AR-25

ArcelorMittal Cleveland Inc.
NPDES Permit 3ID00003*OD (OH0000957)
NPDES Permit Modification Request, April 13, 2010
Section 301(g) Variance for Ammonia-N, Outfall 604

Amendola Engineering, Inc.
March 16, 2011

Section 301(g) Variances – Criteria for Acceptance

1. Clean Water Act Section 301(g) and NPDES permit regulations at 40 CFR §122.21(m)(2) provide for variances from new or revised BAT effluent guidelines for certain non-conventional pollutants because of local environmental factors, so long as the discharger demonstrates:

- The proposed modified effluent limits (PMELs) meet corresponding BPT effluent limits;
- The PMELs meet applicable water quality standards;
- The PMELs do not result in additional requirements on other point or non-point sources;
- The PMELs will not interfere with attainment or maintenance of water quality necessary to protect public water supplies, aquatic life, wildfowl and recreational uses; and,
- The PMELs will not result in discharges that can reasonably be anticipated to pose an unacceptable risk to human health or the environment, cause acute or chronic toxicity, or promote synergistic propensities.

Eligible Pollutants

Ammonia-N, chlorine, color, iron, phenols (4AAP)

Excerpts from U.S. EPA *Technical Guidance Manual for the Regulations Promulgated Pursuant to Section 301(g) of the Clean Water Act of 1977 (EPA 1994)*

"The legislative history of the 1977 Amendments to section 301(g) of the Clean Water Act (CWA) makes it clear that Congress intended relief from promulgated BAT effluent limitations guidelines where warranted. Congress determined that it was possible that the BAT requirements might result in the application of excessive controls to certain kinds of pollutants. Where sufficient information could be generated on these pollutants to make a judgment concerning their effects on receiving water, appropriate relief from unnecessarily stringent limitations should be provided. Congress envisioned that the Administrator would develop a pollutant-specific waiver without affecting necessary BAT limitations on the remainder of the pollutants in the discharge. The enactment of section 301(g) was the result of an effort to eliminate "treatment for treatment's sake" for nonconventional pollutants."

"The legislative history also contains Congress's recognition of the delays encountered with section 316(a) thermal variances and its expectation that the section 301(g) process be as expedited as possible." (Emphasis added)

Summary of ArcelorMittal Cleveland Section 301(g) Variance

1. *The PMELs are More Stringent than BPT and Meet WQS (Section 301(g)(2)(A))*

	Monthly Average (kg/day)	Daily Maximum (kg/day)
BAT	24.5	73.6
BPT	451	1,353
Ohio EPA Waste Load Allocation (WQS)		
Summer	NA	3,135
Winter	NA	2,472
Current Section 301(g) Limits		
Summer	62.4	85.6
Winter	81.6	211
PMELs (Year Round)	224	294

2. *The PMELs will not Result in Additional Requirements on Other Point and Non-Point Sources (Section 301(g)(2)(B))*

The PMELs are well below the Ohio EPA waste load allocation. There are no anticipated impacts on other point or non-point sources.

3. *The PMELs will not Interfere with Attainment or Maintenance of Water Quality That Will Protect Public Water Supplies, Fish, Shellfish, Wildlife and Recreational Activities (Section 301(g)(2)(C))*

Public Water Supplies

There are no applicable Ohio drinking water standards for ammonia-N. The nearest public water supply is in Lake Erie, approximately 5 miles from the mouth of the Cuyahoga River and approximately 10 miles from Outfall 005. Adverse impacts on public drinking water supplies cannot reasonably be anticipated.

Fish, Shellfish, Wildlife

The PMELs meet water quality standards by wide margins.

Recreational Activities

The principal recreational use of the Lower Cuyahoga River is boating. Impacts on recreational boating from the PMELs cannot reasonably be anticipated.

4. *The PMELs will not Result in Discharges that can Reasonably be Anticipated to Pose and Unacceptable Risk to Human Health or the Environment, cause Acute or Chronic Toxicity, or promote Synergistic Propensities (Section 301(g)(2)(C)).*

Bioaccumulation and Persistency
Ammonia-N is not persistent in the aquatic environment and does not bioacclumulate.

Acute and Chronic Toxicity
PMELs will meet water quality standards. Acute or chronic toxicity in the receiving water cannot reasonably be anticipated.

Synergistic Propensities
Synergistic effects of ammonia-N, total residual chlorine and other low level pollutants in the discharge from Outfall 005 cannot reasonably be anticipated.

Other Considerations in Support of ArcelorMittal Section 301(g) Variance Request

Ohio Antibacksliding, Antidegradation

- OAC 3745-33-05(E)(1)(b) – Backsliding is allowed when new information justifies less stringent effluent limits.
- OAC 3745-33-05(E)(1)(e) – Modifications of effluent limits pursuant to Section 301(g) are not subject to antibacksliding.
- Antidegradation review demonstrates requested increases in allowable loadings are de minimis.

Equitable Considerations

- The current ArcelorMittal Cleveland NPDES permit Section 301(g) modified effluent limits are much more stringent than Section 301(g) modified effluent limits for similar competitor steel mills in Ohio. The PMELs for this Section 301(g) variance request are also more stringent than the Section 301(g) modified effluent limits for similar competitor steel mills in Ohio.

Ohio EPA Review and Recommendation for Approval

- Ohio EPA reviewed ArcelorMittal's Section 301(g) variance request and recommended the variance request be granted.
- Ohio EPA Public Notice of variance request - May 26, 2010.
- Ohio EPA letter to EPA Region 5 recommending approval - June 14, 2010.