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President

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Clerk of the Board, Air Resources Board
1001 I Street, Sacramento, California 95814

RE: Mandatory Reporting of Greenhouse Gas Emissions – Proposed 15-Day Modifications

Dear Clerk of Board:

The Western States Petroleum Association (WSPA) is a trade group representing twenty-seven companies that explore for, develop, refine, market, and transport petroleum and petroleum products and natural gas in California, Arizona, Nevada, Hawaii, Oregon and Washington. Most of our companies have operations within California and are significantly affected by regulations proposed by the Air Resources Board (ARB).

Because WSPA members are subject to the ARB Mandatory Reporting of Greenhouse Gas (GHG) Emission requirements ("MRR"), the proposed 15-day revisions will have an impact upon WSPA member reporting requirements and subsequently could have an impact on future energy supplies and the economy. In that regard, WSPA and its members have been active participants in the public policy discussions and implementation requirements of all program facets of AB 32.

We have previously commented on issues affecting MRR regulations to ARB (December 15, 2010) and EPA (June, 2009). In addition, WSPA has submitted comments on key aspects of AB 32 implementation such as the Cap & Trade (C/T) Regulation, including offsets and most recently on the Supplement to the AB 32 Functionally Equivalent Document (SFED).

While WSPA appreciates many of the positive changes to the proposed regulations and staff's willingness over the past several months to meet with WSPA and work with us on our concerns, we have identified several issues within the 15-day package that remain unresolved or need clarification. These issues are listed below and discussed in more details along with other significant concerns in Attachments A-C (below).

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Calibration provisions should be consistent with EPA requirements unless additional accuracy is justified

WSPA recognizes the need for accurate and reliable measurement of emissions and process information if the State is to implement a reliable and effective Green House Gas (GHG) emission reduction program. We agree that reliable data is an essential element of the MRR program. We remain concerned however, that calibration procedures required in the proposed regulations may be inappropriately applied to California facilities, are inordinately burdensome, or could be substituted with more applicable standards.

We cite as an example, the requirements for repeated calibration of equipment and the repetitive inspection of orifice plates that are inconsistent with currently accepted refining practices (See Attachment A (Issues 3-10) for examples and additional information).

WSPA provides a series of recommendations to clarify the intent of the program and provide for data integrity, while still allowing existing facilities the needed operational flexibility.

Penalty Provisions

WSPA recognizes the need for an effective compliance and enforcement effort and that penalty provisions are a key method to ensure compliance. However, WSPA believes it is inappropriate for ARB to impose penalties on a per ton basis, simply because the AB32 GHG emission reporting program requirements identify facility emissions that are exponentially greater compared than criteria pollutant emissions from the same facility.

Further, we are very concerned that despite a facility's effort to comply with the stringent reporting and verification procedures required to obtain a positive verification, ARB retains the sole authority to impose penalties for each metric ton of CO2e emitted, but not reported, even though the facility obtained a positive verification. WSPA requests ARB revise Section 95107 as noted in Attachment A, in order to recognize that penalties should be based on the amount of emissions (tons) that were under-reported if the amount exceeded the 5% verification level, or on the basis of whether the facility falsified, concealed or covered up emissions, or made fictitious or fraudulent statements or representations.

WSPA's recommended changes to Section 95107 would ensure ARB is consistent in the application of such penalty criteria and with Section 96014, "Violations", in the C&T regulation.

Additionally, we strongly urge ARB to develop guidance in Section 95107 that provides a tiered penalty structure based on the degree of violation, including but not limited to, whether a reporting error was found to be intentional or negligent, whether the violation was an administrative error that resulted in no material change in the MRR report, and most importantly whether any reported errors resulted in an exceeded beyond the + 5% accuracy level.
Our recommendations are outlined in Attachment A (issue #13).

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Compliance deadlines for new requirements should be adjusted to consider time for implementation

This regulation will not be final or effective until at best the latter half of 2011. Without full understanding of the requirements of the regulation, facilities may not have collected or may not have been able to collect information necessary to comply with numerous requirements that go beyond existing ARB or USEPA requirements. WSPA believes that that a year is needed to implement all the requirements that go beyond existing ARB or USEPA regulations and recommends that most of these additional provisions would be required starting January 1, 2013. Additionally for product data that is not required to calculate cap and trade compliance obligations until 2015, verification should not be required until 2013 data is reported.

Transportation fuel reporting data should require verification starting with 2013 data. Transportation fuel data not required to determine compliance obligation should not be required to be verified.

The revised MRR establishes new reporting requirements for emissions from transportation fuel. WSPA recommends that:

a) Provisions be incorporated to ensure that transportation fuel information reported by the refineries, enterers and terminal position holders are only counted once for determination of compliance obligation. As proposed, the reporting requirements can result in double counting.

b) Transportation fuel data be required to be submitted based on best available information until 2013. This additional time will provide entities with sufficient time to install new monitoring and/or collection systems for any new information that must meet requirements beyond existing ARB or USEPA monitoring requirements.

c) The burden of 3rd party verification not be required for transportation fuel data that is not required to determine compliance obligation but provided to ARB for information purposes.

Upstream production issues

WSPA appreciates ARB's willingness to listen to our concerns and work with us on proposed revisions to Section 95150, particularly in regards to aligning with EPA Subpart W requirements. However, we have identified several issues of concern that are in need of revision. First and foremost, EPA has proposed several changes to the recent Subpart W revision (July 2011) in response to comments from industry and we expect EPA will make additional revisions in the remainder of 2011. If these revisions are substantial, it will impact both EPA and ARB deadline reporting requirements for the 2011 reporting year. EPA has recognized this issue and has proposed to extend the deadline for the first Subpart W report from March 31, 2012 to September 28, 2012 to allow additional time for reporters to make report revisions. This extension will also allow time to "test drive" the data reporting tool. Because of these activities, WSPA believes ARB should at a minimum allow additional time for AB32 reporting requirements and recommend ARB restore the report submittal date to June 1, and the verification deadline date to December 1.

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We have found that there are many citations in the proposed regulations that need modification to reflect the unique operating environment for the State's Oil and Gas (petroleum and natural gas operations). To enable Staff to readily review, evaluate, and implement the recommendations, we refer you to Attachment C.

Finally, in order to facilitate your review and incorporation of recommendations, additional comments are noted below:

- General Comments Potentially Affecting All Facilities: Attachment A
- Table of Issues and Citations (with references to the Discussion Draft): Attachment B
- Issues specific to oil and gas/petroleum and natural gas operations: Attachment C.

We appreciate the opportunity to comment on the Proposed Revisions to the Monitoring, Recordkeeping and Reporting Provisions. If you have any questions, feel free to contact me or Mike Wang (mike@wspa.org) at 626-590-4905.

Sincerely,

Cc: CARB Board Members
CARB Executive Officer
CEC Commissioners
CalEPA Secretary

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Attachment A: General Comments Potentially Affecting All Facilities

1. Section 95103 – Report and Verification Deadlines:

ARB continues to require facilities to submit their emissions report by April 1 (with the exception of electric power entities) and obtain verifications by September 1 of each year. As WSPA expressed in our December 15, 2010 comments, further compressing of these deadlines, while also increasing additional monitoring, calibration and recordkeeping requirements, places additional burdens on facilities that are making it untenable for facilities to have the time necessary to develop accurate emission reports and have the time work with their verifiers to obtain positive verifications.

Given 2011 will be a transition reporting year that will allow facilities time to understand, consolidate and incorporate into their reporting systems both the 40 CFR 98 reporting requirements and the additional AB32 MRR requirements, WSPA again requests ARB to reconsider and restore the report and verification deadline dates back to June 1 and December 1.

Recommendation: WSPA recommends ARB restore the report and verification deadline dates back to June 1 and December 1, to allow facilities the time necessary to develop accurate emission reports and work with their verifiers to obtain required positive

2. Section 95103(f), (h) & (l) Product Data Verification

ARB proposed in the 15-day revision, the requirement to report product data (Section 95113(l), including an added requirement to "verify" the product data (Section 95103(f)), and require product data to be verified by September 1 of each year. Given the extensive level of reporting requirements, including additional criteria and requirements that ARB is imposing above the Federal 40 CFR reporting program, and the length of time that is required to provide information requested by facility verifiers, WSPA recommends ARB limit verification requirements to only information required for cap and trade and defer requiring other product verification until 2014 at a minimum. Additionally, in Section 95103(l), ARB specifically states that the operator must "not replace missing data when calculating product data". This is inconsistent with section 95121(e). WSPA recommends that language be specifically incorporated to apply section 95121(e) to transportation fuel data, notwithstanding the prohibition in Section 95103(l).

Recommendation: WSPA recommends ARB (consistent with language proposed by ARB in the Cap and Trade Regulation):

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a) Not require verification of product data not used to determine compliance obligations for the cap and trade program.
b) Clarify that fuel suppliers follow Section 95121(e) missing data provisions. Additionally in the interim ARB should develop missing data provisions for calculating all other product data that must be verified.
c) Clarify that ethanol and other biofuels used to meet LCFS transportation fuels do not require any additional verification beyond that required for LCFS.

