CRITERION CATALYSTS

November 26, 2012

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BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Director of Compliance and Enforcement
Bay Area Air Quality Management District
939 Ellis Street
San Francisco, CA 94109
Attn: Title V Reports

SUBJECT: Title V Semi-Annual Monitoring Report #2
May 1, 2012 to October 31, 2012
Criterion Catalysts & Technologies LP
Pittsburg, CA - Facility #A0227

Dear Director of Enforcement,

Enclosed is the Title V Semi-Annual Monitoring Report for the monitoring period of May 1, 2012 to October 31, 2012 for Criterion Catalyst & Technologies.

Report Summary

During this reporting period (May 1, 2012 to October 31, 2012), there were three instances of permit condition deviations. A description of each incident was documented to the District with the submission of 10-day Non-Compliance Reports and 30-day Follow-up Reports. A summary of each event follows.

July 5, 2012 Event

At approximately 7:50 AM, the afterburner was operating normally (1475°F and 20.8% oxygen) and unexpectedly the temperature started to climb and ultimately reached 1556°F and 18% oxygen at 7:52AM. These are both well within the operating ranges but not at the desired set points. The automated afterburner control system started to react to the changes in the operating conditions. This included the natural gas valve decreasing in an attempt to lower the amount of fuel going to the afterburner and the oxygen supply valve increasing in order to get more oxygen to the afterburner. Soon after these changes, the temperature started to drop. At 7:54:11 AM, the afterburner reached its set point but continued to drop below 1475°. The automatic afterburner control then reacted again by opening up the natural gas valve to get more fuel to the burner in order to get back up to the set point. Despite these reactions, the temperature still decreased. At 7:54:44 the temperature is 1430°F, oxygen is 22% and kiln feed automatic shut off logic stopped feed to the kiln. The afterburner control system continued to make adjustments in an attempt to get the afterburner temperature back up to its set point. The temperature continued to drop and it reached 1400°F at 7:55:31AM and ultimately reached 1399.0°F at 7:55:39AM. The afterburner finally recovered and the temperature rose above 1400° at 7:55:56AM, for a total

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of 25 seconds and 1°F below the permit condition of 1400°F. The temperature continued to rise until it reached its set point at approximately 7:59AM. Feed to the kiln was restarted approximately 10 minutes later and the unit ran without incident until the end of the run the following day.

August 16, 2012 Event

At approximately 4:46PM, the H2 Kiln (S510) stopped rotating and went into 'low fire' (600°F) for unknown reasons. The kiln temperature normally operates at 1000+°F. The unit was in a product changeover, so there was no base-side/ammonia product in the kiln itself. But, ammonia was in the system from ammonia solutions being made in the T-Tanks (S504-506). The heat from the kiln preheats the exhaust stream at the H2 Afterburner (A56). When the kiln went into 'low fire', the afterburner attempted to react to the temperature change but still lost temperature. At approximately 4:55PM, the afterburner reached 1400° and ultimately reached 1395°F approximately 30 seconds later. The afterburner recovered and reached 1400°+ approximately 30 seconds later, for a total time below 1400° of approximately 1 minute. The automated afterburner control system made several adjustments as soon as it was below its set point of 1500°F. But with the sudden loss of heat from the kiln, it could not react quickly enough to maintain the temperature above 1400°.

The kiln was restarted approximately one hour later after some initial troubleshooting, but was still having problems with its rotation and the unit was shut down for the rest of the night. There were no other low temperature issues.

September 25, 2012 Event

On September 25, 2012, during an internal environmental regulatory compliance audit it was discovered that a diesel emergency standby fire water pump generator on-site had been operating without a Permit to Operate (PTO) as required by the Regulation 9 Rule 8 change from several years ago.

Upon inspection, it was discovered that the generator was rated at 100 kW (approximately 134 hp), which is above the exempted maximum power output of 50 hp of Regulation 9 Rule 8. Routine operation of the generator is limited to emergencies and monthly reliability testing.

Summary of Preliminary Investigations

The results of our investigations are outlined below and have been previously reported to BAAQMD. Two of the incidents involved minor deviations from the Title V Permit Condition# 9315, Part 9 (and the third involved not having a PTO). The applicable permit condition states that while A56 is in operation [during a base-side run], it must maintain a minimum operating temperature of 1400°F. Importantly, due to the relatively short time the afterburner was below 1400°F during these incidents, we do not believe any of the events exceeded the nitrogen oxide (NOx) or ammonia (NH3) levels in the permit condition (120 lb/day and 200 lb/day, respectively). There are no CEMs units required on the stack to record emissions, so the episodes' emissions were estimated using previous year's stack testing. No stack plumes were observed during the periods of the shutdowns.

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July 5, 2012 Event

We believe there was a slight imbalance of process gases and the automated afterburner control system logic was not properly tuned for a short duration episode like this situation.

We believe when the afterburner temperature started to rise, the burner control logic made an aggressive adjustment to cut fuel to the burner to lower the temperature back to the set point of 1475°F. But, these adjustments were too drastic and lowered the temperature too quickly for the short process gas imbalance duration. Due to the short duration of the gas imbalance and initial aggressive burner control logic adjustments, the temperature then quickly dropped below the set point and the logic was not programmed to react to quick changes in temperature. The logic does start to react shortly after the temperature is below the set point, but the changes are not drastic enough to keep the temperature about 1400°F. The changes do slow the temperature drop but not until it ultimately reaches 1399°F.

This entire episode lasts just a few minutes and the temperature dropped only 1°F below the permit condition and for only 25 seconds.

This episode does fall within the accuracy/error range of the thermocouple and PLC. We have submitted the tolerances and accuracy specifications for both the afterburner thermocouple and the afterburner thermocouple PLC to our BAAQMD Inspector. The thermocouple itself has an accuracy range of +/- 0.75% or 10.5°F and the PLC has an accuracy of +/-3.6°F for a total of 14.1°F total accuracy/error range.

August 16, 2012 Event

We believe the kiln stopped rotating due to a slight curve or "sag" in the kiln's structure. The sag causes the kiln to not rotate in a perfect circle, as it is slightly out of balance.

