

**ATTACHMENT B
72 HOUR FOLLOW-UP NOTIFICATION REPORT FORM
CONTRA COSTA HEALTH SERVICES HAZARDOUS MATERIALS
PROGRAMS**

For CCHSHMP Use Only:

Received By: _____

Date Received: _____

Incident Number: _____

Copied To: _____

Event Classification Level: _____

INSTRUCTIONS: A hardcopy and an electronic copy of this report is to be submitted for all Public Health Advisory – Level 2 and Public Protective Actions Required – Level 3 incidents or when requested by CCHSHMP. See Attachment B-1 for suggestions regarding the type of information to be included in the report. Attach additional sheets as necessary. Forward the completed form to:

ATTENTION:
Hazardous Materials Programs Director
Contra Costa Health Services Hazardous Materials Programs
4585 Pacheco Boulevard, Suite 100
Martinez, CA 94553

INCIDENT DATE: 11/24/2022-11/25/2022
INCIDENT TIME: Intermittent - 12:30 PM to 6:15 AM
FACILITY: Martinez Refining Company LLC

PERSON TO CONTACT FOR ADDITIONAL INFORMATION

Michael Marlowe Phone number (831) 332-2820

I. SUMMARY OF EVENT:

At approximately 1:00AM on 11/21/2022, as a result of equipment failure (controller for air blower J-123) at the facility's CCU, the unit went into a safety feed diversion and shutdown operations of the CCU's CO Boiler's ESPs. The ESPs were shut down to prevent the potential for ignition if there was a flow reversal in the unit. This is typical of emergency shutdown of the unit, necessary for the safety of employees and to prevent damage to the equipment and upsets / impacts to the environment. See continuation on p. 2

II. AGENCIES NOTIFIED, INCLUDING TIME OF NOTIFICATION:

Initially, while the facility was investigating the issue, proper notifications were not made. Investigation ongoing as to root cause of failure to follow notification procedure and requirements.

Follow-up notifications made:

BAAQMD McKenzie Bell 8:45 PM November 25th, November 26th, 9:47 AM and intermittent communications until 5:45 PM, CCCHS Sarah Dwight 9:31 AM, 9:50 AM, 10:04 AM and 12:53 PM November 26th.

III. AGENCIES RESPONDING, INCLUDING CONTACT NAMES AND PHONE NUMBERS:

Bay Area Air Quality Management District (BAAQMD) - McKenzie Bell - (415) 793-6649

IV. EMERGENCY RESPONSE ACTIONS:

MRC personnel responded to community calls and took information and samples of material as appropriate.

V. IDENTITY OF MATERIAL RELEASED AND ESTIMATED OR KNOWN QUANTITIES:

Spent Catalyst - See Attached SDS for catalyst product - Grace FCC Achieve 400-1052 and SDS for spent catalyst.

Quantity - Unknown at present - estimation TBD

72-HOUR REPORT, PAGE 2

INCIDENT DATE: 11/24/2022-11/25/2022

FACILITY: Martinez Refining Company LLC

VI. METEOROLOGICAL CONDITIONS AT TIME OF EVENT including wind speed, direction, and temperature:

See attached hourly data.

VII. DESCRIPTION OF INJURIES:

No injuries reported.

VIII. COMMUNITY IMPACT including number of off-site complaints, air sampling data during event, etc.:

Approximately 60 community contacts regarding the deposit of ash like materials on vehicles, etc. Additional contacts were received as a result of asking for public feedback on potential impacts.

IX. INCIDENT INVESTIGATION RESULTS

Is the investigation of the incident complete at this time? _____ Yes X No

If the answer is no, submit a 30 day final or interim report.

If the answer is yes, complete the following:

X. SUMMARIZE INVESTIGATION RESULTS BELOW OR ATTACH COPY OF REPORT:

NA - Investigation Ongoing

XI. SUMMARIZE PREVENTATIVE MEASURES TO BE TAKEN TO PREVENT RECURRENCE INCLUDING MILESTONE AND COMPLETION DATES FOR IMPLEMENTATION:

NA - Investigation Ongoing

I. Summary of Event - Continued

The controller was replaced on 11/22/2022 mid morning / early afternoon. The air preheater was ignited at approximately 8:50 AM on 11/22/2022 and as part of the continued start-up process, torch oil was introduced to the CCU regenerator at approximately 12:13 AM on 11/23/2022. Torch oil is added to bring the catalyst (and the unit) to the appropriate operating temperatures before the introduction of CCU feed material. The first feed nozzle was opened on 11/24/2022 at approximately 12:30 PM, introducing feed to the CCU.


During the shut down and start-up process, from 11/21/2022 until 11/25/2022, the COBs ESP's remained off, due to safety protocol to prevent detonation of the ESPs in the event of a flow reversal. On 11/23/2022, MRC submitted notifications to the BAAQMD (see attached 96 hour report) indicating intermittent exceedances of opacity on 11/21/2022 (1:11 AM) -11/22/2022 (12:36 PM) associated with the emergency shutdown of the ESPs from the initial event. On 11/26/2022, MRC sent a 96 hour report to the BAAQMD of intermittent opacity exceedances from 11/23/2022 (8:19 AM)-11/25/2022 (8:40 AM) as a result of start-up of the CCU. The ESPs were turned back on after safe conditions were met in the unit at approximately 6:15 AM on 11/25/2022.

The investigation remains ongoing and MRC is currently awaiting analytical results from samples taken on 11/25/2022 after receiving community calls and initiating an investigation into the event to determine if the facility was responsible for the material in the community.

1 Identification

- **Product identifier**
- **Trade name: FCC ACHIEVE® 400-10512**
- **Application of the substance / the preparation:** Catalyst
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
GRACE
W. R. Grace & Co.-Conn
7500 Grace Drive
Columbia MD 21044
U. S. A.
- **Information department:**
Health and Safety (9 AM to 5 PM-EST) 1-410-531-4000
MSDS.Davison@grace.com
- **Emergency telephone number:**
Chemtrec North America: +1-800-424-9300
Chemtrec International: +1-703-527-3887
Other Emergencies (24hr): +1-410-531-4000

2 Hazard(s) identification

- **Classification of the substance or mixture**
The product is not classified according to the Globally Harmonized System (GHS).
- **Label elements**
- **GHS label elements** None
- **Hazard pictograms** None
- **Signal word** None
- **Hazard statements** None
- **Precautionary statements**
Do not breathe dust.
IF INHALED: Call a POISON CENTER/doctor if you feel unwell.
Collect spillage.
Store in accordance with local/regional/national/international regulations.
Dispose of contents/container in accordance with local/regional/national/international regulations.
- **Classification system:**
- **NFPA ratings (scale 0 - 4)**


Health = 1
Fire = 0
Reactivity = 0
- **HMIS-ratings (scale 0 - 4)**

HEALTH	*1
FIRE	0
REACTIVITY	0

Health = *1
Fire = 0
Reactivity = 0
- * Product presents long-term adverse effects.
- **Hazard not otherwise classified**
The product is very adsorbent and may have a drying effect on skin and eyes.
Contains ~1% naturally occurring quartz that is bound in the product matrix reducing free respirable crystalline silica to <0.1%.
WARNING. Contains a substance known to the State of California to cause cancer.

Trade name: FCC ACHIEVE® 400-10512

(Contd. of page 1)


3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Crystalline aluminosilicate with binders.


· **CAS No. and description:**

92704-41-1	Kaolin, calcined	25-50%
1344-28-1	aluminum oxide (non-fibrous forms)	10-25%
1318-02-1	zeolite (crystalline aluminosilicate)	10-25%
7631-86-9	amorphous silicon dioxide, chemically prepared	10-25%
	rare earth oxides	≤1%
	Silica, crystalline (non respirable form)	≤ 1%

· **List of Dangerous Components**

Silica, crystalline (airborne particles of respirable size)	 Carc. 1A, H350	<0.1%
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· **Impurities and stabilizing additives:**

Silica, crystalline (airborne particles of respirable size)	 Carc. 1A, H350	
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· **Additional information:**

The EPA has designated that non-fibrous forms of aluminum oxide are not a toxic chemical, under Section 313 of SARA

4 First-aid measures

- **Description of first aid measures**
- **General information:**
Immediately remove contaminated clothing if necessary to prevent direct skin contact.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:**
Generally the product does not irritate the skin.
Immediately flush skin with water for at least 15 minutes.
If skin irritation occur, consult a doctor.
- **After eye contact:**
Flush opened eye with large quantities of running water for at least 30 minutes. If symptoms occur, consult a doctor.
- **After swallowing:**
Rinse out mouth and then drink plenty of water.
Seek medical attention. Do not induce vomiting.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed**
No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **Hazardous combustion products**
In case of fire, the following can be released:
Metal oxide fume

(Contd. on page 3)

USA

Trade name: FCC ACHIEVE® 400-10512

(Contd. of page 2)

- **Advice for firefighters**
- **Protective equipment:**
Wear personal protective equipment.
Wear respiratory protective device.
- **Additional information**
Collect contaminated fire fighting water separately. It must not enter the sewage system.
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Vacuuming or wet sweeping may be used to avoid dust dispersal.
Dispose contaminated material as waste according to section 13.
Ensure adequate ventilation.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Prevent formation of dust.
Keep receptacles tightly sealed.
Provide suction extractors if dust is formed.
Use appropriate industrial vacuum cleaners or central vacuum systems for dust removal.
Take precautionary measures against static discharges.
- **Information about protection against explosions and fires:**
When transferring this material into flammable solvents, use proper grounding to avoid static electric sparks.
The product is not flammable.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Store away from foodstuffs.
- **Further information about storage conditions:** Keep receptacle tightly sealed.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**
The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.
At this time, the remaining constituent has no known exposure limits.

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Trade name: FCC ACHIEVE® 400-10512

(Contd. of page 3)

7631-86-9 amorphous silicon dioxide, chemically prepared

IDLH	Short-term value: 3000 mg/m ³ IDLH: Immediately Dangerous to Life or Health
PEL	Long-term value: 80/%SiO ₂ mg/m ³ OSHA TWA for amorphous silica
REL	Long-term value: 6 mg/m ³ NIOSH TWA
TLV	Long-term value: 10* 5** mg/m ³ ACGIH TWA *Total dust **Respirable fraction

1344-28-1 aluminum oxide (non-fibrous forms)

PEL	Long-term value: 15*; 5** mg/m ³ *Total dust; ** Respirable fraction
REL	Long-term value: 10* 5** mg/m ³ as Al*Total dust**Respirable/pyro powd./welding f.
TLV	Long-term value: 1* mg/m ³ as Al; *as respirable fraction

· Additional Occupational Exposure Limit Values for possible hazards during processing:**Dust inhalable**

PEL	Long-term value: 15 mg/m ³ TWA
REL	Long-term value: 15 mg/m ³ TWA

Dust respirable

PEL	Long-term value: 5 mg/m ³ TWA
REL	Long-term value: 5 mg/m ³ TWA

· Additional information:

Valid lists at time of creation were used as basis.

Occupational exposure limits to respirable crystalline silica are not expected to be exceeded during normal, foreseeable conditions of fresh product use, as recommended by GRACE. Exposure to respirable dust and respirable crystalline silica should be monitored and controlled during other conditions.

· Exposure controls**· Personal protective equipment:****· General protective and hygienic measures:**

The usual precautionary measures for handling chemicals should be followed.

· Breathing equipment:

Use suitable respiratory protective device in case of insufficient ventilation. As appropriate for the employee exposure, use a NIOSH approved respirator and cartridge.

Use NIOSH-approved equipment with APF = 10 or better when dust is present.

· Protection of hands:

Protective gloves

Wear gloves for the protection against mechanical hazards.

Use gloves of stable material (e.g. Nitrile)

· Material of gloves

Butyl rubber, BR

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USA

Trade name: **FCC ACHIEVE® 400-10512**

(Contd. of page 4)

Nitrile rubber, NBR

- **For the permanent contact gloves made of the following materials are suitable:**

Butyl rubber, BR
Nitrile rubber, NBR

- **Eye protection:**



Safety glasses

- **Body protection:** Protective work clothing

9 Physical and chemical properties

- **Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

Form: Powder
Color: Beige

- **Odor:** Odorless
- **Odor threshold:** Not available.

