WSPA Comments and Objections to
BAAQMD's Revised Compliance Monitoring Policy
and Draft Permit Condition Template for
Regulation 9, Rule 10 ("Nitrogen Oxides and Carbon Monoxide from Boilers, Steam Generators and Process Heaters in Petroleum Refineries")

I. BACKGROUND

Regulation 9, Rule 10 (hereinafter "Rule 10") sets NOx and CO emission and monitoring standards for boilers, steam generators and process heaters in petroleum refineries. As stated in section 502 of the rule, NOx monitoring requires the use of CEMS or an equivalent verification system. The District has contemplated the use of equivalent verification systems to comply with requirements of Rule 10 since it first promulgated the rule in January 1994. As stated in the Staff Report to the rule, CEMS were only to be required on units equipped with SCR and SNCR, while units equipped with FGR or low NOx burners were to be permitted to use fuel gas consumption data and District-approved emission factors to calculate emissions. Industry presumed that, pursuant to Section 603 of the rule, source tests would be conducted at some frequency on covered units in their as-found condition.

During the latter part of 1999 and the beginning of 2000, District Staff consulted with WSPA representatives on establishing a compliance monitoring policy that would set far more stringent standards for emission verification systems than those envisioned by the Staff Report to Rule 10. A policy was eventually implemented by the District pursuant to an internal memorandum, dated June 23, 2000, which was circulated by W. De Boisblanc to District Refinery Engineers. Certain minor aspects of the policy were modified and clarified in a letter from Mr. Steve Hill of the BAAQMD addressed to Mr. Dennis Bolt of WSPA, dated August 14, 2000, and further clarified during a December 2002 telephone conference between Mr. Hill and WSPA. (The June 2000 policy, as modified and clarified by Mr. Hill's August 14, 2000 correspondence and December 2002 teleconference is hereinafter referred to as the "June 2000 Policy.")

The June 2000 Policy provided District Staff with guidance on writing permit conditions, on determining which units require CEMS, and on setting standards for equivalent verification systems. In addition, the June 2000 Policy drastically increased the number of furnaces that would be required to utilize CEMS, introduced the use of "NOx boxes" to validate emission factors for units without CEMS, and established rules by which NOx boxes would be managed. In short, the policy created a regulatory scheme that ensured compliance with Rule 10's NOx, CO and O_2 standards, while providing refineries with the operational flexibility necessary to establish and validate NOx boxes and to minimize potentially negative impacts on the safe and efficient operation of refinery equipment covered by Rule 10. Furthermore, acknowledging the fact that it is extremely difficult, and in many cases impossible, to complete initial testing which would establish NOx boxes for an entire operating range, the June 2000 Policy wisely allowed for gradual expansion of the NOx boxes as new operating conditions were encountered.

Shortly after the December 2002 teleconference, District Permit Staff announced that the June 2000 Policy had been determined by the District's Enforcement Division to be unenforceable. (In contrast to the Enforcement Division's allegations, WSPA believes that the June 2000 Policy was, in fact, enforceable, and that the Enforcement Division undertook to have the policy revised solely because it did not agree with aspects of the policy which permitted expansion of NOx boxes based on changes in operating conditions.) In response to the alleged determination of unenforceability by the Enforcement Division, the District prepared a revised policy for monitoring compliance with Rule 10's NOx, CO, and O_2 emission limits. Over strong objections by WSPA, and without seeking WSPA's input, the District implemented the revised policy pursuant to an April 10, 2003 internal memorandum prepared by Mr. De Boisblanc (hereinafter the "Revised Policy"). The Revised Policy, which supercedes the June 2000 Policy, was first transmitted to refineries covered by the policy in late-April 2003, and then again in mid-May 2003 as a permit condition template. The May 2003 electronic correspondence accompanying the permit condition template instructed the recipient refineries to provide refinery-specific information for the portions of the template that had been left blank. Some terms of the permit condition template were inconsistent with the revised internal memorandum.

