United States Department of the Interior
NATIONAL PARK SERVICE
Air Resources Division
P.O. Box 25287
Denver, Colorado 80225

IN REPLY REFER TO:

N3615 (2350)

September 4, 2012

Pamela Blakley, Chief
Control Strategies Section
Air Programs Branch (AR-18J)
U.S. Environmental Protection Agency Region 5
77 West Jackson Boulevard
Chicago, Illinois 60604

EPA Docket ID: EPA-R05-OAR-2010-0954

Dear Ms. Blakley:

The National Park Service (NPS) has reviewed the Environmental Protection Agency's (EPA's) proposed "Approval and Promulgation of Air Quality Implementation Plans; Michigan; Regional Haze State Implementation Plan; Federal Implementation Plan for Regional Haze". We generally commend EPA's proposals for Best Available Retrofit Technology (BART) for four industrial sources (comments enclosed), and have brief comments on BART for electric utilities and reasonable progress goals, as detailed below.

On June 7, 2012, EPA disapproved Michigan's regional haze plan (and those of several other states) due to reliance on the Clean Air Interstate Rule (CAIR) to meet BART requirements for electric utilities. In the same decision, EPA determined that emissions reductions under the Cross State Air Pollution Rule (CSAPR) achieve greater progress in improving visibility than source-specific controls for BART and promulgated Federal Implementation Plans that relied on CSAPR to meet BART requirements for electric utilities in Michigan (and other states). On August 21, 2012, the U.S. Court of Appeals for the District of Columbia Circuit vacated the CSAPR, temporarily leaving CAIR in place. Because EPA previously disapproved the state plans that relied on CAIR to meet BART, it appears that EPA cannot finalize the proposed approval of BART for electric utilities in Michigan. To finalize the regional haze plan, we recommend that Michigan evaluate BART for those electric utilities subject BART.

We believe that consistent application of the regional haze rule requirements across states and EPA regions is important. 40 CFR 51.308 (d) (1) requires states to establish goals that provide

for an improvement in visibility for the most impaired days and ensure no degradation in visibility for the least impaired days. We are concerned that EPA did not consider the projected degradation of visibility on the least impaired days when proposing to approve Michigan's reasonable progress goals. The regional air quality model used by Michigan projects that visibility on the 20% best days at Seney Wildlife Refuge will be poorer in 2018 (7.78 deciview) than in the 2000-2004 baseline period (7.14 deciview). EPA should discuss this finding and why Michigan's reasonable progress goals are acceptable despite failing to meet a fundamental rule requirement.

We appreciate the opportunity to work closely with Michigan and EPA Region 5 to make progress toward achieving natural visibility conditions at our National Parks and Wilderness Areas. For further information regarding our comments, please contact Pat Brewer at (303) 969-2153.

Sincerely,

Susan Johnson
Chief, Policy, Planning and Permit Review Branch

Enclosure

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National Park Service Comments on EPA's Proposals for
Best Available Retrofit Technology (BART) for St. Mary's Cement and NewPage Paper
September 4, 2012

St. Mary's Cement

We commend EPA's treatment of St. Mary's Cement as a BART source, for the reasons detailed here. We agree with EPA that Selective Non-Catalytic Reduction (SNCR) technology is feasible for St. Mary's Cement and can be successfully operated at reasonable cost at this plant. Our review of BART proposals for cement plants across the US has found that SNCR has been determined to be technically feasible in every case (although Pennsylvania rejected SNCR on the basis of excessive cost/dv of improvement at the most-impacted Class I area).

Company	State	BART Unit	Kiln Type	SNCR Reduction %	SNCR Cost		BART
					$/ton	$/dv	
Essroc Cement	PA	Kiln #5	long, wet	35%	$ 1,014	$ 7,494,026	Seasonal NO_X controls
Lehigh Cement/York	PA		white cement	35%	$ 1,505	$ 10,606,000	Seasonal NO_X controls
Lehigh Cement Company/Evansville	PA	Kiln #1	dry preheater	60%	$ 627	$ 8,094,250	Seasonal NO_X controls
Lehigh Cement Company/Evansville	PA	Kiln #2	dry preheater	60%	$ 627	$ 8,094,250	Seasonal NO_X controls
Lafarge Corporation/Whitehall	PA	Kiln #2	dry preheater	25%	$ 1,804	$ 27,177,065	Seasonal NO_X controls
Lafarge Corporation/Whitehall	PA	Kiln #3	dry preheater	25%	$ 2,144	$ 24,336,753	Seasonal NO_X controls
Cemex/Wampum	PA	Kiln #3	long, dry kiln	35%	$ 1,014	$ 4,678,401	Seasonal NO_X controls
Keystone Cement	PA	Kiln #2	long, wet kiln	35%	$ 1,014	$ 23,431,248	Seasonal NO_X controls
Ash Grove Cement	MT		long, wet kiln	58%	$ 2,058	$ 1,793,984	LNB&SNCR
CEMEX	CO		preheater/precalciner	48%	$ 1,934	$ 4,306,937	SNCR
Holcim Cement	CO		preheater/precalciner	45%	$ 2,293	$ 8,750,000	SNCR
Holcim Cement	MT		long, wet kiln	58%	$ 1,528	$ 2,325,106	SNCR
LaFarge North America (cement)	MI	Kiln #19	long, dry process kilns	35%	$ 731		SNCR
LaFarge North America (cement)	MI	Kiln #20	long, dry process kilns	35%	$ 731		SNCR
LaFarge North America (cement)	MI	Kiln #21	long, dry process kilns	35%	$ 731		SNCR
LaFarge North America (cement)	MI	Kiln #22	long, dry process kilns	40%	$ 498		SNCR
LaFarge North America (cement)	MI	Kiln #23	long, dry process kilns	40%	$ 498		SNCR
St. Mary's Cement	MI		preheater/precalciner	50%	$ 983	$ 3,084,550	EPA SNCR
LaFarge North America (cement)	WA		wet process kiln	40%	$ 4,190	$ 1,758,980	SNCR or mid-kiln firing of whole tires

We also note that SNCR was considered to be technically feasible at three kilns at Dacotah Cement in South Dakota evaluated under the Reasonable progress provisions of the Regional Haze Rule.

