California Environmental Protection Agency

Air Resources Board

Final Statement of Reasons for Rulemaking

Including Summary of Comments and Agency Responses

PUBLIC HEARING TO CONSIDER ADOPTING THE REGULATION FOR ENERGY EFFICIENCY AND CO-BENEFITS ASSESSMENT OF LARGE INDUSTRIAL FACILITIES

Public Hearing Date: July 22, 2010
Agenda Item No.: 10-7-2

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AIR RESOURCES BOARD

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I. GENERAL

In this rulemaking, the Air Resources Board (ARB, Board, or Agency) is adopting a new regulation to require an energy efficiency assessment of California's large industrial facilities to determine the potential for greenhouse gas emission reductions and other pollution reduction co-benefits. The regulation will be contained in new sections 95600 to 95612 of the new subarticle 9, article 4, subchapter 10, chapter 1, division 3, title 17, California Code of Regulations (CCR). This regulation will identify energy consumption and greenhouse gas, criteria pollutant, and toxic air contaminant emissions from the largest stationary facilities in the State, determine the potential opportunities available for improving energy efficiency that could result in emission reductions, and identify potential future actions for obtaining further reductions in greenhouse gas and co-pollutant emissions.

The regulation will apply to industrial facilities emitting at least 0.5 million metric tonnes of carbon dioxide equivalent ($MMTCO_2e$) emissions in 2009, and cement plants and transportation fuel refineries emitting at least 0.25 $MMTCO_2e$ emissions in 2009. About 60 facilities are expected to meet the applicability threshold, which will be determined by each facility's 2009 calendar year report submitted to comply with the Regulation for the Mandatory Reporting of Greenhouse Gas Emissions, Subchapter 10, Article 2, sections 95100 to 95133, title 17, CCR (Mandatory GHG Reporting Regulation).

This rulemaking was initiated by the June 2, 2010, publication of a notice for a public hearing on July 22, 2010 ("45-day Notice"). A "Staff Report: Initial Statement of Reasons" (Staff Report or ISOR) was also made available for public review and comment starting June 2, 2010. The Staff Report contains an extensive description of the purpose and necessity for the regulation. Appendix A to the Staff Report contained the text of the proposed regulation, which would add new sections 95600 to 95612 of the new subarticle 9, article 4, subchapter 10, chapter 1, division 3, title 17, CCR. The documents were also posted by June 2, 2010, on the ARB's internet site for the

rulemaking: http://www.arb.ca.gov/regact/2010/energyeff10/energyeff10.htm ("ARB's internet site").

At the July 22, 2010 hearing, the Board received written and oral comments. At the conclusion of the hearing, the Board adopted Resolution 10-30, in which it approved the originally proposed regulation with modifications presented by staff at the hearing. The Board directed the Executive Officer to incorporate the modifications into the proposed regulatory text and to make such modifications available for a supplemental comment period of at least 15 days in accordance with section 11346.8 of the Government Code. The Resolution directed the Executive Officer to then either to adopt the regulation with such additional modifications as he determined to be appropriate or to present proposed changes to the Board for further consideration if he determined further Board consideration was warranted.

The modified text of the regulation was made available for a supplemental 15-day comment period by issuance of a "Notice of Public Availability of Modified Text and Availability of Additional Documents" ("15-day Notice"). The 15-day Notice, a copy of Resolution 10-30, and the document entitled "Modified Regulation Order" were mailed on September 29, 2010, to all parties identified in section 44(a), title 1, CCR, and to other persons generally interested in the ARB's rulemaking concerning energy efficiency assessments for industrial facilities. These documents were also published on September 29, 2010, on ARB's internet site. An email message announcing and linking to this posting was transmitted to over 6,000 parties (combined) that have subscribed to ARB's "energyaudit" list serve for notification of postings pertaining to energy efficiency assessments.

The 15-day Notice gave the name, telephone, and fax number of the ARB contact person from whom interested parties could obtain the complete text of the modifications to the original proposal, with all of the modifications clearly indicated. The deadline for submittal of comments on the suggested modifications was October 14, 2010.

After considering the comments received during the supplemental 15-day comment period, the Executive Officer issued Executive Order R-11-004, adopting new sections 95600 to 95612 of the new subarticle 9, article 4, subchapter 10, chapter 1, division 3, title 17, CCR.

This Final Statement of Reasons (FSOR) updates the Staff Report by identifying and providing the rationale for the modifications made to the originally proposed regulatory text and updating information in the Staff Report. The FSOR also summarizes written and oral comments the Board received on the proposed regulatory text during the formal 45-day and 15-day public comment periods and provides the ARB's responses to those comments.

Fiscal Impacts. The Executive Officer has determined that this regulatory action will not impose a mandate upon any local agencies or school districts, whether or not it is reimbursable by the State pursuant to Part 7 (commencing with section 17500),

division 4, title 2 of the Government Code. Except as discussed below, the Executive Officer has also determined that this regulatory action will not result in significant costs or savings, as defined in Government Code section 11346.5(a)(5) and 11346.5(a)(6), to any state agency, or in federal funding to the state, or create other non-discretionary costs or savings to local agencies.

The Executive Officer has determined that the California Air Resources Board will incur minimum costs to administer the regulation and $75,000 in fiscal year 2011-2012 to conduct a third-party review of selected Assessment Reports submitted by facility operators. These costs would be met with existing resources.

The Executive Officer expects two local agencies to incur costs of about $300,000 combined as a result of the regulation. The Los Angeles Department of Water and Power (LADWP) owns three electricity generating facilities that may be subject to the regulation. In addition, the Los Angeles County Sanitation District operates the Puente Hill landfill electricity generating facility, which may be subject to the regulation. These facilities operate as not-for-profit organizations; thus their compliance costs, about $78,000 for each of the four facilities, are included in the total costs of the proposed regulation. These facilities recover any costs from their clients via service fees.

Consideration of Alternatives. The regulations proposed in this rulemaking were the subject of discussions involving ARB staff, the affected industrial facility owners and operators, and other interested parties. A discussion of alternatives to the initial regulatory proposal is found in Chapter V of the Staff Report. Specifically, the following three alternative approaches were discussed: (1) do nothing – rely on facilities to voluntarily conduct an energy efficiency assessment; (2) require a Third-Party Assessment; and (3) adopt requirements for refineries only. For the reasons set forth in Chapter V of the Staff Report, the Board has determined that none of the alternatives considered by the agency would be more effective in carrying out the purpose for which the regulatory action was proposed, or would be as effective and less burdensome to affected private persons, than the action taken by the Board.

II. MODIFICATIONS MADE TO THE ORIGINAL PROPOSAL

At the July 2010 hearing, the Board approved the regulation with modifications and authorized the Executive Officer to make such additional modifications that he determined to be appropriate. All modifications made to the text of the regulation after publication of the 45-day Notice were circulated with the 15-day Notice for public comments. The following is a description of the modifications and clarifications, by section number.

A. Applicability (Section 95601)

Subsection (a)(1) was modified to clarify that the regulation applies to operators of a California facility, where the facility has stationary sources that, in the aggregate, meet the applicability threshold.

B. Definitions (Section 95603)

The definition for "criteria air pollutant" in subsection (a)(13) was modified to remove ozone as an example of a criteria air pollutant. While ozone is commonly considered to be a criteria air pollutant, it is not a pollutant that is individually inventoried at industrial facilities.