II. WSPA'S COMMENTS AND OBJECTIONS TO THE REVISED POLICY AND THE PERMIT CONDITION TEMPLATE

WSPA objects to the District's implementation of the Revised Policy and to the related permit condition template. This section of the memorandum details WSPA's current objections to the Revised Policy and permit condition template, and is organized as follows: Section II.A lists several reasons why the District is unjustified in developing the Revised Policy; Section II.B sets forth WSPA's general objections to provisions contained in the permit condition template; Section II.C addresses specific terms in the permit condition template to which WSPA objects, and sets forth proposed revisions to the template that should be adopted by the District in the event it chooses to retain the Revised Policy.

A. The Revised Policy Is Not Justified

For all of the reasons stated above and listed below, the District was unjustified in implementing the Revised Policy for monitoring compliance with Rule 10's NOx, CO, and O_2 emission standards.

1. The Revised Policy is unnecessary because there are no instances where an exceedance of the refinery-wide NOx limit of 0.033 lbs/million BTU of heat input could have occurred due to any shortcoming of the June 2000 Policy.

The fact that there are not instances where an exceedance of the refinery-wide NOx limit could have occurred due to any shortcoming of the June 2000 Policy is consistent with the reality that, in general, only a small percentage of the emissions at refineries are estimated by use of

emission factors and NOx boxes. Thus, any potential inaccuracy in emission factors used to calculate emissions for these units would not have a significant impact on a refinery's overall compliance with the refinery-wide NOx limit. Since there is little to any significant value in increasing the accuracy of emissions calculated with emission factors (as approved under the June 2000 Policy), there is no good justification for the added expense and burden of managing the increased administrative and operational complexities of the Revised Policy. Similarly, there is no justification for imposing the exorbitant costs associated with installation of CEMS (which cost hundreds of thousands of dollars), as the refineries would be forced to install under the unreasonably inflexible and stringent Revised Policy. In addition to increasing administrative and equipment costs, the Revised Policy will result in costly operational curtailments and prolonged periods of operation under extreme conditions as refineries attempt to complete the "out-of-box" source testing required under the policy. The Revised Policy will also require refineries to undertake extreme measures, and incur unnecessary expenses, in order to keep covered units firing within their NOx box limits, irrespective of the fact that such parameters may be wholly unrelated to a facility's compliance with the refinery-wide NOx limit.

As the District staff well knows, monitoring or verification of any specific unit under Rule 10 is related to that unit's relative contribution to compliance with the refinery-wide NOx emission limit. Obviously, and as supported by the Staff Report to Regulation 10, a refinery should have flexibility in determining how individual units will be utilized in order to achieve operational efficiency and compliance with the refinery-wide emission limit. Despite this Staff-acknowledged need for flexibility, not only does the Revised Policy severely limit such operational flexibility, but also it imposes additional, unnecessary administrative complexity and enforcement stringency, without any measurable increase in the accuracy of emission measurement, thereby making it increasingly difficult for refineries to operate efficiently and in compliance with Rule 10.

While the June 2000 Policy and the Revised Policy both require source test validation of emission factors over the full range of operating conditions, the Revised Policy improperly makes monitoring accuracy an end in itself, at an extremely high administrative and equipment cost, irrespective of the insignificant impact the covered unit may have on a refinery's compliance with the refinery-wide emission limit. In this respect, the policy is clearly not consistent with, or even rationally related to, the language and purposes of Rule 10.

2. The Revised Policy is unnecessary because the June 2000 Policy contained sufficient conservative estimation "buffers" to protect against any potential inaccuracies in emission calculation methods for non-CEMS units.

WSPA agrees with the proposition that adoption of a compliance verification method as an alternative to a CEMS may require the incorporation of a reasonable degree of conservatism as a "buffer" against potential inaccuracies of the alternative calculation method. The June 2000 Policy contained a sufficient buffer with respect to emission estimate methods for non-CEMS units. Specifically, not only did the June 2000 Policy require application of a single, worst-case

emission factor over the entire range of operation, it also required the emission factor itself to be verified by source testing over the entire range of operation. Since the June 2000 policy contained a sufficiently conservative "buffer" for the calculation of emissions for non-CEMS units by alternative methods, the Revised Policy's substantially more stringent requirements are unnecessary.

3. The District's determination that operation of a covered unit at 20% above a NOx box limit cannot be allowed is arbitrary.