- **pH-value at 20 °C (68 °F):** 5.0

- **Change in condition**

Melting point/Melting range: Not determined.

Boiling point/Boiling range: Not determined.

- **Conditions of flammability**

Flash point: Not available.

- **Flammability (solid, gaseous):** Product is not flammable.
- **Ignition temperature:** Not available.
- **Decomposition temperature:** Not available.

- **Auto igniting:** Product is not self-igniting.

- **Danger of explosion:** Product does not present an explosion hazard.

- **Explosion limits:**

Lower: - Vol %
Upper: - Vol %

- **Vapor pressure at 20 °C (68 °F):** - hPa

- **Density:**

Bulk density at 20 °C (68 °F): 800 kg/m³
Vapor density: Not applicable.

Evaporation rate: Not applicable.

- **Solubility in / Miscibility with**

Water: Insoluble.

- **Coefficient of water/oil distribution:** Not available.

- **Viscosity:**

Dynamic at 20 °C (68 °F): - mPas

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USA

Trade name: **FCC ACHIEVE® 400-10512**

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· **Other information** No further relevant information available.

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid**
In case of thermal decomposition caused by smouldering and incomplete combustion toxic fumes may be developed.
- **Incompatible materials:** Protect from contamination.
- **Hazardous decomposition products:** Metal oxide smoke

11 Toxicological information

- **Information on the likely routes of exposure**
- **Delayed and immediate effects and chronic effects from short or long term exposure**
- **Information on toxicological effects**
- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

92704-41-1 Kaolin, calcined

Oral	LD50	>5000 mg/kg (rat) (EPA OPP 81-1) comparable material
Dermal	LD50	>5000 mg/kg (rat) (EPA OPP 81-2) comparable material
Inhalative	LC50 (4 h)	>2.07 mg/l (rat) (EPA OPP 81-3)

1318-02-1 zeolite (crystalline aluminosilicate)

Oral	LD50	> 5110 mg/kg (rat) (OECD 401)
Dermal	LD50	>5000 mg/kg (rabbit) (OECD 402)
Inhalative	LC0	> 3350 mg/m ³ /4h (rat) IUCLID Dataset 18-Feb-2000

7631-86-9 amorphous silicon dioxide, chemically prepared

Oral	LD50	>5000 mg/kg (rat) (OECD 401)
Dermal	LD50	>6000 mg/kg (rabbit) (no guidance available)
Inhalative	LC0	>140->2000 mg/m ³ /4h (rat) (OCED 403) Maximum attainable concentration, mortality does not appear.

1344-28-1 aluminum oxide (non-fibrous forms)

Oral	LD50	>10000 mg/kg (rat) (OECD 401)
Inhalative	LC50 (4 h)	>2.3 mg/l (rat) (OECD 403)

rare earth oxides

Oral	LD50	9968 mg/kg (rat) Nd ₂ O ₃ < 1000 mg/kg CeO ₂ < 1000 mg/kg Pr ₆ O ₁₁ < 2500 mg/kg (Toxicology and Applied Pharmacology 5, 750 ff; Dangerous Properties of Industrial Materials, 7th Edition, Vol. II)
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Trade name: FCC ACHIEVE® 400-10512

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· Primary irritant effect:

· on the skin:

92704-41-1 Kaolin, calcined		
Irritation of skin	IS	0 (rabbit) (OECD 404) comparable substance
1318-02-1 zeolite (crystalline aluminosilicate)		
Irritation of skin	IS	0 (rabbit) (OECD 404)
7631-86-9 amorphous silicon dioxide, chemically prepared		
Irritation of skin	IS	0 (rabbit) (OECD 404)
1344-28-1 aluminum oxide (non-fibrous forms)		
Irritation of skin	IS	<0.160 (rabbit) (OECD 404)

· on the eye:

92704-41-1 Kaolin, calcined		
Irritation of eyes	IS	<0.33 (rabbit) (EPA OPP 870.2400) comparable substance
1318-02-1 zeolite (crystalline aluminosilicate)		
Irritation of eyes	IS	0.7-1.3 (rabbit) (OECD 405) Corneal opacity
7631-86-9 amorphous silicon dioxide, chemically prepared		
Irritation of eyes	IS	0 (rabbit) (OECD 405)
1344-28-1 aluminum oxide (non-fibrous forms)		
Irritation of eyes	IS	0 (rabbit)

· Skin sensitization

92704-41-1 Kaolin, calcined		
Sensitization	SI	<0.72 (mouse) (OECD 429) highest concentration: 25% comparable substance
1344-28-1 aluminum oxide (non-fibrous forms)		
Sensitization	SI	0 (guinea pig)

· Additional toxicological information:

WARNING. Contains a substance known to the State of California to cause cancer.

· Carcinogenic categories

· IARC (International Agency for Research on Cancer)		
1318-02-1	zeolite (crystalline aluminosilicate)	3
7631-86-9	amorphous silicon dioxide, chemically prepared	3
	Silica, crystalline (airborne particles of respirable size)	1

· NTP (National Toxicology Program)

None of the ingredients is listed.

· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

· Repeated dose toxicity

1318-02-1 zeolite (crystalline aluminosilicate)		
Oral	NOAEL (90 d)	250-300 mg/kg bw/day (rat) subchronic oral repeated dose
7631-86-9 amorphous silicon dioxide, chemically prepared		
Oral	NOAEL (90 d)	9000 mg/kg bw/day (rat) (OECD 408)

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Trade name: FCC ACHIEVE® 400-10512

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Inhalative	NOAEC (90 d)	1 mg/m ³ (rat) (OECD 413)
1344-28-1 aluminum oxide (non-fibrous forms)		
Oral	NOAEL (90 d)	30 mg/kg bw/day (rat) (OECD 426/452) comparable substance
Inhalative	NOAEC (90 d)	70 mg/m ³ (rat) (OECD 413)

· CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

· Carcinogenicity

1318-02-1 zeolite (crystalline aluminosilicate)		
Oral	NOAEL	≥ 1000 ppm (rat)

· Mutagenicity

92704-41-1 Kaolin, calcined		
	AMES Test	>0.5 mg/plate (Salmonella typhimurium) (OECD 471) negative with and without metabolic activation comparable substance

1318-02-1 zeolite (crystalline aluminosilicate)		
Oral	CHO	>0.5 mg/kg bw (rat) (OECD 474) no genotoxic effects
	AMES Test	>0.1 mg/plate (Salmonella typhimurium) (OECD 471) negative with and without metabolic activation
	Mouse Lymphoma Test	>0.08 mg/ml (L5178Y) (OECD 476) no genotoxicity; cytotoxicity >0,02 mg/ml (without metabolic activation); >0,08 with metabolic activation
	CHO	0.067 mg/l (Chinese Hamster Ovary) (OECD 473) cytotoxic 0,0671-0,725 mg/l without metabolic activation; 0,313-0,4 with metabolic activation

7631-86-9 amorphous silicon dioxide, chemically prepared		
	AMES Test	>5 mg/plate (in-vitro) (OECD 471) negative, with and without metabolic activation ECHA 2012

1344-28-1 aluminum oxide (non-fibrous forms)		
	AMES Test	>5 mg/plate (Salmonella typhimurium) (OECD 471) comparable substance negative with and without metabolic activation

· Reproductive toxicity

1318-02-1 zeolite (crystalline aluminosilicate)		
Oral	NOAEL (maternal toxicity)	≥ 1600 mg/kg bw/day (rat) (OECD 414) ≥ 1600 mg/kg bw/day (rabbit) (OECD 414)
	NOAEL (teratogenicity)	≥ 1600 mg/kg bw/day (rat) (OECD 414) ≥ 1600 mg/kg bw/day (rabbit) (OECD 414)

7631-86-9 amorphous silicon dioxide, chemically prepared		
Oral	NOAEL (maternal toxicity)	1350 mg/kg bw/day (rat) (OECD 414)
	NOAEL (teratogenicity)	1350 mg/kg bw/day (rat) (OECD 414)

1344-28-1 aluminum oxide (non-fibrous forms)		
Oral	NOAEL (maternal toxicity)	>90 mg/kg bw/day (rat) (OECD 422) comparable substance
	NOAEL (teratogenicity)	>266 mg/kg bw/day (rat) (OECD 414) comparable substance

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Trade name: FCC ACHIEVE® 400-10512

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· Specific target organ toxicity (single exposure)

1344-28-1 aluminum oxide (non-fibrous forms)

Oral	C	>2000 mg/kg bw (rat) nothing to report in observed organs
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· Specific target organ toxicity (repeated exposure)

1344-28-1 aluminum oxide (non-fibrous forms)

Oral	C	>100 mg/kg bw (rat) nothing to report in observed organs
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12 Ecological information

· Toxicity

· Aquatic toxicity:

· Fish toxicity

92704-41-1 Kaolin, calcined

LC50 (96 h)	≥100 mg/l (zebra fish) (OECD 203) comparable substance
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1318-02-1 zeolite (crystalline aluminosilicate)

LC50 (96 h)	>680 mg/l (Pimephales promelas) (EPA 660/3-75/009)
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7631-86-9 amorphous silicon dioxide, chemically prepared

LC0 (96 h) (static)	10000 mg/l (zebra fish) (OECD 203)
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1344-28-1 aluminum oxide (non-fibrous forms)

LC50 (96 h)	>218.64 mg/l (Pimephales promelas) (ASTM 2000 (E729-96)) comp. substance
NOEC (96 h)	>0.072 mg/l (Salmo trutta) (OECD 203)

· Water flea toxicity

92704-41-1 Kaolin, calcined

EC0 (48h)	>100 mg/l (Daphnia magna) (OECD 202) comparable substance
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1318-02-1 zeolite (crystalline aluminosilicate)

EC50 (24 h)	2808 mg/l (Daphnia magna) (OECD 202)
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7631-86-9 amorphous silicon dioxide, chemically prepared

EC50 (24 h)	> 1000 mg/l (Daphnia magna) (OECD 202)
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1344-28-1 aluminum oxide (non-fibrous forms)

NOEC (96 h)	>0.071 mg/l (Daphnia magna) (OECD 202)
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· Algae toxicity

92704-41-1 Kaolin, calcined

EC50 (72 h)	>100 mg/l (Scenedesmus subspicatus) (OECD 201) comparable substance
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1318-02-1 zeolite (crystalline aluminosilicate)

EC50 (96h)	>328 mg/l (Scenedesmus subspicatus) (OECD 201)
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7631-86-9 amorphous silicon dioxide, chemically prepared

EC50 (72 h)	> 10000 mg/l (Scenedesmus subspicatus) (OECD 201) comparable substance
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1344-28-1 aluminum oxide (non-fibrous forms)

NOEC (72 h)	>0.052 mg/l (Selenastrum capricornutum) (OECD 201)
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(Contd. on page 10)

Trade name: FCC ACHIEVE® 400-10512

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· Bacterial toxicity	
1318-02-1 zeolite (crystalline aluminosilicate)	
EC50 (16h)	950 mg/l (Pseudomonas putida) (DIN 38412/8)

- **Persistence and degradability** No further relevant information available.
- **Other information:**
By the insolubility in water there is a separation at every filtration and sedimentation process. The product is chemically and biologically inert.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** Non significant accumulation in organisms
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:** Do not allow product to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Recommendation:**
Disposal must be made according to official regulations.

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State/provincial and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state/provincial and local requirements.

- **Waste disposal key:**
Reworking of the Equilibrium Fluid Catalyst is possible. For details contact our local representative.

14 Transport information

· UN-Number	
· DOT, ADR, ADN, IMDG, IATA	None
· UN proper shipping name	
· DOT, ADR, ADN, IMDG, IATA	None
· Transport hazard class(es)	
· DOT, ADR, ADN, IMDG, IATA	
· Class	None
· Packing group	
· DOT, ADR, IMDG, IATA	None
· Environmental hazards:	Not applicable.
· Special precautions for user	Not applicable.
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.

