

THE
DOE RUN
COMPANY
Primary Smelting Division
ISO 9002:2000 Certified

Darin Clutts
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Joe Winkelmann, Environmental Engineer
Operations Section, Rules & SIP Unit
Air Pollution Control Program
Missouri Department of Natural Resources
P.O. Box 176
Jefferson City, MO 65102-0176

October 3, 2008

RE: Status of Ventilation Survey

Mr. Winkelmann,

This submittal proposes certain operating parameters that allow for fluctuations in weather and temperature while still maintaining building inflow.

Item 1

The Sinter Plant building ventilation system is controlled by the No. 3 Process Baghouse (minimal ventilation rate of 225,000 cfm), Acid Plant (minimal ventilation rate of 25,000 cfm) and six (6) other point source baghouses (typical ventilation rate of 224,359 cfm) that draft from various areas inside the enclosed building. The No. 3 Process Baghouse and Acid Plant draft off of the Sinter Machine which is fed by fans the pull from various areas inside the building including off of the roof and floor.

Since temperatures that feed the No. 3 Baghouse can vary from 100 °F to 450 °F, this has more variability than the seasonal and daily temperature changes that occur in the blast furnace and refinery building baghouses. As a result, more door measurements in relation to various operating conditions need be taken prior to determining a limit of flow meters and/or fan amps. However, it has been determined that double door air locks will be installed on the top three to five doors that are on the fourth floor of the building.

Item 2

The Blast Furnace building is primarily vented by the No. 7 Baghouse which pulls off the roof the length of the building and secondarily vented by the No. 6 Baghouse which vents off the roof above the furnaces feed area. The Refinery building is primarily vented by the No. 9 Baghouse which pulls off the roof the length of the building and secondarily vented by the No. 8 Baghouse which vents some of the refining kettles. The two buildings are connected and to some extent, share a common ventilation system.

It is proposed that a limit is established based on the total of the fan amps from the No. 6, No. 7, No. 8 and No. 9 Baghouse fans.

Attached to this letter are preliminary door inflow measurements that were taken at the time the No. 7 Baghouse and No. 9 Baghouse stack was tested. The fan amps and stack flows were recorded along with the ambient weather conditions. Seasonal and night and day ambient temperature variations can affect fan operation by as much as 10 percent. As a result, it is proposed that the combined fan amp limit be established at 90 percent of the fan amp readings taken during the most recent door inflow measurement exercise. Also, due to periodic episodes of fan fluctuations, it is further proposed that compliance with this limit be met 95 percent of the time each quarter.

If you have any questions, please call me at 636-933-3033 or email at dclutts@doerun.com.

Sincerely,

A handwritten signature in cursive script that reads "Darin Clutts". The signature is written in black ink on a white background.

