

Tulane Environmental Law Clinic

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September 13, 2001

Via Certified Mail, Return Receipt Requested

No. 7000 0600 0022 4264 5981
Mr. Eric Bluth, Chief Operating Officer &
Refinery General Manager
Orion Refining Corporation
15292 River Rd.
New Sarpy, La 70078

No. 7000 0600 0022 4264 5974
Mr. Burgess E. McCranie, Jr.
Registered Agent
Orion Refining Corporation
3445 N. Causeway Blvd., #800
Metairie, La 70002

Re: Notice of Violations Pursuant to Clean Air Act § 304(b)(1)(A), 42 U.S.C.
§ 7604(b)(1)(A) and 40 C.F.R. Part 54 ("Prior Notice of Citizen Suits")

Dear Mr. Bluth:

On behalf of the Concerned Citizens of New Sarpy ("Concerned Citizens"), this letter provides Orion Refining Corporation ("Orion") with notice of violations and prior notice of a potential citizen enforcement suit under Clean Air Act § 304(a)(1).¹ That section authorizes citizens to respond to Clean Air Act violations with enforcement suits for injunctive relief and civil penalties.

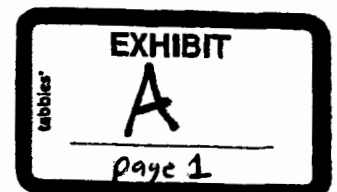
The Clean Air Act requires that the Concerned Citizens wait to file an enforcement action at least 60 days after providing this notice.² That waiting period gives the parties a reasonable time to resolve the matter cooperatively, without litigation. If Orion is interested in exploring a cooperative resolution of this lawsuit, Orion should contact the attorneys for the Concerned Citizens at the address and phone number provided below.

The Concerned Citizens comprises New Sarpy residents whose health is at risk from breathing air that the Orion refinery has contaminated, who are at constant risk of injury from explosions and chemical emergencies at the refinery, and whose quality of life is damaged by the odors emanating from the refinery. The Concerned Citizens is an "association" and therefore a "person" with standing to sue to protect its members' health and legal rights under the Clean Air Act.³

¹ 42 U.S.C. § 7604(a)(1).

² 42 U.S.C. § 7604(b)(1)(A).

³ 42 U.S.C. § 7602(e).



Under Clean Air Act § 304(a), the Concerned Citizens may file suit for injunctive relief and for civil penalties of up to \$25 thousand per violation per day for each Orion violation of any "emission standard or limitation" under the Act. "Emission standards or limitations" include without limitation any condition or requirement of a Clean Air Act permit, any requirement of Clean Air Act §§ 111 and 112,⁴ any standard, limitation or schedule established under subchapter V of the Clean Air Act or under Louisiana's plan for implementing the federal Clean Air Act (the "state implementation plan").⁵

Congress created the Clean Air Act's citizen-enforcement provision to provide citizens with independent authority to enforce legal standards to protect their own health and to prod governmental agencies into more active enforcement.⁶ The Concerned Citizens may sue about current violations and also about past violations where there is evidence that the past violations were repeated.⁷

This Notice focuses on four categories of violation: (1) Orion's violations of permitted emission limits for particulate pollution and other dangerous emissions, (2) Orion's violation of requirements that it install, maintain, and operate appropriate continuous emission monitors to protect the public health and welfare, (3) Orion's failure to provide prompt and sufficiently detailed reports of emergencies and other so-called accidents to the Louisiana Department of Environmental Quality ("LDEQ"), and (4) Orion's excessive emissions of sulfur dioxide and other pollutants during and after emergencies and other so-called accidents, including but not limited to startup emissions. Examples of these four categories of Orion's violations are provided below for illustrative purposes and not by way of limitation.

Orion is the person responsible for the violations. The violations were and are located at the Orion Refining Corporation Norco Refinery in New Sarpy, Louisiana. Based on information and belief, the violations began by at least September 13, 1996 and are ongoing.

⁴ 42 U.S.C. §§ 7411-12.

⁵ 42 U.S.C. § 7604(f).

⁶ Baughman v. Bradford Coal Co., 592 F.2d 215, 218 (3rd Cir.), cert. denied, 441 U.S. 961 (1979) ("Congress intended citizen suits to both goad the responsible agencies to more vigorous enforcement of the anti-pollution standards and, if the agencies remained inert, to provide an alternate enforcement mechanism"); S. Rep. No. 1196, 91st Cong. 2nd Sess. 36-39, reprinted in NRDC v. Train, 510 F.2d 692, 723 (D.C. Cir. 1975) (noting that "Government initiative in seeking enforcement under the Clean Air Act has been restrained. Authorizing citizens to bring suits for violations of standards should motivate governmental agencies charged with the responsibility to bring enforcement and abatement proceedings.")

⁷ 42 U.S.C. § 7604(a) (authorizing suit where a polluter "is alleged to be in violation" of a standard or order or "who is alleged to have violated [a standard or order] (if there is evidence that the alleged violation has been repeated).")

Violations of Permitted Emission Limits for Particulate Pollution

Compliance testing has shown repeated violation by Orion of permit limits. For example, an LDEQ letter dated June 5, 2001 documents the State's May 24, 2001 receipt of a December 15, 2000 report on a compliance test on Boiler 401D; EP 94-45, Permit No. 2176-M1. The test confirmed that Orion's operation of the Boiler violates permit standards for particulate emissions. Indeed, the test results were 2.3 pounds per hour – more than 1.91 times above the permitted limit of 1.2 pounds per hour. When reporting these violations to LDEQ, Orion called them "unexplainably high particulate emissions" but noted that these results were "*similar to previous tests.*"⁸ Clearly Orion has operated in violation of its permitted standard for some time, has repeated those violations, and continues to violate its permit limit in violation of, inter alia, LAC 33:III § 929.

EPA has found that particulate matter pollution is associated with "*premature mortality* [i.e., early death] and increased hospital admissions and emergency room visits (primarily in the elderly and individuals with cardiopulmonary disease); increased respiratory symptoms and disease (in children and individuals with cardiopulmonary disease such as asthma); decreased lung function (particularly in children and individuals with asthma); and alterations in lung tissue and structure and in respiratory tract defense mechanisms."⁹

Rather than insisting on compliance, the State of Louisiana has apparently decided to take no action to abate Orion's violations. Indeed, LDEQ has suggested that the solution to Orion's violation of health-based emission limits is to increase Orion's permit limits, rather than reform Orion's operations. LDEQ has brought no enforcement action against Orion for these particulate limit violations. Instead, the State's letter states that: "The emission are over the permit limit It is *understood* that the boilers permit limit will be revised"¹⁰

The Concerned Citizens are *not* part of any understanding that Orion's permit limits will be relaxed rather than enforced and complied with. Indeed, no such extra-legal "understanding" is binding on the Concerned Citizens. Instead, Orion has a continuing obligation to comply with the law, despite any extra-legal "understandings" it may have with LDEQ. LDEQ can only change such permit limits *after* an appropriate public process, including notice to the public and an opportunity to comment and appeal.¹¹

⁸ Orion Letter to LDEQ (dated May 18, 2001).

⁹ U.S. Environmental Protection Agency ("EPA"), Proposed Decision Re: National Ambient Air Quality Standards for Particulate Matter, 61 Fed. Reg. 65,638 (Dec. 13, 1996).

¹⁰ LDEQ Letter to Orion dated June 5, 2001 (emphasis added).

¹¹ See Student Pub. Interest Research Group v. Fritzsche, Dodge & Olcott, Inc., 579 F. Supp. 1528, 1536-1537 (D.N.J. 1984), *aff'd*, 759 F.2d 1131 (3d Cir. 1985) (An administrative consent order that purports to extend impermissibly the Act's compliance deadlines will not bar citizen enforcement).

