the document “account[s] for the Claus system and flaring emissions up to November 15, 2002.” Freeport virtually doubled the SO₂ emissions projections for all years, calculating emissions for 2002 at 1,450 tons, and for 2003-2012, after installation of the new system, at 126 tons annually, based upon a maximum emission rate from flaring of 9 tons per day, and an anticipated production rate of 5,000 barrels of oil per day through 2012. (R. 81, 83, 84, 95, 96.)

Freeport retained the analysis from its earlier submission showing that the 2002 emissions resulted in SO₂ emissions exceeding the exemption rate. Based on this result for the 2002 year, Freeport presented a model of potential emissions for 2002, to comply with the requirements of 30 CFR 240.303(e)-(i), for the Breton area and for Pas a Loutre. Freeport presented two models: the “worst-case model,” which presumed that the Claus system was inoperable for the entire year and resulted in flaring of 9.4 tons of SO₂ daily for 365 days, and an “amended model,” which amounted to 42.7% of the worst-case emissions, based on “ambient air concentrations for the year of highest SO₂ emissions (1451.48 [tons per year] in 2002).” (R. 85.) Freeport’s figures were as follows, all reported in µg/m³:

Pass a Loutre OCD Model Results

<u>Average Conc.</u>	<u>Significance Level</u>	<u>Worst-case Model</u>	<u>Amended Model</u>
Annual	1.0	0.16	0.07
24 hour	5.0	1.36	0.58
3 hour	25.0	5.55	2.37

Breton/Chandeleur OCD Model Results

<u>Average Conc.</u>	<u>Significance Level</u>	<u>Worst-case Model</u>	<u>Amended Model</u>
Annual	1.0	0.38	0.16
24 hour	5.0	4.72	2.02
3 hour	25.0	16.90	7.22

(R. 85.) Based on these projections, Freeport concluded that the modeled air emissions of SO₂ from this facility result in onshore ambient air concentrations below

the significance level, and that these concentrations therefore are “exempt from any further air quality review” under 30 CFR 250.303(e). (R. 86.)

By letter dated August 30, 2002, the United States Fish and Wildlife Service (FWS) responded, apparently, to the May 31, 2002, Revised DOCD submitted by Freeport, in discussing impacts on what FWS called the “Breton Wilderness Area.” FWS acknowledged that Freeport was installing a system that would decrease SO₂ emissions to 64 tons per year. Nonetheless, FWS cited impacts from the above-quoted Freeport chart identifying “worst-case” scenario emissions and concluded that, were Freeport to flare 365 days per year, it would consume 94% (4.72 tons per day) of the Class I 24-hour SO₂ increment of 5 µg/m³ per day. (R. 79.) FWS asked MMS to “use the results of this cumulative analysis to adjust Freeport’s maximum allowable daily emission rate so that the increment is not exceeded.” *Id.* at 80. In short, FWS asked MMS to reduce Freeport’s production rate based on a “worst case model” which presumed flaring 365 days per year, exceeding by more than double the SO₂ emissions projected for 2002, the year of highest emissions for the Main Pass facility.

FWS recognized that Freeport was installing the new scrubber, but operated under the assumption that the emission rate for the scrubber was the same as that listed in the chart dealing only with emissions for 2002. FWS stated: “We are very pleased that the new water scrubber will reduce annual SO₂ emissions. However, the proposed maximum daily emission rate during flaring would likely contribute to increment exceedances [sic] and visibility impairment at Breton Wilderness.” (R. 80.) FWS failed to address the emissions rates for 2003-2012, which were projected to be less than 10 percent of the 2002 rate as a result of the scrubber’s installation, and failed to set forth any calculations leading to the conclusion regarding “increment exceedances.”

By letter dated September 16, 2002, Freeport advised MMS that the Claus system had begun to leak and was shut down. (R. 76-78.) Freeport explained its plans regarding flaring during service which was anticipated to take 6 weeks. *Id.* at 77. Freeport advised MMS that it was proceeding to install the new scrubber unit. It proposed “to continue operations during any scrubber downtime periods” and to work with MMS “to revise the existing flaring order as necessary to account for the operational change from the SRU to the scrubber unit.” Freeport proposed that during downtimes for service, “acid gas flaring initially be allowed at the currently approved level of 9 tons per day of SO₂.” *Id.* at 77.

