Comment 1 for Greenhouse Gas Mandatory Reporting (ghg2007) - 45 Day.

First Name: jeffrey
Last Name: hahn
Email Address: jhahn@covantaenergy.com
Affiliation: Covanta Energy

Subject: Two comments from Covanta Energy on 95125(g)(2) & 95103 (c)(2)
Comment:

Doug Thompson and Pam Burmich:

I certainly appreciate your consideration of Covanta's and IEP's comments on your initial draft GHG regulations issued in August. I have two quick comments about the current October review draft:

1. In 95125 (g) (2) "Emissions shall not be based on O2 concentrations" is stated. I would like you to consider the attached special study Covanta conducted during our annual permit-required RATA at Burney Mountain Power biomass facility: Avogadro calculated the CO2 concentrations from the O2 CEMS concentrations using 40CFR60 Appendix A Method 19 and compared it to their CARB Independent Testing Contractor CO2 reference CEMS; the calculated CO2 passed the RATA requirements.

Would you please reconsider the language in 95125 (g) (2) to allow O2 CEMS if it can pass RATA as in the above special test?

2. In 95103 (c) (2) "Triennial Schedule" is stated that only "pure" biomass electric generating facilities may use this triennial schedule. Why was the word "pure" used here? Is an MSW electric generating facility > 10 MW subject to an annual schedule as in 95103 (c) (1)? And was this your intent?

Thank you for your attention to these details and please contact me if I can add any additional information or answer any further questions.

Jeffrey L. Hahn, PE, BCEE, QEP

Director, Environmental

COVANTA

E N E R G Y

for a cleaner world

Covanta Energy Corporation

876 Mt. View Dr, Lafayette, CA 94549

925.284.2006 Fax: 925.284.2284 Cell: 201.723.6447

www.CovantaHolding.com

Attachment: www.arb.ca.gov/lists/ghg2007/1-bmp_2007_co2_calc_rata_from_o2_cem.pdf

Original File Name: BMP 2007 CO2 calc RATA from O2 CEM.pdf

Date and Time Comment Was Submitted: 2007-10-25 19:37:18

No Duplicates.

Comment 2 for Greenhouse Gas Mandatory Reporting (ghg2007) - 45 Day.

First Name: Russ
Last Name: Bennett
Email Address: rbennett@ci.redding.ca.us
Affiliation: Redding Power

Subject: Request for Clarification, Section 95111 (c) (1)
Comment:

Our facility has one gas turbine/generator that is subject to 40 CFR 75, and several other turbine/generators and boilers that are not. The language in Section 95111 (c) (1) requires facilities that are subject to 40 CFR 75 to report their Part 75 CO2 emissions. It is not possible to report Part 75 CO2 emissions at the facility level. We can only report Part 75 CO2 emissions for the turbine generator that is subject to this regulation. The language in Section 95111 (c) (1) should be written so that it is clear the requirement to report Part 75 emissions apply at the unit level for those units subject to 40 CFR 75, and not the facility level.

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2007-10-29 11:26:56

No Duplicates.

Comment 3 for Greenhouse Gas Mandatory Reporting (ghg2007) - 45 Day.

First Name: Russ
Last Name: Bennett
Email Address: rbennett@ci.redding.ca.us
Affiliation: Redding Power

Subject: Request for Clarification, Section 95111 (a) (4)
Comment:

Our facility has a steam turbine that is supplied steam from two boilers and from a Heat Recovery Steam Generator that is on the exhaust of one of our gas turbine/generators. It does not make sense to apply Section 95112 to the boilers and turbine/generators because Section 95112 requires emissions to be distributed between thermal energy production and electrical production. The thermal energy production from the HRSG and boilers are used to generate electricity. Could Section 95111 (a) (4) and the related definitions for “cogeneration system” and “cogeneration facility” be clarified so that they do not apply to our facility.

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2007-10-29 12:34:38

No Duplicates.

Comment 4 for Greenhouse Gas Mandatory Reporting (ghg2007) - 45 Day.

First Name: David
Last Name: Armstrong
Email Address: armstrong3@llnl.gov
Affiliation: Lawrence Livermore National Laboratory

Subject: October 19, 2007 Draft Mandatory Reporting of GHG Emissions
Comment:

```
Request changing Section 95101 "Applicability" as follows:

1. Change subsection (b)(8) from "Operators of other
facilities..." to "Operators of other industrial facilities..."

2. Change subsection (c) to add a new item:  "(5) Sources that are
solely used for comfort heating."

Rationale:  The staff report for the subject rulemaking states on
page 4 that,  "under the proposed regulation, the facilities that
are required to annually report their GHG emissions
include...industrial sources that emit over 25,000 metric tonnes
per year of CO2."  However in the draft subsection (b)(8), the
word "industrial" was omitted.  There are some non-industrial
facilities that may exceed the reporting threshold based on
emissions from comfort heating. Hospitals and schools have already
been excluded for this reason, but there are other facilities that
should be excluded for the same reason.
Also in this regard, please note on page 14 of the staff report,
Section 5, "Defining a "Facility" and an "Operator", which states
"...unspecified sources such as residential heating and cooling
would not be included."
```

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2007-11-09 15:58:49

No Duplicates.

Comment 5 for Greenhouse Gas Mandatory Reporting (ghg2007) - 45 Day.

First Name: Bob
Last Name: Ellery
Email Address: bellery@spi-ind.com
Affiliation: Sierra Pacific Industries

Subject: mandatory Reporting for Biomass Cogeneration Facilities
Comment:

```
Sierra Pacific Industries owns and operates 5 cogeneration
facilities that combust solid biomass.  Several co-fire with
fossil fuels for start-up, shutdown or malfunction operating
periods only.  We would like to confirm that our facilities would
report under proposed Section 95111 because we combust biomass
rather than Section 95112 because we are a cogeneration facility.
Section 95112 seems to be focused on the combustion of fossil fuel.
```

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2007-11-12 15:47:40

No Duplicates.

Comment 6 for Greenhouse Gas Mandatory Reporting (ghg2007) - 45 Day.

First Name: Bruce
Last Name: Falkenhagen
Email Address: Non-web submitted comment
Affiliation:

Subject: Energy Enterprise
Comment:

```
Please see attached.
```

Attachment: www.arb.ca.gov/lists/ghg2007/13-07123com0001.pdf

Original File Name: 07123com0001.pdf

Date and Time Comment Was Submitted: 2007-11-13 10:42:53

No Duplicates.

Comment 7 for Greenhouse Gas Mandatory Reporting (ghg2007) - 45 Day.

This comment was posted then deleted because it was unrelated to the Board item or it was a duplicate.

Comment 8 for Greenhouse Gas Mandatory Reporting (ghg2007) - 45 Day.

First Name: Bill
Last Name: Buchan
Email Address: buchan@mktpotential.com
Affiliation: Altivity Packaging Cogen

Subject: B. Buchan Comments
Comment:

```
Please see attached.
```

Attachment: www.arb.ca.gov/lists/ghg2007/15-buchan.pdf

Original File Name: Buchan.pdf

Date and Time Comment Was Submitted: 2007-11-14 11:45:38

No Duplicates.

Comment 9 for Greenhouse Gas Mandatory Reporting (ghg2007) - 45 Day.

First Name: Gregory
Last Name: Knapp
Email Address: gknapp@txi.com
Affiliation: CCMEC / PCA

Subject: California Cement Industry GHG Mandatory Reporting
Comment:

```
Please review the attached comments and call Greg Knapp,
(760) 245-5321 ext 319 with any questions.
```

Attachment: www.arb.ca.gov/lists/ghg2007/16-ccmec_ghg_reporting__comments_nov19_2007.pdf

Original File Name: CCMEC_GHG_Reporting _Comments_Nov19_2007.pdf

Date and Time Comment Was Submitted: 2007-11-19 11:19:23

No Duplicates.

Comment 10 for Greenhouse Gas Mandatory Reporting (ghg2007) - 45 Day.

First Name: Rob
Last Name: Neenan
Email Address: rob@clfp.com
Affiliation: CA League of Food Processors

Subject: Comments re: Mandatory Reporting of GHG Emissions
Comment:

```
Enclosed is a copy of final comments prepared by the California
League of Food Processors regarding ARB's proposed mandatory
greenhouse gas emissions reporting requirements.
```

Attachment: www.arb.ca.gov/lists/ghg2007/17-clfp_final_comments_re_mandatory_reporting_requirements.doc

Original File Name: CLFP FINAL COMMENTS RE MANDATORY REPORTING REQUIREMENTS.doc

Date and Time Comment Was Submitted: 2007-11-19 13:15:33

No Duplicates.

Comment 11 for Greenhouse Gas Mandatory Reporting (ghg2007) - 45 Day.