Since the kiln is slightly out of balance, when the sag rotates on the downward side, it accelerates the rotation slightly and this is causes a spike in voltage at the drive motor. In order to protect itself from electrical damage, the motor shuts down and the kiln goes into low fire. The sag is a known issue and our Maintenance Department is working on a plan to get the kiln back in balance, but it is a very complex issue. The development of the "low-fire" mode was one of the barriers put in place to protect the kiln from further sag damage. It was suspected the sag developed several years ago when the kiln stopped rotating with a hot kiln bed. The heat and weight of the product made the kiln slightly sag since it was no longer rotating. When the kiln is placed into 'low-fire', it protects the kiln by not having a very large drastic heat change and never allows the kiln to stop rotating and thus not developing a larger sag.

During this incident, the kiln went from 'high fire' to low fire within a few minutes. Normally, this would not be a problem, since there is typically product in the kiln, which retains heat and slows the heat loss to the afterburner, when the kiln goes into low fire. But in this episode, the kiln was completely empty when the 'low fire' mode happened and there wasn't the typical heat buffer from product in the kiln. The drastic change in temperature was too fast for the afterburner to react to and keep the temperature above 1400°.

As noted in previous events, this short episode does fall within the accuracy/error range of the thermocouple and PLC (5°F during episode vs. 14.1°F accuracy/error range). We have previously submitted manufacturer's information on the tolerances and accuracy specifications for both the afterburner thermocouple (+/- 0.75% or 10.5°F) and the afterburner thermocouple PLC (+/-3.6°F) to our BAAQMD inspector.

September 25, 2012 Event

On October 4, 2012, a permit application was submitted along with the 10-Day Non-compliance notification. The incomplete application requested information along with the 30 day follow up report was sent to the District on October 23, 2012. On November 7, 2012, a complete permit application submittal notice was received. To date, we have not received the permit for this new source.

Corrective Actions Summary

July 5, 2012 Event

Criterion has undertaken the following action to address this potential problem and prevent further deviations of the Title V permit conditions for the H2 Afterburner (A56):

1. Adjusted the logic to be more active when below the set point and less aggressive when above set point.

August 16, 2012 Event

Criterion has undertaken the following action to address this potential problem and prevent further deviations of the Title V permit conditions for the H2 Afterburner (A56):

1. Continue to adjust (tune) the automated afterburner control logic to be more active when below the set point.
2. Temporarily raised the set point to 1500° (action from the previous incident and set point during this incident).
3. Continue to improve the ramp-up/ramp-down feature of the afterburner 'low fire' mode, to make the temperature changes less drastic.
4. The last several episodes were all very short and had no excess emissions but were violations of the permit condition. We are trying to work with our permit engineer to change this condition. We hope to find an agreeable solution for both parties to remove the instantaneous requirement of the condition and add wording for upsets situations. We have submitted some initial proposals on wording for the change to the condition, but none have been approved.

September 25, 2012 Event

Criterion submitted a permit application on October 4, 2012 and submitted the "incomplete application information on October 23rd. On November 7, 2012, a complete permit application submittal notice was received from the District. To date, the permit has not been issued.

Certification of Compliance Monitoring

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

If you have any questions regarding these matters, please contact Jeff Luengo at (925) 458-7214.

Sincerely,

David Olund
Plant Manager
Criterion Catalysts & Technologies, LP

File: AR-T5R-40.33

The following tables list the compliance status for each source. An "X" in the Yes column means that unit is in compliance. An asterisk placed by "X*" or an "I*" (intermittent) indicates that there was an episode report and a breach of the permit conditions during the time frame of the report.

Table VII – A
Applicable Limits and Compliance Monitoring Requirements
S1 – X1 MULLER

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	Compliance	
								Yes	No
Opacity	BAAQMD 6-301	N		Ringelmann 1.0 for < 3 minutes/hr	BAAQMD condition #8444, part 3	C	Bag failure warning device	X	
Opacity	SIP 6-301	Y		Ringelmann 1.0 for < 3 minutes/hr	BAAQMD condition #8444, part 3	C	Bag failure warning device	X	
	BAAQMD condition #8444, part 1	Y		Ringelmann 1.0	BAAQMD condition #8444, part 3	C	Bag failure warning device	X	
FP	BAAQMD 6-1-310	N		0.15 gr/dscf	BAAQMD condition #8444, part 3	C	Bag failure warning device	X	
	BAAQMD 6-311	N		$4.10P^{0.67}$ lb/hr, where P is process weight, ton/hr		N	None	X	
FP	SIP 6-310	Y		0.15 gr/dscf	BAAQMD condition #8444, part 3	C	Bag failure warning device	X	
	SIP 6-311	Y		0.15 gr/dscf	BAAQMD condition #8444, part 3	C	Bag failure warning device	X	
	BAAQMD condition #8444, part 2	Y		0.006 gr/dscf	BAAQMD condition #8444, part 3	C	Bag failure warning device	X	
Air flow rate	BAAQMD condition 8444, part 2	Y		1,116 scfm		N	None	X	

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Table VII - B
Applicable Limits and Compliance Monitoring Requirements
S2 - X1 DRYER
S407 – X2 DRYER

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	Compliance	
								Yes	No
Opacity	BAAQMD 6-1-301	N		Ringelmann 1.0 for < 3 minutes/hr	BAAQMD condition #13099, part 2	C	Bag failure warning device	X	
Opacity	SIP 6-301	Y		Ringelmann 1.0 for < 3 minutes/hr	BAAQMD condition #13099, part 2	C	Bag failure warning device	X	
	BAAQMD condition #13099, part 1	Y		Ringelmann 1.0	BAAQMD condition #13099, part 2	C	Bag failure warning device	X	
FP	BAAQMD 6—1-310	N		0.15 gr/dscf	BAAQMD condition #13099, part 2	C	Bag failure warning device	X	
	BAAQMD 6-1-311	N		$4.10P^{0.67}$ lb/hr, where P is process weight, ton/hr	NONE	N	NONE	X	
FP	SIP 6-310	Y		0.15 gr/dscf	BAAQMD condition #13099, part 2	C	Bag failure warning device	X	
	SIP 6-311	Y		$4.10P^{0.67}$ lb/hr, where P is process weight, ton/hr	NONE	N	NONE	X	
	BAAQMD condition #13099, part 3	Y		0.006 gr/dscf	BAAQMD condition #13099, part 2	C	Bag failure warning device	X	
Air flow rate	BAAQMD condition #13099, part 3	Y		8,000 scfm	NONE	N	NONE	X	
SO2	BAAQMD 9-1-301	N		GLC of 0.5 ppm for 3 min. or 0.25 ppm for 60 min. or 0.05 ppm for 24 hrs	NONE	N	NONE	X	
	BAAQMD	N		50 lbs/hr	NONE	N	NONE	X	