3. Section 95103(k) – Calibration "Check"

Section 95103(k) describes the requirements for demonstrating the accuracy of measurement devices that are used to quantify facility GHG emissions, and the terms calibration and recalibration that are used throughout this section. WSPA recommends ARB should clarify this section by adding the term "calibration check(s)". Most measurement device manufacturers require (based on type of meter and set schedules), that a "calibration check" be conducted. Such calibration "checks" will demonstrate whether the meter is operating correctly and meeting required accuracy, in the event such "calibration checks" indicate the measurement device is operating inaccurately, the operator would then conduct the required calibration procedures on the device.

Recommendation: WSPA recommends ARB clarify in Section 95103(k) that a "calibration check" is required, and in the event such "checks" indicates a measurement device is not meeting the accuracy requirements, the device must be calibrated or recalibrated.

4. Section 95103(k)(2) & (6)(A)(1) - Application of Calibration and Inspection Procedures for Orifice Plate Meters to All Meters.

The EPA MRR requires the most rigorous level of owner/operator calibration requirements for flow meters used to measure the amount of fuel flowing to tier 3 stationary combustion emission sources (e.g., furnaces burning refinery fuel gas, which are about half of site carbon emissions). It defers to other QA/QC procedures for:

a.) tier 1 and tier 2 combustion sources [e.g., liquefied petroleum gas (LPG) or diesel combustion] for which EPA allows use of company records, and
b.) 3rd party flow meters and records (e.g., PG&E natural gas invoices) for which EPA allows use of 3rd party custody transfer meters and records (e.g., invoiced amounts).

Also, the EPA MRR requires primary element inspections (PEI's) of tier 3 stationary combustion emission sources (e.g., refinery fuel gas meters orifice plates inspections) but does not require these inspections for tier 1 and tier 2

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stationary combustion emission source (LPG, diesel engines, natural gas) or for process gas flow-meters (e.g., acid gas feed to sulfur recovery units, SRU's).

ARB's proposed MRR revisions, unilaterally apply more rigorous calibration and orifice plate inspections requirements across a larger group of meters used in estimating GHG emissions, for which in some cases meter emissions that are less than 1% of the total facility-wide GHG emissions. Since accessing some of these meters may require some combination of:

a.) Slowing or shutting down refinery operations/production to access orifice plates,
b.) Installing staging to access meters,
c.) Engineering and installing hardware to bypass, and/or isolate orifice plates for their inspection, and/or replacement,
d.) Labor to calibration check and calibrate meter and address orifice plates, and
e.) Potential safety risk of personnel exposure accessing some lines (e.g., SRU's acid gas feed) ARB should revisit the proposed requirements.

One example is acid gas feed on refinery sulfur recovery units (SRU's). The feed flows are measured with meters of orifice plate design on lines that are in concentrated hydrogen sulfide (H2S) service (acid gas). EPA MRR requires calibration of the transmitters for these feed flow meters, which can be done while the plant is operating. The ARB proposed MRR expands the existing list of refinery flow meters requiring orifice plate inspection to also include SRU feed gas flow-meters.

Most refineries do not have special equipment enabling an orifice plate to be removed while the line with the flow-meter is in-service nor have bypass lines around the meters. Hence, inspecting refinery orifice plates requires shutting down associated process units so that the line with the flow meter can be removed safely from service. This operation may have a significant impact on a refinery's operations for meters that monitor less than one percent of the facility-wide emissions.

Because EPA does not require SRU's acid gas feed orifice plate inspection, these have not been inspected in recent years but would be immediately due under ARB's proposal. Hence, under the ARB proposal, many refineries will be forced to submit a request to the Executive Officer before 11/30/2011 asking their approval to extend the SRU's acid gas feed orifice plate inspections to their next scheduled shutdown[1],[2].

[1] Individual SRU shutdowns are staggered so these will typically be one to three years out

[2] Currently, there are no objective criteria established for the Executive Officer's decisions. Hence, refineries may be subject to delay and uncertainty. As a contingency, companies are likely to proceed with engineering analysis and planning for a shutdown creating significant difficulty for ongoing operations, costs and compliance issues since the SRU is used for air emission controls to meet permit limits. Shutting down refineries has a significant economic impact and could disrupt the California gasoline market.

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Recommendation: AB32 MRR should require the same meter calibration and PEI's the EPA rule requires and not add requirements above and beyond this, especially for meters where the emissions are very small compared to other meters and process equipment. The EPA approach provides the most rigorous QA/QC for the meters with the most significant impact on refinery GHG emissions reported and gives needed assurance of accuracy for cap and trade. This EPA approach assures consistency in approach with GHG reporters in other states and hence doesn't put California owners/operators at a competitive disadvantage.

5. Section 95103(k)(5) NIST Standards Applicability to Orifice Plates

ARB included a new Section 95103(k)(5), which requires that all standards used for calibration must be traceable to the National Institute of Standards and Technology (NIST). WSPA believes that the NIST calibration standards for orifice plates may not be directly be applicable to oil industry practices, and thus they cannot be calibrated to the NIST protocol.

WSPA believes that appropriate standardized calibration methodologies must be readily available. We believe that unless there is significant technical rational for disregarding the methodologies required in 40CFR98.34 for Tier 3, they should be permitted. These methodologies are based on flow meter manufacturer's procedures, consensus-based standards organization, or industry accepted practice.

Recommendation: WSPA recommends 40CFR 98.34(b) be allowed for calibration of orifice plates in oil industry service.

6. Section 95103(k)(6) –Accuracy Requirement.

Refineries generally installed flow meters of orifice plate designed to provide better than 2% accuracy per transmitter and, in so doing, met EPA accuracy

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Continuing with our example, the only other option for removing an orifice plate while continuing to operate is to use a method known as a "hot tap" to tie into the acid gas line while it is service. If refineries choose to proceed with a hot tap, there is potential safety risk of personnel exposure accessing the acid gas feed line to perform the hot-tap. Additionally, the time needed to design, procure, and install such equipment correctly for a number of refinery-wide orifice plates is on the order of years and not months (i.e., well beyond the 1/1/2012 date that facilities are required to have EO approval in the proposed rule). Hence, the added burden and risk is not justified for a very small contribution to the side wide total carbon emissions.

requirements for transmitters. However, for some low-pressure intermittent-service systems, it is a significant and unique engineering challenge to design an orifice flow meter for these systems that will sustainably provide 5% accuracy, per ARB's rules. Because they are intermittent they have a very small contribution to the overall emissions inventory and hence a very small contribution to the overall GHG inventory accuracy.

As an example, combustion of one refinery's loading vapors results in an estimated 10,000 metric tons CO2-equivalent per year, which is less than 1% of the refinery-wide total of several million tons of CO2-equivalent per year. Since EPA requires this sources emissions to be estimated using their specified approach and ARB's revised de minimis approach does not allow de minimis sources to use other-than EPA-prescribed-method where one applies, the ARB de minimis approach that refineries used for these sources may no longer apply.

Recommendation: For flow-meters contributing less than 5% of the site-wide carbon emissions, allow these to meet the EPA transmitters' accuracy requirement and do not require them to individually demonstrate 5% accuracy. 95103(k)(10) requires **overall** inventory meet 5% accuracy to avoid nonconformance in verification. This assures acceptable overall inventory accuracy without undue burden for each individual monitoring device.

7. Section 95103(k)(6)(A) – Measurement Accuracy Requirement, Third Calibration Point Required.

Section 95103(k)(6)(1) requires operators to perform all mass and volume measurement device calibrations as specified in 40 CFR 98.3(i)(2)-(3), however, ARB is requiring a minimum of three calibration points must be used spanning the normal operating conditions. While WSPA members support the need to ensure accurate information and data collection, WSPA also believes any additional requirements that are imposed beyond EPA 40 CFR reporting requirements should be thoroughly justified and provides necessary added accuracy.

In other words, all additional meter accuracy requirements should be clearly justified on a technical basis, especially if such requirements result in no significant reporting benefit. In that regard, WSPA requests ARB provide justification as to level of additional accuracy and data would result by requiring an additional third calibration point be required.

Recommendation: WSPA believes two calibration points are satisfactory to meeting the accuracy requirements required by ARB. Requiring an additional third calibration point requirement is unnecessary because it does not provide any measurable emission calculation benefit or value.

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WSPA recommends ARB eliminate the requirement to conduct a third calibration point for measurement meters and go back to the current two point calibration requirement.

8. Section 95103(k)(6)(A)(1) – Measurement Accuracy Requirement, ISO5167-2(2003)

Section 95103(k)(6)(1) requires orifice plates must be inspected following the requirements described in ISO 5167-2(2003), Section 5. ISO 5167-2 is a procedure that is applicable to custody transfer meters, which require totally different standards of measurement and levels of accuracy different from the function and operation of orifice plates. WSPA believes that alternatively the inspection should be conducted based on a method published by a consensus based standard organization.

Recommendation: WSPA recommends that section 95103(k)(6)(A)(1) be modified as follows:

> "1. Orifice plates must be inspected at a frequency specified in subparagraph (4) of this section. The inspection must be conducted as described in ISO 5167-2 (2003) section 5 or if this ISO standard does not apply, a method published by a consensus based standard organization.