First Name: Taylor
Last Name: Miller
Email Address: tmiller@sempra.com
Affiliation: Sempra Energy

Subject: Mandatory Reporting Regulations
Comment:

```
Please see comment letter attached.
```

Attachment: www.arb.ca.gov/lists/ghg2007/18-sempra_energy__comments_on_mandatory_reporting_reg__11_19.pdf

Original File Name: Sempra Energy comments on mandatory reporting reg 11 19.pdf

Date and Time Comment Was Submitted: 2007-11-20 09:39:13

No Duplicates.

Comment 12 for Greenhouse Gas Mandatory Reporting (ghg2007) - 45 Day.

First Name: Karin
Last Name: Ritter
Email Address: ritterk@api.org
Affiliation: API

Subject: Public Hearing to Consider Adoption of a Regulation for the Mandatory Reporting of GHG Emi
Comment:

```
Attached are API's comments on CARB's Adoption of a Regulation for
the Mandatory Reporting of Greenhouse Gas Emissions.
```

Attachment: www.arb.ca.gov/lists/ghg2007/19-api_ab32comments_board-dfinal_26nov07.pdf

Original File Name: API_AB32Comments_Board-dFinal_26NOV07.pdf

Date and Time Comment Was Submitted: 2007-11-26 13:08:59

No Duplicates.

Comment 13 for Greenhouse Gas Mandatory Reporting (ghg2007) - 45 Day.

First Name: John
Last Name: Busterud
Email Address: JWBb@pge.com
Affiliation: Pacific Gas & Electric Company

Subject: PG&E's Comments on Draft Regulation for Mandatory Reporting of GHG Emissions
Comment:

```
Please see attached comment letter.

Please copy meredith.klein@pillsburylaw.com on acknowledgement of
receipt of comment letter.  Thank you very much.
```

Attachment: www.arb.ca.gov/lists/ghg2007/20-carb_reporting_regs_comments_outline.pdf

Original File Name: CARB Reporting Regs Comments Outline.pdf

Date and Time Comment Was Submitted: 2007-11-26 14:50:12

No Duplicates.

Comment 14 for Greenhouse Gas Mandatory Reporting (ghg2007) - 45 Day.

First Name: Timothy
Last Name: Suen
Email Address: twsuen@gmail.com
Affiliation:

Subject: Carbon Tax
Comment:

```
Will California consider implementing a carbon tax?  If not, why
not?  This has all the benefits of reporting greenhouse emissions
(the amount of greenhouse gases is directly reflected in the
price), provides financial incentives for both innovation and good
consumer choices, and avoids the bureaucracy that would be required
for reporting emissions.
```

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2007-11-26 17:37:15

No Duplicates.

Comment 15 for Greenhouse Gas Mandatory Reporting (ghg2007) - 45 Day.

First Name: Devra
Last Name: Wang
Email Address: dwang@nrdc.org
Affiliation: Natural Resources Defense Council

Subject: Support for mandatory reporting requirements under AB 32
Comment:

```
Attached please find comments in support of the mandatory reporting
requirements under AB 32 from ten environmental organizations.
```

Attachment: www.arb.ca.gov/lists/ghg2007/22-mandatory_reporting_comments_final.pdf

Original File Name: mandatory reporting comments final.pdf

Date and Time Comment Was Submitted: 2007-11-26 20:51:18

No Duplicates.

Comment 16 for Greenhouse Gas Mandatory Reporting (ghg2007) - 45 Day.

First Name: Cathy
Last Name: Karlstad
Email Address: Cathy.Karlstad@sce.com
Affiliation: Southern California Edison

Subject: Regulation re: Mandatory Reporting of GHG Emissions
Comment:

```
Please see attached letter comments.
```

Attachment: www.arb.ca.gov/lists/ghg2007/23-sce_comments_regarding_regulation_for_the_mandatory_reporting_of_ghg_emissions.pdf

Original File Name: SCE Comments Regarding Regulation for the Mandatory Reporting of GHG Emissions.pdf

Date and Time Comment Was Submitted: 2007-11-27 16:47:10

No Duplicates.

Comment 17 for Greenhouse Gas Mandatory Reporting (ghg2007) - 45 Day.

First Name: Ray
Last Name: Yee
Email Address: Non-web submitted comment
Affiliation: PPG

Subject: PPG Industies
Comment:

```
Please see attached.
```

Attachment: www.arb.ca.gov/lists/ghg2007/24-07123com0001.pdf

Original File Name: 07123com0001.pdf

Date and Time Comment Was Submitted: 2007-11-28 14:28:21

No Duplicates.

Comment 18 for Greenhouse Gas Mandatory Reporting (ghg2007) - 45 Day.

First Name: Elizabeth
Last Name: Hadley
Email Address: ehadley@reupower.com
Affiliation: Redding Electric Utility

Subject: COMMENTS OF REDDING ELECTRIC UTILITY ON THE PROPOSED REGULATION FOR MANDATORY REPORTING
Comment:

```
Please see the attached file, "COMMENTS OF REDDING ELECTRIC UTILITY
ON THE PROPOSED REGULATION FOR MANDATORY REPORTING OF GREENHOUSE
GAS EMISSIONS PURSUANT TO THE CALIFORNIA GLOBAL WARMING SOLUTIONS
ACT OF 2006".

Thank you.

Elizabeth Hadley
```

Attachment: www.arb.ca.gov/lists/ghg2007/25-redding_electric_utility_mandatory_reporting_comments_11_28_08.pdf

Original File Name: REDDING ELECTRIC UTILITY Mandatory Reporting Comments 11_28_08.pdf

Date and Time Comment Was Submitted: 2007-11-28 16:41:41

No Duplicates.

Comment 19 for Greenhouse Gas Mandatory Reporting (ghg2007) - 45 Day.

First Name: Leif
Last Name: Hockstad
Email Address: Hockstad.Leif@epamail.epa.gov
Affiliation: U.S. EPA

Subject: U.S. EPA Comments on Proposed GHG Mandatory Reporting Regulation
Comment:

```
EPA comments attached
```

Attachment: www.arb.ca.gov/lists/ghg2007/26-epa_comments_on_carb_ghg_rulemaking_nov-27-07.doc

Original File Name: EPA Comments on CARB GHG Rulemaking_Nov-27-07.doc

Date and Time Comment Was Submitted: 2007-11-29 13:03:10

No Duplicates.

Comment 20 for Greenhouse Gas Mandatory Reporting (ghg2007) - 45 Day.

First Name: David
Last Name: Campbell
Email Address: davidc@sjr.com
Affiliation: San Joaquin Refining Company

Subject: San Joaquin Refining Company - Comments on GHG Reporting Regulation
Comment:

```
Mr. Shulock,
I, as well as Chad Tuttle and Jerry Frost from Kern Oil &
Refining, met with Doug Thompson and Byard Mosher of your Staff on
Nov. 19th.  As a follow up to that meeting, I have attached San
Joaquin Refining comments/ information requests.

Please feel free to call me if you have questions or need
additional information.
Sincerely,
David Campbell
Environmental Manager
San Joaquin Refining Company, Inc.
```

Attachment: www.arb.ca.gov/lists/ghg2007/27-sjr_comments.doc

Original File Name: SJR Comments.doc

Date and Time Comment Was Submitted: 2007-11-29 13:07:03

No Duplicates.

Comment 21 for Greenhouse Gas Mandatory Reporting (ghg2007) - 45 Day.

First Name: Julia
Last Name: May
Email Address: jmay@sbcglobal.net
Affiliation: Communities for a Better Environment

Subject: Communities for a Better Environment - GHG Reporting Comments
Comment:

```
Dear Sirs -- I understand that ARB is planning one more draft of
the AB32 Mandatory Reporting regulations before the public hearing
next week.  Attached is a short comment letter identifying key
changes we are urging for the regulation.  We urge you to address
these issues.  Thanks for your consideration.

Julia May
Senior Scientist
Communities for a Better Environment
----------
Attached are the additional attachments for our November 28, 2007
CBE comment, including the powerpoint we submitted at the June
hearing and our August comment letter.
```

Attachment: www.arb.ca.gov/lists/ghg2007/28-cbe_ghg_reg_comments.zip

Original File Name: CBE GHG Reg Comments.zip

Date and Time Comment Was Submitted: 2007-11-29 13:31:59

No Duplicates.

Comment 22 for Greenhouse Gas Mandatory Reporting (ghg2007) - 45 Day.

First Name: Jim
Last Name: Merriam
Email Address: James_N_Merriam@Praxair.com
Affiliation: Praxair

Subject: Praxair Comments on Mandatory GHG Reporting Regulation
Comment:

```
Mr. Thompson:

Attached are Praxair's comments associated with the proposed
regulation for Mandatory Reporting of Greenhouse Gas Emissions.
We also will be submitting hard copies of these comments.

Should you have any questions, please do not hesitate to contact
me or Dave Copeland.

Thank you.

Jim

Jim Merriam
Praxair Inc.
Director, Corporate Environmental Services
```

Attachment: www.arb.ca.gov/lists/ghg2007/29-praxairab32greenhousegasreportingcommentsfinal112907.doc

Original File Name: PraxairAB32GreenhouseGasReportingCommentsfinal112907.doc

Date and Time Comment Was Submitted: 2007-11-29 13:58:26

No Duplicates.