The next document which appears in the record is the SEA. The purpose of the SEA was to analyze the environmental impacts of approving the revised DOCD submitted, as amended, on July 25, 2002. The document acknowledged that Freeport was installing the new scrubber which would “substantially reduce the amount of acid gas flaring from the facility from SRU associated downtime.” (SEA at

1; R. 38.) The SEA, issued December 9, 2002, necessarily describes activities which post-date installation and operation of the H₂S scrubber. By the time the SEA was issued the calculations regarding the 2002 operational year were a moot point. The SEA described that, because the scrubber had been installed, anticipated flaring would be 8 days per year during periods of routine maintenance, and it reported downtime for amine unit flaring of 5 days per year. Emissions of SO₂ during these downtime periods were estimated to be 9 tons per day. (SEA at 2; R. 39.) The SEA noted that MMS had approved the new scrubber, and that it was functional by November 2002. Id. In discussing the technology, the SEA explained that the scrubber system under consideration would “reduce air emissions of SO₂ * * *, greatly reducing the impact on the Breton and Chandeleur Islands.” (SEA at 5, R. 42.) The SEA noted that the seawater scrubbing unit is substantially less complex than the previously used Claus system. “This should reduce the system downtime and flared SO₂ emissions significantly.” Id. The SEA concluded that the scrubber system installed in 2002 was BACT, and also Best Available Technology, an additional term of significance to application of EPA regulations. Id.

The “Environmental Review of Seawater Scrubber” commented that the “system will reduce (pretty much eliminate) air emissions” from the Main Pass facility. (SEA Appendix C, C-2, R. 53.) “Since Freeport’s MP 299 FP Facility is the largest post-1977 OCS SO₂ source, a reduction of the facility’s SO₂ emissions will greatly reduce its impact on the Breton and Chandeleur Islands (PSD Class I areas).” Id. Significantly, the “Environmental Review” commented that downtime for flaring would be virtually eliminated: “The seawater scrubbing unit will be operating at lower pressures, lower temperatures and is considerably less complex than the currently used Claus SRU. This should reduce the system downtime and flared SO₂ emissions significantly. Freeport anticipates a 99%+ availability of the unit.” Id.

Despite the fact that the document was issued subsequent to the addition of the new, environmentally-superior scrubber technology, and all of the impacts discussed, including the reduction in system downtime and maintenance requirements, related to that technology, the air quality discussion proceeded as if the scrubber had not been installed. Instead, that portion of the SEA considered only the 2002 emissions resulting from the failing Claus system which was out of date, had ceased to function and resulted in the highest projected emissions for the life of the lease. (SEA at 4; R. 41.) Considering facts derived from 2002 projections before the scrubber was installed, the SEA stated that “projected emissions are above the MMS exemption levels and are summarized in Appendix B.” Id.

Because the “worst case” scenario examined by Freeport considered 9.4 tons per day during flaring, the SEA presumed SO₂ emissions would be at a level of 9.4 tons per day, a level not permitted since 2001. Having concluded that the facility was not exempt, the SEA stated:

The results of the new modeling indicate that at the current emission rate of 9.4 tons per day (tpd), the MMS significance levels for the 3-hour and 24-hour time periods would be exceeded, as per MMS regulations. This means emission controls and/or reductions equivalent to BACT are necessary. In the case of a flare, such as Freeport's MP 299 flare, which is to be used when the H₂S scrubber system (i.e., the BACT control) is not operating, emissions must be reduced to an amount that produces concentrations at or below the MMS significance levels.

The applicable modeled concentrations with respect to the MMS significance levels are 26 µg/m³ and 10 µg/m³ for the 3-hour and the 24-hour time periods, respectively. Since the 24-hour value is proportionally of greater significance, the emission limit is based upon 10 µg/m³. In order to be at or below the 24-hour significance level (i.e., 5 µg/m³), the emission rate needs to be limited to 4.7 tpd.

(SEA at 4; R. 41.)^{6/} Accordingly, though MMS approved the DOCD, it implemented a requirement that on those dates when the scrubber was down for maintenance, Freeport was required to reduce production to a level that limited SO₂ emissions to 4.7 tons per day, or barely half what it was allowed to emit during operation of the failing Claus system. MMS notified Freeport of its conclusions and FONSI, by letter dated December 16, 2002.

Freeport appealed. Freeport presents a number of arguments regarding the importance to its economics of having to reduce its production to such a level. Given that the scrubber installation anticipates downtime of at most 13 days per year, and that Freeport had reported to MMS that it anticipated "99%+ availability" of the scrubber system, we can accord little weight to Freeport's extensive complaints regarding the impacts to it of having to reduce its production during maintenance episodes to a rate allowing only 4.7 tons of sulfur to be emitted. We need not address Freeport's arguments, however, because we find that MMS' decision to reduce the SO₂ emissions to 4.7 tons per day during system downtime derived from its own failure properly to apply the regulation at 30 CFR 250.303 and we must set aside that aspect of the decision for a correct application of the MMS rule.