9. Section 95103(k)(6)(A)(2) – Measurement Accuracy Requirement, Internal Probe Calibration Requirements

Section 95103(k)(A)(2) requires measurement probes that are located internally in pipelines that measure total pressure and temperature, must also conform to the calibration frequency requirements in Section 95103(k)(4). This change raises significant concerns because the rule is unclear for pressure and is unnecessary for temperature.

For pressure, it is not clear how to meet this requirement. There is no probe that can be removed and therefore a facility cannot conduct a calibration check for pressure. Pressure is measured with a diaphragm internal to the measurement device, and not with a probe internal to the line or equipment that can be removed and calibration checked. Currently facilities know that pressure is correct by calibration of the pressure transmitters to a set pressure and comparing it to control room data. This protocol is both an EPA and industry standard.

For temperature, refineries may have the equipment and capability to remove the probe and to use a bath or a hot-box to calibration check, there are technical reasons that it is not necessary. For example, using standard engineering equations completed in the API Technical Report 2571, if a temperature measurement should be inaccurate by more than 5 degrees F, there is less than

a 1% impact on accuracy of flow-measurement caused by this temperature error. A temperature measurement would have to be inaccurate by more than 10 degrees F to have a potential 2% impact and by more than 25 degrees F to have a potential 5% impact on flow measurement accuracy. As it is unlikely for a refinery temperature indicator to drift by this amount without this being identified and fixed, it is very unlikely that inaccurate temperature indication will impact green-house gas flow measurements in amounts approaching the 5% verification level of concern.

Hence, the added burden to calibrate temperature probes would provide negligible benefit; it should be removed from the rule. This creates an added burden and cost to accomplish this for minimal accuracy improvement.

Recommendation: Remove the proposed requirement to calibrate temperature and pressure probes. Refer exclusively to EPA MRR requirement to calibrate temperature and pressure transmitters. The EPA approach provides adequate assurance of accuracy for cap and trade. This assures consistency in approach with GHG reporters in other states and hence doesn't put California owners/operators at a competitive disadvantage.

10. Section 95103(k)(7) – Measurement Accuracy Requirement, Financial Transaction Meters

Section 95103(K)(7) specifically exempts financial transaction meters from the calibration requirements in Section 95103(k). WSPA requests ARB clarify that financial transaction meters specifically include all "product" and "feedstock" measurement devices.

Recommendation: WSPA requests ARB clarify that financial transaction meters specifically include all "product" and "feedstock" measurement devices are exempt from the calibration requirements in Section 95103(k).

11. Sections 95103(k)(4), (5), and (6) Calibration Requirements

Sections 95103(k)(4), (5), and (6) set out requirements for calibration and recalibration frequency and accuracy requirements for measurement devices. WSPA believes that in all cases the USEPA protocols and requirements should be the allowable requirement.

Recommendation: Protocols approved or cited by USEPA, California or other nationally recognized certifying organizations should be allowed for use to demonstrate measurement accuracy.

12. Section 95103 (k)(9) [Continuously operating units or processes]

Sections 95103(k)(9) authorizes the Executive Officer to approve postponement of calibration or required recalibration beyond January 1, 2012 in cases of continuously operating units and processes where calibration or inspection is not possible without operational disruption and where the operator can demonstrate by other means that the measurements used to calculate the GHG emissions and product data still meet the accuracy requirements.

However the request form for the postponement requires the proposed date for calibration must be the shorter of the next scheduled shutdown or three years. WSPA believes that for a continuously operating units or processes where the calibration or inspection requires an operational disruption, if an alternative means to demonstrate the accuracy of the measurements is provided, the three year restriction should not apply.

Recommendation: WSPA proposes the following language as a solution to address calibrations for continuously operating units to both address our concerns regarding refinery shutdowns and ARB's need to review the data for reasonable boundaries.

Section 95103(K)(9)(B):

(B) The request must include:

1. The date of the required calibration, recalibration, or inspection
2. The date of the last calibration or inspection
3. The proposed date for calibration, recalibration, or inspection *within three years; or at the next scheduled shutdown.* ~~which must be the shorter of either the next scheduled shutdown or three years.~~

3A. If the proposed date for calibration, recalibration, or inspection is scheduled beyond three years, the facility must submit a request for postponement reconfirming their proposed date at every three year period.

13. Sections 95107(b), (c), (d) and (g), Enforcement and Penalty Provisions

While WSPA appreciates some of the proposed revisions ARB made relative to the enforcement penalty provisions in Section 95107 and Section 95858, unfortunately the changes do not recognize important aspects of the AB32 verification program including the cost impact implications if ARB continues to maintain a per ton penalty provision.

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Our specific concerns are described as follows:

- **Per Ton Penalty Metric Is Excessive and Inappropriate for AB32 Program Requirements**

Over the past several months, WSPA and other industry groups have discussed with ARB concerns with proposed AB32 penalty provisions. WSPA believes it is inappropriate for ARB to impose penalties on a per ton basis, simply because the AB32 GHG emission reporting program requirements identify facility emissions that are exponentially greater than criteria pollutant emissions from the same facility . Therefore, a "per ton" criteria as a penalty provision is not only inappropriate, but could result in penalties in the tens or hundreds of millions of dollars for excess emissions that are only a small percentage of a facility's total GHG emissions. Recognizing the differences between the AB32 GHG program and traditional criteria pollutant program requirements, WSPA recommends a more appropriate penalty metric would be a "**Per 1,000 Tons".**

- **Sub-sections (b) & (c) Fail to Recognize a Facility Obtaining a Positive or Qualified Positive Verification Determination:**

In our December 15, 2010 comment letter, WSPA expressed concern that Sub-sections (b) & (c), allows ARB authority to assess a penalty on any facility for each metric ton of CO2e emitted and not reported, and for each failure to measure, collect, record or preserve information required by this article, *regardless* of the fact the facility had obtained a positive or qualified positive verification from their verifier.

It is inappropriate for ARB to solely retain authority to assess a per ton penalty without recognizing if a facility has satisfactorily met its reporting obligations by obtaining a positive or qualified positive verification from their verifier as required in Section 95130. Section 95107, as written, unfairly subjects facilities to penalties that are prescribed in one section of the MRR, despite the fact they have successfully demonstrated compliance of their reporting obligation (by meeting the ± 5% accuracy requirements) within the very same regulation. This creates a situation where the work of a facility and a verifier, despite their mutual efforts, is made moot (or perhaps worthless), and as a result, a per ton penalty can still be imposed by ARB.

This raises troubling policy and legal questions regarding whether having such authority regardless of the fact an operator has demonstrated compliance with GHG emissions reporting requirements.

- **Penalties Should Not be Applicable During Verification Period:**

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WSPA requests that ARB clarify in Section 95107 that penalties are not applicable during the period when the facility is working with their verifier, as required, to review, clarify, edit and provide the required information necessary to obtain a positive verification. If in the event the verifier discovers the facility has falsified, concealed, or made false representations, and such actions resulted in an exceedance of 5% or more of the amount reported in the verified report, penalties should be applied within the proposed revisions to Subpart (b) and (c) above.

Recommendation: WSPA proposes ARB incorporate the following revisions in Section 95107:

§ 95107. Enforcement.

"(a) Each day or portion thereof that any report ~~or to include in a report all information required by this article, or late submittal of any report shall constitute a single, separate violation of this article for each day that the the~~ required by this article…."

~~(b) Except as otherwise provided in this section, each day or portion thereof in which any other violation of this article occurs is a separate offense.~~

~~(c) **(b) Each metric ton of CO2E emitted but not reported as required this article is a separate violation.**~~

(b) Under-Reported Emissions.

(1) ~~*Each*~~*For any covered entity that fails to submit a verified emissions data report, each thousand* metric ~~ton~~*tons* of CO2e emitted but not reported as required by this article is a separate violation ~~pursuant to Health and Safety Code section 38580(b)(3)~~.

(2) When a covered entity submitted a verified emissions data report for a compliance period but the Executive Officer determined, through an audit or other information, that the entity under-reported its emissions, each thousand metric tons of CO2e for which a compliance instrument is required is a separate violation if the amount of underreported emissions exceeds 5% of the amount reported in the facility's verified report. If the amount of under reported emissions is found to be less than 5% of the amount reported in the verified emissions report, there

is no penalty, unless the Executive Officer determines the facility committed the following:

(A) Falsified, concealed, or covered up by any trick, scheme or device a material fact;

(B) Made any false, fictitious or fraudulent statement or representation;

(C) Made or uses any false writing or document knowing the same to contain any false, fictitious or fraudulent statement or entry; or

(D) Omits material facts from a submittal or record.

~~(d) (c) Each failure to measure, collect, record or preserve information required by this article needed for the calculation of emissions as required by this article or preserved constitutes a separate violation of this article~~.

(c) Each failure to measure, collect, record or preserve information required by this article needed for the calculation of emissions as required by this article, constitutes a separate violation, except to the extent that the missing data procedures specified in Section 95129 or the EPA Subpart W missing data procedures for oil and gas production facilities are applied, there is no penalty, unless. the Executive Officer determines that the facility:

(1) Falsified, concealed, or covered up by any trick, scheme or device a material fact;

(2) Made any false, fictitious or fraudulent statement or representation;

(3) Made or uses any false writing or document knowing the same to contain any false, fictitious or fraudulent statement or entry; or

(4) Omits material facts from a submittal or record.