C. Energy Efficiency Assessment Requirements (Section 95604)

Several changes were made to subsection (a). First, subsection (a)(8)(D) was modified to require the greenhouse gas emissions provided be those reported by the facility to comply with the Regulation for the Mandatory Reporting of Greenhouse Gas Emissions, Subchapter 10, Article 2, sections 95100 to 95133, title 17, California Code of Regulations. This modification ensures that, as specified in the Staff Report, the GHG emissions data submitted are verified emissions data and that the regulation is not creating a new facility emissions inventory. Second, subsections (a)(8)(E) and (F) and (a)(10) were modified to allow submission of criteria air pollutant and toxic air contaminant emissions data from either the 2009 calendar year or the most recent 12-month period, since some facilities report their emissions to the local air pollution control or air quality management districts (Districts) on a 12-month schedule that differs from a calendar year schedule. Finally, language was added to provide guidance for facilities that were not required to report their criteria air pollutant and/or toxic air contaminant emissions data to the District. As discussed in the Staff Report, this regulation would require those facilities to provide that information, following the same requirements as specified by the District for other facilities that do report the data.

Subsection (b) was modified to allow, but not require, implemented projects to be included in the energy efficiency improvement analysis and to remove the requirement to provide the estimated time frame for project implementation for projects identified as being under consideration. Additionally, this subsection was modified to clarify that only

the completion year is required to be reported for both scheduled and on-going projects as well as for projects that have been implemented.

D. Reporting Requirements (Section 95605)

Staff modified subsection (c) to require the third party assessor to certify that they are authorized to represent the facility and operator on all matters related to the Assessment Report. The previous language required the operator to certify that they are authorized to represent the third party, which was not staff's intent.

E. Third Party Assessment Report (Section 95609)

Staff modified subsections (a)(1) and (3) to allow the facility operator and the Executive Officer to mutually agree to a longer time period for submitting the written application for a third party assessor and submitting the third party assessment report. This modification was made in response to comments received regarding regulatory requirements that some utilities are required to meet for initiating and completing third party contracts. The new language will provide the flexibility needed to take such requirements into consideration in the event a third party assessment is required.

III. MODIFICATIONS MADE SUBSEQUENT TO THE 15-DAY PUBLIC COMMENT PERIOD

Subsequent to the 15-day public comment period, staff discovered that it inadvertently failed to expressly indicate the subchapter and article of the Mandatory GHG Reporting Regulation in all places where it is referenced. Staff should have referenced the Mandatory GHG Reporting Regulation as Subchapter 10, Article 2, sections 95100 to 95133, title 17, CCR. Staff has therefore modified the regulation to correct this oversight.

Additionally, staff discovered that the section numbers originally assigned for this regulation, section numbers 95150-95162, were reserved for the Mandatory GHG Reporting Regulation. Therefore, placement of the regulation within title 17 of the CCR was modified to sections 95600-95612 of subarticle 9 of article 4, Regulations to Achieve Greenhouse Gas Emission Reductions.

A. Modifications to the Reference to the Mandatory GHG Reporting Regulation in Section 95601(a)(1) through (a)(3); Section 95603(a)(18); Section 95604(a)(8)(D) and (a)(9); and Section 95604(d)

Staff should have added the following underlined text: "Mandatory Reporting of Greenhouse Gas Emissions, Subchapter 10, Article 2, sections 95100 to 95133, title 17, California Code of Regulations."

B. Modifications to the Section Numbers and Article Number for the Regulation

Staff has changed the regulation's section numbers and article number for appropriate placement of the regulation within title 17 of the CCR. The section numbers, 95150 to 95162, were changed to 95600 to 95612. The article number was changed from article 2.1 to subarticle 9 of article 4.

In addition to the modifications detailed in this FSOR, staff made other minor modifications in the regulatory text to correct spelling, typographical errors, and grammar. Each of these modifications constitutes a nonsubstantial change to the regulatory text because each modification clarifies the requirements or conditions as set forth in the original text (or in the original text as modified in the Notice of Public Availability of Modified Text) and does not materially alter those requirements or conditions.

IV. SUMMARY OF COMMENTS ON THE ORIGINAL PROPOSAL AND AGENCY RESPONSES

The Board received numerous written and oral comments during the formal 45-day rulemaking comment period which began with the notice publication on June 2, 2010, and ended with the Board hearing on July 22, 2010. A list of commenters is set forth below, identifying the date and form of all comments that were submitted during the formal comment period. Several commenters expressed general support for the regulation, and most also included suggested modifications to the regulatory text. Following the list is a summary of each objection or recommendation made regarding the proposed action, together with an explanation of how the proposed action has been changed to accommodate the objection or recommendation or the reasons for making no change. The comments have been grouped by topic whenever possible. Comments not involving objections or recommendations specifically directed towards the rulemaking or to the procedures followed by the ARB in this rulemaking are not summarized below.

Comments Received During the 45-Day Comment Period (Excluding Statements in Support of the Regulation):

Abbreviation	Reference Number	Commenter
CBEA	CBEA	W. Phillip Resse, Chairman California Biomass Energy Alliance Written testimony: July 13, 2010
CSCME	CSCME	John T. Bloom, Jr. Chairman, Executive Committee Coalition for Sustainable Cement Manufacturing and Environment Written testimony: July 9, 2010
DECARBONEL	DECARBONEL	Hank de Carbonel Concrete Pumpers Oral testimony: July 22, 2010
ENVIR	ENVIR1	Diane Bailey, et al Natural Resources Defense Council Written testimony: July 19, 2010
ENVIR	ENVIR2	Diane Bailey, Senior Scientist Natural Resources Defense Council Oral testimony: July 22, 2010
LACSD	LACSD	Stephen R. Maguin and Frank R. Caponi Los Angeles County Sanitation Districts Written testimony: July 6, 2010

Abbreviation	Reference Number	Commenter
LADWP	LADWP	Lorraine A. Paskett Senior Assistant General Manager Sustainability Programs and External Affairs City of Los Angeles, Department of Water and Power Written testimony: July 6, 2010
LEHIGH	LEHIGH	Greg Knapp Director, ESH Region West Lehigh Hanson Oral testimony: July 22, 2010
RRI	RRI	Brian McQuown Senior Air Quality Specialist RRI Energy, Inc. Written testimony: July 20, 2010
VALERO	VALERO	Matthew H. Hodges Senior Manager, Regulatory Affairs Valero Energy Corporation

A. Applicability

1. **Comment:** The proposed regulation calls on facilities to report the CO_2e "emissions associated with the generation of electrical power used that is obtained from an outside source," but provides no methodology to derive these emission values. (LACSD)

Response: The commenter was referring to a previous draft of the proposed regulation. The regulation released for formal public comment does not include this requirement.

2. **Comment:** The proposed regulation includes an exemption in Section 95152(a) [95602(a)] for "Combined cycle electricity generating facilities built after 1995". However, based on the current definition in Section 95153(a)(12) [95603(a)(12)], a combined cycle electricity generating facility may be considered to be facilities that contain only combined cycle units. Electricity generation facilities may include both combined and simple cycle and steam boiler units. LADWP supports ARB staff's determination that additional energy efficiency assessments are not needed for combined cycle generating facilities built after 1995. In order to clarify that this item would apply to individual combined cycle units, LADWP requests that Subsections 95152(a) [95602(a)] and 95153(a)(12) [95603(a)(12)] be re-worded to exempt combined cycle electricity generating <u>units</u> built after 1995. (LADWP)

Response: We disagree; no change made. The exemption was intended to include combined cycle facilities built after 1995 and not combined cycle units, since the facilities containing combined cycle units with other units that are not as efficient may still have energy efficiency improvement opportunities that should be assessed. However, because combined cycle units built after 1995 are expected to be utilizing the most advanced, energy efficient technology available, the facility energy efficiency assessment should reflect that, and instead should focus on the opportunities available for the other electricity generating units at the facility.