	9-1-311.2								
SO2	SIP 9-1-301	Y		GLC of 0.5 ppm for 3 min. or 0.25 ppm for 60 min. or 0.05 ppm for 24 hours	NONE	N	NONE	X	
	SIP 9-1-311.2	Y		50 lbs/hr	NONE	N	NONE	X	

Table VII - C
Applicable Limits and Compliance Monitoring Requirements
S3 - X1 Dried Product Elevator
S4 – X1 Dried Product Screener
S5 – X1 Long Breaker
S6 – X1 Kiln Feed Conveyor System
S8 – X1 Calcined Product Elevator
S9 – X1 Calcined Product Screener
S10 – X1 Calcined Product Packaging

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	Compliance	
								Yes	No
Opacity	BAAQMD 6-301	N		Ringelmann 1.0 for < 3 minutes/hr	NONE	N	NONE	X	
Opacity	SIP 6-301	Y		Ringelmann 1.0 for < 3 minutes/hr	NONE	N	NONE	X	
FP	BAAQMD 6-1-310	N		0.15 gr/dscf	NONE	N	NONE	X	
	BAAQMD 6-1-311	N		$4.10P^{0.67}$ lb/hr, where P is process weight, ton/hr	NONE	N	NONE	X	
FP	SIP 6-310	Y		0.15 gr/dscf	NONE	N	NONE	X	
	SIP 6-311	Y		$4.10P^{0.67}$ lb/hr, where P is process weight, ton/hr	NONE	N	NONE	X	

Table VII - D
Applicable Limits and Compliance Monitoring Requirements
S7 - X1 KILN
S413 – X2 KILN

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	Compliance	
								Yes	No
Opacity	BAAQMD 6-1-301	N		Ringelmann 1.0 for < 3 minutes/hr	BAAQMD condition #13100, part 2	C	Bag failure warning device	X	
Opacity	SIP 6-301	Y		Ringelmann 1.0 for < 3 minutes/hr	BAAQMD condition #13100, part 2	C	Bag failure warning device	X	
FP	BAAQMD 6-1-310	N		0.15 gr/dscf	BAAQMD condition #13100, part 2	C	Bag failure warning device	X	
	BAAQMD 6-1-311	N		$4.10P^{0.67}$ lb/hr, where P is process weight, ton/hr	NONE	N	NONE	X	
FP	SIP 6-310	Y		0.15 gr/dscf	BAAQMD condition #13100, part 2	C	Bag failure warning device	X	
	BAAQMD 6-311	Y		$4.10P^{0.67}$ lb/hr, where P is process weight, ton/hr	NONE	N	NONE	X	
FP	BAAQMD condition #13100, part 3	Y		0.006 gr/dscf	BAAQMD condition #13100, part 2	C	Bag failure warning device	X	
Air flow rate	BAAQMD condition #13100, part 3	Y		8,000 scfm	NONE	N	NONE	X	
NOx	BAAQMD condition #13100, part 6	Y		58 lb/day or 21,000 lb/yr	BAAQMD condition #13100, part 8	C	CEM	X	
Natural gas	BAAQMD condition #13100, part 4	Y		700,000 therms at S7	BAAQMD condition #13100, part 9 & 10	C	Fuel meter, record keeping	X	
	BAAQMD condition #13100, part 5	Y		700,000 therms at S413	BAAQMD condition #13100, part 9 & 10	C	Fuel meter, record keeping	X	

SO2	BAAQMD 9-1-301	N		GLC of 0.5 ppm for 3 min. or 0.25 ppm for 60 min. or 0.05 ppm for 24 hours	NONE	N	NONE	X	
SO2	SIP 9-1-301	Y		GLC of 0.5 ppm for 3 min. or 0.25 ppm for 60 min. or 0.05 ppm for 24 hours	NONE	N	NONE	X	
	SIP 9-1-311.2	Y		50 lbs/hr	NONE	N	NONE	X	

Table VII - E
Applicable Limits and Compliance Monitoring Requirements
S11 - X1 CALCINED PRODUCT CONVEYOR

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	Compliance	
								Yes	No
Opacity	BAAQMD 6-301, Condition # 16736, part 5	Y		Ringelmann 1.0 for < 3 minutes/hr	None	N	None	X	
FP	BAAQMD 6-310	N		0.15 gr/dscf	None	N	None	X	
	BAAQMD 6-311	N		$4.10P^{0.67}$ lb/hr, where P is process weight, ton/hr	None	N	None	X	
FP	SIP 6-310	Y		0.15 gr/dscf	None	N	None	X	
	SIP 6-311	Y		$4.10P^{0.67}$ lb/hr, where P is process weight, ton/hr	None	N	None	X	
Through-put	BAAQMD condition #16736, part 1	Y		11,000 tons/yr	BAAQMD condition #16736, part 6	P/D	Record keeping	X	

Table VII - F
Applicable Limits and Compliance Monitoring Requirements
S19 – X1 RECYCLE STATION

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	Compliance	
								Yes	No
Opacity	BAAQMD 6-1-301	N		Ringelmann 1.0 for < 3 minutes/hr	None	N	None	X	
Opacity	SIP 6-301	Y		Ringelmann 1.0 for < 3 minutes/hr	None	N	None	X	
FP	BAAQMD 6-310	N		0.15 gr/dscf	None	N	None	X	
	BAAQMD 6-311	N		$4.10P^{0.67}$ lb/hr, where P is process weight, ton/hr	None	N	None	X	
FP	SIP 6-310	Y		0.15 gr/dscf	None	N	None	X	
	SIP 6-311	Y		$4.10P^{0.67}$ lb/hr, where P is process weight, ton/hr	None	N	None	X	
Through-put	BAAQMD condition #16736, part 1	Y		3,667 tons/yr	BAAQMD condition #16736, part 6	P/D	Record keeping	X	