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(d) Each thousand tons of excess emissions is a separate violation if the verifier discover the facility committed any of the following during the verification review process:

(1) Falsified, concealed, or covered up by any trick, scheme or device a material fact;

(2) Made any false, fictitious or fraudulent statement or representation;

(3) Made or uses any false writing or document knowing the same to contain any false, fictitious or fraudulent statement or entry; or

(4) Omits material facts from a submittal or record.

~~(d)~~ *(e)* The Executive Officer may revoke or modify any Executive Order issued pursuant to this article as a sanction for a violation of this article.

~~(e)~~ *(f)* The violation of any condition of an Executive Order that is issued pursuant to this article is a separate violation.

~~(f)~~ *(g)* Penalties may be assessed for any violation of this article pursuant to Health and Safety Code section 38580. In determining any penalty amount, ARB shall consider all relevant circumstances, including the criteria in Health and Safety Code section 42403(b), ***and the degree of culpability for the violation.***

Further, we strongly urge ARB to develop and incorporate into Section 95107 provisions providing a tiered penalty structure based on the degree of violation, including but not limited to, whether a reporting error was found to be intentional or negligent, whether the violation was an administrative error that resulted in no material change in the MRR report, and most importantly whether any reported errors resulted in an exceedance beyond the ± 5% accuracy verification level.

Recommendation: WSPA recommends that ARB set the penalty on a per 1,000 ton basis and incorporate guidance on a tiered penalty structure based on intent and materiality of the error.

14. Sec 95121(a) (2): Transportation Fuel and Product Emissions Information

Emissions information reported by the refineries, enterers and terminal position holders will result in double counting. This would, in turn, result in double counting of compliance obligations under the cap and trade. The cap and trade regulation (Section 95856(e) (1) requires the verified emissions equal the triennial compliance obligation. WSPA believes that language should be

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written into the MRR to specify that only the emissions associated with transportation fuels reported by terminal position holders, enterers who bring fuel into California outside of the bulk transfer/terminal system, and fuel supplied by refiners at an onsite rack will be included in verified emission report used to assess an entity's compliance obligation.

Recommendation: Modify Section 95121(a) as follows:

> "….. (3) transportation fuels GHG emissions that must be reported for purposes of determining compliance obligations under Section 95856(d) and (e) (1) are limited to emissions associated with:
>
> i) liquefied petroleum gas produced by refiners and consumed in California and
>
> ii) emissions associated with transportation fuel reported by terminal position holders, enterers who bring fuel into California outside of the bulk transfer/terminal system, and fuel supplied by refiners at an onsite rack."

15. Section 95121(b)(3) CH4 and N2O Reporting

Section 95121 (b)(3) requires reporting of CH4 and N2O emissions using Equation C-8 and Table C-2 as described in 40CFR98.33(c)(1) for the reported transportation fuel. Use of CO2 emissions default factors in Table MM-1 represent the CO2 emissions that would result from the **complete** combustion. With complete combustion, there would be no CH4. Reporting of CH4 would result in erroneous additional reporting of GHG emissions. Additionally, EPA's table C-2 was established for reporting emissions from stationary sources which would not have the same combustion controls and catalytic treatment systems as vehicles.

Recommendation: WSPA recommends that CH4 and N2O reporting for transportation fuel be deleted.

16. Reporting of Product Data by Enterers Pg 175, sec 95121(d)(4)

Sec 95121(d)(4) requires all enterers of fossil-derived transportation fuel to report annual quantity of blendstock, distillate fuel oil, or biomass derived fuel. This can result in double counting of transportation fuel delivered to bulk transfer/terminal system. WSPA recommends that the requirement be clarified so that the reporting requirements apply to only "enterers who bring fuel into California outside the bulk transfer/terminal system".

Additionally, WSPA believes that the requirement for enterers who deliver fuel to the bulk transfer/terminal system under section 95121(d)(5) is not necessary to determine compliance obligation for cap and trade and recommend that the paragraph be deleted. If ARB believes that this information is necessary for other reasons, the required information should be a) limited to name of entity receiving the fuel, the location and the actual delivered volume and 2) be made available to the verifiers and ARB but not be required to be submitted or verified.

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Recommendation: Amend section 95121(d)(4) and (5) as follows:
(4) Enterers ~~of~~ who bring fossil-derived transportation fuels or biomass-derived fuel into California outside the bulk transfer/terminal system, must report the annual quantity in barrels, as reported on the bill of lading or other shipping documents of each Blendstock, Distillate Fuel Oil, or biomass-derived fuel listed in Tables MM-1 and MM-2 of 40 CFR Part 98 that is imported into California, except that Distillate Fuel Oil is limited to diesel fuel and except for products for which a final destination outside California can be demonstrated. Denatured fuel ethanol will be reported with the entire volume as 100% ethanol only. The volume of denaturant is assumed to be zero and is not required to be reported.

17. Section 95113(d) – Calculating CO2 from Flares

In our December 15, 2010 comment letter, WSPA recommended ARB revised Section 9513(d) to allow facilities to report CO2 emissions from normal flaring events that are unable to use equation Y-1 or Y-2, by following 40 CFR 98.253 (b)(iii)(B) and using equation Y-3 per 40 CFR 98.253(b)(iii)(C).

Recommendation: WSPA again requests ARB revise Section 95113(d) and allow the ability to use equation Y-3 for normal flaring events.

18. Section 95115 – Pilot light emissions

Section 95115(i) indicates that pilot light emissions should also be calculated and included in the emissions report. WSPA believes clarification should be included that emissions for pilots need not be reported separately but may be aggregated as allowed by 95115(h) and if aggregated, they should not be required to meet calibration requirements separately.

Recommendation: Modify Section 95115 as follows:

Pilot Lights. Notwithstanding the exclusion of pilot lights from this source category in 40 CFR §98.30(d), the operator must include emissions from pilot lights in the emissions data report. The operator may apply appropriate methods from 40 CFR §98.33 or engineering methods to calculate these emissions when pilot lights are un-metered. Un-metered pilot lights are not subject to the measurement device calibration requirements of section 95103, but pilot light emissions calculations are subject to verification. Pilot light emissions may be aggregated as allowed in section 95115(h). Aggregated pilot lights are not subject to separate calibration or verification requirements.

19. Section 95131(b)(14)(D) Verification - Missing Data

Section 95131(b)(14)(D) requires that if greater than 20% of any single data element is missing or if any combination of missing data elements that comprise more than 5% of facility emissions, the verifier must note the facility is in non-conformance. WSPA opposes the categorical non-conformance in such a case. WSPA believes that the application of the non-conformance determination, based on any single data element, should only apply if the emissions from that single data element would have resulted in more than 5% of a facility's emission.

Recommendation: Amend section 95131(b)(14)(D) as follows:
If greater than 20 percent of any single data element used to calculate emissions are missing and those emissions result in more than 5% of a facility's emissions, or any combination of data elements that would result in more than 5% of a facility's emissions being calculated using missing data requirements in sections 95110 to 95123, 95129, and 95150 to 95157, the verifier will note, at a minimum, a non-conformance as part of the verification statement.

20. Section 95131(2)(B) Transportation biodiesel and ethanol

This section establishes verification requirements for biodiesel and fuel ethanol for stationary combustion sources, but it is not clear about verification for transportation fuel, biodiesel and ethanol. WSPA understands from staff that transportation fuel, biodiesel and ethanol annual purchase volumes must be reported but does not require verification. WSPA requests clarification in the regulation.

Recommendation: Amend as follows:

(B) For biodiesel and fuel ethanol, the verifier must meet the requirements of section 95103(j) and the following requirements:

1. At combustion sources that purchase biomass-derived fuels, verify records to demonstrate that volume purchased equals or exceeds volume reported.
2. At combustion sources that produce their own fuel, verify:
   a. that raw material is sufficient to produce the quantity of fuel reported;
   b. that the facility has the ability to produce the biomass-derived fuel reported;
   c. that the emissions from the fuel are accurately reported and do not lead to the underreporting of fossil fuel emissions.
3. Verification requirements do not apply to transportation fuel biodiesel and ethanol.

Attachment B: Issues and Citations

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9	95102 definition 1	**Definition 1 - Accuracy** Requires use of "internationally accepted accuracy methods. The reference value determination should allow for nationally accepted standard methods.	WSPA recommends amending as follows: (1) "Accuracy" means the closeness of the agreement between the result of the measurement and the true value of the particular quantity (or a reference value determined empirically using internationally or nationally accepted and traceable calibration materials and standard methods), taking into account both random and systematic factors.
60	95102 definition 356	**Definition 356 – Standard Conditions** Standard Temperature is defined as either 60 or 68 degrees F. EPA uses 68 degrees.	WSPA recommends that ARB use the EPA standard 68 degrees F.
60	95102 definition 357	**Definition 357 - Standard cubic foot** Standard cubic foot is defined as a measure of gas equal to one cubic foot at 60 degrees F. This is inconsistent with definition for STP. EPA uses 68 degrees F. Does ARB mean that this should be different than EPA?	WSPA recommends that ARB use the EPA standard 68 degrees F.
70	95103(f)	**Verification requirements** Transportation fuel	WSPA recommends amending as follows: (f) *Verification*

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		product data or other product data that are informational and not required for determination of compliance obligations or allowance allocation under cap and trade program should not be required to be verified.	*Requirement and Deadlines*. The requirements of this paragraph apply to each reporting entity submitting an emissions data report for the previous calendar year that indicates emissions equaled or exceeded 25,000 metric tons of CO_2e, including CO_2 from biomass-derived fuels and geothermal sources, or and each reporting entity that has or has had a compliance obligation under the Cap-and-Trade Regulation in any year of the current three-year compliance period. <u>The report shall include only emissions data and product data required to determine compliance obligation or allowance allocation</u>. The reporting entity must obtain third-party verification services for that report from a verification body that meets the requirements specified in Subarticle 4 of this article.
70	95103(f)	**Verification Requirements** States that "Contracting with verification body without providing sufficient time to complete the verification statements	WSPA recommends ARB provide more time for verification, make effort to avoid disrupting the verification process, and ensure that a more robust group of verifiers is available.