3. **Comment:** We note that [the applicability threshold] will overlook facilities that use large amounts of electricity but have few on-site emission sources. Such facilities could be exempt from this regulation, when in fact their indirect energy, when converted to CO_2e, clearly triggers compliance. To the extent that CARB maintains the requirements for affected facilities to analyze indirect emissions, we recommend that CARB clarify the 0.5 million metric tonnes of CO_2e threshold to include indirect emissions so as to avoid the scenario described above. (VALERO)

Response: We disagree; no change made. The applicability threshold for the regulation is based on the emissions reported for the 2009 calendar year by each facility as required to comply with the Regulation for the Mandatory Reporting of Greenhouse Gas (GHG) Emissions, Subchapter 10, Article 2, sections 95100 to 95133, title 17, California Code of Regulations (Mandatory GHG Reporting Regulation). That regulation requires facilities to report direct GHG emissions but does not require indirect emissions from purchased electricity to be reported. Staff believes it is important to have an applicability threshold that is based on verified emissions data, and therefore, did not include indirect emissions in the threshold. Additionally, staff believes the direct CO_2e emissions are an appropriate surrogate for identifying the largest industrial facilities in the State because they would reflect the facilities most likely to produce the most significant benefits from energy efficiency improvements. Lastly, electricity generating facilities, which produce the electricity used by industrial facilities, are included in this regulation when their emissions meet the applicability threshold, thus capturing what could be considered potentially large indirect emissions associated with those industrial sources.

4. **Comment:** Section 95152 [95602] of the proposal lists those sources for which the regulation would not apply. Paragraph (c) lists “mobile and portable equipment” as exempt from consideration. Valero recommends that equipment used for emergency situation purposes be exempt, as they, too, are insignificant sources of emissions and operated infrequently. (VALERO)

Response: We disagree; no change made. The regulation exempts emissions from mobile and portable equipment to be consistent with the Mandatory GHG Reporting Regulation, which also exempts those emissions. Since the Energy Efficiency Improvement Analysis in the regulation requires the facility to include equipment, processes, or systems that cumulatively account for at least 95 percent of the facility’s

total GHG emissions, facilities can choose to exclude from their analysis equipment used for emergency purposes if those emissions are no more than five percent of the facility's total GHG emissions. Additionally, if the emissions are insignificant, as the commenter stated, then they may already have been counted as part of the three percent de minimis that is allowed in the Mandatory GHG Reporting Regulation.

B. Biogenic Emissions

1. **Comment:** By combining CO_2 and CO_2e emissions, this regulation would be inconsistent with state and federal policy which appropriately recognizes the GHG emissions benefits of the biomass power generating industry … The Pacific Institute carried out a study that showed that biomass-fueled power generation has a total net negative GHG emission profile. This specifically means that overall emissions of GHG would be greater if the biomass power plants did not operate and the renewable biomass power generation did not occur … By use of the biomass waste materials as boiler fuel, the alternate (or in some cases, the usual) methods of disposal of the materials are avoided … Every one of these alternate methods of disposal generates and emits substantial quantities of methane, a far more potent GHG than is CO_2, the normal product of combustion … EPA and other federal agencies, states, and international groups have recognized the carbon neutrality of biogenic carbon in greenhouse gas evaluations. (CBEA)

Response: The regulation uses the facility's total CO_2e emissions from all direct sources of GHG emissions as a surrogate for identifying the largest industrial facilities in the State for the purposes of exploring opportunities for energy efficiency improvements that could result in GHG emission reductions as well as reductions of criteria air pollutants and toxic air contaminants. Because the regulation does not require the reduction of GHG emissions and instead aims to identify both GHG and co-pollutant emission reduction opportunities, it is not appropriate or within the scope of this regulation to address the carbon neutrality of CO_2e emissions at individual facilities, as this could mask the size of these facilities and possibly result in lost opportunities to identify potential reductions of other pollutants.

2. **Comment:** California is actively and aggressively seeking to reduce anthropogenic GHG emissions and promote renewable energy production through a Renewable Portfolio Standard, waste diversion and reuse goals, and the like. If ARB contends that including biogenic sources of CO_2 emissions in the total CO_2e emissions is an appropriate surrogate, it should also acknowledge this important distinction. (CBEA)

Response: As stated in the response to Comment B.1 above, staff does not believe it is appropriate to address the carbon neutrality of CO_2e emissions at individual facilities in the scope of this regulation.

3. **Comment:** The proposed regulation makes no distinction between biogenic and anthropogenic CO_2 emissions. Biogenic emissions from carbon-neutral fuel combustion are part of the natural "short-term" carbon cycle that do not add new carbon to the atmosphere but rather just return it to where it originated, and generally do not count towards regulatory requirements. Furthermore, a large portion of the CO_2 emissions from facilities utilizing landfill gas in combustion activities comes from the "pass-through" CO_2 that is inherently part of landfill gas formation. This CO_2 is formed during the decomposition of organic waste buried in the landfill, and can comprise as much as 50 percent of the landfill gas produced. Unless CARB provides this distinction, sources whose CO_2 emissions are largely biogenic, such as landfills with associated landfill gas fueled electricity generation facilities, could trigger the 0.5 million metric ton CO_2e threshold established as part of this proposal. (LACSD)

Response: As stated in response to Comment B.1, the regulation uses the facility's total CO_2e emissions from all direct sources of GHG emissions as a surrogate for identifying the largest industrial facilities in the state for the purposes of exploring opportunities for energy efficiency improvements that could result in GHG emission reductions as well as reductions of criteria air pollutants and toxic air contaminants. The threshold for inclusion in this regulation are based on the facility's 2009 calendar year GHG emissions, reported to comply with the Mandatory GHG Reporting Regulation, which include "pass-through" emissions.

4. **Comment:** The Sanitation Districts recommend that CARB only require that anthropogenic stationary emissions count towards the large industrial facility applicability threshold. This approach is consistent with both proposed federal and state regulations for reducing greenhouse gases. Biogenic emissions have been excluded from regulation in all major GHG regulatory programs implemented to date around the world. (LACSD)

Response: We disagree; no change made. The objective of the regulation is to identify opportunities for reducing emissions of GHG, criteria pollutants, and toxic air contaminants. As discussed in response to Comment B.1, the threshold is based on the facility's total CO_2e emissions from all direct sources of GHG emissions, which staff believes is an appropriate surrogate for identifying the State's largest industrial facilities and sources of these pollutants.

C. Energy Efficiency Assessment

1. **Comment:** In its Initial Statement of Reasons for the proposed regulation, CARB states that "information gathered from the implementation of the proposed regulation will be a valuable resource in determining what GHG emission reduction opportunities are available" and that the information "is needed to identify promising areas for emission reductions." This language indicates that CARB foresees additional energy efficiency improvements resulting from the audit process. CSCME is concerned about CARB's expectation in this regard.

Although cement manufacturers are always searching for additional methods to improve energy efficiency, the cement plants in California are already the most efficient plants in the United States and possibly in the world, and therefore, there are few additional efficiency improvements that have yet to be implemented by California cement producers. (CSCME)

Response: This comment is directed to potential future action and not to the proposed regulation at issue, and thus ARB need not respond. However, as stated in the Staff Report, the intent of the regulation is for facility operators to take a comprehensive look at all potential energy efficiency improvement opportunities, including near-term improvements that have swift payback periods to long-term improvements that will take much longer to implement and be more costly. The regulation also allows, but does not require, facilities to include improvement projects they have already implemented. If a facility has already addressed all near-term and long-term opportunities, that should be reflected in their assessment report, which will be reviewed by ARB staff for completeness. Additionally, ARB staff plans to select a sampling of reports for a third party review to help determine completeness.