Orion's emission violations are not limited to Boiler 401D. Testing has revealed similar particulate violations from the BELCO FCCU Unit (Permit No. 2176-M1). A June 5, 2001 LDEQ letter notes that testing reveals 88.5 pounds per hour of particulate emissions from that facility – a result that shows violation of the permit limit of 76 pounds per hour.¹² The test also revealed violation of the unit's limit for carbon monoxide – documenting emissions of 1.2 pounds per hour over the permit limit of zero pounds per hour. Rather than enforcing Orion's permit limit, LDEQ states in its letter that "The compliance data will be used to set the [new] permit limits" – again suggesting that the State of Louisiana's proposed solution to Orion's violations is to relax health-based permit limits rather than to enforce them.

Orion also admitted that stack tests revealed that it is violating permit limits of permit numbers 2176 (M1) and PSD-LA-571 (M-1) by exceeding PM10 and SO2 emissions from the NHT splitter reboiler (EIQ # 94-28).¹³

Prompted by New Sarpy citizens, concerned with benzene levels in the air, Orion conducted its own ambient air tests around its facility on three separate occasions in October 2000. The results showed that from October 10th – 11th Orion exceeded the Louisiana Ambient Air Standard of 3.76 ppm for benzene by more than 50% with a concentration of 5.9 ppm.

Violation of Continuous Emission Monitoring Requirements

In February 2001, certification testing was conducted on Orion's Vacuum Unit No.2b Heater sulfur dioxide continuous emission monitoring system ("CEMS"), as required by applicable emission permits. The Vacuum Unit No. 2B Heater CEMS operates under state permit 2575 and/or 2176-M1 and U.S. EPA permit PSD-LA-571 (M-1). Emission Testing Services, Inc. found in its February 1-15, 2001 tests that CEMS is not operating within specifications to receive certification. Specifically the SO2/ O2 CEMS failed to respond satisfactorily to the 7-day, 24-hour calibration drift test. Only six days of data were obtained which does not meet the minimum test requirements.

A June 5, 2001 LDEQ letter to Orion documents the fact that the sulfur dioxide CEMS for the BELCO FCCU also failed its certification test, *inter alia*, for carbon monoxide. Letters from that same date reveal that Orion's East Plant H2S CEMS (Permit No. 2176-M1) failed its certification test.

Violation of Incident Reporting Requirements

On information and belief, Orion has violated and continues to violate LAC 33:III § 927 which requires notification of unauthorized discharges, as well as LAC 33:I §§ 3915, 3917, 3923, and 3925, which regulate the procedures for verbal and written notification of these unauthorized discharges.

LAC 33:III § 927 provides that:

¹² Letter from LDEQ to Orion dated June 5, 2001.

¹³ Orion letter to LDEQ (May 20, 1999).

the unauthorized discharge of any air pollutant into the atmosphere shall be reported in accordance with the provisions of LAC 33:I, Chapter 39, Notification Regulations and Procedures for Unauthorized discharges. Written reports pursuant to LAC 33:I. § 3925 must be submitted to the department. Timely and appropriate follow-up reports should be submitted detailing methods and procedures to be used to prevent similar atmospheric releases.

LAC 33: III § 927. Orion has failed to adhere to many of the provisions of LAC33:I, Chapter 39.

For illustrative purposes only, and not by way of limitation, Attachment A to this notice is a chart that provides a nonexclusive list of violations found in Orion's incident reports over a sample brief nine-month period.

1. Failure to submit reports in accordance with LAC 33:I § 3925

Orion has repeatedly submitted incident reports more than seven days following telephone notification, in violation of LAC 33:I § 3925(A). These reports, even when timely sent, frequently fail to include all the information specifically required by LAC 33:I § 3925 (B)(1)-(13). These omissions include but are not limited to: failure to include the date of the telephone report; failure to include the date(s), time(s) and duration of the unauthorized discharge; failure to report a discharge estimate within seven days; failure to state procedures or measures which have or will be adopted to prevent reoccurrence of the incident or similar incidents; failure to include a determination by Orion of whether or not the discharge was preventable and if not, an explanation of why the discharge was not preventable.

Often, Orion pledges to file a completed report within the next thirty days, only to make the same promise thirty days later. In some cases a final explanation and report detailing emissions is never sent. There is no provision in LAC 33:I § 3925 for extensions.

The written notifications to the LDEQ often are not clearly marked "UNAUTHORIZED DISCHARGE NOTIFICATION REPORT," as required by LAC 33: I § 3925(C).

2. Failure to submit reports in accordance with LAC 33:I § 3915

On information and belief, Orion has failed to report unauthorized discharges that cause emergency conditions to the Department of Public Safety 24-hour Louisiana Emergency Hazardous Materials Hotline within 1 hour, in violation of LAC 33: I § 3915.¹⁴

Orion's first quarter 2000 CEMS Report for Thermal Oxidizer, Sulfur Recovery Units and Tail Gas Units covering 1/1/01 thru 3/31/01 fails to list excess emissions found in incident

¹⁴ "Failure to comply with any of the provisions of these regulations constitutes a violation of the Louisiana Environmental Quality Act (R.S. 30:2001 et seq.). Each day of failure to give the required notification shall constitute a separate violation and shall be in addition to any other violations of the act." LAC 33:I § 3909.

reports and vice-versa. Specifically, there is no incident report for excess emissions due to sulfur recovery unit restart or shutdown on 1/2/01, 1/3/01, or 1/08/01. And while an incident report for sulfur recovery unit shutdown on 1/14/01 lists the time of shutdown at 5:00 a.m. with all systems operating normally by 7:00 a.m. that same day, the CEMS report states the time of shutdown as 2300 on 1/14/01 with the ending time at 1300 on 1/15/01. Furthermore the CEMS does not include excess emissions found in incident reports 01-00236 and 01-00299.

Orion's fourth quarter progress report to LDEQ, covering a monitoring period from October 1, 2000 to December 31, 2000, neglects to mention that the Sulfur Recovery Unit #1600 was responsible for more than 16.5 tons of sulfur dioxide emissions during that same period. In fact, final emission results for incident # 00-06066, involving problems with the Tailgas Units for the 1600 and 3700 units, were never reported.

Excessive Emissions of Sulfur Dioxide and Other Pollutants

The purpose of regulations and procedures for reporting unauthorized discharges is to "provide the department with the discharge information that may be used to insure compliance with permit terms and conditions." LAC 33:I § 3903(D). Orion's incident reports often refer to emission sources in the facility in a manner that is inconsistent with the names used in their permits. Although this failure – combined with poor record keeping at LDEQ – makes it difficult to determine compliance with each emission source, the Concerned Citizens allege on information and belief that Orion Refinery Sulfur Dioxide emissions are in violation of permitted limits for sulfur dioxide and other pollutants.¹⁵

The Persons giving notice and identification of counsel

The persons giving notice are:

Concerned Citizens of New Sarpy
Ms. Dorothy Jenkins, President
270 St. Charles Street
New Sarpy, LA 70047

All communications, however, should be through counsel:

Tulane Environmental Law Clinic
Attn: Adam Babich, Director
6329 Freret Street
New Orleans, La 70118
Phone: (504) 865-5789
Fax: (504)862-8721

¹⁵ A May 2001 report lists Orion's Sulfur Recovery Units 3 through 5, permitted under U.S. EPA permit PSD-LA-571 (M-1) with emission point numbers 94-3, 94-4, and 94-5 as allowed maximum emission rates each of 37 pounds per hour and 155.8 tons per year of Sulfur Dioxide emissions. Orion's sulfur recovery units have been responsible for Sulfur Dioxide emissions in excess of such permitted maximum caps.