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Trade name: FCC ACHIEVE® 400-10512

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· **Transport/Additional information:** Not dangerous according to the above specifications.
GRACE recommendation for air transport: Cargo aircraft only.

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- SARA

· **SARA 302/304**
None of the ingredients is listed.

· **SARA 313**
None of the ingredients is listed.

- **SARA 311/312** Delayed (Chronic) Health Hazard.

· **TSCA (Toxic Substances Control Act):**

EPA has defined zeolites as complex chemical products consisting of silica (SiO₂) and alumina (Al₂O₃), in various proportions, plus metallic oxides and certain cations. Zeolites are considered for TSCA purposes to be statutory mixtures of the substances used to manufacture them. Catalysts are considered for TSCA purposes to be mixtures of the oxides related to the manufacturing process.

92704-41-1	Kaolin, calcined
7631-86-9	amorphous silicon dioxide, chemically prepared
1344-28-1	aluminum oxide (non-fibrous forms)
	rare earth oxides
	Silica, crystalline (non respirable form)
	Silica, crystalline (airborne particles of respirable size)

· **Proposition 65**

· **Chemicals known to cause cancer:**
Silica, crystalline (airborne particles of respirable size)

· **Chemicals known to cause reproductive toxicity for females:**
None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**
None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**
None of the ingredients is listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**
None of the ingredients is listed.

· **TLV (Threshold Limit Value established by ACGIH)**
1344-28-1 | aluminum oxide (non-fibrous forms)

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**
None of the ingredients is listed.

· **Canadian DSL**

Zeolites are considered for DSL purposes to be mixtures of the substances used to manufacture them.
Catalysts are considered for DSL purposes to be mixtures of the oxides related to the manufacturing process.

(Contd. on page 12)

Trade name: FCC ACHIEVE® 400-10512

(Contd. of page 11)

92704-41-1	Kaolin, calcined
7631-86-9	amorphous silicon dioxide, chemically prepared
1344-28-1	aluminum oxide (non-fibrous forms)
	rare earth oxides
	Silica, crystalline (non respirable form)
	Silica, crystalline (airborne particles of respirable size)

• **Canadian NDSL** Not available.

• **European EINECS**

All ingredients are listed or exempted from listing.

• **Philippines Inventory of Chemicals and Chemical Substances PICCS**

All ingredients are listed or exempted from listing.

• **Inventory of the Existing Chemical Substances manufactured or imported in China IECSC**

All ingredients are listed.

• **Australian Inventory of Chemical Substances AICS**

All ingredients are listed or exempted from listing.

• **Existing and New Chemical Substance List ENCS**

92704-41-1	Kaolin, calcined	1-26
1318-02-1	zeolite (crystalline aluminosilicate)	1-26
7631-86-9	amorphous silicon dioxide, chemically prepared	1-548
1344-28-1	aluminum oxide (non-fibrous forms)	1-23
	rare earth oxides	1-560
	Silica, crystalline (non respirable form)	
	Silica, crystalline (airborne particles of respirable size)	

• **Korean Existing Chemical Inventory KECI**

92704-41-1	Kaolin, calcined	KE-21773
1318-02-1	zeolite (crystalline aluminosilicate)	KE-35511
7631-86-9	amorphous silicon dioxide, chemically prepared	KE-31032
1344-28-1	aluminum oxide (non-fibrous forms)	KE-01012
	rare earth oxides	KE-35504
	Silica, crystalline (non respirable form)	*
	Silica, crystalline (airborne particles of respirable size)	*

• **TCSCA (Taiwan)**

92704-41-1	Kaolin, calcined	EPEP4A01713958
1318-02-1	zeolite (crystalline aluminosilicate)	EPEP4A01713969
7631-86-9	amorphous silicon dioxide, chemically prepared	EPEP4A01648271
1344-28-1	aluminum oxide (non-fibrous forms)	EPEP4A01713813

• **GHS label elements** None

• **Hazard pictograms** None

• **Signal word** None

• **Hazard statements** None

• **Precautionary statements**

Do not breathe dust.

IF INHALED: Call a POISON CENTER/doctor if you feel unwell.

Collect spillage.

Store in accordance with local/regional/national/international regulations.

Dispose of contents/container in accordance with local/regional/national/international regulations.

• **Information about limitation of use:**

Employment restrictions concerning young persons must be observed.

(Contd. on page 13)

Trade name: FCC ACHIEVE® 400-10512

(Contd. of page 12)
Employment restrictions concerning pregnant and lactating women must be observed.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Relevant phrases**

H350 May cause cancer.

- **Department issuing SDS:** GRACE Safety & Health Department

- **Other information:**

Handling the used catalyst needs special care. For this please check our separate Safety Data Sheet for Equilibrium Fluid Cracking Catalyst.

The applicable regulations and industrial hygiene standards have to be considered.

- **Tarif number** 38151990

- **Contact:**

SALES OFFICES

USA:

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- **Date of preparation / last revision** 05/10/2017 / 2.8

- **The first date of preparation** 08/16/2010

- **Number of revision times and the latest revision date** 2.9 / 05/04/2017

(Contd. on page 14)

Printing date 05/10/2017

Version: 2.9

Reviewed on 05/04/2017

Trade name: FCC ACHIEVE® 400-10512

(Contd. of page 13)

Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Carc. 1A: Carcinogenicity – Category 1A

*** Data compared to the previous version altered.**

USA



SAFETY DATA SHEET

SECTION 1	PRODUCT AND COMPANY IDENTIFICATION
------------------	---

PRODUCT

Product Name: FCC SPENT CATALYST
Product Description: Spent Catalyst
SDS Number: 35191
Intended Use: Spent catalyst

COMPANY IDENTIFICATION

Manufacturer/Supplier: Martinez Refining Company, L.L.C.
3485 Pacheco Blvd
Martinez, CA

Telephone Number 925-313-3601
Transportation Emergency Phone 800-424-9300 CHEMTREC
Company Website <http://www.pbfenergy.com>

SECTION 2	HAZARDS IDENTIFICATION
------------------	-------------------------------

This material is hazardous according to regulatory guidelines (see (M)SDS Section 15).

CLASSIFICATION:

Combustible Dust

LABEL:

Signal Word: Warning

Hazard Statements:

May form combustible dust concentrations in air.

Other hazard information:

HAZARD NOT OTHERWISE CLASSIFIED (HNOC): None as defined under 29 CFR 1910.1200.

PHYSICAL / CHEMICAL HAZARDS

WARNING: May form combustible dust concentrations in air (during processing/handling).

HEALTH HAZARDS

Repeated exposure may cause skin dryness or cracking. Dust may be irritating to eyes and respiratory tract.

ENVIRONMENTAL HAZARDS

No significant hazards.

NFPA Hazard ID:	Health: 1	Flammability: 0	Reactivity: 0
HMIS Hazard ID:	Health: 1*	Flammability: 0	Reactivity: 0

NOTE: This material should not be used for any other purpose than the intended use in Section 1 without expert advice. Health studies have shown that chemical exposure may cause potential human health risks which may vary from person to person.

SAFETY DATA SHEET

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

This material is defined as a mixture.

Hazardous Constituent(s) Contained in Complex Substance(s) required for disclosure

Name	CAS#	Concentration*	GHS Hazard Codes
ALUMINUM OXIDE	1344-28-1	0.4 - 45%	None
AMORPHOUS SILICA	7631-86-9	2 - 30%	None
KAOLIN	1332-58-7	20 - 80%	None

* All concentrations are percent by weight unless material is a gas. Gas concentrations are in percent by volume.

SECTION 4 FIRST AID MEASURES

INHALATION

Remove from further exposure. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation.

SKIN CONTACT

Wash contact areas with soap and water.

EYE CONTACT

Flush thoroughly with water. If irritation occurs, get medical assistance.

INGESTION

First aid is normally not required. Seek medical attention if discomfort occurs.

SECTION 5 FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

Appropriate Extinguishing Media: Use foam, dry chemical, or carbon dioxide (CO₂) to extinguish flames.

Inappropriate Extinguishing Media: DO NOT USE WATER.

FIRE FIGHTING

Fire Fighting Instructions: Material will not burn. Evacuate area. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Firefighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA).

Unusual Fire Hazards: Explosion: Avoid generating dust; fine dust dispersed in air in sufficient concentration and in the presence of an ignition source is a potential dust explosion hazard. Exposure to fire can generate toxic fumes. Adsorption of water will generate heat and possibly steam; closed containers may get very hot and build up pressure.

Hazardous Combustion Products: Metal Oxides

FLAMMABILITY PROPERTIES

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Flash Point [Method]: N/A

Flammable Limits (Approximate volume % in air): LEL: N/A UEL: N/A

Autoignition Temperature: N/A

SECTION 6

ACCIDENTAL RELEASE MEASURES

NOTIFICATION PROCEDURES

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. US regulations require reporting releases of this material to the environment which exceed the applicable reportable quantity or oil spills which could reach any waterway including intermittent dry creeks. The National Response Center can be reached at (800)424-8802.

PROTECTIVE MEASURES

Avoid contact with spilled material. Dust Deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Avoid dispersal of dust in the air (for example, clearing dust surfaces with compressed air). Prevent dust exposure to ignition sources. For example, use non-sparking tools and prohibit smoking, flares, sparks or flames in immediate area. See Section 5 for fire fighting information. See the Hazard Identification Section for Significant Hazards. See Section 4 for First Aid Advice. See Section 8 for advice on the minimum requirements for personal protective equipment. Additional protective measures may be necessary, depending on the specific circumstances and/or the expert judgment of the emergency responders.

SPILL MANAGEMENT

Land Spill: Stop leak if you can do it without risk. Ventilate the area. Prevent dust cloud. Vacuum material into a recovery container. Do not touch or walk through spilled material.

Water Spill: Stop leak if you can do it without risk. Warn other shipping. Material will sink. Consult an expert. No immediate action required.

Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.

ENVIRONMENTAL PRECAUTIONS

Prevent entry into waterways, sewers, basements or confined areas.

SECTION 7

HANDLING AND STORAGE

HANDLING

Minimize dust generation and accumulation. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Dust from material can accumulate electrostatic charges due to friction from transfer and mixing operations and cause an electrical spark (ignition source). Provide adequate precautions to ignition sources, such as electrical grounding and bonding, inert atmosphere or non-sparking tools. However, bonding and grounds may not eliminate the hazard for static accumulation. Consult local applicable standards for guidance. Refer to NFPA 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids and EN 61241, Electrical Apparatus for Use in the Presence of Combustible Dust for safe handling. Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Avoid contact with skin. Avoid contact with eyes. Product may generate heat if it comes in contact with water or water vapor. Avoid breathing material. Prevent small spills and leakage to avoid slip hazard.

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Static Accumulator: This material is a static accumulator.

STORAGE

The container choice, for example storage vessel, may effect static accumulation and dissipation. Do not store in open or unlabelled containers. Keep container tightly closed and dry.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE LIMIT VALUES

Exposure limits/standards (Note: Exposure limits are not additive)

Substance Name	Form	Limit / Standard			NOTE	Source
ALUMINUM OXIDE	Respirable fraction.	TWA	5 mg/m3		PEL	OSHA Z1
ALUMINUM OXIDE	Total dust.	TWA	15 mg/m3		PEL	OSHA Z1
ALUMINUM OXIDE	Respirable fraction.	TWA	1 mg/m3		TLV	ACGIH
ALUMINUM OXIDE	Total dust	TWA	10 mg/m3		REL	NIOSH
KAOLIN	Respirable fraction.	TWA	5 mg/m3		PEL	OSHA Z1
KAOLIN	Respirable fraction.	TWA	2 mg/m3		TLV	ACGIH

Exposure limits/standards for materials that can be formed when handling this product: For dusty conditions, OSHA recommends for particulates not otherwise regulated an 8-hour TWA of 15 mg/m3 (total dust), 5 mg/m3 (respirable fraction); ACGIH recommends for insoluble and poorly soluble particles not otherwise specified an 8-hour TWA of 10 mg/m3 (inhalable particles), 3 mg/m3 (respirable particles).

