

# AR-23

(Redacted)

**(Information not pertaining to Tentative Decision  
on ArcelorMittal Cleveland CWA 301(g)  
Variance Request has been redacted)**



ArcelorMittal limits history and antidegradation info .  
Eric Nygaard to: Sreedevi Yedavalli  
Cc: "Erm Gomes", "Rich Zavoda"

08/02/2010 12:21 PM

History: This message has been replied to.

2 attachments



cuyahoga ammonia wla 2.xls arcmital 604 limits history.doc

Sreedevi - The attached files should provide the information that you were looking for. The Word document shows the limits history for Outfall 604 from our data systems. The Excel file contains several wasteload allocation runs that work similar to our CONSWLA model.

We had to redo the WLA for the Fish Passage use because we found some errors in it. The errors allocated more ammonia loading to ArcelorMittal than should have been done. The company used our last (erroneous) wasteload in their analysis. However, the changes do not make any difference to the conclusions they drew:

Our mistake in the FP allocation was to set [REDACTED] allocation at their PEQ concentration, rather than at their design limits. The first section of the spreadsheet (rows 1-21) show the updated WLA results. These results are a seasonal analysis using [REDACTED] at design limits, ArcelorMittal Outfall 014 at levels just above PEQ, and the remaining load allocated to ArcelorMittal Outfalls 005 and 023.

The antidegradation calculations are shown in rows 65-75. These show that ArcelorMittal meets the requirements for a "de minimus" increase under our rules. The 'de minimus' exclusion means that the company does not have to do a socio-economic justification, and that the director's decision criteria do not apply. The company does have to address centralized treatment, such as a discharge to [REDACTED]. They did include this discussion in the permit modification application.

The remaining rows address some 'what ifs' related to [REDACTED]. Paul Novak and I have been running scenarios related to the [REDACTED]. It is my understanding that [REDACTED] wants some relief from nitrification requirements as a condition for running maximum flows through the [REDACTED]. This may be possible as a river flow-tiered permit condition; however, we believe that it should be taken up in [REDACTED] permit because the WLA for this segment is much more sensitive to the [REDACTED] load than it is to ArcelorMittal's. We don't believe that the LTCP considerations should affect this review. The load increase from a 301(g) variance change doesn't seem to alter [REDACTED] limits much at all under these conditions.

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this communication and any response to it constitutes a public record.



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	Dec-Feb (current)		Dec-Feb (new 301g)		Mar-Apr (current)		Mar-Apr (new 301g)		WLA 1	WLA 2	Load	WLA 3	Load	WLA 4	WLA 5
	Flow (cfs)	conc. (mg/l)	Flow (cfs)	conc. (mg/l)	Flow (cfs)	conc. (mg/l)	Flow (cfs)	conc. (mg/l)							
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
rcMittal Intake 801	67.8	2.196647493	67.8	2.196647493	67.8	1.41781517	67.8	1.417815				1.42		1.42	2.2
rcMittal 604	0.43	50.13670855	0.43	137.6301803	0.43	50.1367085	0.43	137.6302							
rcMittal 005	67.8	2.674939134	67.8	3.533916843	67.8	1.9010463	67.8	2.760024	5.269194	873.5189	5.733851	950.549	10.422	75.06151	
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
rcMittal Intake 808	55.7	2.37051469	55.7	2.426347006	55.7	1.54138044	55.7	1.597213							
rcMittal 014	55.7	2.37051469	55.7	2.426347006	55.7	1.54138044	55.7	1.597213	5.269194		5.733851	950.549	1.6	2.42	
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
rcMittal 023	0.324	20.37	0.324	20.37	0.324	20.37	0.324	20.37	5.269194		5.733851		10.422	75.06151	
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
rcMittal 301g avg.		81.6		224		81.6		224							
VQS avg.		7.1		7.1		2.1		2.1							
Additional 005 load		0		142.4				142.4							