2. **Comment:** CSCME urges CARB to examine each industry based on its unique circumstances and avoid any presumption that the audit process will necessarily identify a particular level of configuration of energy efficiency improvements for every industry. The California cement industry is proud of the efficiency improvements made to date and feels confident that it has already implemented the most cost-effective improvements that are feasible at this point. CSCME looks forward to demonstrating this fact in the context of the audit process. (CSCME)

Response: Staff understands the unique nature of each, independent facility, even within the same sector, and intends to individually review Assessment Reports for completeness. However, some processes or systems (e.g., air compressors) are used similarly at multiple facilities, and may have similar efficiency improvement options available, and those may be compared where appropriate. While we applaud the California cement industry for being proactive in implementing energy efficiency improvements, staff believes this regulation requires a comprehensive energy efficiency assessment that may reveal additional improvement opportunities that have not previously been identified.

3. **Comment:** Section 95154(b)(1) [95604(b)(1)] of the draft regulation requires facilities to “Identify potential improvement projects for equipment, processes, or systems that cumulatively account for at least 95 percent of the facility’s total greenhouse gas emissions reported” and to “Include a comprehensive assessment of potential energy efficiency improvement opportunities”. Taken collectively, the scope of information requested in this paragraph and the extent to which CARB believes potential efficiencies savings are available, is immense. This proposal lays the foundation to regulate the totality of energy efficiency opportunities within refineries – an especially troubling proposition if the resulting

reductions are disallowed under the Cap and Trade program. While CARB states that many of the projects identified may not be initiated, the proposed regulatory text does not provide such assurances. (VALERO)

Response: We disagree; no change made. The intent of the regulation is for facility operators to take a comprehensive look at all potential energy efficiency improvement opportunities available. ARB staff understands that each facility is different in its operation as well as energy efficiency status – some facilities may have already implemented opportunities that other facilities may discover during their assessments to meet this regulation. Staff believes that without facilities conducting this comprehensive assessment, it is not possible to conclude what opportunities are available at each facility. However, if an industrial source chooses to implement any of the energy efficiency opportunities identified, the resulting greenhouse gas emission reductions will reduce their obligation to turn in "allowances" under the cap-and-trade regulation. This is discussed later in response to Comment I.4.

4. **Comment:** Inherent in the requirement [in Section 95604(b)(1)] is the belief that virtually everything that emits GHGs in the refinery is "inefficient" in some manner and therefore should be analyzed for improvements. CARB provides no basis for this assertion, as well as no basis for the requirement to address at least 95% of the GHGs reported – other than implying that, as under the GHG inventory regulation, 5% of a source's emissions may be counted as de minimis. Rather than requiring a blanket assessment of everything, CARB should limit the focus to a meaningful (and manageable) number such as the top 10 emission reduction projects, or focus only on fuel combustion. (VALERO)

Response: We disagree; no change made. As expressed in the response to Comment C.3, the intent of the regulation is for a comprehensive evaluation of potential energy efficiency improvements to be made. This was not meant to imply that 95 percent of the emissions are from inefficiencies, but to ensure a comprehensive evaluation. Additionally, when reporting for the Mandatory GHG Reporting Regulation, the facility is allowed a de minimis level of up to three percent of the facility's total CO_2e emissions. Since the requirement in Section 95604(b)(1) is to address at least 95 percent of those same reported CO_2e emissions, it is in addition to the three percent de minimis level.

5. **Comment:** A comprehensive assessment of each of the equipment, processes, and systems at a refinery is untenable and unproductive. CARB must revise these definitions so as to limit the granularity for which efficiency reviews are required, or apply a de minimis threshold for each potential project, below which an official analysis is unnecessary. Otherwise, this section of the proposal can be construed to require an analysis of each electric motor for the installation of high-efficiency windings, each pump/valve for leak-less operation, or each process heater for steam economizers. (VALERO)

Response: We disagree; no change made. The regulation provides the flexibility for facility operators to group together like equipment, systems, or processes and does not require an individual assessment of each. This flexibility was discussed during public workshops and in meetings with representatives of refineries and their trade group, the Western States Petroleum Association.

6. **Comment:** The requirement to include "indirect emissions" e.g. electricity, imported steam, etc., opens the analysis further to sources for which there is no on-site reduction in either GHGs or co-pollutants. Including these sources potentially will obligate facilities to commit capital on GHG reduction projects which will not benefit the facility – effectively making the cost effectiveness infinite. As this proposal clearly contemplates a cost component in the analysis, we recommend that CARB eliminate the requirement to count indirect emissions unless a mechanism is crafted by which a facility can obtain some degree of GHG credit for their investments. (VALERO)

Response: We disagree; no change made. The regulation does not require implementation of any of the identified improvement opportunities, so therefore, does not provide or need to provide credit for investments. However, the assessment of opportunities available for equipment or processes fueled by all sources of energy is vital to fulfilling the objectives of the regulation and is important information for facilities looking to reduce their energy costs. Energy efficiency of electrically powered motors, for example, is controlled by the end user and not the electricity provider. Under the regulation, the efficiency of generating the electricity or steam is being assessed at the electricity generating facility.

7. **Comment:** Inherent in the assessment and analysis requirements of this proposal is the concept that improved efficiency equals lower GHG emissions. However, this argument fails to acknowledge the situation where efficiency can be improved, but emissions are held to the same level while process output is increased … we recommend CARB make very clear in the text of the regulation whether the goal is <u>conservation</u> or <u>efficiency</u>, as this distinction can have a significant impact on future refinery operations. (VALERO)

Response: We disagree; no change made. The regulation requires facilities to identify all potential energy efficiency improvement opportunities and assess the associated impacts. Since not all efficiency improvement projects will result in significant emission reductions (such as in cases of conservation resulting in increased output but not decreased fuel consumption), this impact analysis is an important one. However, in most cases where energy is used more efficiently, a net fuel consumption reduction is achieved, which will typically result in reduced emissions.

D. Co-Pollutant Emissions

1. **Comment:** The toxics emissions that CARB purports to identify for potential reductions have, in fact, already been identified and addressed per the

obligations set out under AB 2588. As such, none of the toxic substances CARB identifies in this regulation should pose a risk and thus cannot be relied upon as a “co-pollutant benefit” in reducing GHG emissions. (VALERO)

Response: We disagree; no change made. The goals of the Air Toxics "Hot Spots" Information and Assessment Act (AB 2588) are to collect emissions data, to identify facilities having localized impacts, to ascertain health risks, to notify nearby residents of significant risks, and to reduce those significant risks. The "Hot Spots" Program complements the ARB's existing air toxics identification and control programs. It has located sources of substances not previously under evaluation, and it has provided exposure information necessary to prioritize substances for control measures and develop regulatory action. The Energy Efficiency and Co-Benefits Assessment Regulation does not require health risk assessments for any pollutants or a reduction of any pollutants. Instead, it requires an assessment of the emissions impacts for greenhouse gas and co-pollutants (criteria pollutants, and toxic air contaminants) associated with energy efficiency improvement opportunities. This information will be used to inform other emission reduction programs, but further evaluation would need to be accomplished if additional regulatory action were to be considered.

2. **Comment:** To the extent that the “Hot Spots” program may not have addressed all significant air toxics, Valero has significant concerns that the overt focus on air toxics will drive ARB to examine processes to maximize air toxic reductions, at the expense of maximizing GHG reductions projects. It is recommended that air toxics emissions should not be a driving force in this regulation, but should only be quantified, for the purposes of understanding emission impacts, after GHG reduction projects have been identified. (VALERO)

Response: We disagree that there is an overt focus in this regulation on air toxics; no change made. As part of the co-benefits assessment, the regulation is expected to quantify the estimated emission reductions for toxic air contaminant emissions, as the commenter suggests. The regulation is not intended to reduce emissions in and of itself, but rather to gather the information necessary to determine if GHG and co-pollutant reductions are available and to what extent. The regulation focuses on energy efficiency improvement opportunities that could result in GHG emission reductions, while also considering the impacts on co-pollutant emissions.