Mr. Eric Bluth
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Conclusion

If you believe that any portion of this Notice is in error or if you wish to discuss any portion of this Notice, please contact Adam Babich at the address and phone number listed above within the next 60 days.

Sincerely,
TULANE ENVIRONMENTAL LAW CLINIC



Adam Babich (SBN 7177), Attorney for The
Concerned Citizens of New Sarpy
6329 Freret Street
New Orleans, LA 70118
Phone: (504) 865-5789
Fax: (504) 862-8721

Notice Prepared By Tulane Law School Students,
Tulane Environmental Law Clinic

cc:

No. 7000 0600 0022 4264 5967
Ms. Christine Todd Whitman, Administrator
U.S. EPA
401 M Street, SW
Washington, D.C. 20460

No. 7000 0600 0022 4264 5950
Mr. J. Dale Givens, Secretary
Louisiana Department of Environmental
Quality
P.O. Box 82263
Baton Rouge, La 70884-2263

and by U.S. Mail:

Mr. Gregg A. Cooke, Regional
Administrator
U.S. EPA, Region 6
1445 Ross Avenue
Dallas, TX 75202-2733

Governor Foster
Office of the Governor
P.O. Box 94004
Baton Rouge, LA 70804

ATTACHMENT "A" TO NOTICE OF ORION VIOLATIONS

Attachment "A" to Notice of Orion Violations

LAC 33:III § 927 provides that the unauthorized discharges of air pollutant must be reported in accordance with the provisions of LAC 33:1. Chapter 39. Written reports, pursuant to LAC 33:1. §3925, must be submitted to DEQ within seven calendar days after the required telephone notification unless otherwise provided for in the permit or other department regulation. Timely follow-up reports should be submitted detailing methods and procedures to be used to prevent similar atmospheric releases. The submittal date will be determined by the date of the postmark on the envelope accompanying the written notification report or by the date of the receipt by the department if submitted by fax. The dates and times of the discharge and verbal notification must be included in the reports.

Pursuant to LAC 33:1. §3915 notification of unauthorized discharges which cause emergency conditions must be made to the Department of Public Safety (DPS) 24-hour Louisiana Emergency Hazardous Materials Hotline within one hour of learning of the discharge. This notification is to be made regardless of the amount of the discharge. The Hotline must be immediately notified of any change in the nature or rate of discharge. One notification is sufficient for an unauthorized discharge that continues for more than one day if the initial notification clearly states that the discharge is expected to continue for more than one day. Dischargers are not relieved from any requisite written notification procedures in LAC 33:1. §3925 or of any permit or license terms and conditions issued under the Louisiana Environmental Quality Act.

DPS will notify DEQ of unauthorized discharges which require notification to the hotline.

Incident Report #	Incident Date	Letter Date	Specifics of Incident	Amount emitted	Telephone Reports to DPS	Subject of letter	Permit or regulation violated
00-2319	5/01/00	5/05/00	Unable to provide final incident report at this time. Intend to within next 30 days.		5/01/00 - 3am	follow up to report of sulfur dioxide from refinery on 5/11/00 within 5 days required.	LAC 33:1. §3925(B)
**	**	6/05/00 (received 6/15/00)				follow up to letter	
**	**	6/19/00				follow up to 5/5 and 6/05 letters	\$3925(B)
**	**	6/30/00 (received 7/12/00)	Malfunctioning instrument associated with Combustion Air Blower valves in the 3700 Sulfur Recovery Unit - caused shutdown at 5:45 am 5/01/00. Total excess emissions resulting from the shutdown of the 3700 Sulfur Recovery Unit were 4 tons per hour (during shut down 639 tons). Emissions were attributable to operation of crude and NHT units and catalyst sulfiding in B Train of the DHT unit. 1600 Sulfur Recovery Unit brought online at 9:30 pm on 5/7/00 resulting in total excess emissions of 1.3 tons per hour = 159 tons (estimate since exact time Tailgas unit brought online on 5/12 not specified) emissions attributable to Crude, Coker, and DHT Units.	798 tons (in excess of permitted limits) (1,596,000 lbs)		follow up to letters dated 5/5, 6/5 and 6/19	\$3925(B)(3); \$3925(B)(8)

00-02381	5/01/00	6/08/00	Incident occurred during routine maintenance activity during restart of Coker Unit. Two Orion and two contractor employees were completing repair and replacement of a check valve downstream of the Blowdown Tower bottoms pump. Solidified residual oil in pump broke free exposing employees to hot process materials (residual oil)	2 Orion and 2 contractor employees were hospitalized after exposure to hot residual oil	5/08/00 Sheriff department called to transfer injured employees to medical facilities	follow up to report submitted on 5/9 (hot oil burn)	\$3925(A)(1) \$3925(B)(2) \$3925(B)(3) \$3925(B)(8) \$3925(B)(13)
00-02363	5/02/00	5/09/00	Small fire in an empty storage tank. Unable to provide final incident report - intend to within 30 days	residual oil	Reported fire at 4pm on May 2, 2000.		\$3925(A)(1)
**	**	5/26/00	Fire occurred at 3:50 pm May 2, 2000 and was extinguished essentially immediately. Fire occurred as a result of a small quantity of residual product (Naphtha) igniting during maintenance activity in storage tank.				\$3925(B)(8) \$3925(B)(13)
00-02730 (A)	5/19/00 5/17/00 (Date mix up in letter)	5/24/00	Incident began at 7:20 PM and occurred during startup of C-heater in the Coker unit which caused the Coker unit wet gas compressor to trip off due to excessive condensate build up in the wet gas compressor's inter-stage knockout drum.	4,800 lbs of sulfur dioxide	Incident reported 5/17/00 at 7:30 pm	Incident report	\$3925(A) \$3925(B)(7, \$3925(B)(8) \$3925(B)(13)
00-02730 (B)	5/19/00	5/26/00	Incident began at 11:25 a.m. 5/19/00 and ended at 11:55 am 5/19/00. This incident occurred because the knockout drum liquid level pump malfunctioned causing a high level in the knockout drum that ultimately resulted in the wet gas compressor tripping off.	14,000 lbs of sulfur dioxide	Incident reported on 5/19/00 at 12:40		\$3925(B)(7) \$3925(B)(8) \$3925(B)(13)
00-02744	5/19/00	5/26/00	Incident began at 12:40 am on 5/19/00 and ended at 12:50 am 5/19/00. Incident occurred as a result of a level indicator malfunction that caused the sulfur recovery unit tail gas unit to trip off.	65 lbs of sulfur dioxide (incident is a nonreportable event)	Incident reported at 2:10 am on 5/19/00		\$3925(B)(7) \$3925(B)(8) \$3925(B)(13)
00-02747	5/19/00	5/26/00	Incident began at 3:10 am on 5/19/00 and ended at 3:35 am on 5/19/00. Incident occurred during the startup of the 2 nd set of coke drums in the Coker Unit which caused a sudden increase in feed to the sulfur recovery unit causing the sulfur recovery unit to trip off	9,700 lbs of sulfur dioxide.	Incident reported 5/19/00 at 3:30 am		\$3925(B)(7) \$3925(B)(8) \$3925(B)(13)
00-02772	5/22/00	5/26/00	Incident occurred, at 5:20 am on 5/22/00 and ended at 5:45 am on 5/22/00. Startup of 2nd set of coke drums in the Coker Unit caused the Coker unit wet gas compressor to trip off due to excessive condensate build up in wet gas compressor's interstage knockout drum.	6,800 lbs of sulfur dioxide.	Incident reported at 5:25 am on 5/22/00		\$3925(B)(7) \$3925(B)(8) \$3925(B)(13)
00-02774	5/22/00	5/26/00	Incident began at 6:20 am on 5/22/00 and ended at 6:55 am on 5/22/00. Startup of 2nd set of coke drums in the Coker Unit caused the Coker unit wet gas compressor's spill back valve to malfunction causing the wet gas compressor to trip off.	12,200 lbs of sulfur dioxide	Release reported 6:25 am on 5/22/00		\$3925(B)(7) \$3925(B)(8) \$3925(B)(13)