Comment 23 for Greenhouse Gas Mandatory Reporting (ghg2007) - 45 Day.

First Name: Cathy
Last Name: Reheis-Boyd
Email Address: joey@wspa.org
Affiliation:

Subject: AB32 Mandatory Reporting Comments from WSPA
Comment:

```
Per Cathy Reheis-Boyd, please see attached comments.
```

Attachment: www.arb.ca.gov/lists/ghg2007/30-ab32_mandatory_report_final__113007.doc

Original File Name: AB32 Mandatory Report Final, 113007.doc

Date and Time Comment Was Submitted: 2007-11-30 08:11:23

No Duplicates.

Comment 24 for Greenhouse Gas Mandatory Reporting (ghg2007) - 45 Day.

First Name: Barbara
Last Name: McBride
Email Address: bmcbride@calpine.com
Affiliation:

Subject: Calpine comments on Mandatory Reporting of GHG
Comment:

```
Please see attached comments for the Mandatory reporting of
Greenhouse Gas Emissions by Calpine.

Thanks,
Barbara McBride
Director, Environmental, Health and Safety
Calpine Corporation
```

Attachment: www.arb.ca.gov/lists/ghg2007/31-calpine113007.pdf

Original File Name: Calpine113007.pdf

Date and Time Comment Was Submitted: 2007-11-30 14:15:34

No Duplicates.

Comment 25 for Greenhouse Gas Mandatory Reporting (ghg2007) - 45 Day.

First Name: Bruce
Last Name: McLaughlin
Email Address: mclaughlin@braunlegal.com
Affiliation: California Municipal Utilities Assoc

Subject: Comments on Mandatory Reporting NOPA
Comment:

```
Mr. Richard Bode
Chief, Emission Inventory Branch
Air Resources Board
1001 I Street, CA 95814

Please find attached the Comments of the California Municipal
Utilities Associatoin on the Mandatory GHG Reporting NOPA.
```

Attachment: www.arb.ca.gov/lists/ghg2007/32-cmua_comments_on_mandatory_reporting_nopa.pdf

Original File Name: CMUA Comments on Mandatory Reporting NOPA.pdf

Date and Time Comment Was Submitted: 2007-11-30 14:35:01

No Duplicates.

Comment 26 for Greenhouse Gas Mandatory Reporting (ghg2007) - 45 Day.

First Name: Jerry
Last Name: Frost
Email Address: jfrost@kernoil.com
Affiliation: Kern Oil and Refining Company

Subject: Small Refiners Alternative Monitoring of Refinery Fuel Gas
Comment:

```
SUBJECT: Small Refiners Alternative Monitoring of Refinery Fuel
Gas
  Proposed Mandatory Reporting of GHG Emissions

Dear Mr. Shulock:

Kern Oil & Refining Co. (Kern) appreciated the opportunity to meet
with Doug Thompson and Byard Mosher of your Staff on November 19,
2007.  In follow up to that meeting, Kern is supplying additional
information requested with regards to the monitoring of refinery
fuel gas.

[See Attachment]
```

Attachment: www.arb.ca.gov/lists/ghg2007/33-kern_commentdraft_mandatory_reporting_regs_112707.doc

Original File Name: Kern CommentDraft Mandatory Reporting Regs 112707.doc

Date and Time Comment Was Submitted: 2007-11-30 15:51:03

No Duplicates.

Comment 27 for Greenhouse Gas Mandatory Reporting (ghg2007) - 45 Day.

First Name: Terry
Last Name: Erlewine
Email Address: terlewine@swc.org
Affiliation: State Water Contractors

Subject: State Water Contractor Comments on Mandatory Reporting of Greenhouse Gas Emissions
Comment:

```
A copy of the letter we are mailing to the Clerk of the Board is
attached.
```

Attachment: www.arb.ca.gov/lists/ghg2007/34-113007carbmandatoryghgrpting_swccomments.pdf

Original File Name: 113007CARBMandatoryGHGRpting SWCComments.pdf

Date and Time Comment Was Submitted: 2007-11-30 16:04:19

No Duplicates.

Comment 28 for Greenhouse Gas Mandatory Reporting (ghg2007) - 45 Day.

First Name: Koji
Last Name: Kawamura
Email Address: kawamura@wapa.gov
Affiliation: DOE - Western Area Power Administation

Subject: Federal DOE Reporting of Power GHG Emissions
Comment:

```
See attachment regarding collection of Power Sector GHG data from
the Federal Department of Energy Western Area Power
Administration.
```

Attachment: www.arb.ca.gov/lists/ghg2007/35-doe_westernareapowerghg_comment.pdf

Original File Name: DOE WesternAreaPowerGHG Comment.pdf

Date and Time Comment Was Submitted: 2007-12-03 09:00:52

No Duplicates.

Comment 29 for Greenhouse Gas Mandatory Reporting (ghg2007) - 45 Day.

First Name: Monica
Last Name: Tully
Email Address: monica_tully@raytheon.com
Affiliation: Raytheon - SAS

Subject: Clarification regarding HSCS 42871
Comment:

In Health and Safety Code Section 42871 (b) states the following:

(b) It is the intent of the Legislature that emissions registered and verified in accordance with this chapter prior to January 1, 2008, receive appropriate consideration under any future international, federal, or state regulatory scheme relating to greenhouse gas emissions.

Has ARB staff given any consideration to defining "appropriate consideration" and how this will affect CCAR members who have voluntarily put forth a good faith effort to have their emissions verified but are unable to meet the 12/31/2007 deadline?

Staff should consider defining a timeline for those members who are able to have emissions verified within a 30 or 60 days, of the 12/31/2007 deadline, to be included in the "appropriate consideration".

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2007-12-03 12:07:45

No Duplicates.

Comment 30 for Greenhouse Gas Mandatory Reporting (ghg2007) - 45 Day.

First Name: Natasha
Last Name: Meskal
Email Address: nmeskal@ecotek.com
Affiliation: Ecotek

Subject: Mandatory Reporting of Greenhouse Gas Emissions
Comment:

```
Please see the attached comments.

Sincerely,
```

Attachment: www.arb.ca.gov/lists/ghg2007/37-ecotek_comments_on_mandatory_ghg_reporting.pdf

Original File Name: Ecotek Comments on Mandatory GHG Reporting.pdf

Date and Time Comment Was Submitted: 2007-12-03 13:04:05

No Duplicates.

Comment 31 for Greenhouse Gas Mandatory Reporting (ghg2007) - 45 Day.

This comment was posted then deleted because it was unrelated to the Board item or it was a duplicate.

Comment 32 for Greenhouse Gas Mandatory Reporting (ghg2007) - 45 Day.

First Name: John
Last Name: Shideler
Email Address: Shideler@nsf-isr.org
Affiliation: NSF-ISR (NSF) International Strategic

Subject: Comments on Verification Component of GHG Reporting Regulation
Comment:

```
See attached document for specific comments on the proposed GHG
regulation for mandatory reporting.
```

Attachment: www.arb.ca.gov/lists/ghg2007/39-nsfcommentsproposedrule2007-11-30.pdf

Original File Name: NSFcommentsProposedRule2007-11-30.pdf

Date and Time Comment Was Submitted: 2007-12-03 14:52:03

No Duplicates.

Comment 33 for Greenhouse Gas Mandatory Reporting (ghg2007) - 45 Day.

First Name: Jerry
Last Name: Frost
Email Address: jfrost@kernoil.com
Affiliation: Kern Oil & Refining Company

Subject: Small Refinery Cost Estimate
Comment:

```
Program cost estimate for small refinery
```

Attachment: www.arb.ca.gov/lists/ghg2007/40-kern_oil_cost_questionnaire.doc

Original File Name: Kern Oil Cost questionnaire.doc

Date and Time Comment Was Submitted: 2007-12-03 14:55:34

No Duplicates.

Comment 34 for Greenhouse Gas Mandatory Reporting (ghg2007) - 45 Day.

First Name: K. Kelly
Last Name: McKenzie
Email Address: Non-web submitted comment
Affiliation:

Subject: NUMMI
Comment:

Please see attached.

Attachment: www.arb.ca.gov/lists/ghg2007/42-ghg2007com0001.pdf

Original File Name: ghg2007com0001.pdf

Date and Time Comment Was Submitted: 2007-12-04 10:01:59

No Duplicates.

Comment 35 for Greenhouse Gas Mandatory Reporting (ghg2007) - 45 Day.