Table VII – G
Applicable Limits and Compliance Monitoring Requirements
S104 - H1 Blending Tank T-1
S105 – H1 Blending Tank T-2
S106 – H1 Blending Tank T-3

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	Compliance	
								Yes	No
Opacity	BAAQMD 6-1-301, Condition 9984, part 1	N		Ringelmann 1.0 for < 3 minutes/hr	BAAQMD condition #9984, part 3	C	Bag failure warning device	X	
Opacity	SIP 6-301, Condition 9984, part 1	Y		Ringelmann 1.0 for < 3 minutes/hr	BAAQMD condition #9984, part 3	C	Bag failure warning device	X	
FP	BAAQMD 6-1-310	N		0.15 gr/dscf	BAAQMD condition #9984, part 3	C	Bag failure warning device	X	
	BAAQMD 6-1-311	N		$4.10P^{0.67}$ lb/hr, where P is process weight, ton/hr	None	N	None	X	
FP	SIP 6-310	Y		0.15 gr/dscf	BAAQMD condition #9984, part 3	C	Bag failure warning device	X	
	SIP 6-311	Y		$4.10P^{0.67}$ lb/hr, where P is process weight, ton/hr	None	N	None	X	
	BAAQMD condition #9984, part 2	Y		0.006 gr/dscf	BAAQMD condition #9984, part 3	C	Bag failure warning device	X	
Air flow rate	BAAQMD condition #9984, part 2	Y		3,500 scfm	None	N	None	X	

Table VII - H
Applicable Limits and Compliance Monitoring Requirements
S107 - H1 LIQUID/SOLID BLENDER

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	Compliance	
								Yes	No
Opacity	BAAQMD 6-1-301	N		Ringelmann 1.0 for < 3 minutes/hr	None	N	None	X	
Opacity	SIP 6-301	Y		Ringelmann 1.0 for < 3 minutes/hr	None	N	None	X	

Table VII - I
Applicable Limits and Compliance Monitoring Requirements
S111 – O4 Calcined Product Elevator
S112 – O4 Calcined Product Screener
S113 – O4 Calcined Product Packaging
S114 – O4 Kiln Hopper

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	Compliance	
								Yes	No
Opacity	BAAQMD 6-1-301, condition #13138 part 1	N		Ringelmann 1.0 for < 3 minutes/hr	BAAQMD condition #13138, part 3	C	Bag failure warning device	X	
Opacity	SIP 6-301, condition #13138 part 1	Y		Ringelmann 1.0 for < 3 minutes/hr	BAAQMD condition #13138, part 3	C	Bag failure warning device	X	
FP	BAAQMD 6-1-310	N		0.15 gr/dscf	BAAQMD condition #13138, part 3	C	Bag failure warning device	X	
	BAAQMD 6-1-311	N		$4.10P^{0.67}$ lb/hr, where P is process weight, ton/hr	NONE	N	NONE	X	
FP	SIP 6-310	Y		0.15 gr/dscf	BAAQMD condition #13138, part 3	C	Bag failure warning device	X	
	SIP 6-311	Y		$4.10P^{0.67}$ lb/hr, where P is process weight, ton/hr	NONE	N	NONE	X	
	BAAQMD condition #13138, part 2	Y		0.006 gr/dscf	BAAQMD condition #13138, part 3	C	Bag failure warning device	X	
	BAAQMD condition #13138, part 2	Y		0.39 lb/hr	BAAQMD condition #13138, part 3	C	Bag failure warning device	X	

Table VII - J
Applicable Limits and Compliance Monitoring Requirements
S303 - ALUMINA RECEIVING FLUIDSTAT STATION
S309 – ALUMINA RECIRCULATION FLUIDSTAT STATION
S310 – ALUMINA MEASURING FLUIDSTAT STATION

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	Compliance	
								Yes	No
Opacity	BAAQMD 6-1-301	N		Ringelmann 1.0 for < 3 minutes/hr	NONE	N	NONE	X	
Opacity	SIP 6-301	Y		Ringelmann 1.0 for < 3 minutes/hr	NONE	N	NONE	X	
FP	BAAQMD 6-1-310	N		0.15 gr/dscf	NONE	N	NONE	X	
	BAAQMD 6-1-311	N		$4.10P^{0.67}$ lb/hr, where P is process weight, ton/hr	NONE	N	NONE	X	
FP	SIP 6-310	Y		0.15 gr/dscf	NONE	N	NONE	X	
	SIP 6-311	Y		$4.10P^{0.67}$ lb/hr, where P is process weight, ton/hr	NONE	N	NONE	X	

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Table VII - K
Applicable Limits and Compliance Monitoring Requirements
S304 - ALUMINA SILO 1
S305 – ALUMINA SILO 2, S306 – ALUMINA SILO 3
S307 – ALUMINA SILO 4, S308 – ALUMINA SILO 5

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	Compliance	
								Yes	No
Opacity	BAAQMD 6-1-301	N		Ringelmann 1.0 for < 3 minutes/hr	NONE	N	NONE	X	
Opacity	SIP 6-301	Y		Ringelmann 1.0 for < 3 minutes/hr	NONE	N	NONE	X	
FP	BAAQMD 6-1-310	N		0.15 gr/dscf	NONE	N	NONE	X	
	BAAQMD 6-1-311	N		$4.10P^{0.67}$ lb/hr, where P is process weight, ton/hr	NONE	N	NONE	X	
FP	SIP 6-310	Y		0.15 gr/dscf	NONE	N	NONE	X	
	SIP 6-311	Y		$4.10P^{0.67}$ lb/hr, where P is process weight, ton/hr	NONE	N	NONE	X	

Table VII - L
Applicable Limits and Compliance Monitoring Requirements
S311 - ALUMINA BULK BAG UNLOADER
S312 – ALUMINA REPACKAGING STATION
S313 – FINES GRINDER FEED HOPPER SYSTEM

