South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

General Counsel's Office
☎ *909.396.2302* 🖳 *bbaird@aqmd.gov*

July 10, 2020

Via Email at Michael.carroll@lw.com

Michael J. Carroll, Esq.
LATHAM & WATKINS LLP
650 Town Center Drive, Ste. 2000
Costa Mesa, CA 92626

Re: Your Letter dated April 21, 2020 re Implementing Regulation XIII

Dear Mr. Carroll:

Thank you for your comments on behalf of the Regulatory Flexibility Group regarding interpreting and implementing Regulation XIII in the context of the RECLAIM landing rules. We have considered the issues you raise and discussed them with technical staff to understand existing District policy and practice as well as the potential ramifications of particular interpretations.

Thank you for having the telephone conversation with us where we explored these issues with you. As you know, staff has responded to your letters (including a subsequent April 27 letter) during our RECLAIM working group meetings. However, we wish to address them each in a responding letter.

We will respond to the arguments you raise in the order you present them.

1. Ammonia BACT for Control Equipment
    a. Ammonia Limits Must Be Addressed During Rulemaking And Not Deferred to Permitting

The context of this issue is that in the course of complying with NOx BARCT, facilities will likely need to install SCR on combustion units. Since this is a modification that will result in an emissions increase in ammonia, BACT will be required for ammonia. (Rule 1303(a)(1)). You note that in some NOx rules, staff established an ammonia limit in the rule itself, whereas more recently the setting of the ammonia limit has been deferred to permitting. In our view the latter is the legally preferable way to proceed. This is because regardless of what the rule sets as a limit, the ammonia limit will have to meet current BACT pursuant to Rule 1303(a) if there is the increase in ammonia emissions that is greater than or equal to 1 pound/day (BACT Guidelines -

Overview, February 2019). So, if the ammonia rule limit is less stringent than whatever is current BACT at the time of permitting, (presently 5 ppm), the rule limit will not matter because the source would have to meet BACT in any event. (It is possible that it could be determined during permitting that for that particular unit a higher ammonia limit meets BACT. However, that is still part of the BACT process and is unrelated to the rule limit). Accordingly, it can be misleading to set a limit in the rule itself since that limit may not reflect BACT. In addition, if a limit is set in the rule itself, there would be no possibility for a source to receive a different limit upon showing that it cannot meet the rule limit. In contrast, a BACT determination may be more able to consider case-by-case considerations. Therefore, we do not believe staff is required to place an ammonia slip limit in the rule. However, we understand your concern that staff should be aware of the impacts of a particular NOx limit in setting NOx BARCT. In fact, staff does consider the implications of the ammonia limits when establishing the NOx BARCT emission limit. The cost-effectiveness analysis does include the likely costs and other ramifications of meeting ammonia BACT such as improved injection grids for better mixing of ammonia and ammonia feed control. Cost estimates for the SCR engineering design include the costs of ammonia controls, so that the full cost of NOx BARCT can be assessed.

b. Ammonia Limits Must Be Set at Levels That Have Been Achieved with Currently Available Technology For the Class and Category of Source Under Review

You contend that BACT must be achievable with currently-existing technology and cannot be technology-forcing. We agree, with one caveat. What is "current" depends on the circumstances at the time an NSR permit is issued. Thus, if a landing rule establishes a NOx limit that results in the installation of SCR, but that installation is not done for several years from the date of rule adoption (based on the implementation schedule in the rule), the BACT to be applied to ammonia slip will be current BACT as of the date of permit issuance.