First Name: Daniel
Last Name: Hunter
Email Address: dan.hunter@conocophillips.com
Affiliation:

Subject: Comments on mandatory reporting of greenhouse gasses
Comment:

```
Attached are the comments of ConocoPhillips
```

Attachment: www.arb.ca.gov/lists/ghg2007/43-ab32_comments.doc

Original File Name: AB32 comments.doc

Date and Time Comment Was Submitted: 2007-12-04 10:06:20

No Duplicates.

Comment 36 for Greenhouse Gas Mandatory Reporting (ghg2007) - 45 Day.

First Name: Emily
Last Name: Coyner
Email Address: ecoyner@lime.org
Affiliation: National Lime Association

Subject: Comments on Proposed AB32 Mandatory GHG Reporting Regulation
Comment:

```
Please find attached the National Lime Association's comments on
Proposed AB32 Mandatory GHG Reporting Regulation.
```

Attachment: www.arb.ca.gov/lists/ghg2007/44-commentltrcalghgdec2007.pdf

Original File Name: CommentltrCalGHGDec2007.pdf

Date and Time Comment Was Submitted: 2007-12-04 11:21:10

No Duplicates.

Comment 37 for Greenhouse Gas Mandatory Reporting (ghg2007) - 45 Day.

First Name: Holly
Last Name: Cronin
Email Address: hcronin@water.ca.gov
Affiliation: Department of Water Resources

Subject: DWR Comments on the Regulation for the Mandatory Reporting of Greenhouse Gas Emissions
Comment:

```
The Department of Water Resources (DWR) is pleased to take this
opportunity to make recommendations on the California Air
Resources Board (ARB) staff’s proposed Mandatory Greenhouse Gas
(GHG) Reporting Regulation, which is being developed pursuant to
the California Global Warming Solutions Act of 2006.

If you have any questions, please contact me.
```

```
Holly B. Cronin, Senior HEP Utilities Engineer
Strategic Power Planning Branch
State Water Project Operations Division
California Department of Water Resources
P. O. Box 219000, 3310 El Camino Ave, LL-90
Sacramento, CA 95821
Phone: (916) 574-0708, Fax: (916) 574-0660
Email: hcronin@water.ca.gov
```

Attachment: www.arb.ca.gov/lists/ghg2007/45-proposed_mandatory_ghg_reporting_regulation_dwr_comments_20071204.doc

Original File Name: Proposed Mandatory GHG Reporting Regulation DWR Comments 20071204.doc

Date and Time Comment Was Submitted: 2007-12-04 11:25:50

No Duplicates.

Comment 38 for Greenhouse Gas Mandatory Reporting (ghg2007) - 45 Day.

First Name: ANTOHNY
Last Name: POCENGAL
Email Address: POCENGAL_ANTHONY@SOLARTURBINES.COM
Affiliation:

Subject: MANDATORY REPORTING REG COMMENTS
Comment:

```
Comments attached.
```

Attachment: www.arb.ca.gov/lists/ghg2007/46-mandatory_reporting_comments.pdf

Original File Name: Mandatory Reporting comments.pdf

Date and Time Comment Was Submitted: 2007-12-04 12:34:12

No Duplicates.

Comment 39 for Greenhouse Gas Mandatory Reporting (ghg2007) - 45 Day.

First Name: Joseph
Last Name: Heinzmann
Email Address: jheinzmann@fce.com
Affiliation: FuelCell Energy

Subject: Reporting for Onsite Biomass and Natural Gas Fired Combined Heat and Power Applications
Comment:

FuelCell Energy (FCE) appreciates the opportunity to offer input to the California Air Resources Board (CARB) on the Draft Regulation on Mandatory GHG Reporting that was released by the ARB staff on October 19, 2007, and discussed during the public workshop on October 31, 2007.

FuelCell Energy has been activly deploying highly efficient and ultra clean fuel cells to private and public facilities within the State of California, North America, Europe and Asia. There are currently nearly 20 MWs of FuelCell Energy's high temperature molten carbonate based fuel cells operating or under contract in California. Typically these facilities are less than 2 MWs in size but interest and the favorable economics of larger deployment of this beneficial technology is growing.

By deploying FuelCell Energy Combined Heat and Power (FCE-CHP) systems at load centers throughout the state we can raise the total system efficiency first by the inherent higher electrical conversion efficiencies of a high temperature fuel cell, secondly by removing the line losses required to transmit the electricity to the facility and finally compound the CO2 savings by using the waste heat to offload the boilers that are operating at facilities. These onsite FCE-CHP systems actually reduce local emissions since the fuel cells themselves are Ultra Clean and the boilers are burning less fuel.

FuelCell Energy has been proud to work with municipal waste water facilities throughout the state deploying fuel cells at waste water facilities. These installations are producing up to 40% more ultra clean renewable kwhrs from the same amount of digester gas compared to standard combustion technologies.

Additionally, FuelCell Energy has been honored to be actively engaged with the food and beverage industry in our state in an effort to reduce operating costs, maintain industry competitiveness, and create a sustainable business environment by introducing a waste to energy model where in the facility's typical waste is used in an onsite digester to reduce disposal costs and the associated emissions. The digester gas is fed back to the fuel cell which then produces ultra clean and efficient renewable energy in the form of electricity and heat for the facility's process. This closed loop ultra clean and highly efficient system is the sustainable model that must be supported and credited wherever possible.

Based on the above FuelCell Energy requests the following changes be made to the reporting guidelines

• Generating facilities reporting size should be raised from 1 MW or greater to 12 MWs or greater recognizing the greater good distributed generation brings to our states electrical needs

• Biogas utilization should be credited with a CO2 sink factor recognizing the inherent renewable and sustainability aspect of investing in the development and utilization of this fuel

• Facilities who have invested in onsite generation should have a CO2 credit due to the reduction of line losses and the associated CO2 emissions

Respectfully,
Joe Heinzmann
FuelCell Energy

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2007-12-04 12:49:01

No Duplicates.

Comment 40 for Greenhouse Gas Mandatory Reporting (ghg2007) - 45 Day.

First Name: Diana
Last Name: Mahmud
Email Address: dmahmud@mwdh2o.com
Affiliation: Metropolitan Water District of So. Cal.

Subject: Comments re AB 32
Comment:

```
Please accept these comments re AB 32.

Thank you.
```

Attachment: www.arb.ca.gov/lists/ghg2007/48-cackett_letter_re_ghg.pdf

Original File Name: Cackett Letter re GHG.pdf

Date and Time Comment Was Submitted: 2007-12-04 15:37:17

No Duplicates.

Comment 41 for Greenhouse Gas Mandatory Reporting (ghg2007) - 45 Day.

First Name: Keith
Last Name: Adams
Email Address: adamskb@airproducts.com
Affiliation: Air Products and Chemicals

Subject: Comments regarding Mandatory GHG Reporting
Comment:

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Air Products comments submitted via an attached document.
```

Attachment: www.arb.ca.gov/lists/ghg2007/49-air_products_general_comments_-_oct_19_proposal_mandatory_ghg_reporting.doc

Original File Name: Air Products General Comments - Oct 19 Proposal Mandatory GHG Reporting.doc

Date and Time Comment Was Submitted: 2007-12-05 07:17:53

No Duplicates.

Comment 42 for Greenhouse Gas Mandatory Reporting (ghg2007) - 45 Day.

First Name: Donald
Last Name: Brookhyser
Email Address: deb@a-klaw.com
Affiliation:

Subject: Comments on reporting regulaiton
Comment:

```
Attached are comments on the regulation for mandatory reporting,
filed by the Energy Producers and Users Coalition and the
Cogeneration Association of California.
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Attachment: www.arb.ca.gov/lists/ghg2007/50-12_5_epuc-cac_comments_on_carb_draft_reporting_protocols.doc

Original File Name: 12 5 EPUC-CAC Comments on CARB draft reporting protocols.doc

Date and Time Comment Was Submitted: 2007-12-05 10:26:39

No Duplicates.

Comment 43 for Greenhouse Gas Mandatory Reporting (ghg2007) - 45 Day.

First Name: William
Last Name: Westerfield
Email Address: www@eslawfirm.com
Affiliation: Ellison Schneider & Harris

Subject: Comments of Sierra Pacific Power Company
Comment:

On behalf of Sierra Pacific Power Company, the following are comments to the “Staff Report: Initial Statement Of Reasons For Rulemaking - Proposed Regulation For Mandatory Reporting Of Greenhouse Gas Emissions Pursuant To The California Global Warming Solutions Act Of 2006 (Assembly Bill 32)”.

Attachment: www.arb.ca.gov/lists/ghg2007/51-071205_sppc_comments_carbreportingregulation_fin.pdf

Original File Name: 071205_SPPC_Comments_CARBReportingRegulation_fin.pdf

Date and Time Comment Was Submitted: 2007-12-05 11:02:45

No Duplicates.