	Dec-Feb (current)		Dec-Feb (new 301g)		Mar-Apr (current)		Mar-Apr (new 301g)	
	Flow (cfs)	conc. (mg/l)	Flow (cfs)	conc. (mg/l)	Flow (cfs)	conc. (mg/l)	Flow (cfs)	conc. (mg/l)
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
rcMittal Intake 801	67.8	3.235090595	67.8	3.235090595	67.8	1.93703672	67.8	1.937037
rcMittal 604	0.43	50.13670855	0.43	137.6301803	0.43	50.1367085	0.43	137.6302
rcMittal 005	67.8	3.70679624	67.8	4.565773949	67.8	2.41697486	67.8	3.275953
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
rcMittal Intake 808	55.7	3.476027021	55.7	3.531859336	55.7	2.09413661	55.7	2.149969
rcMittal 014	55.7	3.476027021	55.7	3.531859336	55.7	2.09413661	55.7	2.149969
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
rcMittal 023	0.324	20.37	0.324	20.37	0.324	20.37	0.324	20.37
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
rcMittal 301g avg.		81.6		224		81.6		224
QS avg.		7.1		7.1		2.1		2.1
Additional 005 load				142.4				142.4

	Dec-Feb (current)		Dec-Feb (new 301g)		Mar-Apr (current)		Mar-Apr (new 301g)	
	Flow (cfs)	conc. (mg/l)	Flow (cfs)	conc. (mg/l)	Flow (cfs)	conc. (mg/l)	Flow (cfs)	conc. (mg/l)
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

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[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
rcMittal intake 801	67.8 3.235090595	67.8 3.235090595	67.8 2.05699733	67.8 2.045763	
rcMittal 604	0.43 50.13670855	0.43 137.6301803	0.43 50.1367085	0.43 137.6302	
rcMittal 005	67.8 3.70679624	67.8 4.565773949	67.8 2.53617466	67.8 3.383989	
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	
rcMittal intake 808	55.7 3.476027021	55.7 3.531859336	55.7 2.1588952	55.7 2.180923	
rcMittal 014	55.7 3.476027021	55.7 3.531859336	55.7 2.1588952	55.7 2.180923	
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	
rcMittal 023	0.324 20.37	0.324 20.37	0.324 20.37	0.324 20.37	
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	
rcMittal 301g avg.	81.6	224	81.6	224	
QS avg.	7.1	7.1	2.1	2.1	
Additional 005 load		142.4		142.4	
LA 4 above (mg/l)	10.4				
rcMittal 005 (cfs)	67.8				
rcMittal 005 load (kg/d)	1724				
crease % of WLA	0.08259401				
nit % of WLA	0.129923163				
LA 5 above (mg/l)	17.86				
rcMittal 005 (cfs)	67.8				
rcMittal 005 load (kg/day)	2961				
crease % of WLA	0.048095056				
nit % of WLA	0.075655145				

## ArcelorMittal Cleveland Limits History for Outfall 604

The ammonia limits for this outfall have these effective dates:

6/76 thru 6/84:	244.9 kg/day monthly
	489.9 kg/day daily
7/84 thru 10/01:	81.6 kg/day monthly
	244.9 kg/day daily
11/01 – present:	81.6 kg/day monthly (winter)
	211 kg/day daily (winter)
	62.4 kg/day monthly (summer)
	85.6 kg/day daily (winter)

The original limits for this outfall appear to have been BPJ limits; they seem to have been more restrictive than BPT. The July 1984 limits were based on the original 301(g) variance. These limits were set in Ohio EPA administrative orders, rather than the permit, as a way of approving the variance from our perspective. PCS may have been tracking BAT during this period because the BAT limits were in the NPDES permits.

The November 2001 limits were revised 301(g) limits based on treatment level performance. The limits are seasonal because there was a seasonal difference in treatment effectiveness, at least at that time.

Some of the loading limits and production values may have changed in response to the closure of other blast furnaces at the plant. The furnaces that discharged via Outfalls 605/014 were shut down in the mid-1990s; the furnaces that discharged via Outfalls 621/027 were shut down around 2005-06.