NOTE: Limits/standards shown for guidance only. Follow applicable regulations.

No biological limits allocated.

ENGINEERING CONTROLS

The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Control measures to consider:

Adequate ventilation should be provided so that exposure limits are not exceeded. It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product are designed and maintained to minimize dust generation and accumulation. Ensure that dust-handling systems (such as exhaust ducts, dusts collectors, vessels, and processing equipment) are designed to minimize the potential for dust ignition and prevent explosion propagation. For example, use explosion relief vents, an explosion suppression system or inert equipment internals. Additional examples of proper equipment include using only appropriately classified electrical equipment and powered industrial trucks.

PERSONAL PROTECTION

Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.

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Respiratory Protection: If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include:

Particulate air-purifying respirator approved for dust / oil mist is recommended.

For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapor warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

Hand Protection: Any specific glove information provided is based on published literature and glove manufacturer data. Glove suitability and breakthrough time will differ depending on the specific use conditions. Contact the glove manufacturer for specific advice on glove selection and breakthrough times for your use conditions. Inspect and replace worn or damaged gloves. The types of gloves to be considered for this material include:

If prolonged or repeated contact is likely, chemical resistant gloves are recommended. If contact with forearms is likely, wear gauntlet style gloves.

Eye Protection: If contact is likely, safety glasses with side shields are recommended. If dusty conditions exist, chemical goggles are recommended.

Skin and Body Protection: Any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material include:
If prolonged or repeated contact is likely, chemical, and oil resistant clothing is recommended.

Specific Hygiene Measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

ENVIRONMENTAL CONTROLS

Comply with applicable environmental regulations limiting discharge to air, water and soil. Protect the environment by applying appropriate control measures to prevent or limit emissions.

SECTION 9

PHYSICAL AND CHEMICAL PROPERTIES

Note: Physical and chemical properties are provided for safety, health and environmental considerations only and may not fully represent product specifications.

GENERAL INFORMATION

Physical State: Solid
Form: Powder
Color: Gray
Odor: Odorless
Odor Threshold: N/D

IMPORTANT HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION

Relative Density (at 15 °C): 2.1
Flammability (Solid, Gas): N/A
Flash Point [Method]: N/A
Flammable Limits (Approximate volume % in air): LEL: N/A UEL: N/A

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Autoignition Temperature: N/A
Boiling Point / Range: N/A
Decomposition Temperature: N/D
Vapor Density (Air = 1): N/A
Vapor Pressure: [N/D at 20 °C]
Evaporation Rate (n-butyl acetate = 1): N/A
pH: N/A
Log Pow (n-Octanol/Water Partition Coefficient): N/D
Solubility in Water: Negligible
Viscosity: N/A
Oxidizing Properties: See Hazards Identification Section.

OTHER INFORMATION

Freezing Point: N/A
Melting Point: 1200°C (2192°F)

SECTION 10	STABILITY AND REACTIVITY
-------------------	---------------------------------

REACTIVITY: See sub-sections below.

STABILITY: Material is stable under normal conditions.

CONDITIONS TO AVOID: High dust concentrations.

MATERIALS TO AVOID: Strong oxidizers, Strong Acids, sulfur containing materials

HAZARDOUS DECOMPOSITION PRODUCTS: Material does not decompose at ambient temperatures.

POSSIBILITY OF HAZARDOUS REACTIONS: Hazardous polymerization will not occur.

SECTION 11	TOXICOLOGICAL INFORMATION
-------------------	----------------------------------

INFORMATION ON TOXICOLOGICAL EFFECTS

<u>Hazard Class</u>	<u>Conclusion / Remarks</u>
Inhalation	
Acute Toxicity: No end point data for material.	Minimally Toxic. Based on assessment of the components.
Irritation: No end point data for material.	Negligible hazard at ambient/normal handling temperatures.
Ingestion	
Acute Toxicity: No end point data for material.	Minimally Toxic. Based on assessment of the components.
Skin	
Acute Toxicity: No end point data for material.	Minimally Toxic. Based on assessment of the components.
Skin Corrosion/Irritation: No end point data for material.	Negligible irritation to skin at ambient temperatures. Based on assessment of the components.
Eye	
Serious Eye Damage/Irritation: No end point data for material.	May cause mild, short-lasting discomfort to eyes. Based on assessment of the components.
Sensitization	
Respiratory Sensitization: No end point data for material.	Not expected to be a respiratory sensitizer.
Skin Sensitization: No end point data for	Not expected to be a skin sensitizer. Based on assessment of the

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material.	components.
Aspiration: No end point data for material.	Not expected to be an aspiration hazard. Based on physico-chemical properties of the material.
Germ Cell Mutagenicity: No end point data for material.	Not expected to be a germ cell mutagen. Based on assessment of the components.
Carcinogenicity: No end point data for material.	Not expected to cause cancer. Based on assessment of the components.
Reproductive Toxicity: No end point data for material.	Not expected to be a reproductive toxicant. Based on assessment of the components.
Lactation: No end point data for material.	Not expected to cause harm to breast-fed children.
Specific Target Organ Toxicity (STOT)	
Single Exposure: No end point data for material.	Not expected to cause organ damage from a single exposure.
Repeated Exposure: No end point data for material.	Not expected to cause organ damage from prolonged or repeated exposure. Based on assessment of the components.

TOXICITY FOR SUBSTANCES

NAME	ACUTE TOXICITY
SILICA	Inhalation Lethality: 4 hour(s) LC50 > 0.14 mg/l (Max. attainable aerosol conc.) (Rat)

OTHER INFORMATION

For the product itself:

Dust may be irritating to eyes and respiratory tract.

Contains:

AMORPHOUS SILICA : Most amorphous silicas (e.g., diatomaceous earth and precipitated silica) have relatively little adverse effects, although high aerosol concentrations may cause irritation of respiratory tract or, with prolonged exposure, possible benign pneumoconiosis. Aerosols of fused amorphous silica are thought to have greater potential to cause pulmonary fibrosis.

The following ingredients are cited on the lists below: None.

--REGULATORY LISTS SEARCHED--

1 = NTP CARC
2 = NTP SUS

3 = IARC 1
4 = IARC 2A

5 = IARC 2B
6 = OSHA CARC

SECTION 12	ECOLOGICAL INFORMATION
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The information given is based on data available for the material, the components of the material, and similar materials.

ECOTOXICITY

Material -- Not expected to be harmful to aquatic organisms.

MOBILITY

Material -- Can float on water, but will sink when saturated.

PERSISTENCE AND DEGRADABILITY

Biodegradation:

Material -- Expected to be persistent.

BIOACCUMULATION POTENTIAL

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Material -- Potential to bioaccumulate is low.

SECTION 13 DISPOSAL CONSIDERATIONS

Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

DISPOSAL RECOMMENDATIONS

Recycle empty drums at an appropriate facility in accordance with current applicable laws and regulations, and product characteristics at time of disposal. Ensure drums are tightly sealed. Unused material should be returned for material reclaiming.

REGULATORY DISPOSAL INFORMATION

RCRA Information: Disposal of unused product may be subject to RCRA regulations (40 CFR 261). Disposal of the used product may also be regulated due to ignitability, corrosivity, reactivity or toxicity as determined by the Toxicity Characteristic Leaching Procedure (TCLP). Potential RCRA characteristics: TCLP (SELENIUM, LEAD, CHROMIUM, BARIUM)

Empty Container Warning Empty Container Warning (where applicable): Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Empty drums should be completely drained and safely stored until appropriately reconditioned or disposed. Empty containers should be taken for recycling, recovery, or disposal through suitably qualified or licensed contractor and in accordance with governmental regulations. **DO NOT PRESSURISE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.**

SECTION 14 TRANSPORT INFORMATION

LAND (DOT): Not Regulated for Land Transport

LAND (TDG): Not Regulated for Land Transport

SEA (IMDG): Not Regulated for Sea Transport according to IMDG-Code
Marine Pollutant: No

AIR (IATA): Not Regulated for Air Transport

SECTION 15 REGULATORY INFORMATION

OSHA HAZARD COMMUNICATION STANDARD: This material is considered hazardous in accordance with OSHA HazCom 2012, 29 CFR 1910.1200.

Listed or exempt from listing/notification on the following chemical inventories: AICS, IECSC, KECI, PICCS

EPCRA SECTION 302: This material contains no extremely hazardous substances.

SARA (311/312) REPORTABLE HAZARD CATEGORIES: Delayed Health.

SARA (313) TOXIC RELEASE INVENTORY: This material contains no chemicals subject to the supplier notification requirements of the SARA 313 Toxic Release Program.

The following ingredients are cited on the lists below:

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Chemical Name	CAS Number	List Citations
ALUMINUM OXIDE	1344-28-1	1, 4, 13, 16, 17, 18, 19
ALUMINUM PHOSPHATE	7784-30-7	1, 17
KAOLIN	1332-58-7	1, 4, 13, 16, 17, 18
SILICA	7631-86-9	16, 17, 18

--REGULATORY LISTS SEARCHED--

1 = ACGIH ALL	6 = TSCA 5a2	11 = CA P65 REPRO	16 = MN RTK
2 = ACGIH A1	7 = TSCA 5e	12 = CA RTK	17 = NJ RTK
3 = ACGIH A2	8 = TSCA 6	13 = IL RTK	18 = PA RTK
4 = OSHA Z	9 = TSCA 12b	14 = LA RTK	19 = RI RTK
5 = TSCA 4	10 = CA P65 CARC	15 = MI 293	

Code key: CARC=Carcinogen; REPRO=Reproductive

SECTION 16	OTHER INFORMATION
-------------------	--------------------------

This warning is given to comply with California Health and Safety Code 25249.6 and does not constitute an admission or a waiver of rights. This product contains a chemical known to the State of California to cause cancer.

N/D = Not determined, N/A = Not applicable

THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:

Updates made in accordance with implementation of GHS requirements.

THIS MSDS COVERS THE FOLLOWING MATERIALS: SPENT FCC CATALYST

Disclaimer:

This Safety Data Sheet ("SDS") was prepared in accordance with 29 CFR 1910.1200 by PBF Holding Company LLC ("PBF"). PBF does not assume any liability arising out of product use by others. All risks of use of the product are assumed by the user. The information, recommendations, and suggestions presented in this SDS are based upon test results and data believed to be reliable and is offered in good faith. The end user of the product has the responsibility for evaluating the adequacy of the data under the conditions of use, determining the safety, toxicity and suitability of the product under these conditions, and obtaining additional or clarifying information where uncertainty exists. No guarantee expressed or implied is made as to the effects of such use, the results to be obtained, or the safety and toxicity of the product in any specific application. Furthermore, the information herein is not represented as absolutely complete, since it is not practicable to provide all the scientific and study information in the format of this document, plus additional information may be necessary under exceptional conditions of use, or because of applicable laws or government regulations. **WE EXPRESSLY DISCLAIM ALL WARRANTIES OF EVERY KIND AND NATURE, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE IN RESPECT TO THE USE OR SUITABILITY OF THE PRODUCT.** Nothing is intended as a recommendation for uses which infringe valid patents or as extending license under valid patents. Appropriate warnings and safe handling procedures should be provided to handlers and users. Alteration of this document is strictly prohibited. Except to the extent required by law, republication or retransmission of this document, in whole or in part, is not permitted.

Product Name: FCC SPENT CATALYST

Revision Date: 10/13/2020

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Marlowe, Michael

From: Padilla, Brad
Sent: Wednesday, November 23, 2022 1:34 PM
To: RCA Notification
Cc: McKenzie Bell; Shih, Rick; Armour, Michael
Subject: RCA Notification - Martinez Refining Company - Site #A0011
Attachments: 2022_11_21_COB 1_2 Opacity 96 Hour Report.pdf

Hello,

Please find attached episode report for MRC's COB1 and COB2 Opacity emissions. Please provide an ID number for an indicated excess.