Comment 44 for Greenhouse Gas Mandatory Reporting (ghg2007) - 45 Day.

First Name: Jim
Last Name: Sandoval
Email Address: jim.sandoval@ch2m.com
Affiliation: Bay Area Clean Water Agencies--AIR Comm.

Subject: Mandatory Reporting comments--reporting dates & biomass
Comment:

The Air Issues and Regulations (AIR) Committee of the Bay Area Clean Water Agencies (BACWA) is a coalition of San Francisco Bay Area Publicly Owned Treatment Works (POTWs) working cooperatively to address air quality issues. The AIR Committee has 18 member agencies, including large metropolitan facilities such as East Bay Municipal Utility District, the City and County of San Francisco, Central Contra Costa Sanitary District, and the City of San Jose. Together, AIR Committee member agencies treat over ninety percent of the municipal wastewater in the Bay Area.

We understand that the goals of the proposed Mandatory Reporting Staff Report are to 1) begin reporting the most significant GHG emissions, 2) use rigorous and consistent emission accounting methods, 3) provide verification of reported emissions data, and 4) use the standards and protocols of the California Climate Action Registry (CCAR) to the extent feasible and appropriate. The proposed Mandatory Reporting may potentially have a large impact on our member organizations. Therefore, we have reviewed the proposed Staff Report, and have summarized our concerns, as follows:

1) In general, we are concerned that the proposed report may not set clear dates for reporting deadlines. As currently written in the proposed report the reporting dates for ARB (April 1, June 1) do not match with CCAR (August 31). This discrepancy makes reporting to two separate state agencies more cumbersome. For further continuity and ease in the reporting process, the reporting dates for CARB and CCAR should align.

2) Mandatory Reporting may not give enough precedence to the biological (“biomass”/”biogenic”) portion of air emissions. As most of our member agencies are producers of biomass or biologically formed materials, we would like to comment on the reporting of biomass-derived emissions. Of particular importance is the differentiation of GHG emissions (whether biomass or fossil fuel). We ask that a clearer distinction be made in the reporting between biomass and fossil-fuel derived emissions to minimize any possibility of accounting confusion when mandated emissions reduction and cap and trade programs take effect.

We appreciate the opportunity to comment on these draft regulations and look forward to working with you as this regulation takes shape. Please contact Jim Sandoval at (831) 425-7142 or Meghan Hartman at (510) 587-7547 of CH2M HILL with any questions related to these comments. Thank you for your consideration.

Air Issues and Regulations Committee
Bay Area Clean Water Agencies
P.O. Box 24055, MS 702
Oakland, CA 94623

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2007-12-05 11:09:01

No Duplicates.

Comment 45 for Greenhouse Gas Mandatory Reporting (ghg2007) - 45 Day.

First Name: Mike
Last Name: Polyniak
Email Address: mkpe@earthlink.net
Affiliation: MKP Env & TRC Operating Co

Subject: COMMENTS IN RESPONSE TO OCTOBER 31, 2007 WORKSHOP
Comment:

```
Good Morning Mr. Bode;

Attached, for your consideration, are comments that have been
prepared in response to the October 31, 2007 Workshop.

A signed, hard copy on company letterhead will follow.

Best Regards,

Mike Polyniak
MKP Environmental
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Attachment: www.arb.ca.gov/lists/ghg2007/53-ab_32_workshop_comment_letter_031207.doc

Original File Name: AB 32 Workshop COMMENT LETTER 031207.doc

Date and Time Comment Was Submitted: 2007-12-05 11:59:08

No Duplicates.

Comment 46 for Greenhouse Gas Mandatory Reporting (ghg2007) - 45 Day.

First Name: Gregory
Last Name: Klatt
Email Address: klatt@energyattorney.com
Affiliation: Douglass & Liddell

Subject: AReM Comments on GHG Reporting Regualtions
Comment:

```
Comments of the Alliance for Retail Enegy Markets on the California
Air Resources Board Staff Report entitled
"Proposed Regulation for Mandatory Reporting of Greenhouse Gas
Emissions Pursuant to the California Global Warming Solutions Act
of 2006 (Assembly Bill 32)"
```

Attachment: www.arb.ca.gov/lists/ghg2007/54-12-05-07_arem_comments_on_carb_report_-_final.pdf

Original File Name: 12-05-07 AReM Comments on CARB Report - FINAL.pdf

Date and Time Comment Was Submitted: 2007-12-05 12:00:41

No Duplicates.

Comment 47 for Greenhouse Gas Mandatory Reporting (ghg2007) - 45 Day.

First Name: Robert
Last Name: Callahan
Email Address: robert.callahan@calchamber.com
Affiliation:

Subject: Comments on CARB's Draft Mandatory Reporting Regulation
Comment:

```
Please see the attached document from the AB 32 Implementation
Group regarding the proposed adoption of regulations for the
mandatory reporting of greenhouse gas emissions.  Thank you.

Robert Callahan
AB 32 Implementation Group
```

Attachment: www.arb.ca.gov/lists/ghg2007/55-ab_32_ig_mandatory_reporting_letter_final.doc

Original File Name: AB 32 IG Mandatory Reporting Letter Final.doc

Date and Time Comment Was Submitted: 2007-12-05 13:23:40

No Duplicates.

Comment 48 for Greenhouse Gas Mandatory Reporting (ghg2007) - 45 Day.

First Name: Lorraine
Last Name: Gershman
Email Address: lorraine_gershman@americanchemistry.com
Affiliation: ACC

Subject: ACC comments on CA GHG registry proposal
Comment:

See attached comments.

Attachment: www.arb.ca.gov/lists/ghg2007/56-final_acc_comments_on_ca_registry_12.05.07.pdf

Original File Name: FINAL ACC comments on CA registry 12.05.07.pdf

Date and Time Comment Was Submitted: 2007-12-05 14:40:36

No Duplicates.

Comment 49 for Greenhouse Gas Mandatory Reporting (ghg2007) - 45 Day.

First Name: Don
Last Name: Wolfe
Email Address: dvwolfe@bpa.gov
Affiliation: Bonneville Power Administration

Subject: Comments on Proposed GHG Reporting Regulation
Comment:

See attached file

Attachment: www.arb.ca.gov/lists/ghg2007/57-ca_air_resources_board_letter_and_attachment.pdf

Original File Name: CA Air Resources Board Letter and Attachment.pdf

Date and Time Comment Was Submitted: 2007-12-05 15:30:02

No Duplicates.

Comment 50 for Greenhouse Gas Mandatory Reporting (ghg2007) - 45 Day.

First Name: Jane
Last Name: Luckhardt
Email Address: jluckhardt@downeybrand.com
Affiliation:

Subject: SMUD comments on GHG2007
Comment:

```
Please see attached.
```

Attachment: www.arb.ca.gov/lists/ghg2007/65-50x_smud.pdf

Original File Name: 50x SMUD.pdf

Date and Time Comment Was Submitted: 2008-02-19 16:30:37

No Duplicates.

Comment 1 for Greenhouse Gas Mandatory Reporting (ghg2007). (At Hearing)

First Name: Gregory A.
Last Name: Knapp
Email Address: Non-web submitted comment
Affiliation:

Subject: California Cement Manufacturers Enviromental Coalition
Comment:

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please see attached
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Attachment: www.arb.ca.gov/lists/ghg2007/58-document.pdf

Original File Name: Document.pdf

Date and Time Comment Was Submitted: 2007-12-19 11:30:32

No Duplicates.

Comment 2 for Greenhouse Gas Mandatory Reporting (ghg2007). (At Hearing)

First Name: Susie
Last Name: Berlin
Email Address: Non-web submitted comment
Affiliation:

Subject: McCarthy & Berlin
Comment:

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please see attached
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Attachment: www.arb.ca.gov/lists/ghg2007/59-document0004.pdf

Original File Name: Document0004.pdf

Date and Time Comment Was Submitted: 2007-12-19 11:34:13

No Duplicates.

Comment 3 for Greenhouse Gas Mandatory Reporting (ghg2007). (At Hearing)

First Name: Eric
Last Name: Little
Email Address: Non-web submitted comment
Affiliation:

Subject: Southern California Edison
Comment:

please see attached

Attachment: www.arb.ca.gov/lists/ghg2007/60-document0005.pdf

Original File Name: Document0005.pdf

Date and Time Comment Was Submitted: 2007-12-19 11:37:09

No Duplicates.

Comment 4 for Greenhouse Gas Mandatory Reporting (ghg2007). (At Hearing)

First Name: Terry
Last Name: Erlewine
Email Address: Non-web submitted comment
Affiliation:

Subject: State Water Contractors
Comment:

please see attached

Attachment: www.arb.ca.gov/lists/ghg2007/61-document0006.pdf

Original File Name: Document0006.pdf

Date and Time Comment Was Submitted: 2007-12-19 11:40:42

No Duplicates.

Comment 5 for Greenhouse Gas Mandatory Reporting (ghg2007). (At Hearing)

This comment was posted then deleted because it was unrelated to the Board item or it was a duplicate.

Comment 6 for Greenhouse Gas Mandatory Reporting (ghg2007). (At Hearing)

First Name: H. David
Last Name: Nahai
Email Address: Non-web submitted comment
Affiliation:

Subject: Department od Water and Power
Comment:

please see attached

Attachment: www.arb.ca.gov/lists/ghg2007/63-document0008.pdf

Original File Name: Document0008.pdf

Date and Time Comment Was Submitted: 2007-12-19 14:11:42

No Duplicates.

Comment 7 for Greenhouse Gas Mandatory Reporting (ghg2007). (At Hearing)

First Name: Mark
Last Name: Ross
Email Address: Non-web submitted comment
Affiliation:

Subject: Bay Area Air Quality Management District
Comment:

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Please see attached.
```

Attachment: www.arb.ca.gov/lists/ghg2007/64-ghg20070001.pdf

Original File Name: ghg20070001.pdf

Date and Time Comment Was Submitted: 2008-01-30 16:35:38

No Duplicates.