Darin Clutts

BLAST FURNACE DOORS INFLOW CHECK

DATE : 9/9/2008

No.	Description	Time	WS mph (<5)	WD (degree)	Temp	Temp	Flow	Flow	No. 5 BH (CFM) 300,000	No. 6 BH (in H2O) (amps)	No. 7 BH (in H2O) (amps)											
					2-m BS (deg F)	At Door (deg F)	TL (fpm)	TM (fpm)	TR (fpm)	ML (fpm)	MM (fpm)	MR (fpm)	BL (fpm)	BM (fpm)	BR (fpm)	Avg (fpm)	Area (sq ft)					(cfpm)
1	Equipment Door North of CV10 Grizzly	15:11	1.6	64.4	80.5	83.9	602	602	656	624	614	583	634	644	640	622	156	97049	10.5 90	5 210		
2	Equipment Door South side of office	14:12	1.4	111.7	78.9	80.5	425	559	600	472	681	671	476	658	520	562	240	134987	10.5 90	5 210		
3	Equipment Door North end of slag track	14:18	2.1	145.5	79.2	78.6	624	640	665	652	661	400	756	671	593	629	208	130855	10.5 90	5 210		
4	Man door East wall to slag track alley	14:24	2.2	58.0	79.7	80.4	577	577	577	778	778	778	764	764	764	706	21	14833	10.5 90	5 210		
5	Man door North wall bottom floor, East side	14:25	2.2	58.0	79.7	80.3	847	847	847	807	807	807	807	807	807	820	21	17227	10.5 90	5 210		
6	Equipment door North end center	14:28	3.3	64.6	79.8	79.7	705	518	618	750	673	652	758	667	695	671	108	72432	10.5 90	5 210		
7	Man door North wall West of #6 door																	#DIV/0!	#DIV/0!			Welded shut
8	Equipment door North wall, West side																	#DIV/0!	#DIV/0!			Sealed
9	Man door North end @ mixer rack level	14:32	3.3	64.6	79.8	81	691	691	691	660	660	660	610	610	610	654	21	13727	10.5 90	5 210		
10	Man door West wall CV13 tail pulley area	14:35	3.2	75.5	80.0	82.5	541	541	541	502	502	502	490	490	490	511	21	10731	10.5 90	5 210		
11	Man door South wall @ scale belt floor	14:36	3.2	75.5	80.0	84.7	480	480	480	490	490	490	510	510	510	493	21	10360	10.5 90	5 210		
12	Equipment/Service doors South wall scale belt floor	14:39	2.4	57.5	81.1	85.4	469	329	461	471	388	386	372	411	366	406	56	22730	10.5 90	5 210		
13	Man door Northeast corner on crow's nest floor	14:43	1.5	57.7	80.8	85.4	392	392	392	331	331	331	297	297	297	340	21	7140	10.5 90	5 210		
14	Man door West wall @ crow's nest floor	14:44	1.5	57.7	80.8	85.2	372	372	372	693	693	693	388	388	388	484	21	10171	10.5 90	5 210		
15	Man door on South wall on crow's nest floor																	#DIV/0!	#DIV/0!			Welded shut
16	Man door South end of CV14 walkway	15:00	2.3	67.3	80.3	84.4	535	535	535	598	598	598	606	606	606	580	21	12173	10.5 90	5 210		
17	Man door on West wall @ old #1 Fce feed floor	14:57	1.8	39.3	80.1	84.3	522	522	522	516	516	516	522	522	522	520	27	14040	10.5 90	5 210		
18	Man door on West wall to CV12 belt stairs	14:50	1.7	41.9	80.7	84.3	465	465	465	406	406	406	415	415	415	429	18	7502	10.5 90	5 210		
19	Man door West wall from trestle area to balloon flue	14:52	1.7	41.9	80.7	82.7	604	604	604	638	638	638	665	665	665	636	21	13349	10.5 90	5 210		
20	Man door West wall to blower valves	14:54	1.8	39.3	80.1	82.1	654	654	654	630	630	630	616	616	616	633	18	11400	10.5 90	5 210		
21	Man door curtains East side to CV10	15:18	1.6	74.8	80.9	82.8	335	289	272	315	295	305	295	295	309	301	63	18970	10.5 90	5 210		
22	Man door curtains West side of CV10	15:20	1.6	74.8	80.9	83.4	221	221	221	230	230	230	242	242	242	231	64	14784	10.5 90	5 210		
23	Man door North end to CV9 & sinter bins																	#DIV/0!	#DIV/0!			At Sinter Plant No real venting
24	Man door curtains East side CV12 @ old feed floor																	#DIV/0!	#DIV/0!			Does not open to outside. To CV-12
25	Man door South side of office	14:08	1.4	111.7	78.9	80.5	758	758	758	774	774	774	764	764	764	765	21	16072	10.5 90	5 210		
26	Man door to roof by No. 6 baghouse	15:02	2.3	67.3	80.3	84	410	410	410	408	408	408	431	431	431	416	21	8743	10.5 90	5 210		