Thank you.

~~Env# 15010#~~

Environmental Specialist
Martinez Refining Company
3495 Pacheco Blvd, Martinez CA 94553
925.313.3857



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Bay Area Air Quality Management District
EPISODE REPORT FORM

ID #: _____

The District is available to receive your report
M-F 8:30 am - 5:00 pm telephone (415) 749-4979. After hours for breakdowns only telephone (415) 749-4666
FAX (415) 928-0338

TYPE (Check one box; report only one type on a form; use a separate form for each episode)

<input type="checkbox"/> Breakdown	<input checked="" type="checkbox"/> Excess	<input type="checkbox"/> Inoperative Monitor	<input type="checkbox"/> PRV
------------------------------------	--	--	------------------------------

SITE

Company: <u>Martinez Refining Company</u>	Plant #: <u>A0011</u>	or GDF #: _____
Location: <u>3485 Pacheco Blvd</u>		
City: <u>Martinez</u>	State: <u>CA</u>	Zip Code: <u>945530071</u>

EQUIPMENT

Source Description: <u>Multiple</u>	S# <u>Multi</u>
Abatement Device: _____	A# _____
Emission Point (Stack): _____	P# _____

OCCURRENCE

Start Date: <u>11/21/2022</u>	Time: <u>1:11 AM</u>	Reported Date: _____	Time: _____
Clear Date: <u>11/22/2022</u>	Time: <u>12:36 PM</u>	Reported By: <u>Brad Padilla</u>	
Received By: _____		Phone: <u>(925) 313-3857</u>	
Problem: <u>(A) CO boiler (COB) opacity analyzers showed an indicated excess of greater than 1 Ringelmann for 3 minutes in a clock hour during the following periods.</u>			

Date: 11/21/2022

COB1 (S1507): Starting with clock hour 01:00 and ending with clock hour 14:00

COB2 (S1509): Starting with clock hour 01:00 and ending with clock hour 11:00

Date: 11/22/2022

COB1: 8:00 and 12:00 clock hour

(B) CO boiler opacity analyzers showed an indicated excess of greater than 1.5 Ringelmann over a 6 minute period, more than once in a clock hour, during the following periods:

Date: 11/21/2022

COB1: Starting with clock hour 01:00 and ending with clock hour 11:00.

COB2: In the clock hours 01:00, 02:00, 03:00, 06:00, 10:00, and 11:00.

(C) CO boiler opacity analyzers showed an indicated excess of greater than 1 Ringelmann over a 3 hour average on 11/21/2022 starting 01:00 and ending 13:59 for COB1 and COB2.

BREAKDOWN (if box B is checked)

Related Excess Emissions? <input type="checkbox"/> Monitor Excess	<input type="checkbox"/> Other Excess: _____
Emission Description: _____	

EXCESS EMISSION OR INOPERATIVE MONITOR (E or I is checked)

Monitor Description: COB #1 / / 9 A 2529

Type: CEM GLM Fuel Gas Parametric

Parameter: NOx SO2 CO H2S TRS NH3 O2 CO2 H2O Opacity/LTA Lead
 Gauge Pressure Hydrocarbon Breakthrough (VOC) Temperature pH
 Wind Speed Wind Direction Flow Steam

EXCESS EMISSION (E is checked) Units shall be the same as the District Regulation Standard or Permit Condition.

Indicated Excess: 4.2 ppm vol ppb vol min/hr inches H2O psig mm/Hg %VOC

Allowable Limit: 1 Other units: Ringelmann

Averaging Time: 3 minutes

Related Breakdown ID#: _____ for District use only

TYPE (Check one box; report only one type on a form; use a separate form for each episode)

<input type="checkbox"/> Breakdown	<input checked="" type="checkbox"/> Excess	<input type="checkbox"/> Inoperative Monitor	<input type="checkbox"/> PRV
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SITE

Company: <u>Martinez Refining Company</u>	Plant #: <u>A0011</u>	or GDF #: _____
Location: <u>3485 Pacheco Blvd</u>		
City: <u>Martinez</u>	State: <u>CA</u>	Zip Code: <u>945530071</u>

EQUIPMENT

Source Description: <u>Multiple</u>	S# <u>Multi</u>
Abatement Device: _____	A# _____
Emission Point (Stack): _____	P# _____

OCCURRENCE

Start Date: <u>11/21/2022</u>	Time: <u>1:11 AM</u>	Reported Date: _____	Time: _____ :
Clear Date: <u>11/22/2022</u>	Time: <u>12:36 PM</u>	Reported By: <u>Brad Padilla</u>	
Received By: _____		Phone: <u>(925) 313-3857</u>	
Problem: <u>(A) CO boiler (COB) opacity analyzers showed an indicated excess of greater than 1 Ringelmann for 3 minutes in a clock hour during the following periods</u>			

Date: 11/21/2022

COB1 (S1507): Starting with clock hour 01:00 and ending with clock hour 14:00

COB2 (S1509): Starting with clock hour 01:00 and ending with clock hour 11:00

Date: 11/22/2022

COB1: 8:00 and 12:00 clock hour

(B) CO boiler opacity analyzers showed an indicated excess of greater than 1.5 Ringelmann over a 6 minute period, more than once in a clock hour, during the following periods:

Date: 11/21/2022

COB1: Starting with clock hour 01:00 and ending with clock hour 11:00.

COB2: In the clock hours 01:00, 02:00, 03:00, 06:00, 10:00, and 11:00.

(C) CO boiler opacity analyzers showed an indicated excess of greater than 1 Ringelmann over a 3 hour average on 11/21/2022 starting 01:00 and ending 13:59 for COB1 and COB2.

BREAKDOWN (if box B is checked)

Related Excess Emissions? <input type="checkbox"/> Monitor Excess	<input type="checkbox"/> Other Excess: _____
Emission Description: _____	

EXCESS EMISSION OR INOPERATIVE MONITOR (E or I is checked)

Monitor Description: COB #2 / / 9 A 2531

Type: CEM GLM Fuel Gas Parametric

Parameter: NOx SO2 CO H2S TRS NH3 O2 CO2 H2O Opacity/LTA Lead
 Gauge Pressure Hydrocarbon Breakthrough (VOC) Temperature pH
 Wind Speed Wind Direction Flow Steam

EXCESS EMISSION (E is checked) Units shall be the same as the District Regulation Standard or Permit Condition.

Indicated Excess: 4.2 ppm vol ppb vol min/hr inches H2O psig mm/Hg %VOC

Allowable Limit: 1 Other units: Ringelmann

Averaging Time: 3 minutes

Related Breakdown ID#: _____ for District use only

TYPE (Check one box; report only one type on a form; use a separate form for each episode)

<input type="checkbox"/> Breakdown	<input checked="" type="checkbox"/> Excess	<input type="checkbox"/> Inoperative Monitor	<input type="checkbox"/> PRV
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SITE

Company: <u>Martinez Refining Company</u>	Plant #: <u>A0011</u>	or GDF #: _____
Location: <u>3485 Pacheco Blvd</u>		
City: <u>Martinez</u>	State: <u>CA</u>	Zip Code: <u>945530071</u>

EQUIPMENT

Source Description: <u>Multiple</u>	S# <u>Multi</u>
Abatement Device: _____	A# _____
Emission Point (Stack): _____	P# _____

OCCURRENCE

Start Date: <u>11/21/2022</u>	Time: <u>1:11 AM</u>	Reported Date: _____	Time: _____ :
Clear Date: <u>11/22/2022</u>	Time: <u>12:36 PM</u>	Reported By: <u>Brad Padilla</u>	
Received By: _____		Phone: <u>(925) 313-3857</u>	
Problem: <u>(A) CO boiler (COB) opacity analyzers showed an indicated excess of greater than 1 Ringelmann for 3 minutes in a clock hour during the following periods</u>			

Date: 11/21/2022

COB1 (S1507): Starting with clock hour 01:00 and ending with clock hour 14:00

COB2 (S1509): Starting with clock hour 01:00 and ending with clock hour 11:00

Date: 11/22/2022

COB1: 8:00 and 12:00 clock hour

(B) CO boiler opacity analyzers showed an indicated excess of greater than 1.5 Ringelmann over a 6 minute period, more than once in a clock hour, during the following periods:

Date: 11/21/2022

COB1: Starting with clock hour 01:00 and ending with clock hour 11:00.

COB2: In the clock hours 01:00, 02:00, 03:00, 06:00, 10:00, and 11:00.

(C) CO boiler opacity analyzers showed an indicated excess of greater than 1 Ringelmann over a 3 hour average on 11/21/2022 starting 01:00 and ending 13:59 for COB1 and COB2.

BREAKDOWN (if box B is checked)

Related Excess Emissions? <input type="checkbox"/> Monitor Excess	<input type="checkbox"/> Other Excess: _____
Emission Description: _____	

EXCESS EMISSION OR INOPERATIVE MONITOR (E or I is checked)

Monitor Description: COB #1 / / 9 A 2529

Type: CEM GLM Fuel Gas Parametric

Parameter: NOx SO2 CO H2S TRS NH3 O2 CO2 H2O Opacity/LTA Lead
 Gauge Pressure Hydrocarbon Breakthrough (VOC) Temperature pH
 Wind Speed Wind Direction Flow Steam

EXCESS EMISSION (E is checked) Units shall be the same as the District Regulation Standard or Permit Condition.

Indicated Excess: 4.2 ppm vol ppb vol min/hr inches H2O psig mm/Hg %VOC

Allowable Limit: 1.5 Other units: Ringelmann

Averaging Time: 6 minutes

Related Breakdown ID#: _____ for District use only

TYPE (Check one box; report only one type on a form; use a separate form for each episode)

<input type="checkbox"/> Breakdown	<input checked="" type="checkbox"/> Excess	<input type="checkbox"/> Inoperative Monitor	<input type="checkbox"/> PRV
------------------------------------	--	--	------------------------------

SITE

Company: <u>Martinez Refining Company</u>	Plant #: <u>A0011</u>	or GDF #: _____
Location: <u>3485 Pacheco Blvd</u>		
City: <u>Martinez</u>	State: <u>CA</u>	Zip Code: <u>945530071</u>

EQUIPMENT

Source Description: <u>Multiple</u>	S# <u>Multi</u>
Abatement Device: _____	A# _____
Emission Point (Stack): _____	P# _____

OCCURRENCE

Start Date: <u>11/21/2022</u>	Time: <u>1:11 AM</u>	Reported Date: _____	Time: _____ :
Clear Date: <u>11/22/2022</u>	Time: <u>12:36 PM</u>	Reported By: <u>Brad Padilla</u>	
Received By: _____		Phone: <u>(925) 313-3857</u>	
Problem: <u>(A) CO boiler (COB) opacity analyzers showed an indicated excess of greater than 1 Ringelmann for 3 minutes in a clock hour during the following periods</u>			

Date: 11/21/2022

COB1 (S1507): Starting with clock hour 01:00 and ending with clock hour 14:00

COB2 (S1509): Starting with clock hour 01:00 and ending with clock hour 11:00

Date: 11/22/2022

COB1: 8:00 and 12:00 clock hour

(B) CO boiler opacity analyzers showed an indicated excess of greater than 1.5 Ringelmann over a 6 minute period, more than once in a clock hour, during the following periods:

Date: 11/21/2022

COB1: Starting with clock hour 01:00 and ending with clock hour 11:00.

COB2: In the clock hours 01:00, 02:00, 03:00, 06:00, 10:00, and 11:00.

(C) CO boiler opacity analyzers showed an indicated excess of greater than 1 Ringelmann over a 3 hour average on 11/21/2022 starting 01:00 and ending 13:59 for COB1 and COB2.