The District's mandate in the Revised Policy that a covered unit may not operate at twenty percent (20%) or more beyond a NOx box limit is arbitrary and should, therefore, be retracted. Similarly, there is no basis for the Revised Policy's prohibition against permit conditions that allow for validation of an emission factor (for purposes of determining *actual* emissions) after a NOx box limit is exceeded. Since the District's adoption of the June 2000 Policy, it has been understood by the District and refineries that the operational range upon which NOx box limits are calculated cannot be fully predicted. In light of this fact, and the fact that the main purpose of Rule 10 is to maximize compliance with refinery-wide emission limits, it has long been further understood that operational flexibility is essential to meeting the goal of Rule 10. Common sense and experience show that operations under changed parameter combinations may occur, that such occurrences may result in an exceedance of a NOx limit for a given unit, but that such situations should be recognized as normal operating occurrences and not as automatic violations (particularly where there is not any evidence that a refinery-wide limits will not be complied with despite the exceedance). The Revised Policy not only fails to reflect this long-established, basic understanding of operational realities by considering such exceedances automatic violations, but it also eliminates a valuable procedure permitted under the June 2000 Policy for validating emission factors subsequent to a NOx box exceedance. The Revised Policy's imposition of these stringent limitations should not be allowed given that they are arbitrary and fail to serve any regulatory purpose.

B. General Objections and Comments to the May 2003 Permit Condition Template

1. The permit condition template to Rule 10, which the District circulated in May 2003 (sometimes referred to hereinafter as the "Template"), restates many of the requirements of the rule. As such, the Template is redundant and unnecessarily adds complexity to managing permit conditions. This flaw is particularly glaring in light of soon-to-be-issued Title V permits, which strive to compile, in a single permit document, all regulations applicable to a particular source. Indeed, the Title V development process has gone to great length to eliminate permit conditions, such as those set forth in the Template, that merely restate requirements of existing regulations. In contrast, the Template restates many of the requirements set forth in the text of Rule 10, and, by doing so, undermines the clear regulatory purpose of Title V and reverses the District's established Title V policy and practice.

2. The Template fails to include criteria for determining which units require CEMS. Accordingly, and because the June 2000 Policy is superceded, there is no basis for determining if a refinery has installed CEMS as required.

3. The Template requires refineries to list emission factors and NOx box parameters as permit conditions. This is problematic because emission factors and NOx box parameters are dynamic variables. Therefore, under the requirements of the Template, refineries will be faced with unnecessary and exorbitant procedural delays caused by having to apply for a modification of a permit condition each time an emission factor or NOx box parameter changes. Given the dynamic nature of these emission parameters, the permit modification standards and procedures defined in the Template applicable to such changes should be omitted, and, instead, refineries should be allowed to track these parameters and, if needed, submit notification of any changes to them as part of a routinely-submitted report, not as an application to modify a permit. The need for this change is clear when one considers the fact that, under the Template, if a refinery encounters an operating situation that requires an adjustment to the emission factor or NOx box parameters, it could take up to three months to complete the required permitting procedures before a refinery could legally operate under the revised operating condition. This procedural delay is clearly unacceptable in light of the dynamic nature of the parameters, particularly because it would prevent a refinery from meeting short-term market demand increases or, even worse, result in the shut down of a unit – which may result in even greater emissions, an increased probability of further process upsets, and costly production losses.

4. The proposed changes require violation notices to be issued even where it is clearly demonstrated by the terms of the condition that no exceedance of the emission standard or the permitted emission factor has occurred. This prescriptive policy is arbitrary, lacks rational purpose and serves only to constrain refinery operations without producing any environmental benefit.

5. The changes reflected by the Revised Policy are clearly an attempt to simplify the District's inspection demands while increasing its enforcement authority. While these goals are legitimate, not only does the Revised Policy fail to further them, it unfairly requires refineries subject to Rule 10 to make huge sacrifices in administrative simplicity, operational flexibility and compliance achievability. The result of the Revised Policy is merely to place an unfair burden on refineries without easing any demand on the District's inspection or enforcement obligations. In addition, the Revised Policy unnecessarily creates more opportunities for refineries to be considered in violation of BAAQMD Rules, regardless of whether or not they have exceeded a faculty-wide emission limit and despite diligent, conscientious and responsible efforts by the refineries to achieve compliance; technical violations of overly-stringent standards for emission monitoring methods will be considered substantive violations, irrespective of the fact that such violations may have no impact or bearing on a refinery's compliance with Rule 10's

refinery-wide emission limit. If the Revised Policy is retained, the District will end up wasting valuable time and resources engaging in regulatory and enforcement activities which have no environmental benefit, namely, the processing of unnecessary permit modification applications and the processing and settling of technical monitoring standard violations which have no bearing on a facility's compliance with refinery-wide emission limits. In short, the Revised Policy merely increases the burden on refineries and the District without improving air quality.