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	Compliance	
								Yes	No
Opacity	BAAQMD 6-1-301, condition #3344, part 1	N		Ringelmann 1.0 for < 3 minutes/hr	BAAQMD condition #3344, part 5	C	Bag failure warning device	X	
Opacity	SIP 6-301, condition #3344, part 1	Y		Ringelmann 1.0 for < 3 minutes/hr	BAAQMD condition #3344, part 5	C	Bag failure warning device	X	
FP	BAAQMD 6-1-310	N		0.15 gr/dscf	BAAQMD Condition #3344, part 5	C	Bag failure warning device	X	
	BAAQMD 6-1-311	N		$4.10P^{0.67}$ lb/hr, where P is process weight, ton/hr	NONE	N	NONE	X	
FP	BAAQMD 6-310	Y		0.15 gr/dscf	BAAQMD Condition #3344, part 5	C	Bag failure warning device	X	
	BAAQMD 6-311	Y		$4.10P^{0.67}$ lb/hr, where P is process weight, ton/hr	NONE	N	NONE	X	
	BAAQMD condition #3344, part 6	Y		0.005 gr/dscf	BAAQMD condition. #3344, part 5	C	Bag failure warning device	X	
Nickel content	BAAQMD condition #3344, part 8	Y		7% by weight per hour at S313	BAAQMD condition #3344, part 9	P/H	Record keeping	X	
Through-put (bulk)	BAAQMD condition #3344, part 2	Y		12,480 tons/yr for S311 and S312	BAAQMD condition #3344, part 9	P/D	Record keeping	X	
Through-put (catalyst)	BAAQMD condition #3344, part 3	Y		4,380 tons/yr for S313	BAAQMD condition #3344, part 9	P/D	Record keeping	X	
Air flow rate	BAAQMD condition #3344, part 6	Y		2,900 scfm		N			

Table VII – M
Applicable Limits and Compliance Monitoring Requirements
S314 - REGROUND FINES STORAGE SILO TK-70112
S315 – REGROUND FINES STORAGE SILO TK-70113
S316 – REGROUND FINES STORAGE SILO TK-70114
S317 – REGROUND FINES STORAGE SILO TK-70115
S318 – FINES WEIGH HOPPER BLOW POT
S319 – FINES BAGOUT STATION NO.1 & NO.2
S320 – FINES GRINDER
S322 – FINES TANKER TRUCK DELIVERY SYSTEM

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	Compliance	
								Yes	No
Opacity	BAAQMD 6-1-301	N		Ringelmann 1.0 for < 3 minutes/hr	BAAQMD condition #8468, part 5	C	Bag failure warning device	X	
Opacity	SIP 6-301	Y		Ringelmann 1.0 for < 3 minutes/hr	BAAQMD condition #8468, part 5	C	Bag failure warning device	X	
FP	BAAQMD 6-1-310	N		0.15 gr/dscf	BAAQMD condition #8468, part 5	C	Bag failure warning device	X	
	BAAQMD 6-1-311	N		$4.10P^{0.67}$ lb/hr, where P is process weight, ton/hr	NONE	N	NONE	X	
FP	SIP 6-310	Y		0.15 gr/dscf	BAAQMD condition #8468, part 5	C	Bag failure warning device	X	
	SIP 6-311	Y		$4.10P^{0.67}$ lb/hr, where P is process weight, ton/hr	NONE	N	NONE	X	
	BAAQMD condition #8468, part 6	Y		0.005 gr/dscf	BAAQMD condition. #8468, part 5	C	Bag failure warning device	X	
Nickel content	BAAQMD condition #8468, part 8	Y		7% by weight per hour	BAAQMD condition #3344, part 9	P/H	Record keeping	X	
Through-put (catalyst)	BAAQMD condition #8468, part 2	Y		4,380 tons/yr for each source	BAAQMD condition #8468, part 9	P/D	Record keeping	X	
Air flow rate	BAAQMD condition #8468, part 6	Y		3,000 scfm from each source	NONE	N	NONE	X	

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Table VII - N
Applicable Limits and Compliance Monitoring Requirements
S321 - ALUMINA STORAGE SILO

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	Compliance	
								Yes	No
Opacity	BAAQMD 6-1-301	N		Ringelmann 1.0 for < 3 minutes/hr	BAAQMD Condition #13092, part 3	C	Bag failure warning device	X	
Opacity	SIP 6-301	Y		Ringelmann 1.0 for < 3 minutes/hr	BAAQMD Condition #13092, part 3	C	Bag failure warning device	X	
FP	BAAQMD 6-1-310	N		0.15 gr/dscf	BAAQMD condition #13092, part 3	C	Bag failure warning device	X	
	BAAQMD 6-1-311	N		$4.10P^{0.67}$ lb/hr, where P is process weight, ton/hr	NONE	N	NONE	X	
FP	SIP 6-310	Y		0.15 gr/dscf	BAAQMD condition #13092, part 3	C	Bag failure warning device	X	
	SIP 6-311	Y		$4.10P^{0.67}$ lb/hr, where P is process weight, ton/hr	NONE	N	NONE	X	
	BAAQMD condition #13092, part 4	Y		0.005 gr/dscf	BAAQMD condition. #13092, part 3	C	Bag failure warning device	X	
Through-put (Alumina)	BAAQMD condition #13092, part 2	Y		9,636 tons/yr	BAAQMD condition #13092, part 5	P/D	Record keeping	X	
Air flow rate	BAAQMD condition #13092, part 4	Y		150 scfm	NONE	N	NONE	X	

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Table VII - O
Applicable Limits and Compliance Monitoring Requirements
S401 - X2 MULLER

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	Compliance	
								Yes	No
Opacity	BAAQMD 6-1-301	N		Ringelmann 1.0 for < 3 minutes/hr	BAAQMD condition #8445, part 3	C	Bag failure warning device	X	
Opacity	SIP 6-301	Y		Ringelmann 1.0 for < 3 minutes/hr	BAAQMD condition #8445, part 3	C	Bag failure warning device	X	
FP	BAAQMD 6-1-310	N		0.15 gr/dscf	BAAQMD condition #8445, part 3	C	Bag failure warning device	X	
	BAAQMD 6-1-311	N		$4.10P^{0.67}$ lb/hr, where P is process weight, ton/hr	NONE	N	NONE	X	
FP	SIP 6-310	Y		0.15 gr/dscf	BAAQMD condition #8445, part 3	C	Bag failure warning device	X	
	SIP 6-311	Y		$4.10P^{0.67}$ lb/hr, where P is process weight, ton/hr	NONE	N	NONE	X	
	BAAQMD condition #8445, part 2	Y		0.006 gr/dscf	BAAQMD condition. #8445, part 3	C	Bag failure warning device	X	
Air flow rate	BAAQMD condition #8445, part 2	Y		1,116 scfm	NONE	N	NONE	X	