Comment 1 for Greenhouse Gas Mandatory Reporting (ghg2007) - 15-1.

First Name: jeffrey
Last Name: hahn
Email Address: jhahn@covantaenergy.com
Affiliation: covanta energy

Subject: 95102 (a) (199)
Comment:

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the definition of VOC should also exclude ethane, as per the
definition of VOC used by the APCD's & AQMD's.
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Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2008-05-15 20:31:07

No Duplicates.

Comment 2 for Greenhouse Gas Mandatory Reporting (ghg2007) - 15-1.

First Name: David L.
Last Name: Hagen
Email Address: hagendl@verizon.net
Affiliation:

Subject: Comments to Appendix A, ARB Compendium of Emissions Factors...
Comment:

Re: Appendix A to the Regulation for the Mandatory Reporting of Greenhouse Gas Emissions - Comments by
David L. Hagen, May 17, 2008
61485 CR 13, Goshen IN 46526

1 Exclude Biomass Use

The prescriptions for reporting biomass fuels in this document appear onerous and heavy handed. They act in direct opposition to the intent of the legislation to promote sustainable energy use. Recommend deleting ALL reporting of biomass, or at least excluding
ALL biomass use less then 25,000 metric tons/year. E.g., on page A-32 (2), exclude biomass.

On p A-27 (9), is ±5% appropriate for biomass and landfill gas? Varying moisture content and variations in land fill gas can give heating value variations far higher than this. Both are nominally renewable resources and nominally do not contribute to increasing atmospheric CO2 on a steady state basis. E.g., on pages A-103 (2) and (3). It would appear important to evaluate the fossil fuel based carbon dioxide and exclude the biomass based carbon dioxide.

2 Uncertainty goals rather than prescription

The document focuses on prescription rather than on the end goal of the desired “accuracy” or uncertainty. Recommend specifying a desired long term uncertainty goal as a function of size and fossil vs biomass. Then let operators select frequency based on the stability of their instrumentation and feedstock. E.g., A101. Annual measurements may be overkill for highly stable operations and equipment. Conversely highly variable operations and poor quality equipment may require more frequent adjustments and calibration.

3 Staged verification:

The mandated prescription requiring all operators to obtain verification during the same period with gaps of two years in between will result in an onerous boom/bust work and profit cycle for verification operators. Recommend the example set in the Senate of 1/3 of locations being tested in each year of a three year cycle. Allow operators to select which year to verify on a first come first serve basis.

4 Fuel & biomass testing

The rigid testing procedure to evaluate fuel value appears heavy handed and without reference to the overall uncertainty desired. Recommend specifying a desired uncertainty, and allow operators

to
select the frequency of testing according to their fuel variability
and their relative size. E.g., allow small operators to use
standard fuel values or only test occasionally. Allow operators to
accumulate samples that are then tested on a less frequent basis.
E.g. every quarterly, semi annually or annually for smaller
operators.

5 Size: 25,000 vs 2,500 metric tons
Per ARB resolution 07-54, “3. Annual reporting of GHG emissions . . .sources that emit over 25,000 metric tonnes (sic) per year of CO2 from stationary source combustion is necessary to include the most significant California GHG emissions sources.” There are numerous references to 2,500 metric tons. Recommend correcting all
these to 25,000 metric tons unless otherwise authorized by the ARB
or by clear uncertainty guidelines in emissions reporting.

Detailed recommendations & corrections:
6 Appendix A-3 unit Re: “Tonnes (metric)”. In the United States the correct term is metric ton. See: "Metric System of Measurement: Interpretation of the International System of Units for the United States", Federal Register notice of July 28, 1998, 63 F.R. 40333. See: NIST SP-811, Guide for Use of SI Units, Barry N. Taylor, 1995.
7 Appendix A-3 Unit Conversions. Re Btu conversion factors. There are at least five Btu definitions. Specify the temperature or type
of Btu being specified.
8 Appendix A-3 Unit Conversions. Correct “Kilograms” to “kilogram”, “Kilometer” to “kilometer”, “Kgf” to “kgf”, etc. Add “(Mg)” after “Megagrams”.
9 Appendix A-5 Section 4. Specify the time frame for the quantity threshold. E.g “25,000 metric ton/year threshold” and “2,500 metric ton/year threshold”.
10 Table 3. Correct “Kg” to “kg”.
11 Appendix A-8. Re: significant units in fuel type. All fuels show two significant figures while Municipal Solid Waste is listed
to five significant figures and is yet one of the most variable.
Change to 91 kg CO2/MMBtu.
12 Appendix A-4 95102 Definitions (a) (1) “Accuracy”.
Accuracy is an informal term. If you wish quantitative results, this should be changed to “Uncertainty”. See NIST publications relating to Uncertainty.
“Uncertainty of Measurement Results from NIST”
“Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results”
See Book: Measurement Uncertainty, 3rd Edition
Measurement Uncertainty: Methods and Applications, Fourth Edition
Ronald H. Dieck, (2006) ISA, ISBN: 1556179154
13 A-5 (11) Add conversion to liters.
14 A-5 (17) Add note that there are four other definitions of Btu.
15 A-5 (83) Include “bitumen, shale oil.”
16 A-14 (105) Correct “pressure” to “potential difference”. Add “One Watt is the power equal to one joule of energy per second.”
17 A-15 (115) Correct “Metric tonne” to standard US usage of “metric ton”. Correct throughout the document and appendix.

See: "Metric System of Measurement: Interpretation of the International System of Units for the United States", Federal Register notice of July 28, 1998, 63 F.R. 40333
NIST SP-811, Guide for Use of SI Units, Barry N. Taylor, 1995.
18 A-22 (181) 760 mm is incorrect with 60 deg. F. Correct STP definition to read:
“Standard conditions” or “Standard Temperature and Pressure”, unless otherwise designated, refer to the USA customary value per
the American Gas Association (herein “STP(68)”) of: “a temperature
of 15.6 degrees Celsius (68 degrees Fahrenheit) at a pressure of one atmosphere (101.325 kPa).” Some citations refer to the Compressed Gas Institute value (herein “STP(60)”) of: “a temperature of 20 degrees Celsius (60 degrees Fahrenheit) at a pressure of 762 mm (30") mercury.” (E.g., designate on page A-97 etc.)
19 A-26 (6). Specify the time frame. E.g., “20,000 metric tons/year”.
20 A-27 (9). “Accuracy” (as noted above) is not used for quantitative measures. Correct to “uncertainty”. See “uncertainty guidelines” at NIST.gov.
21
A-62 95112. Include “cooling” or Combined Cooling, Heat, and Power.”

Attachment: www.arb.ca.gov/lists/ghg2007/67-5-comments.appendix.a.by.d.l.hagen.may.17.2008.pdf

Original File Name: 5-comments.appendix.a.by.d.l.hagen.may.17.2008.pdf

Date and Time Comment Was Submitted: 2008-05-20 10:28:03

No Duplicates.

Comment 3 for Greenhouse Gas Mandatory Reporting (ghg2007) - 15-1.

First Name: Thierry Sam
Last Name: Tamers
Email Address: ttamers@betalabservices.com
Affiliation: Beta Analytic Inc

Subject: First sentence in section 95125(h)(2) is not clear.
Comment:

Dear Sir / Madam:

We would like to bring to your attention the following sentence in Section 95125(h)(2) that might lead to some confusion in its interpretation:

"The operator that combusts fuels or fuel mixtures that are at least 5 percent biomass by weight and not pure biomass, except waste-derived fuels that are less than 30 percent biomass by weight of total fuels combusted for the report year, shall determine the biomass-derived portion of CO2 emissions using ASTM D6866-06a as specified in this article."