2. PM BACT For Basic Equipment

a. PM2.5 is Regulated Exclusively Under Rule 1325

You contend that PM2.5 is regulated exclusively under Rule 1325 and the rest of regulation XIII does not apply to PM2.5. It is true that when applying major source NSR to PM2.5 specifically, staff uses Rule 1325. As a result, a 10 ton/year instead of a 1 lb/day threshold for a net increase in emissions is allowed, a more flexible NSR applicability test based on baseline actuals-to-projected actual emissions is allowed, and a new source does not have to provide PM2.5 ERCs unless its emissions reach 70 tons per year. However, it is an incomplete view of the entire NSR program, which includes regulation of PM10. Since PM2.5 is a subset of PM10, it is regulated *as PM10* under the remainder of Regulation XIII. Any other interpretation would mean that the adoption of a PM2.5 rule automatically and dramatically relaxed the regulation of PM10 by exempting PM 2.5. This could not have been legally done, because it would have been a relaxation of the South Coast AQMD's New Source Review Rules, which is prohibited by SB288 (Health and Safety Code Sections 42500-42507.) The June 2011 staff report and Board Letter for the adoption of Rule 1325 reference PM2.5 as a subset of PM10.

Rule 1325 was adopted in 2011, which is well after the adoption of SB 288 in 2003. As you know, SB 288 forbids adopting any amendments to the District's NSR program to make it less stringent than it was on December 30, 2002 (Health & Safety Code Section 42504(a)).

Therefore, SB288 precludes the interpretation you propose which would be a weakening of the PM10 requirements under Regulation XIII. We further note that under Rule 1302 (z), the term "Nonattainment Air Contaminant" includes any air contaminants for which there is a national or *state* ambient air quality standard, or precursor to such air contaminant which the California Air Resources Board or U.S. EPA has designated "nonattainment," respectively.

Since the South Coast Air Basin is still in nonattainment of the state PM10 standard, Regulation XIII still applies to PM10, even though the region has attained the federal PM10 standard. Rule 1302(z) does not contain any language saying that it should not be included in the state implementation plan, so it was properly part of the SIP at the time of adoption of SB 288.Therefore, SB 288 precludes any backsliding from this requirement. South Coast AQMD needed to adopt Rule 1325 to comply with requirements to develop a major source NSR program for PM2.5, and ultimately to avoid federal sanctions. Because the major source threshold was set at the federal level of 70 tons per year, Rule 1325 was not expected to have any effect on BACT and offsets, which would continue to be governed under PM10 requirements. Since BACT and offsets for PM10 will apply well before any threshold under 1325 is reached, the primary impact of Rule 1325 is to require PM2.5-specific ERCs when a Rule 1325 threshold is reached.

Since there are no PM2.5 offsets, and staff believed it would be difficult and burdensome to convert existing ERCs or create new PM2.5-specific ERCs, the South Coast AQMD adopted the federal minimum requirements for Rule 1325. In addition, the NSR applicability test for PM2.5 incorporates the federal test which is based on a Baseline Actual-to-Projected Actual which is less likely to trigger NSR than the current PTE-to-PTE test for PM10. The combination of the high thresholds for PM2.5 and the NSR applicability test for PM2.5, makes it unlikely that PM2.5 offsets would ever be required. So far, we have not had to require PM2.5 -specific offsets. Thus, although the thresholds in Rule 1325 are not meaningless, they have a limited function as just described.

b. Other Than Rule 1325, Regulation XIII Does Not Regulate Ammonia as A PM2.5 Precursor

You contend that because Regulation XIII applies to ammonia as well as nonattainment air contaminants, and because the latter term includes precursors, ammonia cannot be regulated as a precursor. There are two issues associated with use of ammonia in the SCR system: 1) directly emitted ammonia or the "ammonia slip," and 2) directly emitted PM10 emissions from the formation of SO2 to SO3 combining with ammonia in the SCR system to form ammonium sulfate which emitted as is PM from the SCR. You then conclude that because of this "Rule 1303(a)(1) does not authorize the imposition of PM BACT requirements on the basis that ammonia resulted in an increase of secondary emissions." We do not agree. We assume you are referring to imposing PM BACT on a combustion source whose emissions of PM precursors combine with ammonia from the SCR to form PM2.5. In such a case, BACT is being imposed not on ammonia but on directly emitted PM10. Therefore, it does not matter whether ammonia is subject to regulation "as a precursor" or not.