Table VII - P
Applicable Limits and Compliance Monitoring Requirements
S408 - X2 Dried Product Elevator
S409 – X2 Dried Product Screener
S410 – X2 Long Breaker, S412 – X2 Kiln Feed Conveyor
S414 – X2 Calcined product Elevator
S415 – X2 Calcined Product Screener
S416 – X2 Calcined Product Packaging

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	Compliance	
								Yes	No
Opacity	BAAQMD 6-1-301	N		Ringelmann 1.0 for < 3 minutes/hr	NONE	N	NONE	X	
Opacity	SIP 6-301	Y		Ringelmann 1.0 for < 3 minutes/hr	NONE	N	NONE	X	
FP	BAAQMD 6-1-310	N		0.15 gr/dscf	NONE	N	NONE	X	
FP	BAAQMD 6-1-311	N		$4.10P^{0.67}$ lb/hr, where P is process weight, ton/hr	NONE	N	NONE	X	
FP	SIP 6-310	Y		0.15 gr/dscf	NONE	N	NONE	X	
FP	SIP6-311	Y		$4.10P^{0.67}$ lb/hr, where P is process weight, ton/hr	NONE	N	NONE	X	

Table VII - Q
Applicable Limits and Compliance Monitoring Requirements
S417 - X2 Calcined Product Conveyor
S418 – X2 Recycle Station
S515 – H2 Solid Additive Hopper A
S516 – H2 Solid Additive Hopper B
S517 – H2 Product Recycle System
S518 – H2 Calcined Feed System
S519 – H2 Spherical Hopper System
S520 – H2 Calcined Feed bagout Station

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	Compliance	
								Yes	No
Opacity	BAAQMD 6-1-301, condition #16736, part 5	N		Ringelmann 1.0 for < 3 minutes/hr	NONE	N	NONE	X	
Opacity	SIP 6-301, condition #16736, part 5	Y		Ringelmann 1.0 for < 3 minutes/hr	NONE	N	NONE	X	
FP	BAAQMD 6-1-310	N		0.15 gr/dscf	NONE	N	NONE	X	
	BAAQMD 6-1-311	N		$4.10P^{0.67}$ lb/hr, where P is process weight, ton/hr	NONE	N	NONE	X	
FP	SIP 6-310	Y		0.15 gr/dscf	NONE	N	NONE	X	
	SIP 6-311	Y		$4.10P^{0.67}$ lb/hr, where P is process weight, ton/hr	NONE	N	NONE	X	
Through-put	BAAQMD condition #16736, part 1	Y		S417: 12,000 tons/yr S418: 12,000 tons/yr S515: 1,700 tons/yr S516: 3,300 tons/yr S517: 16,000 tons/yr S518: 16,000 tons/yr S519: 16,000 tons/yr S520: 16,000 tons/yr	BAAQMD condition #16736, part 6	P/D	Record keeping	X	

Table VII - R
Applicable Limits and Compliance Monitoring Requirements
S420 - COLD CLEANER

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	Compliance	
								Yes	No
Through put	BAAQMD 8-16-121	Y		20 gallons/yr	BAAQMD 8-16-501.2, 8-16-501.6	P/Annual	Record keeping	X	

Table VII – S
Applicable Limits and Compliance Monitoring Requirements
S502 - NICKEL SOLUTION TANK

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	Compliance	
								Yes	No
Ni	BAAQMD Regulation 2-1, Table 2-1-316	Y		0.73 lb/yr	BAAQMD 2-1-316.1	P/Annual	Record keeping	X	

Table VII – T
Applicable Limits and Compliance Monitoring Requirements
S504 - H2 Blending Tank T-1 S505 – H2 Blending Tank T-2
S506 – H2 Blending Tank T-3 S507 – H2 Liquid/Solid Blender
S509 – H2 Kiln Feed Conveyor S510 – H2 Kiln
S514 – H2 Kiln Bypass Chute & Hopper w/Dusthood

Type of Limit	Citation of Limit	PE Y/N	Future Effectiv e Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	Compliance	
								Yes	No
Opacity	BAAQMD 6-1-301	N		Ringelmann 1.0 for < 3 minutes/hr	BAAQMD condition #9315, part 5	C	Bag failure warning device	X	
Opacity	SIP 6-301	Y		Ringelmann 1.0 for < 3 minutes/hr	BAAQMD condition #9315, part 5	C	Bag failure warning device	X	
FP	BAAQMD 6-1-310	Y		0.15 gr/dscf	BAAQMD condition #9315, part 5	C	Bag failure warning device	X	
	BAAQMD 6-1-311	Y		$4.10P^{0.67}$ lb/hr, where P is process weight, ton/hr	NONE	N	NONE	X	
FP	SIP 6-310	Y		0.15 gr/dscf	BAAQMD condition #9315, part 5	C	Bag failure warning device	X	
	SIP 6-311	Y		$4.10P^{0.67}$ lb/hr, where P is process weight, ton/hr	NONE	N	NONE	X	
	BAAQMD condition #9315, part 4	Y		0.006 gr/dscf	BAAQMD condition #9315, part 5	C	Bag failure warning device	X	
Air flow rate	BAAQMD condition #9315, part 4	Y		7,500 scfm		N			
NOx	BAAQMD condition #9315, part 10	Y		120 lb/day	BAAQMD condition #9315, part 13 & 14	P/A and D	Source test (A), Record keeping (D)	X	
NH3	BAAQMD condition #9315, part 10	Y		2,200 lb/day, and 200 lb/day (when A-56 in operation)	BAAQMD condition #9315, part 13	P/A and D	Source test (A), Record keeping (D)	X	
CO	BAAQMD condition #9315, part 8	Y		400 ppmv dry @ 3% Oxygen	BAAQMD condition #9315, part 13	P/A	Source test	X	
Temp-erature (A-56)	**BAAQMD condition #9315, part 9**	**Y**		**1400 degree F**	**BAAQMD condition #9315, part 7**	**C**	**Temperature Monitor**	**I***	**I***
Residence	BAAQMD	Y		0.4 second	BAAQMD condition	P/A	Source test	X	

time (A-56)	condition #9315, part 9				#9315, part 13				

*** Intermittent** - Note: There were 2 permit condition deviations of Permit Condition #9315 Part 7 (H2 Afterburner –A56), concerning low temperatures. The deviations reports were sent in to the BAAQMD. See episode summaries in cover letter above.