^{6/} The SEA does not identify the source of its findings regarding the modeling resulting in the 10 µg/m³. The SEA attaches a model prepared, however, for what appears to be a 9.4 ton per day release of SO₂ for 365 days per year. (SEA Offshore and Coastal Diversion Model prepared for the year 1995, R. 62 and 70.) This model states that it modeled SO₂ emissions for "8760 1-hour periods" (a total of 365 days) assuming flaring emissions of 9.4 tons per day. *Id.*

First and controlling here, MMS' conclusion that the "MMS exemption level" has been exceeded and thus that further air quality review is required is unsupported in this record. The Main Pass facility under consideration on December 9, 2002, was the one in place with the new scrubber technology. Documents in the record reveal that projected emissions of SO₂ during 2003 and forward would be reduced more than 90% from 2002 levels to approximately 126 tons per year. (R. 81, 83, 84, 95, 96.) With an exemption level established under 30 CFR 250.303(d) at 542.12 tons/year, the record fails entirely to explain how the exemption level is exceeded for the system implemented. While we recognize that MMS may have felt compelled to amend the DOCD for the 2002 year, that issue is now moot and was, frankly, moot before the SEA was issued.²⁷ The only issue before us relates to the subsequent years post-dating installation of the scrubber in 2002. The SEA's reliance on projected emissions resulting from the Claus system to determine the exemption level for the modified facility was simply error.

MMS assumes that the appropriate level of emissions to consider in order to make the exemption calculation under 30 CFR 250.303(d) and 30 CFR 250.204(b)(14) is the "worst-case scenario" daily emission rate of 9.4 (or 9.0) tons of SO₂ per year. MMS is wrong again. The exemption rule at 30 CFR 250.303(d) requires calculation of "the highest annual-total amount of emissions from the facility" under consideration in the DOCD. That rule does not allow MMS to consider a facility revision as if it did not exist or work, to apply a "worst-case" scenario hypothesis. Likewise, the rule at 30 CFR 240.204(b)(14) describes calculations of "projected emissions from each proposed or modified facility for each year of operation." *Id.* What MMS was considering after 2002 was the application of what MMS expressly found to be BACT installation. Nothing in 30 CFR 250.204(b)(14) plausibly suggests that, in determining whether to approve the DOCD related to that technology, MMS was expected to calculate an annual projected emission based on the presumption that the BACT would not work for the entire year. MMS would be in error to do so under either rule.

²⁷ To the extent MMS might argue that it was required to consider the DOCD for emissions for 2002 as well as for subsequent years, because flaring reports submitted to MMS for that year and before showed potential increases over and above the 1994 DOCD's authorized emissions, we would not reject such an argument. The SEA did not do so, however. It considered the application of the post-2002 BACT technology in every respect except air emissions, for which it considered the 2002 emissions based on the faulty system being replaced. Had MMS rendered two separate decisions based on two sets of data, we cannot say whether we would have affirmed MMS' decision with respect to the 2002 year alone, because it is an entirely moot point, and was moot before the appeal was ever filed. We also note, for the record, that we cannot find on this record that Freeport exceeded emissions allowed in its approved OCS plan, because it is not in the record.

In its Response to the Petition for Stay, while it “admirably detailed the benefits of” the new scrubber system, MMS comments that “maintenance will eventually be required” and speculates that what will actually happen after installation of the scrubber is uncertain. (Response at 8.) MMS implies there that perhaps the many positive benefits, including the “99%+ availability of the unit,” may have been overstated in the SEA. (Response at 8 n.9.) It is unclear whether MMS means to suggest here that the SEA or Freeport oversold the benefits of the scrubber. In order to avoid endorsing a system, the value of and projections from which may not have materialized, MMS is free in issuing any new decision to rely on updated information to reflect operation of the system between 2002 and 2005.

MMS also erred in modeling the impacts on the worst-case scenario to determine whether the significance level was exceeded. MMS argues that the “proper emissions rate and concentration level measured under 39 CFR 250.303(e) modeling is that produced by the Main Pass 299 facility during flaring episodes.” (Answer at 6.) There is no basis for such a construction of 30 CFR 250.303(e). MMS’ logic would seemingly compel it to perform two models: one for BACT (the scrubber), and one for the days during which flaring takes place because the scrubber is down for maintenance. Instead, MMS chose a model which did not take into account the application of BACT for the majority of the year. The rule requires appropriate modeling “to determine whether projected emissions of those pollutants from the facility” result in exceeding the significance levels. 30 CFR 250.303(e). This was not done when MMS instead modeled a facility flaring for an entire year.