It is presumed that plants that elect to label their fuels as less than 5 percent biomass by weight or waste-fuels as less 30 percent biomass by weight will do so with the knowledge that the entire fuel mix will be classified as a fossil fuel. In our opinion, the first sentence in section 95125(h)(2) is not clear with regard to this point.

There are two possibilities to remedy the ambiguity of the first sentence in section 95125(h)(2). The first possibility is to recommend that the ASTM D6866-06a method be used for all heterogeneous fuel mixtures. As such the sentence could read as follows:

"The operator that combusts fuels or fuel mixtures that contain a mixture of biomass and fossilized materials shall determine the biomass-derived portion of CO2 emissions using ASTM D6866-06a as specified in this article, unless the operator wishes to report all their CO2 emissions as fossil-fuel."

Alternatively, you could elaborate on the first sentence of section 95125(h)(2) with this sentence added to the first sentence:

"..... Operators that combust fuels or fuel mixtures that are less than 5 percent biomass by weight and not pure biomass, or waste-derived fuels that are less than 30 percent biomass by weight of total fuels combusted for the report year, can elect to report all their fuel mix as 100% fossil fuel if they do not determine and report the biomass-derived portion of CO2 emissions of their fuel using ASTM D6866-06a."

Please call or email us if you have any questions regarding this comment.

Sincerely,

Thierry Sam Tamers
Director

North American Facility:

Beta Analytic Inc.
4985 SW 74 Court
Miami, Florida 33155 USA
ttamers@betalabservices.com
www.betalabservices.com
Direct: (1) 305-662-7760
Tel: (1) 305-667-5167
Fax: (1) 305-663-0964

European Facility:

Beta Analytic Limited
London Bioscience Innovation Centre
2 Royal College Street
London NW10NH
United Kingdom
Tel: (44) 207 617 7490
Fax: (44) 207 160 5350

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2008-05-29 19:47:18

No Duplicates.

Comment 4 for Greenhouse Gas Mandatory Reporting (ghg2007) - 15-1.

First Name: Manuel
Last Name: Silva
Email Address: manny.silva@husa.com
Affiliation:

Subject: Source test requirements when not using NO2 defaults
Comment:

The requirement that states if you choose to use your own N20 from your source test,instead of the default,then you must source test annually,is very unfair for the following reasons

1.Local air districts like the SJVAPCD already have N20 limits that have to be proven by source testing already.The default for N20 in this case should be what you have to make in that district.In this district the Nox ppm limit is already set at 9ppm.So the default for N20 should be set at what the highest limit is in that district.

2.Saying that if you choose your District's limit,that you must then subject your self to annual source testing is going to cost more,the reason being that in this district if you make the limits two years in a row then you can go 36 months before having to test again.

3.What is the purpose of the local air district if you are basically saying we will not accept what your district has mandated,and we don't trust your source test data that you paid for.

4.Source testing boilers is not cheap,and to require more,when you already have documented results that were approved by the district is beyond me

5.Also using a default for N20 or Nox is basically telling industry that all that money you spent on Nox control to get to 9ppm,is null and void unless you submit to the States annual source testing program.

6.Bottom line is don't the State have any confidence in the local air districts?and if not then do away with them and just have one agency to report to.

I have attached the section of this bill I'm talking about below.So all interested parties can read into it,maybe I'm misinterpeting this but using the default N20 has got to give you a higher total,than what you'd get using 9ppm district imposed limit that is already in place.

Copied from the lastest version of the GHG reporting req

The operator may elect to calculate CH4 and N2O emissions using ARB
approved source specific emission factors derived from source

tests
conducted at least annually under the supervision of ARB or the local air
pollution control district or air quality management district. Upon approval of
a source test plan by ARB, the source test procedures in that plan shall be
repeated in future years to update the source specific emission factors
A-84
annually. In the absence of source specific emission factors approved by
ARB, the operator shall use the default emission factors provided in
Appendix A.
(c) Method for Calculating CO2 Emissions from Fuel Combustion Using

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2008-05-30 16:26:40

No Duplicates.

Comment 5 for Greenhouse Gas Mandatory Reporting (ghg2007) - 15-1.

First Name: James
Last Name: Merriam
Email Address: James_N_Merriam@praxair.com
Affiliation: Praxair, Inc.

Subject: AB32 -- GHG Emissions Compilation and Reporting
Comment:

```
Praxair Comment #1 :    [Section 95103 -- Reporting Requirements]
REQUESTED CHANGE  --   Add a sentence to 95103(a), just above
95103(a)(1), stating :   Hydrogen Plants using 95114(b)(2) to
calculate CO2 emissions shall substitute "fuel and feedstock"
wherever the word "fuel" is stated in 95103(a)(8) through (10).
REASON FOR CHANGE  --   Hydrogen Plant CO2 emissions can be
determined by measuring all incoming carbon per 95114(b)(2).
Therefore, sections 95103 (a)(8) through (10) concerning missing
data, measurement accuracy, and interim data collection need to
use "fuel and feedstock" as the parameter applicable to Hydrogen
Plants, not just "fuel".

Praxair Comment #2 :    [Section 95114 -- Hydrogen Plants]
REQUESTED CHANGE  --   Add a sentence to 95114(a)(3) and also to
95114(a)(4) stating that the carbon contained in the Methane (CH4)
calculation results for these sections shall be subtracted from the
CO2 calculation result of 95114(b)(2).
REASON FOR CHANGE  --   As currently written, the carbon in the
entering feedstock and fuel would be double-counted for the
portion represented by the Methane calculations.  [ This change
does not greatly affect the facility's CO2 emissions computation,
but needs to be made for overall correctness.]

Praxair Comment #3 :    [Appendix]
REQUESTED CHANGE --  Revise Table 6 on Page A-9 of the Appendix to
add entries for METHANE, HYDROGEN, and CARBON MONOXIDE.
REASON FOR CHANGE --   Hydrogen Plant reformers combust Natural
Gas, Methane, Hydrogen, and Carbon Monoxide.  Table 6 entries for
these fuels need to be included so that the Hydrogen Plant's CH4
and N2O combustion emissions can be calculated.
COMMENTS  --   Although the methane and nitrous oxide emission
factors for combusting Methane are likely the same as for Natural
Gas, 0.9 and 0.1, the table needs to state this.  The methane
emission factors for combusting Hydrogen and Carbon Monoxide also
need to be listed.   For those two fuels, the methane emission
factor should be stated as ZERO because they contain no
hydrocarbons, and an appropriate nitrous oxide factor is probably
0.1, similar to natural gas.   [NOTE -- Hydrogen and Carbon
Monoxide burn hotter than Natural Gas, and nitrous oxide emissions
decrease as temperature increases, so their N2O factors in the
table should be 0.1 or less.]
```

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2008-06-04 08:11:57

No Duplicates.

Comment 6 for Greenhouse Gas Mandatory Reporting (ghg2007) - 15-1.

First Name: Matthew
Last Name: Hodges
Email Address: matt.hodges@valero.com
Affiliation: Valero Energy Corporation

Subject: AB32 Mandatory GHG Inventory Rule, comments by Valero Energy
Comment:

Valero appreciates the additional year ARB has provided for monitoring and compliance purposes while the GHG inventory rule development process continues. We support ARB's ongoing efforts to finalize this rule as expediently as possible in a manner satisfactorily to all stakeholders. However, the additional time that has been necessary to reach this consensus has stretched rule development well into 2008, leaving significantly less time for assessing and implementing compliance strategies

We believe it is important for ARB to address the belated publication of this rule and how that has created a need for additional time for the design, purchasing, and installation of some of the required monitoring equipment. It is noted that the rule allows for the manual collection of data to fill the interim, and while we understand ARB's reluctance to further delay any of the compliance deadlines, we recommend that the regulation include a provision to allow alternative calculation protocols to be used in the interim for those reporters who need more time to implement projects. It should be noted that most refineries are reporting annually verified inventories to CCAR according to the CCAR reporting and verification protocols. While these are not identical to the ARB regulations, the resultant inventories are systematically developed using generally accepted, credible, defensible, and verifiable techniques. All or portions of the CCAR inventories should be acceptable as temporary substitutes as needed.

Thank you for the opportunity to comment on this effort. If there are any questions or concerns, please contact me at number above.

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2008-06-05 07:15:26

No Duplicates.

Comment 7 for Greenhouse Gas Mandatory Reporting (ghg2007) - 15-1.

First Name: Anne
Last Name: McQueen
Email Address: amcqueen@geomatrix.com
Affiliation: Geomatrix

Subject: Comments on GHG Mandatory Reporting for June 5th
Comment:

See attached file

Attachment: www.arb.ca.gov/lists/ghg2007/73-mr_letter_final_june_05_07.pdf

Original File Name: MR letter final June 05 07.pdf

Date and Time Comment Was Submitted: 2008-06-05 13:10:29

No Duplicates.