BREAKDOWN (if box B is checked)

Related Excess Emissions? <input type="checkbox"/> Monitor Excess <input type="checkbox"/> Other Excess: _____
Emission Description: _____

EXCESS EMISSION OR INOPERATIVE MONITOR (E or I is checked)

Monitor Description: COB #2 / / 9 A 2531

Type: CEM GLM Fuel Gas Parametric

Parameter: NOx SO2 CO H2S TRS NH3 O2 CO2 H2O Opacity/LTA Lead
 Gauge Pressure Hydrocarbon Breakthrough (VOC) Temperature pH
 Wind Speed Wind Direction Flow Steam

EXCESS EMISSION (E is checked) Units shall be the same as the District Regulation Standard or Permit Condition.

Indicated Excess: 4.1 ppm vol ppb vol min/hr inches H2O psig mm/Hg %VOC

Allowable Limit: 1.5 Other units: Ringelmann

Averaging Time: 6 minutes

Related Breakdown ID#: _____ for District use only

TYPE (Check one box; report only one type on a form; use a separate form for each episode)

<input type="checkbox"/> Breakdown	<input checked="" type="checkbox"/> Excess	<input type="checkbox"/> Inoperative Monitor	<input type="checkbox"/> PRV
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SITE

Company: <u>Martinez Refining Company</u>	Plant #: <u>A0011</u>	or GDF #: _____
Location: <u>3485 Pacheco Blvd</u>		
City: <u>Martinez</u>	State: <u>CA</u>	Zip Code: <u>945530071</u>

EQUIPMENT

Source Description: <u>Multiple</u>	S# <u>Multi</u>
Abatement Device: _____	A# _____
Emission Point (Stack): _____	P# _____

OCCURRENCE

Start Date: <u>11/21/2022</u>	Time: <u>1:11 AM</u>	Reported Date: _____	Time: _____ :
Clear Date: <u>11/22/2022</u>	Time: <u>12:36 PM</u>	Reported By: <u>Brad Padilla</u>	
Received By: _____		Phone: <u>(925) 313-3857</u>	
Problem: <u>(A) CO boiler (COB) opacity analyzers showed an indicated excess of greater than 1 Ringelmann for 3 minutes in a clock hour during the following periods</u>			

Date: 11/21/2022

COB1 (S1507): Starting with clock hour 01:00 and ending with clock hour 14:00

COB2 (S1509): Starting with clock hour 01:00 and ending with clock hour 11:00

Date: 11/22/2022

COB1: 8:00 and 12:00 clock hour

(B) CO boiler opacity analyzers showed an indicated excess of greater than 1.5 Ringelmann over a 6 minute period, more than once in a clock hour, during the following periods:

Date: 11/21/2022

COB1: Starting with clock hour 01:00 and ending with clock hour 11:00.

COB2: In the clock hours 01:00, 02:00, 03:00, 06:00, 10:00, and 11:00.

(C) CO boiler opacity analyzers showed an indicated excess of greater than 1 Ringelmann over a 3 hour average on 11/21/2022 starting 01:00 and ending 13:59 for COB1 and COB2.

BREAKDOWN (if box B is checked)

Related Excess Emissions? <input type="checkbox"/> Monitor Excess	<input type="checkbox"/> Other Excess: _____
Emission Description: _____	

EXCESS EMISSION OR INOPERATIVE MONITOR (E or I is checked)

Monitor Description: COB #1 / / 9 A 2529

Type: CEM GLM Fuel Gas Parametric

Parameter: NOx SO2 CO H2S TRS NH3 O2 CO2 H2O Opacity/LTA Lead
 Gauge Pressure Hydrocarbon Breakthrough (VOC) Temperature pH
 Wind Speed Wind Direction Flow Steam

EXCESS EMISSION (E is checked) Units shall be the same as the District Regulation Standard or Permit Condition.

Indicated Excess: 3.6 ppm vol ppb vol min/hr inches H2O psig mm/Hg %VOC

Allowable Limit: 1 Other units: Ringelmann

Averaging Time: 180 minutes

Related Breakdown ID#: _____ for District use only

TYPE (Check one box; report only one type on a form; use a separate form for each episode)

<input type="checkbox"/> Breakdown	<input checked="" type="checkbox"/> Excess	<input type="checkbox"/> Inoperative Monitor	<input type="checkbox"/> PRV
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SITE

Company: <u>Martinez Refining Company</u>	Plant #: <u>A0011</u>	or GDF #: _____
Location: <u>3485 Pacheco Blvd</u>		
City: <u>Martinez</u>	State: <u>CA</u>	Zip Code: <u>945530071</u>

EQUIPMENT

Source Description: <u>Multiple</u>	S# <u>Multi</u>
Abatement Device: _____	A# _____
Emission Point (Stack): _____	P# _____

OCCURRENCE

Start Date: <u>11/21/2022</u>	Time: <u>1:11 AM</u>	Reported Date: _____	Time: _____ :
Clear Date: <u>11/22/2022</u>	Time: <u>12:36 PM</u>	Reported By: <u>Brad Padilla</u>	
Received By: _____		Phone: <u>(925) 313-3857</u>	
Problem: <u>(A) CO boiler (COB) opacity analyzers showed an indicated excess of greater than 1 Ringelmann for 3 minutes in a clock hour during the following periods</u>			

Date: 11/21/2022

COB1 (S1507): Starting with clock hour 01:00 and ending with clock hour 14:00

COB2 (S1509): Starting with clock hour 01:00 and ending with clock hour 11:00

Date: 11/22/2022

COB1: 8:00 and 12:00 clock hour

(B) CO boiler opacity analyzers showed an indicated excess of greater than 1.5 Ringelmann over a 6 minute period, more than once in a clock hour, during the following periods:

Date: 11/21/2022

COB1: Starting with clock hour 01:00 and ending with clock hour 11:00.

COB2: In the clock hours 01:00, 02:00, 03:00, 06:00, 10:00, and 11:00.

(C) CO boiler opacity analyzers showed an indicated excess of greater than 1 Ringelmann over a 3 hour average on 11/21/2022 starting 01:00 and ending 13:59 for COB1 and COB2.

BREAKDOWN (if box B is checked)

Related Excess Emissions? <input type="checkbox"/> Monitor Excess	<input type="checkbox"/> Other Excess: _____
Emission Description: _____	

EXCESS EMISSION OR INOPERATIVE MONITOR (E or I is checked)

Monitor Description: COB #2 / / 9 A 2531

Type: CEM GLM Fuel Gas Parametric

Parameter: NOx SO2 CO H2S TRS NH3 O2 CO2 H2O Opacity/LTA Lead
 Gauge Pressure Hydrocarbon Breakthrough (VOC) Temperature pH
 Wind Speed Wind Direction Flow Steam

EXCESS EMISSION (E is checked) Units shall be the same as the District Regulation Standard or Permit Condition.

Indicated Excess: 2 ppm vol ppb vol min/hr inches H2O psig mm/Hg %VOC

Allowable Limit: 1 Other units: Ringelmann

Averaging Time: 180 minutes

Related Breakdown ID#: _____ for District use only

Marlowe, Michael

From: Padilla, Brad
Sent: Wednesday, November 23, 2022 1:36 PM
To: Compliance
Cc: McKenzie Bell; Shih, Rick; Armour, Michael
Subject: Title V 10-day Deviation Notification
Attachments: 2022_11_21_COB 1_2 Opacity 10 Day Report.pdf

Hello,

Please find attached a Title V 10-day deviation report regarding MRC's COB1 and COB2 Opacity emissions..

Thank you.

~~Eugene S. Giff~~

Environmental Specialist
Martinez Refining Company
3495 Pacheco Blvd, Martinez CA 94553
925.313.3857



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BAAQMD Title V Permit 10 Day Deviation Notification

Section I: Facility Information

Facility Name: Martinez Refining Company Facility ID: A0011

Address: 3485 Pacheco Blvd

City: Martinez State: CA Zip Code: 94553-0071

Mailing Address: 3485 Pacheco Blvd

City: Martinez State: CA Zip Code: 94553-0071

Name, title and phone number of person to contact for further information:

Brad Padilla
Contact

Environmental Specialist
Title

(925) 313-3857
Phone

Section II: Event Information

Incident Occurred on: 11/21/2022 at 1:11 AM

Incident Has Stopped? on 11/22/2022 at 12:36 PM

Total Duration-- Days: 1 Hours: 11.4

Event Description: (A) CO boiler (COB) opacity analyzers showed an indicated excess of greater than 1 Ringelmann for 3 minutes in a clock hour during the following periods

Date: 11/21/2022

COB1 (S1507): Starting with clock hour 01:00 and ending with clock hour 14:00

COB2 (S1509): Starting with clock hour 01:00 and ending with clock hour 11:00

Date: 11/22/2022

COB1: 8:00 and 12:00 clock hour

(B) CO boiler opacity analyzers showed an indicated excess of greater than 1.5 Ringelmann over a 6 minute period, more than once in a clock hour, during the following periods:

Date: 11/21/2022

COB1: Starting with clock hour 01:00 and ending with clock hour 11:00.

COB2: In the clock hours 01:00, 02:00, 03:00, 06:00, 10:00, and 11:00.

(C) CO boiler opacity analyzers showed an indicated excess of greater than 1 Ringelmann over a 3 hour average on 11/21/2022 starting 01:00 and ending 13:59 for COB1 and COB2.

The incident may have resulted in a:

Violation of Permit Condition(s): Condition #22165 Part 6

Violation of BAAQMD Rule(s): Regulation 6, Rule 1 Section 302

Other violation (CFR, CARB, etc): 40 CFR 60.102(a)(2) & 40 CFR 63.1564(a)(1) & (

Source (S#): Multi Multiple

Abatement Device (A#): _____

BAAQMD Title V Permit
10 Day Deviation Notification

Emission Point (#P): _____

Marlowe, Michael

From: Padilla, Brad
Sent: Saturday, November 26, 2022 6:21 PM
To: RCA Notification
Cc: McKenzie Bell; Shih, Rick; Armour, Michael; Marlowe, Michael
Subject: RCA Notification - Martinez Refining Company - Site #A0011
Attachments: 2022_11_23_COB 1_2 Opacity 96 Hour Report.pdf

Hello,

Please find attached episode report for MRC's COB1 and COB2 Opacity emissions. Please provide an ID number for an indicated excess.

Thank you.

~~Eng# 15010#~~

Environmental Specialist
Martinez Refining Company
3495 Pacheco Blvd, Martinez CA 94553
925.313.3857



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Bay Area Air Quality Management District
EPISODE REPORT FORM

ID #: _____

The District is available to receive your report
M-F 8:30 am - 5:00 pm telephone (415) 749-4979. After hours for breakdowns only telephone (415) 749-4666
FAX (415) 928-0338

TYPE (Check one box; report only one type on a form; use a separate form for each episode)

<input type="checkbox"/> Breakdown	<input checked="" type="checkbox"/> Excess	<input type="checkbox"/> Inoperative Monitor	<input type="checkbox"/> PRV
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SITE

Company: <u>Martinez Refining Company</u>	Plant #: <u>A0011</u>	or GDF #: _____
Location: <u>3485 Pacheco Blvd</u>		
City: <u>Martinez</u>	State: <u>CA</u>	Zip Code: <u>945530071</u>

EQUIPMENT

Source Description: <u>Multiple</u>	S# <u>Multi</u>
Abatement Device: _____	A# _____
Emission Point (Stack): _____	P# _____

OCCURRENCE

Start Date: <u>11/23/2022</u>	Time: <u>8:19 AM</u>	Reported Date: _____	Time: _____ : _____
Clear Date: <u>11/25/2022</u>	Time: <u>8:40 AM</u>	Reported By: <u>Brad Padilla</u>	
Received By: _____		Phone: <u>(925) 313-3857</u>	
Problem: <u>(A) CO boiler (COB) opacity analyzers showed an indicated excess of greater than 1 Ringelmann for 3 minutes in a clock hour during the following periods.</u>			

Date: 11/23/2022

COB1 (S1507): In the clock hour 08:00.

Date: 11/24/2022

COB1 (S1507): Starting with clock hour 02:00 through the 23:00 clock hour.