3. **Comment:** Emissions of the identified air toxics in and of themselves, are not, as CARB indicates in the Statement of Reasons for Proposed Rulemaking, indications of “risk” as defined through cancer and non-cancerous health effects. Nevertheless, lacking a true risk assessment of these substances, CARB seems to make the presumption that the existence alone of these substances at facilities constitutes some risk for which a “co-pollutant benefit” can be obtained through its reduction. We assert that, lacking a true risk analysis for the air toxics in question, CARB cannot make any justifiable statements regarding the “co-pollutant benefit” (or lack thereof) in reducing these substances. (VALERO)

Response: We disagree; no change made. See response to Comment D.1.

4. **Comment:** The inclusion of dioxin and furans on the list of air toxics for refiners in this regulation solely on the basis of other substances having scores greater than 50 is misleading and unfounded. As stated above, unless a solid risk assessment is performed to identify/quantify "risks", then a co-pollutant benefit cannot be claimed and consequently these substances should not be considered under this rule. (VALERO)

Response: We disagree; no change made. See response to Comment D.1. Additionally, the regulation does not specifically call out any pollutants for any facility types, nor does it require toxics to be reported based on their level of risk. All facility operators must include in their Assessment Report their facility's toxic air contaminant emissions as reported to, or calculated by, the local air pollution control or air quality management district (District).

5. **Comment:** The inference through the structure of this proposal is that reductions in GHGs will equate to meaningful reductions in air toxics. This is not true in all circumstances for a variety of reasons:

- With a few exceptions such as FCC units, there is limited overlap between sources emitting GHGs and sources emitting air toxics. The energy efficiency CARB looks to promote will largely come from reduced fuel gas consumption. Air toxic emissions from fuel gas combustion are negligible, both in mass and in constituents.
- Efficiency gained through reduced electricity will not affect refinery air emissions at all.
- Even the ability to affect GHG emissions from the FCC regenerator is severely limited in that it is a "process-related emission" and not a "fuel combustion related emission": the stoichiometries from the regenerator reactions are not amenable to manipulation without fundamental changes in the catalysts regeneration process. (VALERO)

Response: We disagree; no change made. Staff realizes that not all energy efficiency improvement opportunities that are identified as having associated GHG emission reductions will have similar co-pollutant reductions, and no assumptions are made regarding potential emission reductions for any facility prior to the facility assessments being conducted. Additionally, not all improvement opportunities are expected to be compatible with District permitting requirements or safety requirements, which makes assessing these and other impacts an important and necessary element of the regulation. Staff believes that without facilities conducting this comprehensive assessment, it is not possible to conclude what opportunities are available at each facility or what emission reductions could be expected.

E. Confidentiality

1. **Comment:** The proposed regulation requests highly confidential information that is not subject to public disclosure under California law. The statements in the Statement of Reasons about all or almost all data being disclosed to the public are in striking contrast to the core information required to be submitted in an Assessment Report under section 95154 [95604] of the proposed regulation, which is largely proprietary, confidential, and highly competitive business information that would not be made public by any entity that is in competition for sales and market share. Moreover, it is unclear if it would be legal for competitors to share the type of information being requested by CARB because of potential anti-trust violations. (CSCME)

Response: We disagree; no change made. As discussed in the Staff Report, ARB staff's goal was to require information that is preliminary but comprehensive enough to guide future decision making, and we believe this can be accomplished without sources having to provide confidential business information. Throughout the rulemaking process, ARB staff has discussed the issue of confidentiality with stakeholders, solicited input on regulatory language that would be appropriate for achieving the goals of the regulation without requiring confidential business information, and incorporated the stakeholder suggestions on language that is more protective of confidential business information. ARB staff will work with facility operators throughout the assessment and reporting process to address confidentiality concerns prior to Assessment Report submittal. However, the facility operator may designate as confidential any data submitted, other than emissions data, that they believe is a trade secret or may otherwise be exempt from public disclosure under the California Public Records Act. ARB staff will handle those requests in accordance with State law.

2. **Comment:** The concern about confidentiality is particularly relevant to the cement industry, which is forced to treat virtually all data associated with energy efficiency as confidential, because this data can be used to understand the cost structure of their product (given the large contribution of energy cost to total cost for an energy-intensive process). Understanding the effects of particular energy efficiency improvement projects on a specific plant is a way to know how competitive that plant is compared to other plants. (CSCME)

Response: We disagree; no change made. The regulation requires preliminary estimates on the possible effects of energy efficiency improvement projects and general information about the type of potential improvements without the facility having to disclose specific information on those projects. As mentioned in the response to Comment E.1, staff will be working with the facilities operators throughout the assessment and reporting process to address these concerns prior to report submittal.

3. **Comment:** Section 95154 [95604] of the proposed regulation lists the various types of information that must be included in an Assessment Report. Although some of this information, such as emissions data, is clearly public, most of the

information requested precisely fits within the definition of “trade secrets” as defined by the California Public Records Act. (CSCME)

Response: We disagree; no change made. The regulation largely requires preliminary information that staff believes would not be trade secret data, and in some cases, requires information that is already publicly available in much greater detail. For example, most industrial facilities in California, including cement plants, are required to disclose specific information regarding equipment make, model, and maximum throughput, which is then made publicly available as part of the federally required Title V permitting process.

4. **Comment:** The disclosure of one type of information may not raise significant concerns, but when this information is combined with the other information required under the proposed regulation, domestic and foreign competitors will gain a significant competitive advantage. (CSCME)

Response: We disagree; no change made. We understand the commenter’s concern but we believe that the information, whether disclosed singly or combined, will not represent confidential business information. However, it is not possible for either the facility operator or ARB staff to deem any information as confidential in advance of submitting or receiving the information. As stated in the Staff report, the regulation, and the response to Comment E.1, in the event the facility operator does indeed identify reported information as being confidential, ARB staff will handle that information in accordance with State law. In such cases, it may be reasonable to aggregate data for multiple facilities prior to public release.

5. **Comment:** Process flow diagrams provide detailed information regarding the manufacturing process, which varies among manufacturers and by which manufacturers are able to maintain competitive advantages … Process flow diagrams would inherently identify the differences between plants and equipment technologies, including differences in types of energy used, process technology, and relative energy consumption, which allow competitors to readily calculate costs. (CSCME)

Response: We disagree; no change made. The intent of requiring a process flow diagram is to provide a general, visual presentation of the facility’s systems or processes, but not to disclose detailed data at an engineering level that could compromise a facility’s confidentiality. In submitting a facility process flow diagram, no equipment is required to be identified, and facilities can anonymize the graphic as they would for other public audiences, as long as the integrity of the process flow diagram is maintained.

6. **Comment:** The specific descriptions of processes and equipment types are also essential elements of a facility’s manufacturing process. Public disclosure of this information would reveal unique facility-specific information that is part of a facility’s overall business plan. Disclosing the types of equipment in use would

allow competitors to use the energy cost or energy types with standard costs to estimate manufacturing costs based on known energy consumption factors for the equipment. (CSCME)

Response: We disagree; no change made. See response to Comment E.3.