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		by the applicable deadlines will not excuse the reporting entity from this responsibility." This is very nebulous in that there needs to be some responsibility on the verifier and ARB. Our experience shows that there are still too few verifiers that have refinery experience and yet do not have conflicts. Additionally, ARB detained at least one verifier this year putting them under a correction plan, so that it further complicates allowing sufficient time to complete the verification. With product verification added on, this problem of timing will be exacerbated.	
70-71	95103(h)	**Reporting in 2012** For emissions reports due in 2012, companies are to use Missing Data provisions per: 40 CFR 98. This section is confusing. It says facility operators <u>may</u> report 2011 emissions using applicable	WSPA recommends that ARB provide an option to continue to use ARB monitoring and calculation methodology for the 2011 emissions data reported in 2012. Alternatively, we should have the option to continue to use the current ARB missing data procedures for 2011

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		monitoring and calculation methods from 40CFR98. For 2011 data, it says missing data must be substituted according to the requirements of 40CFR98.	data.
72	95103(h)	**Transportation Fuel Reporting in 2012.** The requirements of existing AB32 MRR or 40CFRPart 98 do not apply to transportation fuel product data reporting requirements for terminal position holders and California import enterers, except for the refinery product data. Additional time should be provided to these facilities to install the new monitoring and/or collection systems to comply with this regulation which will not be final until later this year. These transportation fuel product data are not necessary until the 2nd cap and trade compliance period.	WSPA recommends amending as follows: *Reporting in 2012*. For emissions data reports due in 2012, facility operators and suppliers may report 2011 emissions using applicable monitoring and calculation methods from 40 CFR Part 98. Suppliers and electric power entities must report 2011 electricity transactions (MWh) and emissions (MT of CO_2e) under the full specifications of this article as applicable in 2012. For 2012 reports of 2011 emissions by facilities and suppliers, the missing data substitution requirements specified in this article that are different from the requirements of 40 CFR Part 98 do not apply; missing data for the 2012 report of 2011 emissions must be substituted according to the requirements of 40 CFR Part 98. Reporting for transportation fuel emission and product data

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			required under Section 95121 is not required to report in 2012, but must report each year beginning in 2013. For 2012 data only, best available data may be used to report data required under Section 95121. Facilities meeting the requirements of section 95103(a) for abbreviated reporting are not required to report in 2012, but must report each year beginning in 2013.
76	95103(k)	**Measurement Accuracy Requirement.** Section 95103(k) describes the requirements for demonstrating the accuracy of measurement devices that are used to quantify facility GHG emissions, and the terms calibration and recalibration that are used throughout this section. Most measurement device manufacturers require (based on type of meter and set schedules), that a "calibration check" be conducted. Such calibration "checks" will demonstrate whether the meter is operating	WSPA recommends ARB should clarify this section by adding the term "calibration check(s)".

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		correctly and meeting required accuracy, in the event such "calibration checks" indicate the measurement device is operating inaccurately, the operator would then conduct the required calibration procedures on the device.	
78	95103(k)(4) 95103(k)(5) 95103(k)(6)	**Sections 95103(k)(4), (5), and (6) Calibration Requirements** Sections 95103(k)(4), (5), and (6) set out requirements for calibration and recalibration frequency and accuracy requirements for measurement devices.	WSPA recommends that ARB allow protocols approved or cited by USEPA 40CFR 98.34(b) or other nationally recognized certifying organizations for use to demonstrate measurement accuracy of orifice plates in oil industry service.
78	95103(k)(6)(A)1	**Measurement Accuracy Requirement, Third Calibration Point Required.** Section 95103(k)(6)(1) requires operators to perform all mass and volume measurement device calibrations as specified in 40 CFR 98.3(i)(2)-(3), however, ARB is requiring a minimum of three calibration points must be used spanning the	WSPA recommends ARB eliminate the requirement to conduct a third calibration point for measurement meters and go back to the current two point calibration requirement.

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		normal operating conditions. While WSPA members support the need to ensure accurate information and data collection, WSPA also believes any additional requirements that are imposed beyond EPA 40 CFR reporting requirements should be thoroughly justified and provides necessary added accuracy. All additional meter accuracy requirements should be clearly justified on a technical basis, especially if such requirements result in no significant reporting benefit. In that regard, WSPA requests ARB provide justification as to level of additional accuracy and data would result by requiring an additional third calibration point be required. WSPA further believes two calibration points are satisfactory to meeting the accuracy requirements required by ARB. Requiring an additional third calibration point requirement is unnecessary because it	

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		does not provide any measurable emission calculation benefit or value.	
78	95103(k)(6)(A)1.b	**Orifice Plates** Requires inspection and photograph of orifice plates. WSPA believes that the information collected should be used to allow entities to select an appropriate recalibration frequency.	WSPA recommends amending as follows: Section 95103(k)(6)(A)1.b. In addition to the inspection, the plate must also be photographed on both sides prior to any treatment or cleanup of the plate to clearly show the condition of the plate surface as well as the orifice as it would have existed in the pipe. Condition of the plates may be used to select appropriate re-calibration frequency.
78	95103(k)(9)	**Continuously operating unit** Where calibration cannot be done (orifice) it is possible for a facility to get postponement of calibration if demonstration of emissions can be done by other means. "The Executive officer must approve any postponement of calibration or required recalibration beyond January 1, 2012." However the request form for the postponement requires	WSPA Recommendation - Amend paragraph (9) as follows: (9) In cases of continuously operating units and processes where calibration or inspection is not possible without operational disruption, the operator must demonstrate by other means to the satisfaction of the Executive Officer that measurements used to calculate GHG emissions and product data still meet the accuracy requirements of section 95103(k)(6). The Executive Officer

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		the proposed date for calibration must be the shorter of the next scheduled shutdown or three years. WSPA believes that for a continuously operating units or processes where the calibration or inspection requires an operational disruption, if an alternative means to demonstrate the accuracy of the measurements is provided, the facility will only be required to resubmit at the next three year period to reconfirm the date of calibration.	must approve any postponement of calibration or required recalibration beyond January 1, 2012. Recommend the following change in Section 95103(k)(9)(B)3. Section 95103(K)(9)(B): (B) The request must include: 1. The date of the required calibration, recalibration, or inspection 2. The date of the last calibration or inspection 3. The proposed date for calibration, recalibration, or inspection *within three years; or at the next scheduled shutdown.* ~~which must be the shorter of either the next scheduled shutdown or three years.~~ *3A. If the proposed date for calibration, recalibration, or inspection is scheduled beyond three years, the facility must submit a request for postponement reconfirming their proposed date at every three year period.*
79	95103(k)(10)	**Sections 95103(k)(10)**	Any one meter alone that

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		Calibration Requirements Requires that if the calibration or re-calibration of a device fails to meet the accuracy requirements and it leads to missing data that is greater than 5% of total facility emissions a nonconformance must be noted in the verification report.	results in a missing data greater than 5% of total emissions should not be a non-conformance, and, instead, should be handled on a case by case basis.
79	95103(l)	**Product Reporting – Missing data** Prohibits replacing of missing data when calculating product data. It is WSPA's understanding based on discussions with staff that this section was not intended to apply to emissions and product data reported under section 95121 (Transportation Fuel).	WSPA recommends amending as follows: (l) *Reporting and Verifying Product Data*. The reporting entity must separately identify, quantify, and report all product data as specified in sections 95110-95123 and 95156 of this article. It is the responsibility of the reporting entity to obtain verification services for the product data. Product data will be evaluated for conformance and material misstatement independent of GHG emissions data. The operator must not replace missing data when calculating product data, except the missing data provision as specified in Section 95121(e) shall be used for emissions and product data reported under section 95121

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			(Transportation Fuel) .
83	95104(d)	**Emissions Data Report** Requires a record of energy provided and sold.	WSPA recommends that the requirement be clarified that net power in and power sold for the facility should be reported. Amend section 95104(d) as follow: ….. The operator must include in the emissions data report information about the facility's net energy acquisitions and energy provided or sold as specified below. The operator must report this information for the calendar year covered by the emissions data report, pro-rating purchases as necessary to include information for the full months of January and December.
130	95112 (a)(5)(C)	**Cogeneration** In 95102 (a)(72), ARB expanded the definition of "cogeneration" to include steam turbine generators (STG). However, it is not clear how the requirements in Section 95112 should be applied to STGs. For example, 95112(b)(4) requires reporting of fuel consumption by fuel type for each electricity generating unit. It is	WSPA recommends that ARB provide an example of how to report the information required in 95112 for steam turbine generators (STG).