6. Small heaters, (i.e. less than 25million Btu/hr) currently require annual source tests, but would become subject to semi-annual testing under the permit condition template. (This is an example of the inconsistency that exists between the Template and the Revised Policy, the latter of which does not impose a semi-annual source test requirement for small heaters.) Small heaters have been determined to have an inconsequential impact on refinery emissions and, to WSPA's knowledge, the June 2000 Policy, which required only annual source testing for small heaters, has not resulted in a single emission violation. Therefore, small heaters should remain subject only to annual testing.

7. Under the Revised Policy it is not clear when NOx box adjustments become effective. Upon completion of a successful source test? Upon submittal of a permit modification application? Upon BAAQMD's approval of a permit modification application? Consistent with the statement made above about the dynamic nature of NOx box parameters and emission factors, such changes should be effective retroactively (i.e., back to the change) upon completion of a successful source test by the refinery. Similarly, records of acceptable NOx box parameter and emission factor changes should only be required to be kept by the refineries and submitted to the District upon request or as part of Rule 10's routine reporting requirements.

C. Proposed Revisions to the Terms of the Permit Condition Template

Below are WSPA's comments and proposed revisions to particular terms of the Template. The original text of the Template is set forth below. Proposed omissions to the Template are indicated with strikethrough text (~~example~~); proposed additions to the Template are indicated with underlined text (example); interposed comments to the Template are indicated by bracketed text ([example]); each Template section is followed by a discussion in bold, italicized text (***example***).

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COND#  XXX   ------------------------------------------------

Regulation 9-10 Refinery-Wide Compliance

   1.    The following sources are subject to the refinery-wide NOx emission
         rate and CO concentration limits in Regulation 9-10: (9-10-301 &
         305)
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S# description ~~max firing rate~~ ~~NOx~~ ~~CO~~

What does "max firing rate" refer to? Several different numbers may be called by this term. The maximum rates for all sources will be listed in Table 2a of each facility's Title V permit. Adding firing rates here adds confusing duplication. What do NOx and CO refer to? Are they limits? The vast majority of units do not have individual NOx limits. All units have the same CO limit. These three columns are redundant and should be deleted.

2. The owner/operator of each source listed above in Part 1 shall properly install and properly operate ~~a fuel gas flowmeter and recorder and~~ an O2 monitor and recorder. (Reg.9-10-502)

This Part merely restates requirements from section 9-10-502, although the callout of an O2 monitor for all Part 1 sources does implement the specific requirement that equivalent verification systems must have an O2 monitor and recorder. The fuel gas flow meter requirement should be removed.

~~3. The owner/operator of each source listed in Part 1 shall determine compliance with Regulation 9-10 as follows:~~

~~A. Calculate NOx emissions from each furnace using measured fuel gas rates, and either:~~
~~1) CEM data or~~
~~2) NOx emissions factor from Part 1 and~~

~~B. During periods of inoperation, the owner/operator shall use the emission adjustment procedures in 9-10-301.2~~
~~The daily refinery-wide average emission rate shall be determined by dividing total emissions from sources listed in Part 1 by the total heat input. (Reg. 9-10-502)~~

All of the requirements of Part 3 are stated in the rule. The entire Part should be removed.