COB2 (S1509): Starting with clock hour 02:00 through the 23:00 clock hour.

Date: 11/25/2022

COB1 (S1507): Starting with clock hour 00:00 ending in the 06:00 clock hour.

COB2 (S1509): Starting with clock hour 00:00 ending in the 06:00 clock hour.

(B) CO boiler opacity analyzers showed an indicated excess of greater than 1.5 Ringelmann over a 6 minute period, more than once in a clock hour, during the following periods:

Date: 11/24/2022

COB1 (S1507): Starting with clock hour 02:00 through the 23:00 clock hour.

COB2 (S1509): Starting with clock hour 02:00 through the 23:00 clock hour.

Date: 11/25/2022

COB1 (S1507): Starting with clock hour 00:00 ending in the 06:00 clock hour.

COB2 (S1509): Starting with clock hour 00:00 ending in the 06:00 clock hour.

(C) CO boiler opacity analyzers showed an indicated excess of greater than 1 Ringelmann over a 3 hour rolling average period more than once during the following periods:

Date: 11/24/2022

COB1 (S1507): Starting with clock hour 02:00 through the 23:00 clock hour.

COB2 (S1509): Starting with clock hour 02:00 through the 23:00 clock hour.

Date: 11/25/2022

COB1 (S1507): Starting with clock hour 00:00 ending in the 08:00 clock hour.

COB2 (S1509): Starting with clock hour 00:00 ending in the 08:00 clock hour.

BREAKDOWN (if box B is checked)

Related Excess Emissions? Monitor Excess Other Excess: _____
Emission Description: _____

EXCESS EMISSION OR INOPERATIVE MONITOR (E or I is checked)

Monitor Description: COB #2 / / 9 A 2531
Type: CEM GLM Fuel Gas Parametric
Parameter: NOx SO2 CO H2S TRS NH3 O2 CO2 H2O Opacity/LTA Lead
 Gauge Pressure Hydrocarbon Breakthrough (VOC) Temperature pH
 Wind Speed Wind Direction Flow Steam

EXCESS EMISSION (E is checked)

Units shall be the same as the District Regulation Standard or Permit Condition.

Indicated Excess: 4.2 ppm vol ppb vol min/hr inches H2O psig mm/Hg %VOC
Allowable Limit: 1 Other units: Ringelmann
Averaging Time: 3 minutes
Related Breakdown ID#: _____ for District use only

TYPE (Check one box; report only one type on a form; use a separate form for each episode)

<input type="checkbox"/> Breakdown	<input checked="" type="checkbox"/> Excess	<input type="checkbox"/> Inoperative Monitor	<input type="checkbox"/> PRV
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SITE

Company: <u>Martinez Refining Company</u>	Plant #: <u>A0011</u>	or GDF #: _____
Location: <u>3485 Pacheco Blvd</u>		
City: <u>Martinez</u>	State: <u>CA</u>	Zip Code: <u>945530071</u>

EQUIPMENT

Source Description: <u>Multiple</u>	S# <u>Multi</u>
Abatement Device: _____	A# _____
Emission Point (Stack): _____	P# _____

OCCURRENCE

Start Date: <u>11/23/2022</u>	Time: <u>8:19 AM</u>	Reported Date: _____	Time: _____ :
Clear Date: <u>11/25/2022</u>	Time: <u>8:40 AM</u>	Reported By: <u>Brad Padilla</u>	
Received By: _____	Phone: <u>(925) 313-3857</u>		
Problem: <u>(A) CO boiler (COB) opacity analyzers showed an indicated excess of greater than 1 Ringelmann for 3 minutes in a clock hour during the following periods</u>			

Date: 11/23/2022

COB1 (S1507): In the clock hour 08:00.

Date: 11/24/2022

COB1 (S1507): Starting with clock hour 02:00 through the 23:00 clock hour.

COB2 (S1509): Starting with clock hour 02:00 through the 23:00 clock hour.

Date: 11/25/2022

COB1 (S1507): Starting with clock hour 00:00 ending in the 06:00 clock hour.

COB2 (S1509): Starting with clock hour 00:00 ending in the 06:00 clock hour.

(B) CO boiler opacity analyzers showed an indicated excess of greater than 1.5 Ringelmann over a 6 minute period, more than once in a clock hour, during the following periods:

Date: 11/24/2022

COB1 (S1507): Starting with clock hour 02:00 through the 23:00 clock hour.

COB2 (S1509): Starting with clock hour 02:00 through the 23:00 clock hour.

Date: 11/25/2022

COB1 (S1507): Starting with clock hour 00:00 ending in the 06:00 clock hour.

COB2 (S1509): Starting with clock hour 00:00 ending in the 06:00 clock hour.

(C) CO boiler opacity analyzers showed an indicated excess of greater than 1 Ringelmann over a 3 hour rolling average period more than once during the following periods:

Date: 11/24/2022

COB1 (S1507): Starting with clock hour 02:00 through the 23:00 clock hour.

COB2 (S1509): Starting with clock hour 02:00 through the 23:00 clock hour.

Date: 11/25/2022

COB1 (S1507): Starting with clock hour 00:00 ending in the 08:00 clock hour.

COB2 (S1509): Starting with clock hour 00:00 ending in the 08:00 clock hour.

BREAKDOWN (if box B is checked)

Related Excess Emissions? <input type="checkbox"/> Monitor Excess	<input type="checkbox"/> Other Excess: _____
Emission Description: _____	

EXCESS EMISSION OR INOPERATIVE MONITOR (E or I is checked)

Monitor Description: COB #1 / / 9 A 2529

Type: CEM GLM Fuel Gas Parametric

Parameter: NOx SO2 CO H2S TRS NH3 O2 CO2 H2O Opacity/LTA Lead
 Gauge Pressure Hydrocarbon Breakthrough (VOC) Temperature pH
 Wind Speed Wind Direction Flow Steam

EXCESS EMISSION (E is checked) Units shall be the same as the District Regulation Standard or Permit Condition.

Indicated Excess: 4.2 ppm vol ppb vol min/hr inches H2O psig mm/Hg %VOC

Allowable Limit: 1.5 Other units: Ringelmann

Averaging Time: 6 minutes

Related Breakdown ID#: _____ for District use only

TYPE (Check one box; report only one type on a form; use a separate form for each episode)

<input type="checkbox"/> Breakdown	<input checked="" type="checkbox"/> Excess	<input type="checkbox"/> Inoperative Monitor	<input type="checkbox"/> PRV
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SITE

Company: <u>Martinez Refining Company</u>	Plant #: <u>A0011</u>	or GDF #: _____
Location: <u>3485 Pacheco Blvd</u>		
City: <u>Martinez</u>	State: <u>CA</u>	Zip Code: <u>945530071</u>

EQUIPMENT

Source Description: <u>Multiple</u>	S# <u>Multi</u>
Abatement Device: _____	A# _____
Emission Point (Stack): _____	P# _____

OCCURRENCE

Start Date: <u>11/23/2022</u>	Time: <u>8:19 AM</u>	Reported Date: _____	Time: _____ :
Clear Date: <u>11/25/2022</u>	Time: <u>8:40 AM</u>	Reported By: <u>Brad Padilla</u>	
Received By: _____		Phone: <u>(925) 313-3857</u>	
Problem: <u>(A) CO boiler (COB) opacity analyzers showed an indicated excess of greater than 1 Ringelmann for 3 minutes in a clock hour during the following periods</u>			

Date: 11/23/2022

COB1 (S1507): In the clock hour 08:00.

Date: 11/24/2022

COB1 (S1507): Starting with clock hour 02:00 through the 23:00 clock hour.

COB2 (S1509): Starting with clock hour 02:00 through the 23:00 clock hour.

Date: 11/25/2022

COB1 (S1507): Starting with clock hour 00:00 ending in the 06:00 clock hour.

COB2 (S1509): Starting with clock hour 00:00 ending in the 06:00 clock hour.

(B) CO boiler opacity analyzers showed an indicated excess of greater than 1.5 Ringelmann over a 6 minute period, more than once in a clock hour, during the following periods:

Date: 11/24/2022

COB1 (S1507): Starting with clock hour 02:00 through the 23:00 clock hour.

COB2 (S1509): Starting with clock hour 02:00 through the 23:00 clock hour.

Date: 11/25/2022

COB1 (S1507): Starting with clock hour 00:00 ending in the 06:00 clock hour.

COB2 (S1509): Starting with clock hour 00:00 ending in the 06:00 clock hour.

(C) CO boiler opacity analyzers showed an indicated excess of greater than 1 Ringelmann over a 3 hour rolling average period more than once during the following periods:

Date: 11/24/2022

COB1 (S1507): Starting with clock hour 02:00 through the 23:00 clock hour.

COB2 (S1509): Starting with clock hour 02:00 through the 23:00 clock hour.

Date: 11/25/2022

COB1 (S1507): Starting with clock hour 00:00 ending in the 08:00 clock hour.

COB2 (S1509): Starting with clock hour 00:00 ending in the 08:00 clock hour.

BREAKDOWN (if box B is checked)

Related Excess Emissions?	<input type="checkbox"/> Monitor Excess	<input type="checkbox"/> Other Excess: _____
Emission Description: _____		

EXCESS EMISSION OR INOPERATIVE MONITOR (E or I is checked)

Monitor Description: COB #2 / / 9 A 2531

Type: CEM GLM Fuel Gas Parametric

Parameter: NOx SO2 CO H2S TRS NH3 O2 CO2 H2O Opacity/LTA Lead
 Gauge Pressure Hydrocarbon Breakthrough (VOC) Temperature pH
 Wind Speed Wind Direction Flow Steam

EXCESS EMISSION (E is checked)

Units shall be the same as the District Regulation Standard or Permit Condition.

Indicated Excess: 4.2 ppm vol ppb vol min/hr inches H2O psig mm/Hg %VOC

Allowable Limit: 1.5 Other units: Ringelmann

Averaging Time: 6 minutes

Related Breakdown ID#: _____ for District use only

TYPE (Check one box; report only one type on a form; use a separate form for each episode)

<input type="checkbox"/> Breakdown	<input checked="" type="checkbox"/> Excess	<input type="checkbox"/> Inoperative Monitor	<input type="checkbox"/> PRV
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SITE

Company: <u>Martinez Refining Company</u>	Plant #: <u>A0011</u>	or GDF #: _____
Location: <u>3485 Pacheco Blvd</u>		
City: <u>Martinez</u>	State: <u>CA</u>	Zip Code: <u>945530071</u>

EQUIPMENT

Source Description: <u>Multiple</u>	S# <u>Multi</u>
Abatement Device: _____	A# _____
Emission Point (Stack): _____	P# _____

OCCURRENCE

Start Date: <u>11/23/2022</u>	Time: <u>8:19 AM</u>	Reported Date: _____	Time: _____ :
Clear Date: <u>11/25/2022</u>	Time: <u>8:40 AM</u>	Reported By: <u>Brad Padilla</u>	
Received By: _____	Phone: <u>(925) 313-3857</u>		
Problem: <u>(A) CO boiler (COB) opacity analyzers showed an indicated excess of greater than 1 Ringelmann for 3 minutes in a clock hour during the following periods</u>			

Date: 11/23/2022

COB1 (S1507): In the clock hour 08:00.

Date: 11/24/2022

COB1 (S1507): Starting with clock hour 02:00 through the 23:00 clock hour.

COB2 (S1509): Starting with clock hour 02:00 through the 23:00 clock hour.

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COB1 (S1507): Starting with clock hour 00:00 ending in the 06:00 clock hour.

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(B) CO boiler opacity analyzers showed an indicated excess of greater than 1.5 Ringelmann over a 6 minute period, more than once in a clock hour, during the following periods:

Date: 11/24/2022

COB1 (S1507): Starting with clock hour 02:00 through the 23:00 clock hour.

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Date: 11/25/2022

COB1 (S1507): Starting with clock hour 00:00 ending in the 06:00 clock hour.

