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Jack P. Broadbent
EXECUTIVE OFFICER/APCO

January 6, 2005

Deborah Jordan, Director

Air Division

U.S. Environmental Protection Agency Region 9

75 Hawthorne Street

San Francisco, CA 94105

RE: Reopening of Bay Area Refinery Title V Permits to Address
“Attachment 1” Issues in October 8, 2004, Letter from EPA

Dear Ms. Jordan:

This letter responds to EPA’s letter of October 8, 2004, regarding EPA’s review of the five Bay Area refinery Title V operating permits (“October 8 Letter”). Specifically, this letter addresses concerns raised in Attachment 1 of that letter, entitled “List of Objections and Reopening Issues.” This letter briefly summarizes the District’s proposed determination regarding those issues, and describes the steps by which the District plans to proceed.

The District is committed to working cooperatively with EPA to resolve all of the issues raised in the October 8 Letter and attachments. As you know, these issues are numerous, and many are factually or legally complex and require simultaneous review and analysis in the permits for several large oil refineries. Accordingly, the District is committing significant resources to addressing EPA’s issues in a diligent manner while striving to ensure that its determinations are legally and factually supported.

The District plans to issue draft revised permits addressing the issues below in mid to late January. The refineries were provided with the 30-day notice required prior to permit reopening on December 16, 2004. The District is planning to issue drafts for public comment as soon as possible following this 30-day period.

Federal Enforceability of District Permit Conditions

The October 8 Letter states that EPA is objecting to the designation of certain District permit conditions¹ in the ConocoPhillips Title V permit as non-federally enforceable. The characterization as an objection issue appears to have been based on a perception that this designation was effected in the revision to the permit. In fact, the designation as non-federally enforceable occurred in the original December 1, 2003, issuance. As a legal matter, the October 8 Letter thus represents a finding by EPA that cause exists to reopen the ConocoPhillips permit to address this issue.

The basis for establishing these permit conditions and their subsequent role in NSR review may benefit from clarification. The District's research indicates that these maximum firing rate limits were imposed through issuance of District permits for the purpose of facilitating implementation of District Regulation 9, Rule 10, which regulates NOx and CO emissions from boilers, steam generators, and process heaters in petroleum refineries. The District's purpose in defining the known maximum firing rates for combustion units subject to 9-10 was to clarify the status quo for purposes of determining compliance with the plantwide emission limit. This version of 9-10 has not been approved into the SIP. Moreover, although the firing rate limits were imposed contemporaneous with issuance of an authority construct, this bundling of actions was for administrative convenience rather than because the firing rates served a purpose regarding the District's NSR program. The limits were thus contained in permits issued pursuant to a SIP-approved program, but were not serving any purpose related to the SIP.

The October 8 Letter refers to a District statement in the Statement of Basis that "Conoco-Phillips has relied on throughput limits in this condition to determine that New Source Review does not apply in at least several cases . . ." EPA may be under the impression that this statement refers to the firing rate in Part 1 of the permit. Though EPA does not explain how this observation affected its analysis, EPA may also be under the impression that this particular firing rate limit was imposed in order to avoid federal NSR. As explained below, this is not what was intended by that District quote.

The District's current definition of "modification" for purposes of NSR is found at 2-1-234, which is not approved into the SIP. Under this definition, a "modification" includes a change in emissions level at a grandfathered unit if that unit has been debottlenecked (i.e., the capacity increased due to changes at a different unit). A debottlenecking analysis would focus on units that have a potential for increase, and thus would exclude a unit with an enforceable limit on usage. It was in this context that the District relied on the annual fuel usage limits contained in Condition 1694 (not the enforceable firing rate limits also contained in Condition 1694) to conclude that there was no need for review of possible debottlenecking effects at certain units. As noted above, the annual fuel usage limits are designated as federally enforceable.

¹ Attachment 1 incorrectly refers to fuel limits in Part 1 of Condition 1694 as being not federally enforceable. The fuel limits are designated federally enforceable. The District therefore assumes that EPA's concern relates to the maximum firing rate conditions contained in that same condition, which are designated not federally enforceable.

The analysis of which conditions in permits issued pursuant to SIP-approved permits are federally enforceable is driven largely by EPA regulations and policy guidance. Given this, the District intends to give broad deference to EPA's views on this issue. 40 C.F.R § 52.23 declares as federally enforceable any permit condition "contained within an operating permit issued under an EPA-approved program." The District understands that EPA's interpretation of this provision is comprehensive. The District reads the March 21, 1999, letter from John Seitz to Doug Allard to convey that federal enforceability attaches to all conditions of permits issued pursuant to a SIP-approved program, regardless of whether there is a substantial nexus with the SIP.

Due to the historic practice of bundling permit actions for administrative convenience (i.e., to avoid having to implement two distinct permit programs), situations such as that described above are not uncommon. The maximum firing rate conditions that the District presumes are at issue in the October 8 Letter were originally imposed to implement a non-federally enforceable rule that was not then and is still not in the SIP. None of these conditions later factored into an NSR debottlenecking analysis.