00-02775	5/22/00	5/26/00	Incident began at 7:25 am on 5/22/00 and ended at 9:25 am on 5/22/00. This incident occurred during startup of 2nd set of coke drums in the Coker Unit when the wet gas compressor's spill back valve malfunctioned causing the wet gas compressor to trip off.	18,400 lbs of sulfur dioxide	Release reported at 7:35 am on 5/22/00	\$3925 (B)(7) \$3925(B)(8) \$3925(B)(13)
00-02877	5/25/00	6/02/00	Incident began at 12:35 pm on 5/25/00 and ended at 1:00 pm on 5/25/00. This incident occurred because of an instrument malfunction that resulted in the Coker unit wet gas compressor tripping off.	9,000 lbs of sulfur dioxide	Incident reported at 1:00 pm on 5/25/00	\$3925 (A) \$3925 (B)(7) \$3925(B)(8) \$3925(B)(13)
00-02942	5/29/00	6/05/00	Incident began at 1:00 am and ended at 1:20am Cause: high flow through the 1st stage of the wet gas compressor in the Coker unit that resulted in the wet gas compressor shutting down.	8,000 lbs (approximate total)	Incident reported at 2:10 am on 5/29/00	\$3925 (A)
TOTAL May 2000 Emissions: 1,668,965 pounds (834,482.5 Tons) of Sulfur Dioxide; 4 Employees exposure to hot oil						
00-03140	6/06/00	6/13/00	Incident began at 10:20 pm and ended at 10:30 pm. Cause was high flow through the second stage of the wet gas compressor in the Coker unit, resulting in shut down of the wet gas compressor. (Orion has worked with manufacturer and believes corrective measures will prevent reoccurrences).	2,300 lbs of sulfur dioxide (approximately)	Incident reported at 10:30 pm on 6/06/00	\$3925 (A)
00-03173	6/08/00	6/13/00	The first incident began at 3:50 am and ended at 4:10 am. The second incident began at 4:45 am and ended at 10:30 am. Incidents were caused by failure of the second stage recycle valve of the Coker Wet Gas Compressor. Wet Gas Compressor shut down. Follow up measures include modifying the compressor control system logic, with vendor support to eliminate the high flow trips while maintaining compressor equipment safety.	55,477 lbs of sulfur dioxide (approximately)	Incidents reported at 4:00 am and 4:50 am on 6/08/00	
00-03264	6/12/00	6/19/00 (received 6/27)	Reported release of sulfur dioxide from refinery and release of oil to ditch along prospect ave. Intend to provide final incident report within 30 days.		Incident reported at 5:45 pm on 6/12/00	written follow up to that incident within the required 5 days \$3925 (A) \$3925(B)
**	**	6/19 00 to DEQ	**		**	
**	**	7/19/00	Reported Fire and release of sulfur dioxide and release of oil into ditch. Unable to provide final incident report will try to within next 30 days		**	
**	**	8/18/00	**		**	
**	**	10/18/00	**		**	
**	**	11/17/00	**		**	
**	**	12/15/00	Unable to provide final incident report will try to within next 30 days.	No final Incident Report	**	\$3925 (A) \$3925(B)
00-03637		6/05/00a (received 7/2/00)	Courtesy notification regarding startup of the MSCC and Alkalkalization units and the possibility of flaring. Sulfur dioxide was flared as a result of startup of the MSCC and Alkalkalization units.	No final Incident Report	Courtesy notification on 6/27/00 at	Follow up to these notifications \$3925 (A) \$3925(B)(3) \$3925(B)(5)

			Unable to provide final incident report will try to within next 30 days		10:00pm. sulfur flare reported on 6/28/00	within required 5 days.	
TOTAL June 2000: 56,777 lbs (28,3885 Tons) of Sulfur Dioxide but all final emissions were not reported							
00-04027	7/15/00 (received 7/28/00)	7/21/00	Release occurred during the startup of the #1 Sulfur Recovery Unit and was caused by plugging in the Unit's Sulfur traps.	Less than 2,000 lbs.	Incident reported at 6:00 pm on 7/15/00		\$3925 (B)(8) \$3925 (B)(3)
00-04100	7/18/00	7/25/00	Release began at 6:49 pm on 7/18 when a safety device shut down the Coker wet gas compressor due to a high interstage level. Compressor could not be reengaged due to a faulty turbine trip throttle valve. Repaired valve reinstalled 7/21 and compressor back on line at 5:20 pm. A high interstage liquid level occurred when interstage level indicator gave operators an inaccurate low reading. Shutdown of the MSCC Wet Gas Compressor. Investigation not completed.	251,685 pounds (roughly 125.8 tons) of sulfur dioxide emitted.	Incident reported at 7:20 pm on 7/18/00		
00-04159	7/21/00	7/28/00 (received on 8/10)	Shutdown of the MSCC Wet Gas Compressor.		Incident reported at 1:30 pm on 7/21/00		\$3925(A)
**	**	8/28/00 (received on 9/25/00)	Compressor shutdown at approximately 1:25 p.m. and was down for approximately 30 minutes (courtesy call)	400 lbs of sulfur dioxide (less than the reportable quantity)	Incident reported at 1:35 pm on 7/21/00	Courtesy call	
00-04216	7/24/00	7/31/00	Shutdown of Coker wet gas compressor. Release began at 3:30 pm - safety device shut down the compressor due to high interstage level. A motor failure on one of the interstage drum pumps caused the high liquid level. Motor was sent out for repair and reinstalled.	11 tons of sulfur dioxide released from refinery's flare system.	Reported at 3:35 pm		
00-04282	7/26/00	8/02/00 (received 8/10/00)	Shutdown of 1600 Sulfur Unit. Automatic safety shutdown due to high unit back-pressure that was caused by plugging of a sulfur trap on the sulfur rundown line. Unit back online by 11pm.	1 ton of sulfur dioxide	7/26/00 - 10:20 pm		\$3925(B)(3) \$3925(B)(8)
00-04300	7/27/00	8/03/00	A few minutes after 1:00 pm automatic safety shutdown of 3700 Sulfur system when the system pressure reached the high-pressure set point in the emergency shutdown system. The Sulfur Recovery Unit was put back online within 30 minutes but the downstream portion of the sulfur recovery system, the tailgas unit, did not immediately re-start due to problems with the igniter. System back to normal by 5:30 pm next day.	31.1 tons of sulfur dioxide	7/27/00 at 1:15 pm		\$3925(B)(8)
TOTAL for July 2000: 168,9425 tons of sulfur dioxide							
00-04398	8/01/00	8/08/00 (received 8/14/00)	Mechanical problem with Coker wet gas compressor - functioning inefficiently, therefore a portion of Coker wet gas was flared to keep machine operating. Orion suspected the problem was due to inadequate stream flow to the	137 tons of sulfur dioxide (approximately)	8/01/00 at 8:10 a.m.		\$3925(B)(3) \$3925(B)(8)