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		not clear how this requirement would apply to a STG that does not consume fuel directly.	
148	95113(d)	**CO2 from Flares** In our December 15, 2010 comment letter, WSPA recommended ARB revised Section 95113(d) to allow facilities to report CO2 emissions from normal flaring events that are unable to use equation Y-1 or Y-2, by following 40 CFR 98.253 (b)(iii)(B) and using equation Y-3 per 40 CFR 98.253(b)(iii)(C).	WSPA again requests ARB revise Section 95113(d) and allow the ability to use equation Y-3 for normal flaring events.
151/158	95113(k)(2)(B) and 95114(h)(2)(B)	**Missing Data Substitution Refineries/Hydrogen Plants** If the analytical data capture rate is at least 80 percent but not at least 90 percent for the data year, the operator must substitute each missing value with the highest quality assure value recorded for the parameter during the given data year, as well as the two previous data years.	WSPA recommends that ARB allow the missing data procedures to be the same as EPA: Look at the average of the value before and after. It is likely that the missing data is periodic and not one long stretch of missing data. The best data would be similar to that required in 95113(k)(2)(A) or the EPA procedure described above.
151/158	95113(k)(2)(C) and	**Missing Data Substitution**	WSPA recommends that ARB allow the missing

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	95114(h)(2)(B)	If the analytical data capture rate is at less than 80 percent for the data year, the operator must substitute each missing value with the highest quality assure value recorded for the parameter in all records kept according to section 95105(a). This methodology overlooks the fact that there may be significant early action or incremental energy efficiency measures that make the comparison with old records invalid.	data procedures to be the same as EPA: Look at the average of the value before and after. It is likely that the missing data is periodic and not one long stretch of missing data. The best data would be similar to that required in 95113(k)(2)(A) or the EPA procedure described above.
164	95115(i)	**Stationary Fuel Combustion Sources – Pilot Light** Requires that Pilot Light emissions must be reported.	WSPA recommends that the MRR allow Pilot Light emissions to be aggregated with facility reporting of fuel requirement with no separate calibration or verification requirement.
164	95115(l)	**Stationary Fuel Combustion Sources – Missing Data** For 2011 data, it says missing data must be substituted according to the requirements of 40CFR98.	WSPA recommends that ARB allow the continued use of the current ARB missing data procedures for 2011 data.
172	95121(a)(2)	**Transportation Fuel Reporting** Requires refiners and positions holders to	WSPA recommends Section 95121(a) be amended as follows: "….. (3) transportation fuels

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		report fuels will result in double-counting that will result in double counting of compliance obligation under the cap and trade regulation.	GHG emissions that must be reported for purposes of determining compliance obligations under Section 95856(d) and (e) (1) are limited to emissions associated with: iii) liquefied petroleum gas produced by refiners and consumed in California and iv) emissions associated with transportation fuel reported by terminal position holders, enterers who bring fuel into California outside of the bulk transfer/terminal system, and fuel supplied by refiners at an onsite rack."
175	95121 (D)(4)	**Transportation Fuel Reporting** 95121(d)(4) requires all enterers of fossil-derived transportation fuel to report annual quantity of blendstock, distillate fuel oil, or biomass derived fuel. This can result in double counting of transportation fuel delivered to bulk transfer/terminal system.	WSPA recommends that the requirement be clarified so that the reporting requirements apply to only "enterers who bring fuel into California outside the bulk transfer/terminal system".
175	95121 (d)(5)	**Transportation Fuel Reporting** Additionally, WSPA believes that the requirement for	WSPA recommends that Section 95121(d)(5) be deleted.

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		enterers who deliver fuel to the bulk transfer/terminal system under section 95121(d)(5) is not necessary to determine compliance obligation for cap and trade and recommend that the paragraph be deleted. If ARB believes that this information is necessary for other reasons, the required information should be a) limited to name of entity receiving the fuel, the location and the actual delivered volume and 2) be made available to the verifiers and ARB but not be required to be submitted or verified.	
209	95129 (h)(2)	**Interim Data Procedure** Section 95129(h)(2) provides the interim data procedure that allows the operator to submit and method to the EO for approval. The EO has 60 days to approve the request. WSPA believe 60 days is much too long for EO approval.	WSPA recommends that the EO approve in 30 days and if not disapproved after 30 days the request is approved.
222	95131(b)(14)(D)	**Verification - Missing Data** Requires that if greater than 20% of any single	Amend section 95131(b)(14)(D) as follows: If greater than 20 percent of any single data element

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		data element is missing or if any combination of missing data elements that comprise more than 5% of facility emissions, the verifier must note the facility is in non-conformance. WSPA opposes the categorical non-conformance in such a case where emissions from the single element may be minimal.	used to calculate emissions are missing and those emissions result in more than 5% of a facility's emissions, or any combination of data elements that would result in more than 5% of a facility's emissions being calculated using missing data requirements in sections 95110 to 95123, 95129, and 95150 to 95157, the verifier will note, at a minimum, a non-conformance as part of the verification statement.
226	95131(c)(4)(B)	**Adverse Verification Appeal** Allows an adverse verification Appeal to the EO. What happens in the period between discovery and EO action Suppose, for example, the notice to EO is sent on September.1 What happens between Sep 1 and Oct 10	WSPA recommends that language be included stating that no adverse verification determination be made during the appeal.
227	95131(c)(5)	**Adverse Verification Assigned Emissions Level** Allows the EO to assign emissions if requested information is submitted within 5 days. WSPA believes that 5 days is not	WSPA recommends that ARB allow 10 days as initially proposed.

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		enough time to gather and collate needed data.	
232	95131(i)(2)(B)	**Verification for biodiesel and fuel ethanol** This section establishes verification requirements for biodiesel and fuel ethanol for stationary combustion sources but is not clear about verification for transportation fuel, biodiesel and ethanol. WSPA understands from staff that transportation fuel, biodiesel and ethanol annual purchase volumes must be reported but does not require verification. WSPA request clarification in the regulation.	WSPA recommends amending as follows" (B) For biodiesel and fuel ethanol, the verifier must meet the requirements of section 95103(j) and the following requirements: 1. At combustion sources that purchase biomass-derived fuels, verify records to demonstrate that volume purchased equals or exceeds volume reported. 2. At combustion sources that produce their own fuel, verify: a. that raw material is sufficient to produce the quantity of fuel reported; b. that the facility has the ability to produce the biomass-derived fuel reported; c. that the emissions from the fuel are accurately reported and do not lead to the underreporting of fossil fuel emissions. 3. Verification requirements do not apply to transportation fuel, biodiesel and ethanol.

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Attachment C: Issues Specific to Upstream Operations Oil and Gas (Petroleum and Natural Gas)

1. Section 95103 – Reporting and Verification Deadlines:

Section 95103(e) requires all facilities to submit the emissions data report by April 1 of each calendar year. With the amendments to ARB's MRR, many industry sectors will need to incorporate revisions for reporting in 2011. This is especially true for Petroleum and Natural Gas Systems (PNGS) and in particular, Onshore Petroleum and Natural Gas Production (OPGP). With USEPA's adoption of 40 CFR 98 Subpart W, reporting requirements for PNGS drastically increase the number of systems measured, expand the type of processes monitored, escalate the complexity of the emissions calculation procedures, and multiply the reporting and data management obligations. Several PNGS require new and unprecedented processes to be developed and implemented. For example, the reporting of activity and/or GHG emissions from rented and contracted portable combustion equipment requires data collection, calculation, and reporting related to equipment not owned or controlled by a PNGS reporter.

For ARB, PNGS reporters are required to follow EPA Subpart W for the following source categories:

1. Natural Gas Pneumatic High Bleed Device and Pneumatic Pump Venting (95153)(a)
2. Natural Gas Pneumatic Low Bleed Device Venting (95153)(b)
3. Acid Gas Removal Vent Stacks (95153)(c)
4. Dehydrator Vent Stacks (95153)(d)[3]
5. Well Venting for Liquids Unloading (95153)(e)
6. Transmission Storage Tanks (95153)(g)
7. Blowdown Vent Stacks (95153)(h)
8. Onshore Production and Processing Storage Tanks (95153)(i)[1]
9. Well Testing Venting and Flaring (95153)(j)
10. Associated Gas Venting and Flaring (95153)(k)
11. Flare Stacks (95153)(l)
12. Centrifugal Compressor Venting (95153)(m)[1]
13. Reciprocating Compressor Rod Packing Venting (95153)(n)[1]
14. Leak Detection and Leaker Emission Factors (95153)(o)
15. Population Count and Emission Factors (95153)(p)
16. Volumetric Emissions (95153)(r)
17. GHG Volumetric Emissions (95153)(s)
18. EOR Injection Pump Blowdown (95153)(u)

[3] Partial alignment with EPA 40 CFR Part 98.