4. NOx Box-Operation
The owner/operator shall operate each source listed in Part 1, which does not have a NOx CEM, within a specified range of operating conditions (firing rate and oxygen content). The range shall be established by conducting district approved source tests. (Reg. 9-10-502)

5. NOx Box-Establishment
The owner/operator shall establish the initial NOx box for each source listed in Part 4 by ~~11/10/03~~ 11/10/06. The procedure for establishing the initial NOx box is

The November 10, 2003 deadline for establishing NOx boxes suitable for the new requirements of this policy is unrealistic. The permit condition template requires NOx boxes

to be established by source testing followed by permit condition changes. It takes 30 days to receive source test results and another 30-to-60 days to process a permit condition change. Therefore, all testing would need to be completed by mid-August. Each refinery must test each furnace within 20 percent of each extreme corner of potential furnace operation within a few weeks. This short time period occurs completely within the maximum motor gasoline production season. It cannot be done without disruption of gasoline production. The refineries will need three years to plan for and encounter these extreme operating conditions. The three-year interval would be required to capture the opportunity to test at hot standby conditions that may be encountered during an unexpected plant upset, but can only be source tested on a planned basis during a scheduled unit turnaround.

Further, should the District insist upon imposing the Revised Policy, refineries may be forced to install CEMS on many units. The deadline for implementation of the new policy must allow enough time to install CEMS per the schedule specified in the Manual of Procedures. Otherwise, a refinery would be forced to incur the added expense of installing CEMS while bearing the expenses and production losses which would result from trying to complete the testing and implement the operation limits required under the Revised Policy.

A. Conduct district approved source tests for NOx and CO, while varying the oxygen concentration and firing rate over the desired operating range for the furnace;
B. Determine the minimum and maximum oxygen concentrations and firing rates for the desired operating range (Note that the minimum O2 at low-fire may be different than the minimum O2 at high-fire. The same is true for the maximum O2);
C. Determine the highest NOx emission factor (lb/Mmbtu) over the entire operating range while maintaining CO concentration below 200 ppm; the owner/operator may choose to use a higher NOx emission factor.
~~D. Plot the following points on a graph and connect the 4 points with straight lines. The resulting polygon is the NOx Box, which represents the allowable operating range for the furnace under which the NOx emission factor from part 5c is deemed to be valid:~~
~~i. Min. O2 at low-fire~~
~~ii. Max. O2 at low-fire~~
~~iii. Min. O2 at high-fire; and~~
~~iv. Max. O2 at high-fire (Reg.9-10-502)~~

D. Option 1: The NOx box is the rectangle (i.e. four sides parallel to the axes) whose sides are set at the highest or lowest levels associated with any test. Option 2: The NOx box is the area within the multi-sided polygon formed by connecting the source test parameters that lie about the perimeter of all successful source tests.

The four-sided polygon envisioned by this requirement grossly oversimplifies and limits the legitimate operation of refinery heaters.

Two examples of these problems:

1) The low firing, high O2 point can be set at a fairly high number and tests at this O2 rate can comply with the emission factor standard over a broad range of firing rates. However, at very high firing rates, the amount of O2 that can be drawn into the firebox limits the high O2 high firing rate corner. Drawing a straight line between these points eliminates legitimate operation at high O2 rates across most of the firing rate range. It would be impossible to validate this area of operation with out sacrificing high-end firing rate.

A similar problem occurs at low firing rates where the low O2 levels achievable at high firing rates cannot be attained (even though if attained they would comply with the emission factor limits) at low firing rates due to uncontrollable leakage through draft control ports.

2) A satisfactory test completed at an as found (i.e. neither high nor low) firing rate may yield a satisfactory operating point outside one line segment of the polygon. Again the simple polygon criteria would impose an artificial limit on operation.

Further, the District has not considered the utter complexity of developing a process control scheme (manual or electronic) that could effectively maintain operation within a slanted operating limit.

6. NOx Box-limits
   A. Except as provided in part 6B, the owner/operator shall operate each source within the NOx Box at all times of operation.
   B. The owner/operator may deviate from the NOx Box ~~up to a maximum of 20% from the established NOx Box~~ (either the firing rate or oxygen limit) provided that the owner/operator conducts a district approved source test within 45 days of the deviation to demonstrate ~~that~~ whether the deviation complies with the NOx emission factor. The source test results shall be submitted to the district source test manager within ~~30~~ 45 days of the test. Any deviation beyond the established NOx Box shall require notification to the Enforcement Division within 96 hours of the deviation. **[A Title V 10-day deviation report would not be needed since a deviation does not necessarily indicate that excess has occurred.]**