7. **Comment:** The types of energy used in the manufacturing process are sensitive, proprietary information that represent a key component in energy-intensive cement manufacturing. This information is a specific component of a manufacturer's dynamic to lower costs and, as such, is extremely sensitive information that is not publicly disclosed at the level of detail requested. In addition, whether the energy is purchased or produced by the facility can be a significant element in the overall cost structure of the product. The type of fuel in conjunction with the equipment technology can be used to determine costs. Disclosing the types of fuel used would also potentially be detrimental to the use of alternate fuels … investments in technology and equipment could be compromised by competitors if the technologies were known or costs could be determined. (CSCME)

Response: We disagree; no change made. See responses to Comments E.1, E.2, and E.3.

8. **Comment:** A breakdown of energy use by type would potentially identify the facility among competitors, effectively revealing manufacturing costs. Making the data anonymous would not be sufficient to protect the data because there are few facilities in California. (CSCME)

Response: We disagree; no change made. See responses to Comments E.1, E.2, and E.3. Additionally, an estimated 10 cement plants would be subject to the regulation, which staff believes is an acceptable number of facilities for releasing aggregated data when appropriate. When necessary, staff will make certain that the data is aggregated in such a way that individual facilities would not be identified.

9. **Comment:** Section 95154(b) [95604(b)] essentially requires facilities to provide their capital investment plans, detailing future potential projects specific to improving energy efficiency. Public disclosure of this information would reveal long-term, facility-specific investment decisions that are the result of significant research and strategic planning. Competitors (in particular, foreign entities) would benefit greatly from knowledge of these investment plans and would likely revise their own planning to reflect this knowledge … Such planning is intrinsic to the performance and strategy among competitors, and reveals decision-making logic that would allow a competitor to discern the key strengths, weaknesses, and investment timing of potential upgrades. This information has a significant effect on competitive positions and is therefore highly confidential. (CSCME)

Response: We disagree; no change made. As stated in the response to Comment E.2, the regulation requires general information on the types of potential improvement projects but does not require the facility operator to disclose detailed information or detailed descriptions of the projects. Additionally, as stated in response to Comment E.1, the facility operator may designate as confidential any data submitted, other than emissions data, that they believe is a trade secret or may otherwise be exempt from public disclosure under the California Public Records Act.

10. **Comment:** In regards to Section 95154(b)(1) [95604(b)(1)], identifying potential improvement projects for equipment, processes, and systems used in the production process will require identifying all of these items. The majority of energy used in cement plants is in two main processes, the kiln fuel and grinding electricity. Identifying the potential improvements in these systems will reveal facility-specific manufacturing plans and techniques such as capacities, costs, demand information, and essentially any potential modification that may be performed to obtain a competitive advantage. Such information is highly confidential and proprietary in nature and would not be publicly disclosed. (CSCME)

Response: We disagree; no change made. The purpose of Section 95604(b)(1), along with Section 95604(c), is to allow a facility to exclude from their assessment the insignificant energy consumers in the facility that do not account for more than five percent of the reported GHG emissions or energy consumption. Additionally, as stated in the response to Comment E.2, the regulation requires general information on the types of potential improvement projects but does not require the facility operator to disclose detailed information or detailed descriptions of the projects.

11. **Comment:** The entire section 95154(b)(4) [95604(b)(4)] would reveal details about equipment selection, capital requirements, and timing that could potentially be used by competitors and equipment suppliers. The decision-making process would reveal not only those projects that are worth considering further but also, perhaps more importantly, those that are not necessary or do not provide economic benefit. This information is sensitive to acquiring capital, equipment, and engineering resources and could be used to the advantage of suppliers of these resources (CSCME)

Response: We disagree; no change made. See response to Comment E.3. Additionally, not all potential energy efficiency improvement projects are expected to have immediate economic benefits. As explained in the Staff Report, the regulation requires facility operators to explore the full range of potential improvements, including those that have both near-term emissions benefits with swift payback periods and those having long-term emissions benefits that will require much more capital and many years to implement.

12. **Comment:** Information on "existing facility equipment, process, or system involved" is highly proprietary and will reveal facility-specific manufacturing plans and techniques, therefore it should remain confidential. (CSCME)

Response: We disagree; no change made. As explained in Comment E.3, the regulation largely requires preliminary information that staff believes would not be confidential, and in some cases, such as in identifying equipment, requires information that is already publicly available in much greater detail.

13. **Comment:** Section 95154(b)(4)b. [95604(b)(4)b.] requests extremely detailed information regarding potential efficiency improvements that reveal an array of facility-specific technologies and procedures. This information, when provided in such detail, constitutes confidential information that affects a company's competitive position. (CSCME)

Response: We disagree; no change made. The regulation requires preliminary estimates on the possible effects of energy efficiency improvement projects and general information about the type of potential improvements without the facility having to disclose specific information on those projects. See response to Comment E.2.

14. **Comment:** Describing potential improvement projects and their efficiency benefits will reveal not only sensitive facility-specific investment plans, but also the potential financial gains that will result from these projects. (CSCME)

Response: We disagree; no change made. As mentioned in the previous comment response and the response to Comment E.2, preliminary, rather than detailed, information on the potential improvement projects and their impacts is required.

15. **Comment:** Revealing the status of potential improvements will provide information regarding facility-specific investment plans, which affect a company's competitive position. (CSCME)

Response: We disagree; no change made. See response to Comment E.2.

16. **Comment:** The rationale for not implementing a particular improvement project may be a complex evaluation of investment planning and other considerations that are highly confidential in nature. (CSCME)

Response: We agree that the rationale for not implementing a particular improvement project may consist of a complex evaluation. However, the description of the rationale required to be reported may be a high level summary without the confidential details. The regulation requires only preliminary estimates versus detailed engineering or cost analysis and does not require implementation of any of the identified projects. See response to Comment E.2.

17. **Comment:** Information regarding project time frames reveals facility-specific investment plans that affect competitive position. (CSCME)

Response: We disagree; no change made. The regulation requires estimated project time frames for those potential improvement projects that are scheduled or ongoing, and since the projects are not required to be described in detail, staff does not believe this information would be confidential. As stated in previous comment responses and the Staff Report, staff will work with the facilities to address these types of concerns during the assessment process. Assessment Report information that a facility operator identifies as being confidential, however, will be treated initially as such and handled to the degree this accords with State law.

18. **Comment:** Section 95154(b)(4)(g) [95604(b)(4)(g)] (estimated total one-time budgetary costs) reveals the results of investment and business plans that affect a company's competitive position. (CSCME)

Response: We disagree; no change made. The term "budgetary cost estimate" is defined in the regulation as "a cost estimate that is used for project comparison purposes, but does not require detailed engineering and therefore has a correspondingly lower accuracy." This term and its definition were suggested by the cement industry during rule development to be used in lieu of "total costs" in order to more appropriately report preliminary estimates provided at a budgetary level. Staff does not believe this would reveal investment and business plans or affect a company's competitive position because it is only a first-cut estimate without any detailed information.

19. **Comment:** Section 95154(b)(4)(h) [95604(b)(4)(h)] (estimated total average recurring annual budgetary costs) also reveals the results of long-term business plans and future budgetary issues that play a large role in a facility's financial health and therefore affect its competitive position. (CSCME)

Response: We disagree; no change made. See response to Comment E.18.

20. **Comment:** Providing information about estimated project life of efficiency improvement projects reveals the timing of long-term investment decisions, indicating when certain future investments will need to be made. (CSCME)

Response: We disagree; no change made. As stated in the response to Comment E.18 regarding budgetary cost estimates, estimated project life of potential efficiency improvement projects is not expected to reveal confidential information, particularly since those estimates are provided at a cursory versus detailed level.

21. **Comment:** Similar to 95154(b)(4)(c) [95604(b)(4)(c)], providing details about the savings associated with efficiency improvement projects reveals information related to a facility's financial planning, which should remain confidential. (CSCME)

Response: We disagree; no change made. See responses to Comments E.18 and E.20.