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(C) CO boiler opacity analyzers showed an indicated excess of greater than 1 Ringelmann over a 3 hour rolling average period more than once during the following periods:

Date: 11/24/2022

COB1 (S1507): Starting with clock hour 02:00 through the 23:00 clock hour.

COB2 (S1509): Starting with clock hour 02:00 through the 23:00 clock hour.

Date: 11/25/2022

COB1 (S1507): Starting with clock hour 00:00 ending in the 08:00 clock hour.

COB2 (S1509): Starting with clock hour 00:00 ending in the 08:00 clock hour.

BREAKDOWN (if box B is checked)

Related Excess Emissions?	<input type="checkbox"/> Monitor Excess	<input type="checkbox"/> Other Excess: _____
Emission Description: _____		

EXCESS EMISSION OR INOPERATIVE MONITOR (E or I is checked)

Monitor Description: COB #1 / / 9 A 2529

Type: CEM GLM Fuel Gas Parametric

Parameter: NOx SO2 CO H2S TRS NH3 O2 CO2 H2O Opacity/LTA Lead
 Gauge Pressure Hydrocarbon Breakthrough (VOC) Temperature pH
 Wind Speed Wind Direction Flow Steam

EXCESS EMISSION (E is checked) Units shall be the same as the District Regulation Standard or Permit Condition.

Indicated Excess: 4.2 ppm vol ppb vol min/hr inches H2O psig mm/Hg %VOC

Allowable Limit: 1 Other units: Ringelmann

Averaging Time: 180 minutes

Related Breakdown ID#: _____ for District use only

TYPE (Check one box; report only one type on a form; use a separate form for each episode)

<input type="checkbox"/> Breakdown	<input checked="" type="checkbox"/> Excess	<input type="checkbox"/> Inoperative Monitor	<input type="checkbox"/> PRV
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SITE

Company: <u>Martinez Refining Company</u>	Plant #: <u>A0011</u>	or GDF #: _____
Location: <u>3485 Pacheco Blvd</u>		
City: <u>Martinez</u>	State: <u>CA</u>	Zip Code: <u>945530071</u>

EQUIPMENT

Source Description: <u>Multiple</u>	S# <u>Multi</u>
Abatement Device: _____	A# _____
Emission Point (Stack): _____	P# _____

OCCURRENCE

Start Date: <u>11/23/2022</u>	Time: <u>8:19 AM</u>	Reported Date: _____	Time: _____ :
Clear Date: <u>11/25/2022</u>	Time: <u>8:40 AM</u>	Reported By: <u>Brad Padilla</u>	
Received By: _____		Phone: <u>(925) 313-3857</u>	
Problem: <u>(A) CO boiler (COB) opacity analyzers showed an indicated excess of greater than 1 Ringelmann for 3 minutes in a clock hour during the following periods</u>			

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COB1 (S1507): Starting with clock hour 02:00 through the 23:00 clock hour.

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(B) CO boiler opacity analyzers showed an indicated excess of greater than 1.5 Ringelmann over a 6 minute period, more than once in a clock hour, during the following periods:

Date: 11/24/2022

COB1 (S1507): Starting with clock hour 02:00 through the 23:00 clock hour.

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Date: 11/25/2022

COB1 (S1507): Starting with clock hour 00:00 ending in the 06:00 clock hour.

COB2 (S1509): Starting with clock hour 00:00 ending in the 06:00 clock hour.

(C) CO boiler opacity analyzers showed an indicated excess of greater than 1 Ringelmann over a 3 hour rolling average period more than once during the following periods:

Date: 11/24/2022

COB1 (S1507): Starting with clock hour 02:00 through the 23:00 clock hour.

COB2 (S1509): Starting with clock hour 02:00 through the 23:00 clock hour.

Date: 11/25/2022

COB1 (S1507): Starting with clock hour 00:00 ending in the 08:00 clock hour.

COB2 (S1509): Starting with clock hour 00:00 ending in the 08:00 clock hour.

BREAKDOWN (if box B is checked)

Related Excess Emissions?	<input type="checkbox"/> Monitor Excess	<input type="checkbox"/> Other Excess: _____
Emission Description: _____		

EXCESS EMISSION OR INOPERATIVE MONITOR (E or I is checked)

Monitor Description: COB #2 / / 9 A 2531

Type: CEM GLM Fuel Gas Parametric

Parameter: NOx SO2 CO H2S TRS NH3 O2 CO2 H2O Opacity/LTA Lead
 Gauge Pressure Hydrocarbon Breakthrough (VOC) Temperature pH
 Wind Speed Wind Direction Flow Steam

EXCESS EMISSION (E is checked) Units shall be the same as the District Regulation Standard or Permit Condition.

Indicated Excess: 4.1 ppm vol ppb vol min/hr inches H2O psig mm/Hg %VOC

Allowable Limit: 1 Other units: Ringelmann

Averaging Time: 180 minutes

Related Breakdown ID#: _____ for District use only

TYPE (Check one box; report only one type on a form; use a separate form for each episode)

<input type="checkbox"/> Breakdown	<input checked="" type="checkbox"/> Excess	<input type="checkbox"/> Inoperative Monitor	<input type="checkbox"/> PRV
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SITE

Company: <u>Martinez Refining Company</u>	Plant #: <u>A0011</u>	or GDF #: _____
Location: <u>3485 Pacheco Blvd</u>		
City: <u>Martinez</u>	State: <u>CA</u>	Zip Code: <u>945530071</u>

EQUIPMENT

Source Description: <u>Multiple</u>	S# <u>Multi</u>
Abatement Device: _____	A# _____
Emission Point (Stack): _____	P# _____

OCCURRENCE

Start Date: <u>11/23/2022</u>	Time: <u>8:19 AM</u>	Reported Date: _____	Time: _____ :
Clear Date: <u>11/25/2022</u>	Time: <u>8:40 AM</u>	Reported By: <u>Brad Padilla</u>	
Received By: _____	Phone: <u>(925) 313-3857</u>		
Problem: <u>(A) CO boiler (COB) opacity analyzers showed an indicated excess of greater than 1 Ringelmann for 3 minutes in a clock hour during the following periods</u>			

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Date: 11/25/2022

COB1 (S1507): Starting with clock hour 00:00 ending in the 06:00 clock hour.

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(C) CO boiler opacity analyzers showed an indicated excess of greater than 1 Ringelmann over a 3 hour rolling average period more than once during the following periods:

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Date: 11/25/2022

COB1 (S1507): Starting with clock hour 00:00 ending in the 08:00 clock hour.

COB2 (S1509): Starting with clock hour 00:00 ending in the 08:00 clock hour.

BREAKDOWN (if box B is checked)

Related Excess Emissions?	<input type="checkbox"/> Monitor Excess	<input type="checkbox"/> Other Excess: _____
Emission Description: _____		

EXCESS EMISSION OR INOPERATIVE MONITOR (E or I is checked)

Monitor Description: COB #1 / / 9 A 2529

Type: CEM GLM Fuel Gas Parametric

Parameter: NOx SO2 CO H2S TRS NH3 O2 CO2 H2O Opacity/LTA Lead
 Gauge Pressure Hydrocarbon Breakthrough (VOC) Temperature pH
 Wind Speed Wind Direction Flow Steam

EXCESS EMISSION (E is checked)

Units shall be the same as the District Regulation Standard or Permit Condition.

Indicated Excess: 4.2 ppm vol ppb vol min/hr inches H2O psig mm/Hg %VOC

Allowable Limit: 1 Other units: Ringelmann

Averaging Time: 3 minutes

Related Breakdown ID#: _____ for District use only

Marlowe, Michael

From: Padilla, Brad
Sent: Saturday, November 26, 2022 6:21 PM
To: Compliance
Cc: McKenzie Bell; Shih, Rick; Armour, Michael; Marlowe, Michael
Subject: Title V 10-day Deviation Notification
Attachments: 2022_11_23_COB 1_2 Opacity 10 Day Report.pdf

Hello,

Please find attached a Title V 10-day deviation report regarding MRC's COB1 and COB2 Opacity emissions..

Thank you.

~~Eugene S. Giff~~

Environmental Specialist
Martinez Refining Company
3495 Pacheco Blvd, Martinez CA 94553
925.313.3857



DISCLAIMER: This e-mail message and any attachments are intended solely for the use of the individual or entity to which it is addressed and may contain information that is confidential or legally privileged. If you are not the intended recipient, you are hereby notified that any dissemination, distribution, copying or other use of this message or its attachments is strictly prohibited. If you have received this message in error, please notify the sender immediately and permanently delete this message and any attachments.

BAAQMD Title V Permit 10 Day Deviation Notification

Section I: Facility Information

Facility Name: Martinez Refining Company Facility ID: A0011

Address: 3485 Pacheco Blvd

City: Martinez State: CA Zip Code: 94553-0071

Mailing Address: 3485 Pacheco Blvd

City: Martinez State: CA Zip Code: 94553-0071

Name, title and phone number of person to contact for further information:

Brad Padilla
Contact

Environmental Specialist
Title

(925) 313-3857
Phone

Section II: Event Information

Incident Occurred on: 11/23/2022 at 8:19 AM

Incident Has Stopped? on 11/25/2022 at 8:40 AM

Total Duration-- Days: 2 Hours: 0.35

Event Description: (A) CO boiler (COB) opacity analyzers showed an indicated excess of greater than 1 Ringelmann for 3 minutes in a clock hour during the following periods

Date: 11/23/2022

COB1 (S1507): In the clock hour 08:00.

Date: 11/24/2022

COB1 (S1507): Starting with clock hour 02:00 through the 23:00 clock hour.

COB2 (S1509): Starting with clock hour 02:00 through the 23:00 clock hour.

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(C) CO boiler opacity analyzers showed an indicated excess of greater than 1 Ringelmann over a 3 hour rolling average period more than once during the following periods:

Date: 11/24/2022

COB1 (S1507): Starting with clock hour 02:00 through the 23:00 clock hour.

BAAQMD Title V Permit
10 Day Deviation Notification

COB2 (S1509): Starting with clock hour 02:00 through the 23:00 clock hour.

Date: 11/25/2022

COB1 (S1507): Starting with clock hour 00:00 ending in the 08:00 clock hour.

COB2 (S1509): Starting with clock hour 00:00 ending in the 08:00 clock hour.

The incident may have resulted in a:

Violation of Permit Condition(s): Condition #22165 Part 6

Violation of BAAQMD Rule(s): Regulation 6, Rule 1 Section 302

Other violation (CFR, CARB, etc): 40 CFR 60.102(a)(2) & 40 CFR 63.1564(a)(1) & (

Source (S#): Multi Multiple

Abatement Device (A#): _____

Emission Point (#P): _____

Meteorological Data During Event

Date	Time	Wind Spd (mph)	Wind Dir (°)	Temp (°F)	Daily Rain (In)
11/25/2022	700	1.6	SE 143	39.2	0
11/25/2022	600	1.8	SE 135	39.9	0
11/25/2022	500	2.7	SE 142	41	0
11/25/2022	400	3.6	SE 136	41.9	0
11/25/2022	300	3.1	SE 134	42.1	0
11/25/2022	200	3.4	SE 135	42.3	0
11/25/2022	100	3.2	SE 134	43.6	0
11/25/2022	0	3.2	SE 134	45	0
11/24/2022	2300	3.4	SE 142	45.6	0
11/24/2022	2200	3.3	SE 138	46.5	0
11/24/2022	2100	2	SSE 150	48.2	0
11/24/2022	2000	0.6	S 188	50.1	0
11/24/2022	1900	0.5	S 170	52.8	0
11/24/2022	1800	1	W 259	57.4	0
11/24/2022	1700	2.6	NE 40	62.6	0
11/24/2022	1600	3.4	NE 52	65.1	0
11/24/2022	1500	6	ENE 76	65.2	0
11/24/2022	1400	8.8	ENE 74	63.5	0
11/24/2022	1300	8.1	NE 51	61.4	0
11/24/2022	1200	8.2	NE 46	59.1	0