00-04521	8/06/00	8/1/00	8/1/00	compressor caused by plugging of the strainer upstream of the throttle trip valve. The compressor was shut down and the strainer was removed. The compressor was back online at 1:30 am on August 3 - the Coker throughput was reduced to a minimum of a four drum operation to minimize the emission of sulfur dioxide.						\$3925(B)
**	**	9/11/00 (received 9/25/00)		Shutdown of Coker Wet gas compressor. Final report submitted within next 30 days.	196 tons of sulfur dioxide	8/06/00 at 4:00 pm				\$3925(B)(3)
00-04576	8/08/00	8/14/00		Shutdown of Coker Wet gas compressor. A high interstage liquid level caused the automatic safety shutdown of the compressor. Operators were unable to engage the drive mechanism due to a damaged throttle trip valve. Valve sent offsite for repairs and reinstalled on 8/10/00. Compressor back in service at 2:30 pm on 8/10/00. Refinery has ordered a 3rd pump for this knock out drum - installation, scheduled for late September, will greatly reduce potential of similar incidents. Electrical power failure in WEST PLANT.	No excess emissions	8/08/00 at 4:00pm	courtesy call			
00-04582	8/09/00	8/16/00		Incident occurred between 12:15 am and 11:30 am. Release of sulfur dioxide from the thermal oxidizer. The tailgas burner in our 3700 Unit automatically shut down due to a high temperature condition caused by low flowrates. Operations unable to get the burner reit.	6,000 pounds of sulfur dioxide from the thermal oxidizer	8/09/00 at 1:40 am				\$3915(A)(1) \$3925(B)(8)
00-04659	8/11/00	8/18/00		Automatic shutdown of Coker wet gas compressor. Report will be completed within next 30 days.		8/11/00 at 4:10 pm				\$3925(B)
**	**	10/18/00 received 10/27/00		**						
**	**	11/17/00		**						
**	**	12/17/00 received 12/18/00		A final written report will be submitted within next 30 days	Final emissions report not completed.					\$3925(B)
00-04804	8/17/00	8/24/00		Release of sulfur dioxide from the refinery flare system. Incident began at 1:30 pm when a motor failed on one of the Coker interstage knock out drum pumps. A portion of the Coker offgas was flared to prevent the drum from reaching a high liquid level	5,200 lbs of sulfur dioxide was released between 1:30 and 7:00 pm - an average of 960 lbs per hour.	8/17/00 at 5:00 pm				\$3915(A)(1) \$3925(B)(8)
00-04855	8/20/00	8/24/00		Release of sulfur dioxide from Thermal Oxidizer, resulted from an automatic shutdown of the 1600 Sulfur System's tailgas unit. Shutdown due to a faulty	130 lbs of sulfur dioxide (therefore	8/20/00 at 4:55 pm	courtesy call			

			fire eye. Restarted within 15 minutes.					
00-05031	8/27/00	9/01/00	Fire in Alkylation Unit. Fire was the result of a seal failure on one of the alk contractors.	Less than the reportable quantity of 500 lbs)	8/27/00 at 11 am			\$3925(B)(3) \$3925(B)(8)
00-05206	8/31/00	9/08/00 received 9/25/00	Thermal oxidizer tripped. A formal investigation of this incident was not completed. A final incident report will be provided within next 30 days.	Refinery operator injured with 1st and 2nd degree burns.	8/31/00 at 10:00			\$3925(A) \$3925(B)(2) \$3925(B)(3) (see also \$3925(b)(2))
**	**	10/06/00	Shutdown of thermal oxidizer.	Less than reportable quantity (500 8/31/00 at 10:00am pounds)	8/31/00 at 10:00am	courtesy call		\$3925(b)(2))

Total for August 2000 emissions: 338.66 Tons; all final emissions not reported; employee burned

00-05284 00-05286	9/03/00	9/11/00 received 9/25/00	On 9/03/00 at 1:10 pm the main airblower on the refinery's 3700 Sulfur Unit tripped due to an unexpected low oil level, resulting in emissions of sulfur dioxide from the refinery's flare system. The blower was restarted within 40 minutes. Orion is considering adding a low-level alarm to the blower controls system.	15.7 tons of sulfur dioxide	9/03/00 - called local emergency response center but unable to notify the Haz. Mat. hotline due to agency hotline problems 2 people reported it on Reported incident on Tuesday 9/05/00 - therefore 2 #'s			\$3915(A)(1) (phone problems for 2 days) \$3925(A) \$3925(B)(3) (see also \$3925(b)(2))
00-05344	9/07/00	9/14/00 (received 7/22)	Mechanical problems with sulfur recovery system resulting in sulfur dioxide emissions from flares. Final incident report within 30 days.		9/07/00 at 2:35 am			\$3925(B)(3) \$3925(B)(5) (see also \$3925(b)(2)) \$3925(B)(8)
**	**	10/13/00	Mechanical problems with sulfur recovery system resulting in sulfur dioxide emissions from flares. Incident began at 2:25 am when a flame detection device automatically shutdown the 1600 tail-gas unit. This unit was off for approximately 65 minutes. The 3,700 Sulfur Recovery System shut down at 2:38 am when the main turbine combustion air blower surged because of a failed relay in the Blow-off valve.	24,000 lbs of sulfur dioxide (12 tons)	9/07/00 at 2:35			\$3925(B)(3) \$3925(B)(5) (see also \$3925(b)(2)) \$3925(B)(8)

				Operators switched to spare blower and had the sulfur recovery unit restarted in approximately 30 minutes. The downstream tailgas unit was back in service at 4:07 am. Problems with Coker Wet Gas Compressor system resulting in Sulfur Dioxide emissions from flares. Final Report not completed			9/27/00 at 7:30am		\$3925(B)(3) 3925(B)(5)
00-05826	9/27/00	10/04/00							
**	**	**	11/03/00	**			**		**
**	**	**	11/30/00	**			**		**
**	**	**	12/22/00	**	Problems with Coker Wet Gas Compressor system resulted in Sulfur Dioxide emissions from flares. Incident occurred because of a high liquid level in the interstage drum. Compressor initially tripped at 7:15 am and was back to normal operation in less than 20 minutes. (Discussion of bottlenecks and addition of a 3rd pump to pump liquid out of drum more quickly. Orion intends to increase horsepower on other pumps and to redesign suction piping to the 3 pumps to maximize their ability to pump condensed liquids away.)	3.5 tons of sulfur dioxide.	9/27/00 at 7:30 am		**

Total for September 2000: 31.2 Tons of Sulfur dioxide

00-05952	10/03/00	11/10/00		Shutdown of Coker unit. Sulfur dioxide emissions from flares. Final emissions estimate not completed – therefore unable to provide final report at this time.			10/03/00 at 8:00 am		\$3925(A) \$3925 (B)
**	**	**	12/07/00	Shutdown of Coker unit required when motor for coke pump failed. Motor sent offsite for repair. Inability to keep Tail Gas Unit in operation yielded emission of sulfur dioxide from the Thermal Oxidizer stack. Units back online and functioning "by early morning" on 10/06.	12.8 tons of sulfur dioxide		10/03/00		\$3925(B)(2) \$3925(B)(3) \$3925(B)(8)
00-06066	10/6-7/00	1/12/01		Problems with Tailgas Units for the 1600 Unit, due to failure of the burner fire eyes, resulted in emissions from the Thermal Oxidizer stack.	6lbs of sulfur dioxide		10/06/00 at 10:15 pm	courtesy call	
00-06054	10/06/00	10/13/00		Shutdown of the 1600 Sulfur recovery system. Automatic safety shutdown occurred at 10:58 am when the waste heat boiler reached an unacceptable low water level. The low-level was caused by a malfunction of a relay that in turn caused a failure of the boiler feedwater control valve. Operators were able to restart by 11:25 – bad relay replaced.	11,000 lbs of sulfur dioxide released (5.5 tons)		10/06/00 at 11:20 pm		\$3925(B)(8)
00-06082	10/07/00	10/13/00		Problems with 3700 Unit resulting in emissions from flares. Unable to complete emissions estimate.			10/07/00 at midnight		\$3925(B)
**	**	**	11/13/00	**			**		**
**	**	**	12/13/00	**			**		**
**	**	**	1/12/01	**	Problems with 3700 Unit - result of a faulty instrument on a blower blow-off valve – replaced by maintenance on 10/08/00.	58 tons of sulfur dioxide released	10/07/00 at midnight		\$3925(B)(3) \$3925(B)(8)