MMS’ finding (SEA at 4) that projected SO₂ emissions from the facility resulted in an onshore ambient air concentration of 10 µg/m³, in excess of the 5 µg/m³ significance level for a 24-hour period derives from this annual modeling of a worst-case scenario and not the facility’s projected emissions. 30 CFR 250.303(f)(1). MMS admits, twice, that operation of the Freeport facility under consideration with the new scrubber in place would not result in exceeding the significance levels. (Answer at 5, 9.) MMS also concedes that significance levels will not be exceeded in the Breton area. It argues instead that on those days when the scrubber is down, the significance level will be exceeded, pointing to a single reading from its modeling of the impacts at an air quality receptor at Pas a Loutre:

Neither Freeport’s air quality modeling nor that conducted by MMS has shown that SO₂ significance levels at [the Breton National Wildlife Area] BNWA would be exceeded. That, however, is not the reason for the 4.7 tons per day limitation. The SO₂ limit was ordered because MMS modeling demonstrated that, at 9.4 tons of SO₂ per day, the significance level of 5µg/m³ contained in 30 CFR 250.303(e) was exceeded at Pas A Loutre, an onshore attainment area. Record, page 74. The modeled reading was 10.1µg/m³, twice the significance level.²

As a result, those SO₂ emissions were, pursuant to 30 CFR 250.303(f)(1), deemed to significantly affect the onshore attainment area. In such cases, 30 CFR 250.303(g)(2) requires reduction through the use of Best Available Control Technology (BACT). When operational, Freeport's H₂S Absorbition and Amine Unit represent BACT, reducing SO₂ emissions nearly to zero. When they are not working, BACT consists of production limits to reduce the amount of SO₂ emitted. Using the linear relationship outlined in footnote 2, *infra*, if 9.4 tons of SO₂ emissions results in double the SO₂ significance level, then 50% of that amount (4.7 tons) will produce the significance level. Consequently, MMS ordered a 4.7 ton SO₂ limit on the days when the H₂S Absorbition System et al. was not working.

² There is a linear relationship between tons of SO₂ emitted and the model result. Since 9.4 tons of SO₂ produced a 10.1 []µg/m³ reading, then 9 tons of SO₂ (95%) would produce a reading of 9.67 µg/m³, still above the significance level.

(Response at 3.)

We simply cannot endorse this logic because we do not know what the reading at the Pas a Louvre receptor would have been if MMS had not modeled a facility where the scrubber that formed the basis for the modification being considered was in non-operational status.^{8/} Accordingly, we find that, even if MMS were to ultimately conclude that the exemption level is exceeded under 30 CFR 250.303(d), MMS' modeling did not account for the projected emissions from the facility under consideration.

Finally, the above description, as well as that quoted from the SEA at page 4, make clear that MMS did not correctly make the determination regarding "maximum allowable increases over baseline concentrations established in 40 CFR 52.21" as required in 30 CFR 250.303(g)(2)(i). Instead, it proceeded straight from considering the significance level to determining that Freeport must reduce its emissions during scrubber downtime. Thus, even if its modeling had been correctly performed, MMS did not expressly apply its own rule to determine whether the increment over and above the daily baseline had been exceeded for more than one day.

MMS' reasoning in doing this depended on its view that BACT was applied only when the scrubber was operating, and that during downtime, BACT was not in operation. Thus, MMS concluded that it had an obligation to impose a "second"

^{8/} MMS' modeling also should have been premised on the permitted emission of 9.0 tons per day during flaring episodes.

BACT requirement during downtime flaring episodes. This second BACT was the 4.7 tons SO₂ production limit during flaring. We agree with Freeport that this creation of a two-part BACT application is not found in the rule. The SEA expressly concluded that the scrubber system installed in 2002 is BACT. That the company has installed BACT necessarily includes all that the technology requires; the fact that BACT was installed does not evaporate merely because the technology requires anticipated maintenance. Moreover, the fact that the scrubber system has been defined as BACT necessarily means that production limits (such as 4.7 tons/day) do not constitute BACT. Accordingly, there is no “second” or subsidiary BACT to apply when the scrubber is down for maintenance. Freeport is correct to point out that on such logic, MMS would never have reason to apply the rule at 30 CFR 250.303(g)(2)(i), requiring a determination of whether the incremental pollution increases over the baseline concentration are exceeded before determining what, if any, additional controls are necessary. Instead, MMS could simply redefine BACT on a daily basis and impose whatever additional controls it wishes on a daily basis as if they constitute BACT regardless of whether incremental increases over baseline have been exceeded. We agree with Freeport that MMS’ construction cannot stand. MMS has determined that the scrubber system, with all of its technological components including maintenance requirements, is BACT. There is no other. On remand, should its analysis proceed to a determination that the significance levels are exceeded as a result of installation of the scrubber system, MMS would be required to make the determination set forth in 30 CFR 250.303(g)(2)(i) before imposing additional controls.

Therefore, pursuant to the authority delegated to the Board of Land Appeals by the Secretary of the Interior, 43 CFR 4.1, the decision is set aside to the extent it reduced the production limits from levels emitting 9.0 tons SO₂ to levels emitting 4.7 tons SO₂ during system downtime and maintenance, and is remanded to MMS for appropriate consideration.

Lisa Hemmer
Administrative Judge

I concur:

James F. Roberts
Administrative Judge