22. **Comment:** Although emissions data is public information, projections of future emissions data associated with future projects necessarily discloses critical data about the nature of the projects and the energy efficiency and cost advantages linked to such projects. (CSCME)

Response: We disagree; no change made. The regulation requires estimated emission impacts associated with future projects, which staff does not believe to be confidential information. As stated in response to previous comments in this section, the information is required at a preliminary level, and this information does not represent a final analysis of the impacts associated with implementing identified improvement projects.

23. **Comment:** Again, [the estimated costs savings] provides details about a facility's specific financial planning and investment decisions, which should remain confidential. (CSCME)

Response: We disagree; no change made. See response to Comments E.18, E.20, and E.22.

24. **Comment:** Disclosure of estimated future emissions and methodologies for calculating them will necessarily disclose competitive details about the nature and commercial benefit associated with such projects. (CSCME)

Response: We disagree; no change made. See response to Comment E.22.

25. **Comment:** The reference to "other implementation considerations" (including a wide range of potential "impacts") is open-ended and suggests that CARB may require an unspecified amount of additional confidential information and may find that an assessment is incomplete without such information. (CSCME)

Response: We disagree; no change made. Since each facility is unique, staff believes it is important to provide facility operators the flexibility to include other implementation considerations that are not already specified in order to obtain a full assessment of impacts associated with implementing potential energy efficiency improvement projects. For example, facilities can include additional operational or safety impacts, but staff realizes that because each facility is unique, and the information requested is preliminary, this information will vary from facility to facility, even within the same sector. Facilities are not required or expected to provide confidential information when supplying these additional implementation considerations.

26. **Comment:** Public disclosure of the information identified above by design would reveal a significant amount of information about the manufacturing process and investment decisions of covered facilities, both of which are highly sensitive and

have a considerable impact on the competitive position of any given facility. This information, therefore, should be classified as "trade secrets" under the Public Records Act and not subject to public disclosure. (CSCME)

Response: We disagree; no change made. See responses to Comments E.1, E.2, E.3, E.4, E.11, E.17, and E.22.

27. **Comment:** In sum, in order to optimize cooperation by covered entities and ensure that CARB's objectives underlying the proposed regulation can be achieved, CSCME requests assurances in the final regulation and any further statement of reasons that CARB will not attempt to force public disclosure of confidential information to the detriment of the competitive position of California cement producers. (CSCME)

Response: Section 95610(b) of the regulation addresses confidential information. Specifically, it states, "Any entity submitting information to the ARB pursuant to this article may designate information that is not emissions data as confidential because they believe it to be a trade secret or otherwise exempt from public disclosure under the California Public Records Act (Government Code 6250 et seq.). All such requests for confidentiality will be handled in accordance with the procedures specified in title 17, California Code of Regulations, section 91000 to 91022." As stated in the Staff Report, the regulation, and this Final Statement of Reasons, if a facility operator designates information as confidential, staff will treat it initially and later handle as such to the degree this accords with State law.

28. **Comment:** We do have concerns with the confidentiality of some of the data that are required … we, as members of the industry, are not allowed to discuss or disclose some of the information that's required, due to federal anti-trust laws. As we move through this process with ARB staff, we will identify those types of information and hope that we can certainly come to a way to meet the intent of the law and the regulation, but also protect the sensitive information. Generally anything that deals with cost and competitiveness is sensitive. (LEHIGH)

Response: As stated in previous responses in this section, staff does not believe the information required in the regulation would constitute confidential data, since it is preliminary information provided at a budgetary level, not requiring a detailed analysis. However, as stated in the Staff Report, the regulation, and this Final Statement of Reasons, if a facility operator designates information as confidential, staff will treat it initially and later handle as such to the degree this accords with State law.

F. Assessment Report Review

1. **Comment:** We recommend instituting oversight on data quality to prevent inherent conflicts of interest that may undermine the value of this self-reporting data gathering measure. (ENVIR)

Response: While staff believes the facility operators are the most qualified to assess energy efficiency improvement opportunities at their individual facilities, in ARB Resolution 10-30 the Board directs the Executive Officer to designate selected Assessment Reports for a third-party review to determine the completeness of the assessment. This review will be conducted following staff's review of all facility operator Assessment Reports.

2. **Comment:** The efficacy of the data collected through this measure is paramount; however, the self auditing allowed by the measure can lead to significant errors or incomplete reporting. We recognize the need identified by staff to keep this measure simple, affordable, and efficient and to capitalize on the extensive in-house expertise on industrial processes at these facilities and do not seek to delay this important measure. In that light, we offer the following recommendation to ensure appropriate oversight and guarantee the quality of the data collected. We urge the inclusion of random third party re-audits or third party verification of submitted data by technical experts identified by ARB. While our preference is for all audits to be performed by an independent third party, this approach should provide a reasonable level of quality assurance to counter conflicts of interest. (ENVIR)

Response: As stated in response to Comment F.1, staff intends to conduct a third-party review of selected Assessment Reports. A sampling of the reports will be reviewed by energy experts certified by the Department of Energy in six primary energy consuming processes: steam, process heating, pumping, air compressors, fans, and motors.

3. **Comment:** We strongly recommend and support the improvements to the measure on oversight, namely efforts to institute random re-audits on some of the reports to ARB. This will go a very long way to assure that the data is accurate. (ENVIR2)

Response: We agree that random review of a sampling of the reports is beneficial. As stated in the response to Comment F.2 and Resolution 10-30, staff will select facility assessment reports from each sector to be reviewed by a qualified third party.

G. Third Party Assessments

1. **Comment:** As a public agency, LADWP is required to select contractors through a competitive procurement process that typically requires at least six months to select a contractor and an additional three months to award the contract. In order to provide sufficient time to select a third party assessor and complete the report, we request changes to Section 95159(a)(1) [95609(a)(1)] to allow 180 days, instead of 60 days, for submitting a written application to the Executive Officer for approval of the operator's chosen third party assessor. We also request changes to Section 95159(a)(3) [95609(a)(3)] to allow 180 days, instead

of 90 days, for submitting the completed third party Assessment Report. (LADWP)

Response: We agree with this comment and have modified the regulatory language to include allowance for the facility operator and Executive Officer to mutually agree to a longer time period for selecting a third party assessor and completing the third party assessment. This modified language was released for a 15-day public comment period in October 2010. No public comments were received on this language change.

2. Comment: There is conflicting language regarding the requirement to employ a third party auditor once an assessment is deemed incomplete. Valero recommends revising Section 95159(a)(1) [95609(a)(1)] such that a 60-day clock begins only after the agency has specifically requested a third party audit, and not automatically if the agency deems an assessment incomplete. This flexibility is especially important in that Section 95158(a) [95608(a)] does not guarantee affected facilities the ability to negotiate disputes over the assessment report: *"The facility operator and the Executive Officer may mutually agree to a longer time period for reaching a decision on the completeness of the Assessment Report …"* (VALERO)

Response: We disagree; no change made. Section 95608(a) provides the necessary flexibility: the Executive Officer will notify the facility operator of any deficiencies in the Assessment Report, and the Executive Officer and the facility operator may mutually agree to a longer time period for reaching a decision on the completeness of the Assessment Report. Staff intends to work with the facility operators to obtain the necessary information to complete a report, but if that effort is not successful, then the Executive Officer may deem the report to be incomplete and require a third party assessment. Notification of an incomplete report and third party assessment requirement will be made in writing to the facility operator.