00-06066	10/08/00	10/13/00	Problems with the Tailgas Units for both the 1600 and 3700 Unit resulting in emissions from flares. Final emissions report not complete	from flare system	10/08/00 at 10:15 pm	\$3925(B)(3) \$3925(B)(5) \$3925(B)(8)	
**	**	11/13/00	Problems with the Tailgas Units for both the 1600 and 3700 Unit resulting in emissions from flares. Final emissions report not complete		**	**	
**	**	12/12/00	Problems with the Tailgas Units for both the 1600 and 3700 Unit resulting in emissions from flares. Final emissions report not complete	Final emissions report not complete	10/08/00 at 10:15 pm	\$3925(B)(3) \$3925(B)(5) \$3925(B)(8)	
00-06092	10/09/00	10/16/00	Problems with 1600 sulfur Unit and the 1600 tailgas unit resulting in emissions from flares. Final emissions estimate not complete		10/09/00at 12:35am	\$3925(B)(3) \$3925(B)(5) \$3925(B)(8)	
**	**	11/16/00	Final emissions estimate not complete		10/09/00 at 12:35 am	**	
**	**	12/15/00	Problem with 1600 Sulfur Unit and the 1600 Tail Gas Unit. Level indicator stuck on the 1600 unit wasteheat boiler resulting in a low boiler water level and an automatic shutdown of the unit. Operators were able to get the sulfur recovery unit back in service in approximately one hour. Unable to determine a specific cause for the instrument malfunction.	6 tons of sulfur dioxide	10/09/00 at 0030 hours	\$3925(B)(3)	
00-06227	10/14-15/00	10/20/00	Reported problems with Thermal Oxidizer resulting in emissions of sulfur dioxide from flares. Final emissions estimate not complete.		10/14/00 at 7:55 am	\$3925(B)	
**	**	11/20/00	**		**	**	
**	**	12/20/00	**		**	**	
**	**	1/19/00	Reported shutdown of Thermal Oxidizer. Device shutdown automatically when the fire eye detected a loss of flame and am - operating problems continued throughout the day and in the evening. Oxidizer tripped several times between 7:30 am on the 14th and 6pm on the 15th due to continued flame instability. Determined that there were mechanical problems with the burner assembly in the oxidizer (see incident report 00-06302 1/19/01). Refinery shut down to eliminate emissions from flares while repairs made to oxidizer burner assembly.	4,600 pounds (2.3 tons) of sulfur dioxide	10/14/00 at 7:55 am	**	
00-06302	10/18-19/00	10/25/00 received 11/6/00	Problems with Thermal Oxidizer resulting in emissions of sulfur dioxide from flares. Final emissions estimate not completed.		10/18/00 at 1:40		\$3925(A) (see \$3925(B)(2)) \$3925(B)

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**	**	11/21/00	**			10/18/00 at 1:40		\$3925(B)
**	**	12/20/00	**			10/18/00 at 1:40		**
**	**	1/19/00	**	Problems with the Thermal Oxidizer resulting in emissions of sulfur dioxide from flares. Device shutdown automatically when the fire eye detected flame instability and shutdown the flow of natural gas to the burner. Sour water stripper off gas was diverted to the flares to reduce the load on the sulfur recovery system. Coker throughput and hydrotreating severity were reduced - to reduce the load on the sulfur system. Feed to the crude unit and other downstream units was pulled at 0300 on morning of 10/19. A service company was brought in to scan the inlet piping to the oxidizer to determine if there was a pluggage in the line. Found mechanical damage to the burner assembly- repairs made and refinery was restarted on 10/22 - the sulfur recovery system was brought back online at 4:40 pm on the 22nd.	2,300 pounds (1.15 tons) of sulfur dioxide released from the flares	10/18/00 at 1:30		\$3925(B)(3)
00-06386	10/22 -23/00	10/27/00 (received 11/06/00)	**	Thermal oxidizer emitting sulfur dioxide Final emissions estimate not completed.		10/22/00 at 1:08 am notified agencies in process of restarting the refinery at 1:45 called in an update to the startup notification - 20 hours later gave all clear		\$3925(B) \$3925(A) (see \$3925(B)(2))
**	**	11/27/00	**			**		
**	**	12/22/00	**			**		
**	**	1/22/01	**	Update to the startup notification: stated exceeding air permit limits on the Thermal Oxidizer Stack. After reviewing this incident it was determined that emissions did NOT EXCEED reportable quantity of 500 lbs.	NOT EXCEED reportable quantity of 500 lbs	10/22/00 at 1:10 am notified agencies in process of restarting the refinery at 1:45 called in an update to the startup notification	Courtesy call	

Totals for October 2000: 85.75 Tons of Sulfur Dioxide; All final incident reports not complete.

00-06672	11/05/00	11/10/00	At 6:50 am the Coker wet gas compressor was automatically shutdown when a flow instrument detected low flow to the compressor. A specific cause of shutdown will be provided in a follow up report.	3200 pounds (1.6 tons) of sulfur dioxide between 6:50 and 7:13 am	11/5/00 at 7:00 am reported shutdown		
00-06725	11/08/00	12/15/00	Thermal oxidizer tripped causing the possibility of SO2 releasing through flares. Final emissions estimate not yet complete.		11/08/00 at 6:30am		\$3925(A)
**	**	1/15/01	Shutdown of thermal oxidizer. The fire eyes automatically shutdown the oxidizer when the flame became unstable. Flame instability was caused by the startup of the 1600 Sulfur Unit. Refinery operates 2 distinct sulfur recovery systems: the 1600 unit and the 3700 Unit. A portion of the sour water stripper off-gas was vented to the flare system resulting in the release of the sulfur dioxide. A portable air compressor was brought in to supplement airflow to the burner. The burner was relit at approximately 8 P.M. and operation was back to normal at 8:30.	5 tons of sulfur dioxide released between 5:30 am and 8:00pm that evening.	11/08/00 at 6:30 am		\$3925(B)(8)
00-06808	11/12/00	11/17/00	Reported a shutdown of 3700 Sulfur Unit. A high vibration reading on the main air blower shutdown the blower and resulted in the emergency shutdown of the unit. The sulfur recovery unit was back online in 1 hour. The downstream Tail gas unit was restarted and back online at 10:00am. Investigation completed - unable to determine the cause of the high vibration shutdown of the blower, no indication of mechanical problems	30 tons of sulfur dioxide emitted from flare system	11/12/00 at 5:15 am		\$3925(B)(3) \$3925(B)(8)
00-06845	11/14/00	11/21/00 received 12/6/00	Reported problems with Coker Wet Gas Compressor resulting in SO2 emissions. Final report and investigation not complete.		11/14/00 at 11:15 am		\$3925(B) \$3925(A) (see \$3925(B)(2))
**	**	12/20/00	Compressor tripped at 11:05 am and restarted by 11:34. Shutdown was result of a high first stage differential pressure reading. The compressor manufacturer designed this automatic safety shutdown into the compressor control system. This safety shutdown feature is redundant and the safety shutdown mechanism was disabled and therefore eliminated the possibility for future nuisance trips. Reported Tank 175-1 had an overflow of VGO. Final investigation not completed	Approximately 2 tons of sulfur dioxide (CAS #7446-09-05) was emitted during this 29 minute period.	11/14/00 at 11:15 am		\$3925(B) \$3925(A) (see \$3925(B)(2)) \$3925(B)
00-06869	11/16/00	11/21/00 received 12/06/00	Reported Tank 175-1 had an overflow of VGO. Final investigation not completed		11/16 at 9:40 am		\$3925(B) \$3925(A) (see \$3925(B)(2)) \$3925(B)
**	**	12/21/00	**		11/16 at 9:40 am		\$3925(B)
00-06921	11/18/00	11/27/00	Problems with 3700 Sulfur Unit resulting in emissions of sulfur dioxide from flares. Final investigation not complete	Final investigation not completed	11/18 at 5:30		\$3925(B)