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2011 is the first year of data collection, monitoring, and reporting under Subpart W for these source categories. Several elements of Subpart W that impact data collection, monitoring, and reporting are unclear and/or are subject to an ongoing legal challenge and associated settlement discussion among EPA and the challenging parties.

EPA is in the process of clarifying many technical requirements of the Subpart W regulations. Because the detail and scope of effort, this effort could extend to 2012. In fact, there currently are dozens of pages of Frequently Asked Questions / Responses posted on EPA's website and many questions have no answer due to the ongoing litigation over Subpart W. Furthermore, it is unclear when and how the legal challenge will be resolved. Because ARB has chosen to incorporate the provisions of Subpart W for most of its reporting requirements, California PNGS reporters will be directly impacted by any EPA clarifications.

Recommendation: ARB should clarify how amendments to EPA reporting requirements will affect reporting under the State program. ARB should defer all enforcement for provisions of Subpart W (and any other portion of 40 CFR 98), which are incorporated by reference into the MRR and that are under legal challenge, where the reporter demonstrates a good faith effort to comply

EPA has made several changes in a recently proposed change to Subpart W (July 2011) primarily in response to comments from the PNGS industry. Additional revisions are expected during the rest of 2011. Many of these revisions are substantial, and will impact both EPA and ARB reports for 2011. EPA has recognized this and has proposed to extend the first Subpart W report from March 31, 2012 to September 28, 2012 to provide Subpart W reporters with adequate time to compile the first emissions data report according to the finalized Subpart W and an opportunity to test EPA's reporting tool. Due to the uncertainty that exists in the provisions within Subpart W for 2011, PNGS reporters need more time to compile an accurate data report for 2011 emissions. ARB's proposed April 1, 2012 reporting deadline provides inadequate time to respond to proposed and yet-to-come revisions in Subpart W and compile an accurate data report. Clearly this has implications for the C&T program as well.

2. Section 95102 – Definition of Facility for Onshore Petroleum and Natural Gas Production:

OPGP operators are uniquely challenged with a new definition of facility as specified under Subpart W that incorporates all specified operations that exist in **an entire hydrocarbon basin**. The is a radical departure from the conventional definition of "facility" used in California air permitting regulations and which has also been used for all GHG reporting in California to date. This definitional change imposes new and complex requirements on previously exempt sources, and is magnified by the uncertainty described in the foregoing discussion.

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Recommendation: We request ARB to delay the first reporting deadline to July 1, 2012 for PNGS (OPGP) reporters.

3. Section 95129 – Substitution for Missing Data:

The missing data procedures for fuel characteristic data and fuel consumption data are different from 40 CFR 98 for PNGS stationary and portable combustion equipment. There are three methods of substitution for fuel consumption data alone.

OPGP reporters are expected to have several hundreds of fuel meters in a hydrocarbon basin that will be used for fuel measurement and emissions calculations of stationary combustion equipment. Based on the proposed missing data substitution procedures, OPGP reporters will face complicated monitoring and management of the data for each meter. Given the large number of meters at OPGP facilities, reporters will likely not be able to implement these missing data procedures during 2012.

Recommendation: In order to effectively implement this program, we recommend that missing data procedures of 95129 be delayed until 2014 for OPGP reporters.

4. Section 95153 – Petroleum and Natural Gas Systems - Calculation Methods:

The required calculation methods use several constants and emission factors. There are differences between Subpart W and ARB values for constants and emission factors. For example, values for density of GHG provided in the calculation method in Section 95153(t) do not match the proposed technical corrections to Subpart W released July 2011. This would require PNGS operators to maintain two separate methods for the same calculations, contrary to ARB's intention of aligning its requirements with those specified in 40 CFR 98.

Recommendation: We request ARB to align the constants and emission factors with Subpart W for PNGS reporters.

5. Section 95102(128) – Definition of Enhanced Oil Recovery:

Enhanced Oil Recovery or EOR is defined as the use of certain methods such as steam (thermal EOR), water flooding or gas injection into existing wells to increase the recovery of crude oil from a reservoir. In the context of this rule,

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EOR also applies to injection of critical phase carbon dioxide into a crude oil reservoir to enhance the recovery of oil.

ARB's definition of EOR is different from the definition provided by EPA in Subpart W. It appears that unlike Subpart W where EOR applies to injection of carbon dioxide into a reservoir, ARB defines EOR as applicable to steam, water, and carbon dioxide injection. This causes confusion and adds additional source categories for OPGP operators.

Recommendation: We request ARB to align the definition with Subpart W.

6. Section 95102(128) – Definition of Pipeline Quality Natural Gas:

Pipeline quality natural gas is defined as natural gas having a high heat value (HHV) greater than 970 Btu/scf and equal to or less than 1,100 Btu/scf and which is at least ninety percent methane by volume, and which is less than five percent carbon dioxide by volume.

ARB's definition of pipeline quality natural gas is too restrictive for OPGP facilities that have several purchased and produced gases in a hydrocarbon basin. Below are some issues with this definition for an OPGP facility:

1. An operation may receive several utility-purchased gas streams, some with an HHV less than 970 Btu/scf and other with an HHV greater than 1,100 Btu/scf. These gases are otherwise similar, and have other characteristics of a pipeline quality natural gas. The HHV of a purchased gas usually ranges from 900 to 1,200 Btu/scf. Some purchased gases also have a methane concentration but high ethane concentration. However, according to 95115(f), such purchased gases that fall outside the range of pipeline quality as defined currently by ARB must be sampled and analyzed monthly. In addition, emissions from combusting these gases must be calculated using a different Tier.

2. Monthly fuel sampling may indicate that a gas may be pipeline quality for one month and non-pipeline quality the next month. This will impact the selection of Tiers (Section 95115) for emissions calculations every month.

3. OPGP facilities will be required to monitor all purchased gases in addition to field gases. The operators will have to maintain two separate

calculation methods, contrary to ARB's intention of aligning the two rules.

4. The additional monitoring and different tiers result in greater burden without improved data quality.

Recommendation: WSPA is proposing that ARB revise the definition to include purchased gases. WSPA proposes the following definition: Pipeline quality natural gas is defined as *natural gas purchased from utilities or* natural gas having a high heat value (HHV) greater than *900* ~~970~~ Btu/scf and equal to or less than ~~1,100~~ *1,200* Btu/scf and which is at least ninety percent methane by volume, and which is less than five percent carbon dioxide by volume.

7. Section 95105(c) – GHG Monitoring Plan for PNGS reporters:

Facilities or Suppliers are required to complete and retain a GHG Monitoring Plan (GMP) according to 40 CFR 98.3(g)(5). ARB also specifies additional parameters that the GMP must contain.

The GMP for 40 CFR 98 Subpart W facilities was due to be completed April 1, 2011. ARB requires additional information for PNGS reporters to be included in the GMP which is not currently captured in the 2011 Subpart W GMP. ARB has not proposed a deadline for PNGS reporters to have prepared a complete GMP.

Recommendation: WSPA recommends that the 2011 GMP for Subpart W will satisfy the ARB GMP requirement for 2011. If ARB does not agree, it should provide a reasonable deadline to complete the ARB GMP for PNGS reporters.

8. Section 95105(c)(3) – GHG Monitoring Plan for PNGS reporters:

The additional content for GMP includes identification of measurement device location and the location of any additional devices or sampling ports required for calculating flows and emissions (e.g. temperature, total pressure, HHV).

We understand that this requirement is limited to only those meters used for emissions calculations or product data reporting.

Recommendation: Please confirm that our understanding is correct.

9. Section 95101(c)(9)—Reporting by carbon dioxide suppliers should exclude certain activities to be consistent with parallel EPA rules

The definition of the carbon dioxide supplier category at §95102(a)(59) does not contain the list of excluded activities, shown below, that is in EPA's GHG reporting regulation at 40 CFR 98.420(b):

- Storage of CO2 above ground or in geologic formations.
- Use of CO2 in enhanced oil and gas recovery.
- Transportation or distribution of CO2.
- Purification, compression, or processing of CO2.
- On-site use of CO2 captured on site.

The absence of these exclusions will under §95101(c)(9) result in the reporting of CO2 that is not emitted to the atmosphere and in a manner that is inconsistent with federal GHG emission reporting, which imposes an unnecessary burden on California reporters. Furthermore, since there are no provisions in 40 CFR Subpart PP for calculating the quantity of CO2 associated with the excluded activities at 40 CFR 98.420(b), it is impossible for a carbon dioxide supplier to comply with the requirement at §95123 – i.e., that suppliers of carbon dioxide must comply with Subpart PP of 40 CFR Part 98 (§§98.420 to 98.428) – for all of the following:

- Storage of CO2 above ground or in geologic formations.
- Use of CO2 in enhanced oil and gas recovery.
- Transportation or distribution of CO2.
- Purification, compression, or processing of CO2.
- On-site use of CO2 captured on site.

Recommendation: Sections 95102(a)(59) and/or 95101(c)(9) should be amended to exclude the following activities:

- Storage of CO2 above ground or in geologic formations.
- Use of CO2 in enhanced oil and gas recovery.
- Transportation or distribution of CO2.
- Purification, compression, or processing of CO2.
- On-site use of CO2 captured on site.