      ~~In order to establish the 20% deviation, each corner shall be adjusted by 20% for both firing rate and oxygen limit. Connecting these points will create another box. This box represents the allowable 20% deviation. Again, any operation beyond the 20% deviation box is a violation of Regulation 9-10-502.~~

The addition of a 20% deviation standard is arbitrary and imposes severe limitations on refinery flexibility and efficiency. Large operational disruptions would be needed to complete source tests within 20% of all operational extremes. Operation at these extremes is normally due to unexpected operational disruption. Operation at these levels (e.g. everything from full firing rate to stand-by idle) for the purpose of testing is impossible in many cases (i.e., there is no place to provide the excess feeds or place the excess production, which would result in

severe damage to catalysts and equipment) or would cause an otherwise unnecessary continuation of curtailed operation.

The District has already acknowledged (Hill letter to WSPA dated August 13, 2000) that it takes 30 days to receive source test results from source test contractors and two weeks to evaluate and submit the results to the District. The submittal period should be reverted to 45 days. (See also Parts 7 and 8.)

1. If the results of this source test exceed the permitted emission concentrations or emission rates by more than 20%, but the refinery-wide emission limit in section 9-10-301 would have been exceeded when calculated based on the higher emission concentration or emission rates, the unit will be considered to have been in violation of ~~both~~ Regulation~~s~~ 9-10-~~502~~301 ~~and 2-1-307~~ for each day it operated ~~outside of the defined operating range~~ in excess of the refinery-wide limit. The owner/operator shall use the measured NOx emission factor to determine compliance with 9-10 for each affected time period. In this situation, the facility may submit an accelerated permit program permit application to request an administrative change ~~modification~~ of the permit condition to change the NOx emission factor and/or adjust the operating range, based on the new test data.
2. If the results of this source test do not exceed emission concentrations or rates by more than 20%, or if the results of this source test exceed the permitted emission concentrations or emission rates by more than 20%, and if the refinery-wide emission limit in section 9-10-301 would NOT have been exceeded when calculated based on the higher emission concentration or emission rates, the unit will not be considered to be in violation during this period for operating out of the "box." In this situation, the facility may submit an accelerated permit program permit application to request an administrative change ~~modification~~ of the permit condition to change the NOx emission factor and/or adjust the operating range, based on the new test data. ~~The owner/operator may submit an accelerated permit program application to increase the allowable operating range, based on the new test data.~~ (Reg.9-10)
~~3. The owner/operator shall not exceed 20% for any deviation of either O2 or firing rate. Any deviation beyond 20% will be considered a violation of Regulation 9-10-502 regardless of whether the deviation is later determined to be in compliance with the original NOx emission factor.~~

The accuracy standard for the emission concentration or rate should be equivalent to the 20% allowance given to CEMS accuracy standards. By adding an arbitrary standard that penalizes a unit for operating more than 20% outside its NOx box, this condition makes such a deviation a violation, even though no violation of the emission standard has occurred. Measurement inaccuracies have little impact on compliance determinations. Given the low level of accuracy required to make a credible compliance determination for these units, the drastic monitoring

standards imposed by this condition, and the severe enforcement outcomes that are prescribed, are not justified.

Since the terms for growing NOx boxes are clearly spelled out, the process of changing permit conditions should be streamlined as much as possible. Certainly there is no basis for considering these changes to be NSR modifications.

The term "allowable operating range" needs to be defined.

C. Part 6 does not apply to low firing rate conditions during startup or shutdown periods or periods of curtailed operation lasting less than 3 days.

In many cases, a furnace must be held at low fires while an operational upset is being handled. The lack of provisions in the permit condition template to allow for the idling of a furnace under such conditions may force the refinery to completely shutdown units in order to avoid a violation of this permit condition. Such shutdowns can increase emission levels, increase the probability of further upsets, and curtail production for one or two days, instead of a few hours (i.e. shutting down a furnace may require a process unit to be completely shutdown, cooled and then forced to follow full startup procedures instead of simply ramping back up to full operation from a hot standby mode). To remedy this problem, curtailed operation could be defined as the point at which a process unit is in a feed-out or circulation mode and the heater is at minimum firing rates (meaning the minimum safe firing rate or the lowest firing rate needed to maintain hot standby temperatures).