**		**	1/22/01	Reported shutdown of 3700 Sulfur Recovery Unit resulting in emissions of sulfur dioxide from flares. Automatic shutdown at 4:50 am due to low combustion airflow when blower K-37-301-A tripped off. Operators tried to start 37-301B but received same alarm. One of distributed computer control cards failed in a field enclosure and with bad card neither blower would restart. The card was replaced and sulfur recovery unit was back online at 7pm. Downstream tailgas was back online at 7pm.	14 tons of sulfur dioxide	11/18 at 5:30am		\$3925(B)(8)	
00-07008	11/22/00	12/01/00	Reported problems with the 3700 SRU Tail Gas Unit resulting in emissions of sulfur dioxide from flares. Final investigation not completed			11/22/00 at 8:00am		\$3925(B) \$3925(A)	
**	**	1/22/01	Reported shutdown of 3700 Sulfur Recovery Unit (SRU). At 7:30 am the SRU shutdown automatically when the computer detected a low combustion airflow condition. This occurred when the main air blower K-37-301-B shutdown. Cause not determined at time the A blower was started and the SRU was back online at 8:40 am. (recommendations as a result of investigation...)(One of shutdowns probably due to loose wires on the B blower PLC)	1.2 tons of sulfur dioxide released		11/22/00 at 8:00 am			
00-06962	11/20/00	11/29/00	Reported problems with the 3700 Sulfur Recovery Unit resulting in emissions of sulfur dioxide. Final investigation not complete			11/20/00 at 1:pm		\$3925(A) \$3925(B)	
00-07005	11/22/00	12/01/00	Reported problems with Coker Wet Gas Compressor resulting in emissions of sulfur dioxide.			11/22/00 at 6:00		\$3925(A) 3925(B)	
**	11/22/00	12/22/00	Reported shutdown of Coker Wet Gas Compressor resulting in emissions of sulfur dioxide. Incident occurred because of high liquid level in the interstage drum. The compressor initially tripped at 5:45 am and was back to normal operation at 6:25 am. (improvements: addition of a 3rd pump, and intend to increase horsepower.)	1 ton of sulfur dioxide		11/22/00 at 6:00		\$3925(B)(2)	
00-07008	11/22/00	12/1/00	Reported problems with 3700 SRU Tail Gas Unit resulting in SO2 emissions. Final investigation not completed.	Final investigation not completed		11/22/00 at 8:00		\$3925(A) \$3925(B)	
00-07070	11/26/00	12/01/00	Reported problems with 3700 Sulfur Recovery Unit resulting in SO2 emissions. Final investigation not completed	Final investigation not completed		11/26/00 at 10:00 pm		\$3925(B)	
Total November 2000: 54.8 Tons of Sulfur Dioxide. Not all incident reports were completed.									
00-07267	12/07/00	12/14/00	Reported shutdown of 3700 Sulfur Recovery Unit resulting in SO2 emissions. Shutdown occurred when the main airblower tripped due to a failure of an electronic card. Operators shifted as much acid gas to the 1600 Sulfur System as possible and lowered throughputs in other upstream units to minimize emissions. Failed card was replaced and system was back to normal at 9:00pm same	26.5 tons of sulfur dioxide		12/07/00 at 5:00 pm			

00-07426	12/17/00	1/22/01	evening Reported shutdown of our 3700 Sulfur Recovery Unit (SRU). At 5:30 am the flow control valve on the sour water stripper (SWS) steam reboiler opened rapidly. This initiated a sharp increase in the SWS going to the SRU, which in turn put the air blower into a surge condition and automatically shut down the SRU. SRU back online at 5:50 am and downstream tailgas unit on by 6am. An identical incident (later same day - incident # 00-07431) caused another shutdown of the same unit.	16 tons of sulfur dioxide	12/17/00 at 5:30 am		
00-07431	12/17/00	1/22/01	Shutdown of 3700 SRU. At 9:30 am the flow control valve on the sour water stripper (SWS) steam reboiler opened rapidly. This initiated a sharp increase in the SWS going to the SRU, which in turn put the air blower into a surge condition and automatically shut down the SRU. SRU back online at 9:40 am. An identical incident(earlier same day - incident # 00-07426) caused a shutdown of the same unit.	2 tons of sulfur dioxide.	12/17/00 at 9:35 am		
00-07467	12/19/00	12/22/00	Spill of 2-3 barrels of oil in the vicinity of Tank 150-13. Investigation into incident determined that the spill was from a leaking flange on a 10 inch return line from the West Plant. Maintenance tightened the flange and the leak stopped. Product contained within small area near tank. vacuumed up product and returned it to refinery for processing	2-3 barrels of oil spilled	12/19/00 at 9:15 am		\$3925(B)(3) \$3925(B)(8)
00-07487	12/20/00	1/02/01	Reported shutdown of Thermal Oxidizer	Less than reportable quantity of 500 pounds	12/20/00 at 7:30 am	courtesy call	
00-07495	12/20/00	1/02/01 1/12/01	Reported problems with Wet Gas Compressor resulting in SO2 emissions from flares. Final investigation not completed.	1.8 tons of sulfur dioxide released from flares.	12/20/00 at 9:03		\$3925(B) \$3925(A) (see \$3925(B)(2))
**	**	2/2/01	Reported problems with Wet Gas Compressor resulting in SO2 emissions from flares. Compressor shutdown automatically due to sudden loss of steam pressure when Boiler 401D tripped due to low steam drum water level. H2O level dropped when operators started up 650-pound steam boiler 401C. D boiler tripped at 8:43 am and the steam header pressure fell below minimum requirements at 8:51. Operations back to normal after 11 am		12/20/00 at 9:03		
00-07538	12/22/00	1/02/01	Shutdown of Thermal Oxidizer.	Less than the reportable quantity of sulfur dioxide (300 pounds)	12/22/00 at 7:30 am	courtesy call	

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00-07567	12/24/00	1/02/01 received 1/12/01	Problems with Wet Gas Compressor resulting in emissions of Sulfur Dioxide from flares. Final investigation not completed.	2.3 tons sulfur dioxide.	12/24/00 at 04:30		\$3925(B) \$3925(A)
**	**	2/02/01	Shutdown of Coker Wet Gas Compressor resulting in emissions of Sulfur Dioxide from flares. 3 separate compressor trips occurred from morning of 12/24 (see #00-07578). - automatic shutdowns occurred because a trap on the seal oil system was sticking in the open position resulting in a low seal oil system.	2.3 tons of sulfur dioxide released.	12/25 at 12:10 am		\$3925(B) \$3925(A) \$3925(B)(8)
00-04578	12/24/00	1/02/01	Reported shutdown of Coker Wet Gas Compressor resulting in emissions of Sulfur Dioxide from flares. Automatic shutdown occurred because a trap on the seal oil system was sticking in the open position resulting in a low seal oil system. The compressor initially tripped at approximately 11:44 pm on the 24th and was back to a normal operation by midnight.				\$3925(B)
00-6921 00-6962 00-7008 00-7070 00-7431 00-00-7426		12/22/00	Several mechanical problems with sulfur recovery system - generally resulted in brief shutdowns of the system and subsequent releases of sulfur dioxide from the refinery flares. Assembled a team to submit a written report by end of 1/01.				