10. Section 95811(g) – Certain carbon dioxide supplier activities should not be included in the cap and trade program

The definition of the carbon dioxide supplier category at §95802(a)(45) does not contain the list of excluded activities, shown below, that is in EPA's GHG reporting regulation at 40 CFR 98.420(b):

- Storage of CO2 above ground or in geologic formations.
- Use of CO2 in enhanced oil and gas recovery.
- Transportation or distribution of CO2.
- Purification, compression, or processing of CO2.
- On-site use of CO2 captured on site.

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The activities excluded by 40 CFR 98.420(b) do not result in atmospheric emission of supplied CO2. However, for entities supplying over 25,000 MT of CO2, the absence of these exclusions in §95802(a)(45) creates a compliance obligation under §95851(a) and §95852(g) for CO2 that is not emitted to the atmosphere by the supplier. This is inconsistent with the purpose of the cap and trade program, which is aimed at reducing GHG emissions. Furthermore, as noted in comments made on the Mandatory Reporting Regulation, since there are no provisions in 40 CFR Subpart PP for calculating the quantity of CO2 associated with the excluded activities at 40 CFR 98.420(b), it is impossible for a carbon dioxide supplier to comply with the requirement at §95123 – i.e., that suppliers of carbon dioxide must comply with Subpart PP of 40 CFR Part 98 (§§98.420 to 98.428) – for all of the following:

- Storage of CO2 above ground or in geologic formations.
- Use of CO2 in enhanced oil and gas recovery.
- Transportation or distribution of CO2.
- Purification, compression, or processing of CO2.
- On-site use of CO2 captured on site.

Absent standard provisions for calculating the quantity of CO2 associated with the excluded activities, an entity cannot determine its surrender obligation.

Recommendation: Sections 95802(a)(45), 95851(a) and/or 95852(g) should be amended to exclude the following activities:

- Storage of CO2 above ground or in geologic formations.
- Use of CO2 in enhanced oil and gas recovery.
- Transportation or distribution of CO2.
- Purification, compression, or processing of CO2.
- On-site use of CO2 captured on site.

11. Section 95150(a)(1) – Petroleum and Natural Gas Systems – Applicability

ARB has included several new or modified requirements for PNGS reporters not currently included in 40 CFR Part 98. The major additional requirements are as follows:

1. Data collection and monitoring requirements associated with the expansion of facility boundary to include gathering and boosting stations (G&BS) in Onshore Natural Gas Processing (ONGP) facility. For example, ONGP facilities have are required to monitor associated with equipment located at G&BS for leaks and annual measurements hours of operation, and blowdown events associated with compressors at G&BS.

2. A new source category "Produced water dissolved CO2" has been defined.

3. For the OPGP segment, additional monitoring requirements have been specified for centrifugal and reciprocating compressors that are 250 HP or larger.

ARB has stated that facilities may report 2011 emissions using applicable monitoring and calculation methods from 40 CFR 98 (see 95103(h)). We understand that any new requirements for PNGS reporters (including the major requirements listed above) will be applicable beginning 2012 emissions data report due in 2013.

Recommendation: WSPA requests ARB to clearly state that all new requirements for PNGS reporters that are not included in 40 CFR Part 98 are applicable beginning 2012 and will not be applicable to 2011 emissions data report.

12. Section 95153(i) – Onshore Production & Processing Storage Tanks:

WSPA appreciates ARB's willingness to listen to our concerns with Section 95153 (i), regarding proposed quantification requirements for onshore production and processing storage tanks. While WSPA supports some of the 15-day revisions in this section, unfortunately, the proposed EPA Methods 1 & 2 (specifically Method 2) are not applicable to most WSPA member operations. For example, Method 2 is designed for operator equipment having separators on the well pad. Many, if not most, of the WSPA member operators in California do not operate with that configuration.

WSPA recommends ARB should also incorporate EPA Methods 3, 4 & 5, as specified in EPA 40 CFR98 reporting requirements. These additional methods will allow WSPA members the ability to utilize a method that applies to their equipment and operating configuration and will result in facilities calculating and reporting more accurate emission data associated with their onshore production and processing tanks.

Recommendation: WSPA recommends ARB should also incorporate EPA Methods 3, 4 & 5 as referenced in Subpart W for quantifying GHG emissions from onshore production and processing storage tanks.

13. Section 95153(v) – Produced Water Dissolved CO2

ARB requires operators to determine the amount of CO2 retained in produced water at Standard Temperature and Pressure (STP) conditions. As ARB is aware, EPA identified that there is currently no technical analytical methods available to quantify CO2 in produced water and subsequently decided to defer having facilities report CO2 emissions from this source until such time an accurate method is available. Because EPA has determined no valid method currently

exists and that ARB's Stationary Source Division technical experts as well as those from WSPA member companies are currently evaluating possible methods, ARB should defer quantifying these emissions until an appropriate and accurate method is developed. In the event ARB believes quantifying such emissions are necessary, WSPA would support as an alternative, utilizing best available engineering methods that could be used to report emissions within the de minimus reporting criteria category.

Recommendation: WSPA recommends ARB defer quantifying CO2 emissions associated with produced water, until an appropriate and accurate laboratory analytical method is developed.

14. Section 95152(c) – GHGs to Report

Onshore Petroleum and Natural Gas Production (OPGP) operators are required to report emissions in an aggregated and disaggregated form by each facility within contiguous property boundaries as specified in 95156(a). ARB is unclear if the "disaggregated form" of data is limited to 95156(a)(1-4).

Recommendation: Please clarify that the level of granularity and aggregation for rest of the reported data is in alignment with Subpart W.

15. Section 95153(b) – Definition

ARB has not provided a definition for Natural Gas Pneumatic Low Bleed Devices. Without the definition, it is unclear which devices (intermittent or continuous) are included under this source category.

Recommendation: WSPA requests ARB to provide a definition for Natural Gas Pneumatic Low Bleed Devices.

16. Section 95153(h) – Blowdown Vent Stacks

ONGP operators are required to use reporting methodologies of 40 CFR 98.233(j) for all blowdowns occurring at an ONGP facility. ARB has incorrectly referenced the section of Subpart W for blowdown vent stacks. The correct Subpart W reference is 40 CFR 98.233(i).

Recommendation: WSPA requests ARB to correct the Subpart W rule reference.

17. Section 95153(t) – Petroleum and Natural Gas Systems - Calculation Methods

WSPA has identified an error in equation definition of $Mass_{s,i}$. ARB has incorrectly referenced $Mass_{s,i}$ as $Mass_{s,il}$ in the definition under the equation.

Recommendation: WSPA requests ARB to correct the equation definition of $Mass_{s,i}$.

18. Section 95153(u) – EOR Injection Pump Blowdown

WSPA has identified an error in Subpart W reference for EOR Injection Pump Blowdowns. The correct Subpart W reference is 40 CFR 98.233(w).

Recommendation: WSPA requests ARB to correct Subpart W rule reference.

19. Section 95153(w) & (x) – Portable and Stationary Equipment Combustion Emissions

PNGS operators are required to conform to the QA/QC requirements of 40 CFR 98.234. 40 CFR 98.234(f) allows reporters to use best available monitoring methods (BAMM) for several source categories and request additional time to use BAMM. On June 27, 2011 EPA proposed rulemaking that would extend the use of BAMM for all Subpart W source categories through December 31, 2011, with the ability to request additional BAMM for 2012 and beyond. It is not clear if ARB will allow reporters to use the BAMM approved by EPA or if ARB requires reporters to apply for BAMM from ARB directly. If the latter is true, what is the timeline for ARB BAMM use and when would be the deadline to request BAMM?

WSPA appreciates ARB's intention to align with EPA for combustion emissions calculation methodology. This alignment reduces an enormous burden of maintaining two separate calculation methods for ARB and EPA for the same equipment.

Pursuant to 40 CFR Part 98 Subpart W, PNGS operators are required to use the calculation methodologies of Subpart C for all industry segments except OPGP and Natural Gas Distribution segments. For these industry segments, Subpart W identifies different calculation methods for certain fuels. For example, for all fuels listed in Table C-1 of Subpart C and pipeline quality gas, Tier 1 is used. This is similar to ARB requirements under 95115. However, while ARB requires reporters to use Tiers 3 or 4 (using carbon content) for field quality gas, Subpart W has provided separate calculation methods (using all constituents of the gas).

Given the large number of stationary and portable combustion equipment located in a hydrocarbon basin, it is impractical for OPGP operators to maintain two separate calculation methods for the same equipment and will result in greater burden without improved data quality.

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Recommendation: We request ARB to align with Subpart W for OPGP reporters, and allow the use of BAMM automatically as provided by EPA through December 31, 2011 with the ability to request BAMM for 2012 on as needed basis.

20. Section 95154(a) – Monitoring and QA/QC Requirements

PNGS operators are required to conform to the QA/QC requirements of 40 CFR 98.234. 40 CFR 98.234(f) allows reporters to use best available monitoring methods (BAMM) for several source categories and requires reporters to request BAMM extension by July 31, 2011 for 2011 data. We are not clear if ARB intends to allow reporters to use the BAMM approved by EPA or if ARB requires reporters to apply for BAMM from ARB directly. If the latter is true, what is the deadline to make such requests as we are currently past the EPA deadline for such requests?

Recommendation: We request ARB to provide clear guidance on BAMM.

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