Table VII - U
Applicable Limits and Compliance Monitoring Requirements
S511 – H2 PRODUCT CONVEYOR
S512 – H2 PRODUCT SCREENER
S513 – H2 PRODUCT PACKAGING

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	Compliance	
								Yes	No
Opacity	BAAQMD 6-1-301	N		Ringelmann 1.0 for < 3 minutes/hr	None	N	None	X	
Opacity	SIP 6-301	Y		Ringelmann 1.0 for < 3 minutes/hr	None	N	None	X	
FP	BAAQMD 6-1-310	N		0.15 gr/dscf	None	N	None	X	
	BAAQMD 6-1-311	N		$4.10P^{0.67}$ lb/hr, where P is process weight, ton/hr	None	N	None	X	
FP	SIP 6-310	Y		0.15 gr/dscf	None	N	None	X	
	SIP 6-311	Y		$4.10P^{0.67}$ lb/hr, where P is process weight, ton/hr	None	N	None	X	

Table VII – V
Applicable Limits and Compliance Monitoring Requirements
S600 - X3 DRIED EXTRUDER, SCREENER, CONVEYOR

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	Compliance	
								Yes	No
Opacity	BAAQMD 6-1-301, condition #13093, part 2	N		Ringelmann 1.0 for < 3 minutes/hr	None	N	None	X	
Opacity	BAAQMD 6-301, condition #13093, part 2	Y		Ringelmann 1.0 for < 3 minutes/hr	None	N	None	X	
FP	BAAQMD 6-1-310	N		0.15 gr/dscf	BAAQMD condition #15672, part 2	C	Bag failure warning device	X	
	BAAQMD 6-1-311	N		$4.10P^{0.67}$ lb/hr, where P is process weight, ton/hr	None	N	None	X	
FP	SIP 6-310	Y		0.15 gr/dscf	BAAQMD condition #15672, part 2	C	Bag failure warning device	X	
	SIP 6-311	Y		$4.10P^{0.67}$ lb/hr, where P is process weight, ton/hr	None	N	None	X	
	BAAQMD condition #13093, part 3	Y		0.005 gr/dscf	BAAQMD condition #13097, part 4	C	Bag failure warning device	X	
Air flow rate	BAAQMD condition #13093, part 3	Y		12,000 scfm	None	N	None	X	
Through-put	BAAQMD	Y		36	BAAQMD	P/D	Record		

	condition #13093, part 4			tons/DAY	condition #13093, part 5		keeping	X	
Nickel & Nickel compounds content	BAAQMD condition #13093, part 1	Y		3.0% by weight per year	BAAQMD condition #13093, part 5	P/D	Record keeping	X	

Table VII - W
Applicable Limits and Compliance Monitoring Requirements
S601 - X3 FINES SURGE HOPPER

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	Compliance	
								Yes	No
Opacity	BAAQMD 6-1-301, condition #13094, part 1	N		Ringelmann 1.0 for < 3 minutes/hr	BAAQMD Condition #13094, part 3	C	Bag failure warning device	X	
Opacity	SIP 6-301, condition #13094, part 1	Y		Ringelmann 1.0 for < 3 minutes/hr	BAAQMD Condition #13094, part 3	C	Bag failure warning device	X	
FP	BAAQMD 6-1-310	N		0.15 gr/dscf	BAAQMD Condition #13094, part 3	C	Bag failure warning device	X	
	BAAQMD 6-1-311	N		$4.10P^{0.67}$ lb/hr, where P is process weight, ton/hr	NONE	N	NONE	X	
FP	SIP 6-310	Y		0.15 gr/dscf	BAAQMD Condition #13094, part 3	C	Bag failure warning device	X	
	SIP 6-311	Y		$4.10P^{0.67}$ lb/hr, where P is process weight, ton/hr	NONE	N	NONE	X	
	BAAQMD condition #13094, part 4	Y		0.006 gr/dscf	BAAQMD Condition #13094, part 3	C	Bag failure warning device	X	
Air flow rate	BAAQMD condition #13094, part 4	Y		100 scfm		N			
Through-put (catalyst)	BAAQMD condition #13094, part 2	Y		1,400 tons/yr	BAAQMD condition #13094, part 5	P/D	Record keeping	X	

Table VII - X
Applicable Limits and Compliance Monitoring Requirements
S602 - X3 ALUMINA SURGE HOPPER

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	Compliance	
								Yes	No
Opacity	BAAQMD 6-1-301, condition #13095, part 1	N		Ringelmann 1.0 for < 3 minutes/hr	BAAQMD Condition #13095, part 3	C	Bag failure warning device	X	
Opacity	SIP 6-301, condition #13095, part 1	Y		Ringelmann 1.0 for < 3 minutes/hr	BAAQMD Condition #13095, part 3	C	Bag failure warning device	X	
FP	BAAQMD 6-1-310	N		0.15 gr/dscf	BAAQMD Condition #13095, part 3	C	Bag failure warning device	X	
	BAAQMD 6-1-311	N		$4.10P^{0.67}$ lb/hr, where P is process weight, ton/hr	NONE	N	NONE	X	
FP	SIP 6-310	Y		0.15 gr/dscf	BAAQMD Condition #13095, part 3	C	Bag failure warning device	X	
	SIP 6-311	Y		$4.10P^{0.67}$ lb/hr, where P is process weight, ton/hr	NONE	N	NONE	X	
	BAAQMD condition #13095, part 4	Y		0.006 gr/dscf	BAAQMD Condition #13095, part 3	C	Bag failure warning device	X	
Air flow rate	BAAQMD condition #13095, part 4	Y		200 scfm	BAAQMD condition #13095, part 4	N	NONE	X	
Through-put (Alumina)	BAAQMD condition #13095, part 2	Y		9,636 tons/yr	BAAQMD condition #13095, part 5	P/D	Record keeping	X	

Table VII - Y
Applicable Limits and Compliance Monitoring Requirements
S603 - X3 EXTRUDER