H. Costs and Cost-Effectiveness

1. Comment: CARB waives the requirement to perform a cost-effectiveness determination on this regulation by stating that "The proposed regulation does not require any actions to reduce emissions, nor claim any emission reductions associated with implementation of the regulation. Therefore, a traditional cost-effective analysis is not appropriate." Instead CARB rationalizes a "no adverse impact" determination by generalizing that affected sources are large companies that can simply bear the costs of performing the audits. While this may be superficially accurate, it belies the fact that this regulation forms the foundation for identifying significant, long-term emission mitigation projects. With this rulemaking, CARB has effectively bifurcated the process of identifying and implementing efficiency projects – a legally questionable maneuver. At a future date when CARB institutes rulemaking to implement the efficiency projects *determined through this rulemaking*, CARB must take into account the cost of both identifying and executing energy efficiency projects, as they are

fundamentally related steps that cannot be separated financially, separate rulemakings notwithstanding. (VALERO)

Response: We disagree; no change made. Because the regulation does not require facilities to implement any of the efficiency opportunities identified during the assessment process, such costs are not among those reasonably incurred as a consequence of the regulations. Not only is the purported bifurcation of cost analyses permissible – and the commenter has provided no authority to the contrary – it is also good policy because this separate and earlier regulation caused ARB to estimate the typically unexamined costs associated with identifying emission reduction opportunities. Additionally, it is not possible to calculate cost-effectiveness without having the project identified and having specific detail about the projects, costs, impacts, etc.

2. **Comment:** If CARB proceeds to adopt any future greenhouse gas reduction measures based on the information provided in the energy audits, the development and implementation of such measures must be in full compliance with AB 32, including the requirements to consider cost effectiveness and minimize leakage. (CSCME)

Response: This comment is directed to potential future action and not to the proposed regulation at issue, and thus ARB need not respond. However, we agree with this comment. Any regulation that requires emission reductions must include an economic analysis in order to determine the cost-effectiveness of those reductions.

I. Implementing Projects Identified in the Assessment

1. **Comment:** Given the magnitude of emissions and potential reductions from this sector, it is imperative to ensure a specific GHG reduction target and a reliable basis for those reductions. We recommend incorporating a clear GHG reduction target of 10 $MMTCO_2e$ from this measure, guaranteeing that cost-effective reduction strategies are implemented to provide significant global warming pollution reductions, air quality improvements, and health benefits in the communities that need them most … the target would serve as a consistent 2020 goal for this sector regardless of which facilities are ultimately included in a cap and trade system and when they are included. Setting a goal of 10 $MMTCO_2e$ allows the state to maintain its total 2020 reduction goal, as this is what the initial scoping plan relied on. This goal amounts to less than 10% of sector emissions and allows for plenty of flexibility in defining specific measures and strategies on the way to 2020. (ENVIR)

Response: We disagree; no change made. As stated in the Staff Report, establishing an emissions reduction target is not practical prior to identifying the potential opportunities. Without knowledge of the opportunities, it is not possible to guarantee the level of reductions achievable. Consequently, setting a goal, regardless of the level, would not be meaningful. Additionally, the mechanism by which these opportunities are to be implemented is not specified in the regulation, nor should it be prior to identifying

the opportunities. Mandating how the opportunities are to be implemented prior to their identification could result in an inadequate consideration of projects that actually have greater co-benefits for other pollutants. It would also not allow the public to participate in the process of determining the priority of the projects to be implemented. Lastly, the information provided in the assessment is meant to be preliminary in order to guide future decision making. A thorough analysis of the impacts and costs associated with each project would need to be conducted prior to determining how they are to be implemented.

2. **Comment:** Audit measures, if implemented, should provide significant future energy and cost savings … we recognize that some facilities, such as cement kilns, may have trouble financing the necessary investments to reap these reductions and future savings, and recommend the creation of a low cost loan program similar to that created for small business truck owners. (ENVIR)

Response: This comment is directed to potential future action and not to the proposed regulation at issue, and thus ARB need not respond. However, we agree that identified measures may provide significant future energy and cost savings if implemented. ARB staff will use the information obtained from the facilities through compliance with this regulation to enter into discussions with all stakeholders on what actions and approaches could be taken to maximize GHG, criteria pollutant, and toxic air contaminant emission reductions. These approaches may potentially include options such as low-cost loan programs or other programs that incentivize emission reductions.

3. **Comment:** By itself, the audit measure contains no requirements to act upon any cost-effective and feasible reduction measures that are identified, leaving decisions to act on the audits as voluntary. We concur with a recent EPA Office of Inspector General report that voluntary GHG reduction programs have limited potential. (ENVIR)

Response: While facilities are not required to implement the identified projects within the scope of this regulation, the information gathered from the facility assessments will provide valuable data that ARB, local districts, and the public can use to inform GHG, criteria pollutant, and toxic air contaminant emission control program development and implementation. This will ensure that resources are directed towards the greatest emission reduction opportunities. Staff believes that facilities will likely discover, through the assessment process, efficiency improvements that can reduce their costs. In Resolution 10-30, the Board encourages facility operators to implement cost-effective energy efficiency improvement opportunities that are identified.

4. **Comment:** It is critical for Valero, as well as the entire refining industry, that the GHG reductions ultimately identified and implemented through this regulation are creditable under the AB32 Cap and Trade Program, and will apply towards meeting our GHG reduction obligations under the cap. (VALERO)

Response: This regulation does not require implementation of identified energy efficiency improvement opportunities. The cap-and-trade regulation will set an overall cap on emissions from all covered sectors, including the industrial sources covered by this regulation. If an industrial source reduces their greenhouse gas emissions – because of a regulatory requirement or for any other reason – it will reduce their obligation to turn in "allowances" under the cap-and-trade regulation. These reductions are not "outside" the cap, just like reductions from other complementary measures (such as Renewable Energy Sources, Pavley, etc.) are not "outside" the cap. The benefit of reducing greenhouse gas emissions is that a facility will have to turn in fewer allowances. Awarding credits would double-count those emission reductions.

5. **Comment:** CARB has repeatedly characterized this proposal to industry as only a "fact-finding mission" and have rejected requests to clarify how or if reductions stemming from the identified energy efficiency projects will be treated under the Cap and Trade program. While many would see the emission reductions gained through efficiency (even if mandated) as an obvious inclusion in the Cap and Trade program, the resistance the agency is displaying on clarifying this issue indicates internal discussions on the subject are continuing … While it is clear that CARB has not taken a specific position on this issue, support from the regulated community for this proposal can be enhanced with the addition of a brief statement outlining how future reductions achieved through implementing the projects identified by this regulation will be included within the scope of the Cap and Trade Regulation. (VALERO)

Response: If an industrial source chooses to implement any of the energy efficiency opportunities identified in their assessment process for this regulation, the resulting greenhouse gas emission reductions will reduce their obligation to turn in "allowances" under the cap-and-trade regulation. See response to Comment I.4.

6. I want to echo and state strong support for the intent in the presentation encouraging facilities to act upon the measures identified by their audits. I think it's very important for the facilities to make every effort to move forward with all of the cost-effective measures identified by their audits. (ENVIR2)

Response: We agree with this comment. See response to Comment I.3.

J. Miscellaneous

1. **Comment:** I don't support AGW [anthropogenic global warming] in any way, shape, or form. The bottom line is that there was no unequivocal scientific evidence that global warming is caused by greenhouse gases. And to continue to pursue this is enormously expensive and costly in terms of people's livelihood and their very lives at a time when real scientists have real issues with real things that could be done to improve the lives of everybody in California as well as this country and the world to me is just absolutely obscene. (DECARBONEL)

Response: This comment does not raise any objections or recommendations directed to the regulation, and it is not necessary to respond as part of this rulemaking.

V. SUMMARY OF COMMENTS AND AGENCY RESPONSES – NOTICE OF MODIFIED TEXT

No written comments were received related to modified regulatory text released for public comment on September 29, 2010.