c. The BACT Requirement Extends Only To The Source Of The Emission Increase

Your letter contends that in the SCR installation scenario, the combustion source is an existing source (Basic Equipment) and the SCR is a new source (Control Equipment). You conclude that the combustion equipment cannot be made subject to BACT because it is not a new or modified source. We disagree. The combustion unit is a modified source due to the installation of SCR and produces an increase in PM10; therefore, it is subject to BACT. Rule 1302(x) defines "modification" to include a change of operation, except for those changes specifically listed, which do not include the addition of an SCR. Therefore, the combustion equipment is a modified source and is subject to BACT.

In addition, you note that Rule 1304(a)(1) provides that BACT may be required "for the *actual modification*" to an existing source." You conclude that BACT may only be required for the "actual modification" which in your view is the installation of the SCR unit, and that BACT may not be required for the combustion source which is not being modified in any other way. We have looked at past South Coast AQMD practice and conclude that the rule has not been so interpreted. Staff had issued a permit to construct to one refinery for the installation of SCR and required clean-up of the fuel sulfur as a BACT requirement. However, this project was never actually constructed. We are discussing with EPA whether your interpretation is consistent with what major source NSR requires.

d. The Determination of Whether or Not A PM "Emission Increase" Has Occurred Must Include Consideration of the NOx Reduction

This argument contends that although the SCR will increase ammonia, (which combines with fuel SOx to form ammonium sulfate, a particulate), it will decrease NOx, which combines in the atmosphere with ammonia to form ammonium nitrate (also a particulate). You suggest that the District should conduct modeling to determine whether the project actually increases PM in the atmosphere when the NOx reduction is considered. This is not how we have traditionally looked at emission increases from air pollution sources; we have considered there to be an increase of direct PM which is emitted from the stack, and have not tried to subtract any benefits in reducing later-formed secondary PM. However, we did discuss your proposal with EPA staff, who did not agree that this approach was authorized.

Appendix A

This Appendix contends that BACT may not be required for Control Equipment, even though that equipment may emit air contaminants. We disagree. As you describe, Rule 1302(a)(o) defines a source as equipment which "may emit or control an air contaminant". This merely ensures that control equipment is evaluated under Regulation XIII to see if it increases any regulated air contaminant. It does not mean that "control equipment" cannot be subject to BACT even if it emits air contaminants. It is not uncommon for control equipment to reduce one air contaminant and increase another. An example is an afterburner which reduces VOC but increases NOx and PM. Control equipment that increases a regulated pollutant is commonly subject to NSR, including BACT and offsets. Were that not the case, such that control equipment could not be subject to NSR, there would be no need for the offset exemption in CAA Section 182(e)(2), 42 USC Section 7511a(e)(2). And there would be no need for the "Pollution Control

Project" exemption in EPA's 2002 NSR Reform, which exempted these projects from both BACT (LAER) and offsets, or the offset exemption in SCAQMD's rule 1304(c)(4) regulatory compliance projects that are installed to meet air pollution control requirements. Indeed, when EPA withdrew its Pollution Control Project exemption it explained that the Court of Appeals had held that the Clean Air Act does not authorize exempting "Pollution Control Projects that decrease emissions of some pollutants but cause collateral increases of others." 72 Fed. Reg. 32526, 32527 col. 2 n. 2 (June 13, 2007). Hence, your interpretation is inconsistent with the CAA. Therefore, BACT is properly required for the installation of control equipment that causes an increase in a regulated pollutant.

Thank you for your continued interest and participation in the rule development process and if you have any questions, please feel free to contact me at 909-396-2302 (rings to my cell phone) or bbaird@aqmd.gov.

Sincerely,

Barbara Baird
Chief Deputy Counsel