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	Compliance	
								Yes	No
Opacity	BAAQMD 6-1-301, condition #13096, part 1	N		Ringelmann 1.0 for < 3 minutes/hr	NONE	N	NONE	X	
Opacity	SIP 6-301, condition #13096, part 1	Y		Ringelmann 1.0 for < 3 minutes/hr	NONE	N	NONE	X	
FP	BAAQMD 6-1-310	N		0.15 gr/dscf	NONE	N	NONE	X	
	BAAQMD 6-1-311	N		$4.10P^{0.67}$ lb/hr, where P is process weight, ton/hr	NONE	N	NONE	X	
FP	SIP 6-310	Y		0.15 gr/dscf	NONE	N	NONE	X	
	SIP 6-311	Y		$4.10P^{0.67}$ lb/hr, where P is process weight, ton/hr	NONE	N	NONE	X	
NH3	BAAQMD #15672, part 5	Y		490 lb/day or 48,000 lb/yr	BAAQMD condition #15672, part 11	P/A	Source test	X	
Through-put	BAAQMD condition #13096, part 2	Y		31,665 tons/yr	BAAQMD condition #13096, part 3	P/D	Record keeping	X	
Nickel content	BAAQMD condition #15672, part 10	Y		3.0% by weight per year	BAAQMD condition #15672, part 14	P/M	Record keeping	X	

Table VII - Z
Applicable Limits and Compliance Monitoring Requirements
S604 - X3 DRYER

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	Compliance	
								Yes	No
Opacity	BAAQMD 6-1-301, condition #13097, part 1	N		Ringelmann 1.0 for < 3 minutes/hr	BAAQMD Condition #13097, part 3	C	Pressure drop monitoring device	X	
Opacity	SIP 6-301, condition #13097, part 1	Y		Ringelmann 1.0 for < 3 minutes/hr	BAAQMD Condition #13097, part 3	C	Pressure drop monitoring device	X	
FP	BAAQMD 6-1-310	N		0.15 gr/dscf	BAAQMD Condition #13097, part 3	C	Pressure drop monitoring device	X	
	BAAQMD 6-1-311	N		$4.10P^{0.67}$ lb/hr, where P is process weight, ton/hr	NONE	N	NONE	X	
FP	SIP 6-310	Y		0.15 gr/dscf	BAAQMD Condition #13097, part 3	C	Pressure drop monitoring device	X	
	SIP 6-311	Y		$4.10P^{0.67}$ lb/hr, where P is process weight, ton/hr	NONE	N	NONE	X	
	BAAQMD condition #13097, part 4	Y		0.005 gr/dscf	BAAQMD Condition #13097, part 3	C	Pressure drop monitoring device	X	
NH3	BAAQMD #15672, part 5	Y		490 lb/day or 48,000 lb/yr	BAAQMD condition #15672, part 11	P/A	Source test	X	
Nickel content	BAAQMD condition #15672, part 10	Y		3.0% by weight per year	BAAQMD condition #15672, part 14	P/M	Record keeping	X	

Air flow rate	BAAQMD condition #13097, part 4	Y		12,000 scfm	NONE	N	NONE	X	
Natural gas	BAAQMD condition #13097, part 5	Y		534,360 therms/yr	BAAQMD condition #13097, part 6 and 7	C/M	Fuel meter and Record keeping	X	

Table VII - AA
Applicable Limits and Compliance Monitoring Requirements
S606 - X3 CALCINER

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	Compliance	
								Yes	No
Opacity	BAAQMD 6-1-301, condition #15672, part 1	N		Ringelmann 1.0 for < 3 minutes/hr	BAAQMD condition #15672, part 2	C	Bag failure warning device	X	
Opacity	SIP 6-301, condition #15672, part 1	Y		Ringelmann 1.0 for < 3 minutes/hr	BAAQMD condition #15672, part 2	C	Bag failure warning device	X	
FP	BAAQMD 6-1-310	N		0.15 gr/dscf	BAAQMD condition #15672, part 2	C	Bag failure warning device	X	
	BAAQMD 6-1-311	N		$4.10P^{0.67}$ lb/hr, where P is process weight, ton/hr	NONE	N	NONE	X	
FP	SIP 6-310	Y		0.15 gr/dscf	BAAQMD condition #15672, part 2	C	Bag failure warning device	X	
	SIP 6-311	Y		$4.10P^{0.67}$ lb/hr, where P is process weight, ton/hr	NONE	N	NONE	X	
	BAAQMD condition #15672, part 3	Y		0.005 gr/dscf	BAAQMD condition #15672, part 2	C	Bag failure warning device	X	
NOx	BAAQMD condition #15672, part 6	Y		51 lb/day or 18,500 lb/yr	BAAQMD condition #15672, part 12	C	CEM	X	
CO	BAAQMD condition #15672, part 9	Y		19,524 lb/yr	BAAQMD condition #15672, part 12	C	CEM	X	
CO abatement efficiency	BAAQMD condition #15672, part 8	Y		> 90% mass basis efficiency when outlet is >40ppm on a rolling 8 hour average	BAAQMD condition #15672, part 12	C	CEM	X	
NH3	BAAQMD #15672, part 5	Y		490 lb/day or 48,000 lb/yr	BAAQMD condition #15672, part 11	P/A	Source test	X	
SO2	BAAQMD 9-1-301	N		GLC of 0.5 ppm for 3 min. or 0.25 ppm for 60 min. or 0.05 ppm for 24 hours	NONE	N	NONE	X	
	BAAQMD 9-1-311.2	N		50 lbs/hr	NONE	N	NONE	X	

SO2	SIP 9-1-301	Y		GLC of 0.5 ppm for 3 min. or 0.25 ppm for 60 min. or 0.05 ppm for 24 hours	NONE	N	NONE	X	
	SIP 9-1-311.2	Y		50 lbs/hr	NONE	N	NONE	X	
Nickel content	BAAQMD condition #15672, part 10	Y		3.0% by weight per year	BAAQMD condition #15672, part 14	P/M	Record keeping	X	
Air flow rate	BAAQMD condition #15672, part 3	Y		1,736 scfm	NONE	N	NONE	X	
Natural gas	BAAQMD condition #15672, part 4	Y		700,000 therms at 5606	BAAQMD condition #15672, part 13 & 14	P/C/M	Fuel meter, Record keeping	X	