The District will issue a draft reopening of the ConocoPhillips permit that redesignates the conditions identified in the October 8 Letter as federally enforceable. The District supports and wishes to preserve federal enforceability where it is appropriate. However, the District is concerned that the designation as federally enforceable of permit conditions that have no direct relationship to the SIP extends federal enforceability beyond its intended scope. The District will give careful consideration to comments received on the proposal. The District is particularly interested in knowing whether EPA still believes designation as federally enforceable is appropriate in light of the record clarifications discussed above.

Monitoring For NSPS VV, NSPS QQQ, and NESHAP V

This issue likewise concerns permit terms that were not the subject of Revision 1 and that therefore are the subject of a finding of cause to reopen the permit. The October 8 Letter sets forth EPA's view that if the District cannot demonstrate that the residency time specified in these standards will be met then installation of flow monitors must be required. As explained below, the District believes that temperature monitoring provides a reasonable assurance of compliance with the 95% design and operation requirement in these standards, and that additional monitoring is unwarranted. The District plans to provide a fact-specific rationale supporting this conclusion for each affected thermal oxidizer. Moreover, the District will propose revising the permit to require installation of flow monitoring in the event that a sufficient justification cannot be developed.

The October 8 Letter focuses on one compliance option to the exclusion of that which is implemented at most or all affected thermal oxidizers. The first paragraph of Attachment 1 correctly describes these standards as offering alternative options for compliance in that they “require that enclosed combustion devices be designed and operated to reduce VOC emission by 95% or to provide a minimum residence time at a specified temperature.” However, the next paragraph, in focusing on permits that “do not contain any way to show compliance with the residence time requirement,” overlooks situations where the 95% compliance option has been chosen. The subsequent paragraph in Attachment 1 to the October 8 Letter again focuses on only one of the two compliance options by stating that “enclosed combustion devices [must] be designed *and operated* to provide a minimum residence time at a minimum temperature.” (emphasis in original)

Compliance with the three standards referenced above at the Bay Area refineries is typically achieved by operation of thermal oxidizers designed and operated to achieve 95% control efficiency. Where this is the case, the specific temperature and residence time requirements of these standards are not relevant, as that compliance option has not been selected. The Title V monitoring issue, therefore, is what monitoring is sufficient to provide a reasonable assurance of compliance that the thermal oxidizers designed to achieve 95% reduction are being operated according to their design.

The District believes that temperature monitoring is sufficient to provide a reasonable assurance of compliance with the 95% requirement. The design and capacity of a thermal oxidizer should be appropriate to the gas streams that are anticipated. This is considered as part of the District’s review of an application for a permit to install a thermal oxidizer. If the design and capacity of the thermal oxidizer is appropriate to its intended application, the next step should be to develop a minimum temperature requirement. An initial source test is typically the means by which combustion temperature is correlated to proper operation and destruction efficiency. As an engineering matter, operation at or above that temperature will also indicate that flow is within the proper range. An inhibition of combustion caused by excess flow (sometimes referred to as “quenching”) would tend to be reflected in decreased temperature. In this way, temperature functions as an indicator of compliance in a manner that subsumes the need to monitor flow. The significant cost of flow monitoring would not be justified by the very minor enhancement in assurance of compliance that it would provide.

The District expects application of these general principles can be demonstrated at each thermal oxidizer subject to the federal standards named in the October 8 Letter. The demonstrations will explain and, to the extent feasible quantify, the application of these general principles at each subject thermal oxidizer. Accordingly, the District will undertake this review, and plans to incorporate into the permits a schedule for obtaining necessary information from the facility and for conducting this review. If a conclusion that compliance is reasonably assured through

temperature monitoring cannot be reached, then installation of flow monitors will be required. The District's intent is to structure the permits so that installation of flow monitors is required by a specified date unless, by a prior specified date, the District has concluded that compliance with the 95% design and operation requirement is reasonably assured through other means. The demonstration may include a design review of the thermal oxidizer, review of available historic operating and emissions data, a review of expected gas flow quantities from upstream sources, or analysis of the interdependency of flow rate and temperature. If possible, the District will further address acceptable methods of demonstration at the time of the proposed reopening which, as noted above, is planned for January 2005. If there are instances where the temperature and residence time compliance option has been selected, or where the permit allows for either compliance option, then flow monitoring for residence time will be imposed absent some other means of monitoring for that requirement.

The District looks forward to working closely with EPA as it moves forward to resolve the issues identified in Attachment 1 of the October 8 Letter. If you have any questions, please contact Steve Hill at (415) 749-4673 or, for legal matters, Adan Schwartz at (415) 749-5077.

Sincerely,

Jack P. Broadbent
Executive Officer/APCO

CC: Bill Harnett, EPA