D. Part 6 does not apply during any source test required or permitted by this condition. (Reg. 9-10-502)

7. For each source subject to Part 4, the owner/operator shall conduct at least two district approved NOx, CO, and O2 source tests per consecutive 12 month period in order to measure NOx, CO, and O2 at the as-found firing rate, within 20% of the permitted O2 conditions likely to maximize NOx emissions. The time interval between source tests shall not exceed 8 months and not be less than 5 months apart. The source test results shall be submitted to the district source test manager within ~~30~~ 45 days of the test. (Reg.9-10-502)

If the results of a source test under this Part 7 exceed the permitted emission concentrations or emission rates by more than 20%, and if the refinery-wide emission limit in section 9-10-301 would have been exceeded when calculated based on the higher emission concentration or rate, the unit shall then be subject to the provisions of Part 6.B.1. If the results of a source test under this Part 7 do not exceed the permitted emission concentrations or emission rates by more than 20%, or if the results of this source test exceed the permitted emission concentrations or emission rates

by more than 20%, and if the refinery-wide emission limit in section 9-10-301 would NOT have been exceeded when calculated based on the higher emission concentration or emission rates, the unit shall then be subject to the provisions of Part 6.B.2. ~~Results from these source tests that exceed the permitted emission concentrations or emission rates by more than 20%, shall be handled in accordance with Part 6.B.1. Otherwise the test result shall be considered to be in compliance.~~

The added paragraph defines the outcome of a high source test result, which should parallel the outcome of a high out-of-box test result.

8. For each source listed in Part 1, the owner/operator shall conduct two additional semi-annual district approved NOx, CO, and O2 source tests at conditions likely to maximize CO at the as-found firing rate, for units that the initial test results or any semi-annual test results of the unit during the past five consecutive year period, are greater than or equal to 200 ppmv CO at 3% O2. The source test results shall be submitted to the district source test manager within ~~30~~ 45 days of the test. (Reg.9-10-502)

9. For any source listed in Part 1 for which any two source test results over any consecutive five year period are greater than or equal to 200 ppmv CO at 3% O2, the owner/operator shall properly install and properly operate a CEM to continuously measure CO and O2. The owner/operator shall install the CEM's within the time period allowed in the District's Manual of Procedures. (Reg.9-10-502)

~~10. For any source subject to Part 4 for which the owner/operator receives any two violation notices per source relating to NOx emissions over any consecutive five year period shall properly install and properly operate CEM's to continuously measure NOx and O2. The owner/operator shall install the CEM's within the time period allowed in the District's Manual of Procedures. (Reg.9-10-502)~~

This is a new requirement that is completely unjustified given the stringency of the Revised Policy. CEMS cost hundreds of thousands of dollars and, given the low level of accuracy required to make a credible compliance determination for these units, the requirement imposed by this condition constitutes a punishment completely out of line with the negligible impact of a deviation.

11. The owner/operator of each source subject to Part 4 shall maintain hourly records of all fuel usage, the higher heat content of the fuel, O2 levels, and all source test data in order to demonstrate compliance with Parts numbers 1, and 12 and Regulation 9-10. These records shall be kept on site for at least five years from the date of entry in a District approved log and be made available to District staff upon request. (record keeping & 9-10-504)
12. NOx Box-Operating Parameters (9-10-502)

~~These parameters~~ are based on no more than a one ~~hour~~ calendar day averaging period for both firing rate and O2.

~~source #: 1)low O2/high fire 2)high O2/high fire
3)low O2/low fire 3)high O2/low fire~~

An hourly averaging standard would impose a burden significantly greater than that imposed by the current calendar day averaging standard, especially given the severe consequences of operation outside of the strict limits of the Revised Policy. The refineries simply cannot test to within 20% of all extreme operating conditions that might occur over a one-hour period. In addition, the shorter averaging time will require refineries to narrow the range of planned operation, thereby effectively shrinking the NOx boxes, in order to maintain an adequate compliance margin. Rule 10 compliance is based on a calendar day average and there is simply no basis for imposing an hourly average standard for these monitoring requirements.

See Section II.B for additional reasons to remove NOx box parameters from the permit condition template.