Totals for December 2000: 50.9 tons of sulfur dioxide; 2.3 barrel oil spill
Total for May through December 2000= 1,643.1235 TONS of sulfur dioxide (all emissions were not reported and therefore the number will likely be higher)

01-00012	1/02/01	1/09/01	Reported shutdown of our Coker Wet Gas Compressor. Shutdown occurred due to problems with our 650-pound steam system. Refinery steam header dropped off when a boiler shutdown (caused when a fuel gas regulator froze from extreme temperatures) The compressor tripped at 7:00 am and was restarted the following morning at 3:00 am.	6 tons of sulfur dioxide	1/02/01 at 7 am		\$3925(B)(8)
01-00073	1/04/01	1/11/01	Reported a tube leak in a Coker heater. The heater was shut down for 30 minutes. Following the shutdown, the heater stack continued to emit visible emissions as the oil burned off the heater tubes. Orion called this in to keep local authorities abreast of the situation.	Not in excess of reportable quantities	1/04/01 at 12:36 pm	courtesy call	
01-00164	1/07/01	1/12/01	Reported shutdown of Coker Wet Gas Compressor. Shutdown occurred due to problems with our 650-pound steam system. Cause of 650# steam line problem is unknown. Compressor tripped at 5:22 pm and restarted by 6:30 pm	3.2 tons of sulfur dioxide released from flare system.	1/07/01 at 5:30 pm		
01-00236	1/10/01	1/17/01	Reported a shutdown of the 37/00 sulfur recovery system. The unit shutdown automatically when the main airblower (K-37-301-A) began to surge. Blower tripped at 4:30 am. Blower back in service by 5am.	32,200 pounds (16.1 tons) of Sulfur dioxide released.	1/10/01 at 4:30 am		

			Downstream tailgas unit restarted at 6:50 am. The tail gas unit could not be restarted immediately due to high temperature in the in-line mixer burner. Assigned engineers to investigate etc..				
01-00250	1/10/01	1/17/01	Fire on a residual oil rundown line. Fire was contained to a small area of pipe insulation in the pipe rack between the vacuum unit and coker. Fire occurred when a pipe clamp failed and a small amount of hot residual fuel dripped on to an adjacent hot surface. Fire was noticed at 3:00pm - fire put out by 3:10. Pipe Clamp was installed the previous day by an outside contractor - believe failure due to inadequate cure time.		1/10/01 at 3:10 pm	Courtesy notification - small fire.	
01-00299	1/14/01	1/19/01	At 5:00am the blower tripped and the 3700 Sulfur Recovery System was shutdown automatically when the main air blower K-37-301-A began to surge. Blower back in service by 5:45 am. Downstream Tail Gas unit was restarted at 6:10 am. All systems operating normally by 7am. Blower tripped as the effects of a crude oil change began to hit the downstream units. (Blower controls did not act properly)	25 tons of sulfur dioxide released through flares(bhw 5am and 7am)	1/14/01 at 5:15 am		
01-00531	1/25/01	1/01/01	Reported shutdown of Coker wet gas compressor. Shutdown occurred because of high liquid level in the interstage drum. Compressor shutdown at 3:10 pm and was back online at 3:47. Unable to determine cause of liquid buildup in interstage drum	1.2 tons of sulfur dioxide emitted from refinery flares.	1/25/01 at 3:25 pm		

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SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Mr. Eric Bluth
 Chief Operating Officer
 & Refinery General Manager
 Orion Refining Corporation
 15292 River Rd.
 New Sarpy, LA 70078

2. Article Number (Copy from service label)

7000 0600 0022 4264 5981

PS Form 3811, July 1999

Domestic Return Receipt

102595-00-M-0952

COMPLETE THIS SECTION ON DELIVERY

A. Received by (Please Print Clearly) *Daniel Lusco* B. Date of Delivery *9/18/01*

C. Signature *X Daniel Lusco* Agent Addressee

D. Is delivery address different from item 1? Yes No
 If YES, enter delivery address below:

3. Service Type

- Certified Mail Express Mail
- Registered Return Receipt for Merchandise
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4. Restricted Delivery? (Extra Fee) Yes

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Mr. Burgess E. McCranie, Jr.
 (Registered Agent)
 3445 N. Causeway Blvd., #800
 Metairie, LA 70002

or on

2. Article Number (Copy from service label)

7000 0600 0022 4264 5974

PS Form 3811, July 1999

Domestic Return Receipt

102595-00-M-0952

COMPLETE THIS SECTION ON DELIVERY

A. Received by (Please Print Clearly) *M. WAHL* B. Date of Delivery *9-13-01*

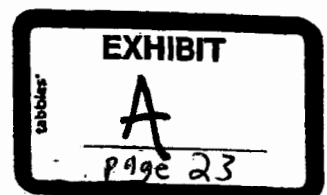
C. Signature *X M. Wahl* Agent Addressee

D. Is delivery address different from item 1? Yes No
 If YES, enter delivery address below:

3. Service Type

- Certified Mail Express Mail
- Registered Return Receipt for Merchandise
- Insured Mail C.O.D.

4. Restricted Delivery? (Extra Fee) Yes



SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY	
<p>■ Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.</p> <p>■ Print your name and address on the reverse so that we can return the card to you.</p> <p>■ Attach this card to the back of the mailpiece, or on the front if space permits.</p>	<p>A. Received by (Please Print Clearly) B. Date of Delivery</p> <p>SEP 18 2001</p>	
	<p>C. Signature</p> <p><i>[Signature]</i></p> <p><input type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p><input type="checkbox"/> Is delivery address different from item 1? <input type="checkbox"/> Yes YES, enter delivery address below: <input type="checkbox"/> No</p>	
<p>1. Article Addressed to:</p> <p>Ms. Christine Todd Whitman Administrator U.S. EPA 401 M Street, SW Washington, D.C. 20460</p>		
<p>3. Service Type</p> <p><input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail <input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.</p>		
<p>4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes</p>		
<p>2. Article Number (Copy from service label) 7000 0600 0022 4264 5967</p>		
PS Form 3811, July 1999	Domestic Return Receipt	102595-00-M-0952

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY	
<p>■ Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.</p> <p>■ Print your name and address on the reverse so that we can return the card to you.</p> <p>■ Attach this card to the back of the mailpiece, or on the front if space permits.</p>	<p>A. Received by (Please Print Clearly) B. Date of Delivery</p> <p>BRADY DEACOM SEP 17 2001</p>	
	<p><input checked="" type="checkbox"/> Agent <input checked="" type="checkbox"/> Addressee</p> <p><input type="checkbox"/> Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p>	
<p>1. Article Addressed to:</p> <p>Mr. J. Dale Givens, Secretary LA Dept. of Env. Quality P.O. Box 82263 Baton Rouge, LA 70884-2263</p>		
<p>3. Service Type</p> <p><input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail <input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.</p>		
<p>4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes</p>		
<p>2. Article Number (Copy from service label) 7000 0600 0022 4264 5950</p>		
PS Form 3811, July 1999	Domestic Return Receipt	102595-00-M-0952

EXHIBIT
A
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