Comment 8 for Greenhouse Gas Mandatory Reporting (ghg2007) - 15-1.

First Name: Cathy
Last Name: Karlstad
Email Address: Cathy.Karlstad@sce.com
Affiliation: Southern California Edison Company

Subject: SCE Comments on Modified Reporting Regulation
Comment:

```
Attached are Southern California Edison Company's comments on the
Modified Reporting Regulation.
```

Attachment: www.arb.ca.gov/lists/ghg2007/74-sce_comments_on_carb_reporting_regulation.pdf

Original File Name: SCE Comments on CARB Reporting Regulation.pdf

Date and Time Comment Was Submitted: 2008-06-05 13:33:47

No Duplicates.

Comment 9 for Greenhouse Gas Mandatory Reporting (ghg2007) - 15-1.

First Name: John
Last Name: Busterud
Email Address: jwbb@pge.com
Affiliation: Pacific Gas and Electric Company

Subject: CARB Adoption of Mandatory GHG Reporting Regulations Pursuant to AB32
Comment:

```
Please see the attached letter to Mary Nichols.
```

Attachment: www.arb.ca.gov/lists/ghg2007/75-060508_mary_nichols_ltr_00062396.pdf

Original File Name: 060508_Mary Nichols ltr_00062396.pdf

Date and Time Comment Was Submitted: 2008-06-05 14:00:07

No Duplicates.

Comment 10 for Greenhouse Gas Mandatory Reporting (ghg2007) - 15-1.

First Name: Tracey
Last Name: Drabant
Email Address: traceydrabant@bves.com
Affiliation: Bear Valley Electric Service

Subject: BVES Comments on Mandatory Reporting of GHG Emissions
Comment:

```
Please see attached.
```

Attachment: www.arb.ca.gov/lists/ghg2007/76-bves_comments_mandatory_ghg_reporting.pdf

Original File Name: BVES Comments Mandatory GHG Reporting.pdf

Date and Time Comment Was Submitted: 2008-06-05 14:31:56

No Duplicates.

Comment 11 for Greenhouse Gas Mandatory Reporting (ghg2007) - 15-1.

First Name: Cindy
Last Name: Parsons
Email Address: cindy.parsons@ladwp.com
Affiliation: LADWP

Subject: Comments on modified GHG reporting regulation
Comment:

```
LADWP's comments on the modified mandatory GHG reporting regulation
are attached.
```

Attachment: www.arb.ca.gov/lists/ghg2007/77-ladwp_comments_on_mandatory_reporting_regulation__6-5-2008_.pdf

Original File Name: LADWP Comments on Mandatory Reporting Regulation (6-5-2008).pdf

Date and Time Comment Was Submitted: 2008-06-05 15:21:24

No Duplicates.

Comment 12 for Greenhouse Gas Mandatory Reporting (ghg2007) - 15-1.

First Name: Don
Last Name: Brookhyser
Email Address: deb@a-klaw.com
Affiliation: EPUC/CAC

Subject: Proposed revisions to reporting protocols
Comment:

```
Attached are comments of the Energy Producers & Users Coalition and
the Cogeneration Association of California on the proposed
revisions to the GHG reporting protocols.
```

Attachment: www.arb.ca.gov/lists/ghg2007/78-6_05_08_epuc-cac_comments_on_revisions_to_reporting_protocols.doc

Original File Name: 6 05 08 EPUC-CAC Comments on revisions to reporting protocols.doc

Date and Time Comment Was Submitted: 2008-06-05 15:48:19

No Duplicates.

Comment 13 for Greenhouse Gas Mandatory Reporting (ghg2007) - 15-1.

First Name: Taylor
Last Name: Miller
Email Address: tmiller@sempra.com
Affiliation: Sempra Energy

Subject: Comments on May 15, 2008 Notice re: Mandatory Reporting Regulations
Comment:

```
Please see letter attached.
```

Attachment: www.arb.ca.gov/lists/ghg2007/79-se_comment_on_arb_mandatory_reporting_regulation_6_05_08.pdf

Original File Name: SE comment on ARB Mandatory Reporting Regulation 6 05 08.pdf

Date and Time Comment Was Submitted: 2008-06-05 16:25:19

No Duplicates.

Comment 14 for Greenhouse Gas Mandatory Reporting (ghg2007) - 15-1.

First Name: Barbara
Last Name: McBride
Email Address: Non-web submitted comment
Affiliation:

Subject: CALPINE Corporation
Comment:

```
Please see attached.
```

Attachment: www.arb.ca.gov/lists/ghg2007/80-calpine_doc060508.pdf

Original File Name: Calpine_DOC060508.pdf

Date and Time Comment Was Submitted: 2008-06-06 11:42:05

No Duplicates.

Comment 15 for Greenhouse Gas Mandatory Reporting (ghg2007) - 15-1.

First Name: Marina
Last Name: Robertson
Email Address: mrobertson@pacenergy.com
Affiliation:

Subject: Pacific Energy Resources LTD
Comment:

```
Please see attached.
```

Attachment: www.arb.ca.gov/lists/ghg2007/81-pacific_energy.pdf

Original File Name: Pacific Energy.pdf

Date and Time Comment Was Submitted: 2008-06-06 13:52:26

No Duplicates.

Comment 16 for Greenhouse Gas Mandatory Reporting (ghg2007) - 15-1.

First Name: Natasha
Last Name: Meskal
Email Address: Non-web submitted comment
Affiliation:

Subject: ECOTEK Environmental Solutions
Comment:

```
Please see attached.
```

Attachment: www.arb.ca.gov/lists/ghg2007/83-5_5_08_comments.pdf

Original File Name: 5_5_08 comments.pdf

Date and Time Comment Was Submitted: 2008-06-09 09:25:34

No Duplicates.

Comment 17 for Greenhouse Gas Mandatory Reporting (ghg2007) - 15-1.

First Name: Cathy
Last Name: Reheis-Boyd
Email Address: cathy@wspa.org
Affiliation:

Subject: Western States Petroleum Association
Comment:

```
Please see attached.
```

Attachment: www.arb.ca.gov/lists/ghg2007/84-ab_32_inv_rept_issues_060520008.zip

Original File Name: AB 32 Inv Rept Issues 060520008.zip

Date and Time Comment Was Submitted: 2008-06-10 10:40:45

No Duplicates.

Comment 1 for Greenhouse Gas Mandatory Reporting (ghg2007) - 15-2.

First Name: Taylor
Last Name: Miller
Email Address: tmiller@sempra.com
Affiliation: Sempra Energy

Subject: Mandatory Reporting Regulation 15 Day Notice
Comment:

```
Please see comments attached.
```

Attachment: www.arb.ca.gov/lists/ghg2007/86-se_comment_on_mandatory_reporting_7_14_08.pdf

Original File Name: SE comment on Mandatory Reporting 7 14 08.pdf

Date and Time Comment Was Submitted: 2008-07-14 14:58:48

No Duplicates.

Comment 2 for Greenhouse Gas Mandatory Reporting (ghg2007) - 15-2.

First Name: Fiji
Last Name: George
Email Address: fiji.george@elpaso.com
Affiliation: El Paso Corporation

Subject: El Paso's Comments on Mandatory Reporting of Greenhouse Gas Emissions
Comment:

```
El Paso's comments on Mandatory Reporting of Greenhouse Gas
Emissions
```

Attachment: www.arb.ca.gov/lists/ghg2007/89-el_paso_comments.pdf

Original File Name: El Paso comments.pdf

Date and Time Comment Was Submitted: 2008-07-15 14:59:10

No Duplicates.

Comment 3 for Greenhouse Gas Mandatory Reporting (ghg2007) - 15-2.

First Name: Catherine
Last Name: Reheis-Boyd
Email Address: Non-web submitted comment
Affiliation:

Subject: Western States Petroleum Association
Comment:

```
Please see attached.
```

Attachment: www.arb.ca.gov/lists/ghg2007/90-wspacomments_on_the_second_15-day_package.pdf

Original File Name: WSPAComments on the Second 15-Day Package.pdf

Date and Time Comment Was Submitted: 2008-07-17 09:30:58

No Duplicates.

Comment 4 for Greenhouse Gas Mandatory Reporting (ghg2007) - 15-2.

First Name: Keith
Last Name: Adams
Email Address: Non-web submitted comment
Affiliation:

Subject: Air Products and Chemicals, Inc.
Comment:

```
Please see attached.
```

Attachment: www.arb.ca.gov/lists/ghg2007/91-air_products_comments.pdf

Original File Name: Air Products Comments.pdf

Date and Time Comment Was Submitted: 2008-07-17 09:42:09

No Duplicates.