We support EPA's proposal that the appropriate limit for NO_X emissions from the kiln at St. Mary's Cement would reflect a 50 percent reduction from the average emissions, which falls

within the range of emission reductions we have seen assumed for SNCR. We agree with EPA's proposal to establish a limit on NO_X emissions at 2.30 pounds per ton of clinker (30 - day rolling average).

We also support EPA's proposed limit for SO_2 emissions per ton of clinker to assure that emissions do not increase significantly above current levels. EPA is proposing to set a limit that reflects a 5 percent compliance margin relative to the average SO_2 emission rate at this facility Based on CEMS data for 2006 to 2008; that is, a limit of 7.5 pounds of SO2 emissions per ton of clinker as a 30-day rolling average. We commend EPA for basing its proposal upon actual emissions data and concur with the proposed limit.

We commend EPA for requiring that BART controls be installed and operated as expeditiously as practicable, consistent with 40 CFR 51.308(e)(1)(iv). EPA believes that Saint Mary's Cement may reasonably be required to conduct the engineering, design, installation, and trial operation of the SNCR to meet this limit within about three years from the expected effective date of final promulgation of these limits. Therefore, EPA is proposing a compliance date for the NO_X limit of January 1, 2016. EPA is proposing that the SO_2 limit apply upon the effective date of the final promulgation of the limit, because the company is already complying with the limit. EPA envisions using data from the existing continuous emission monitoring system that measures NO_X and SO_2 emissions from the kiln to evaluate compliance with the NO_X and SO_2 limits it is proposing.

NewPage Paper

NewPage Paper owns and operates a paper mill in Escanaba, Michigan. EPA's review focused on the largest of the BART sources at the facility, Boiler 8 and Boiler 9.[1] Boiler 8 is permitted to burn both natural gas and residual oil, but has only burned natural gas in recent years. Because NewPage's 2007 BART report estimates a 0.2 dv improvement due to switching from #6 residual oil to natural gas, we recommend that EPA re-evaluate BART for SO_2 as eliminating residual oil as a fuel option for Boiler 8.[2]

For NO_X, we agree with EPA's proposal of fuel-specific limits of 0.26 lb/mmBtu for combustion of natural gas and 0.50 lb/mmBtu for combustion of residual oil, if residual oil is not eliminated as a fuel option. These limits are approximately 10 percent above the upper end of the range of emission rates under current operation.[3] EPA envisions that the company will be able to meet

[1] Michigan identified several other units at NewPage Paper that are subject to a requirement for BART, including the Number 10 recovery furnace, a lime kiln, and the smelt dissolving tank. EPA concurs with Michigan's conclusion that these other units do not require limits to require BART controls.

[2] Boiler 8 is permitted to burn #6 residual oil with a sulfur content of 1.0% and has a 98th percentile impact of 0.4 dv. Table 2-6 of NewPage's 2007 BART report estimates that switching to natural gas would reduce 98th percentile impacts from this boiler by 0.2 dv. Table C-5 of that report estimates that switching to natural gas would have a cost-effectiveness of $4,222/ton based upon 2006 costs of $6.84/mmBtu for 0.57%S #6 fuel oil and $8.05/mmBtu for natural gas. At current natural gas prices, the cost-effectiveness of switching to natural gas would be less than $1,500/ton.

[3] Compliance information will be obtained from a continuous emission monitoring system that the company operates on this boiler. Since the boiler is often not operating, EPA will compute 30-day averages on the basis of 30 successive operating days, not counting days in which the boiler does not operate.

these limits by maintaining existing operations (maintaining existing combustion improvements), but finds that the company also has the flexibility to meet these limits by installing low-NO_X burners or using its flue gas recirculation equipment more frequently. We agree with EPA's conclusion that these limits are warranted as BART but that further emission reductions are not warranted for the limited benefits they would achieve.

For Boiler 9 we agree with EPA's conclusion that the overfire air modifications that the company has made are included in BART for this boiler and that no further control of this boiler constitutes BART. We agree with EPA's proposed limits to mandate the continued operation of the existing overfire air system on Boiler 9.

However, no system for continuous emission monitoring is operating on this boiler and EPA is proposing a limit that would be enforced by stack tests. To accommodate a modest degree of stack test variability, EPA is proposing to set a limit with a 25 percent compliance margin. That is, EPA is proposing a NO_X emission limit for Boiler 9 of 0.27 lb/mmBtu. (This emission rate also is about 10 percent higher than the highest single run test result reported by the company.) We have two concerns with EPA's proposal:

- Stack testing is not necessarily representative of day-to-day emissions and a boiler with emissions of this magnitude should be equipped with NO_X CEMs. (After all, Boiler 8 has one-sixth the annual NO_X emissions of Boiler 9 and is required to operate NO_X CEMs.) We recommend installation and operation of NO_X CEMs to allow an appropriate NO_X limit to be set on the 30-day rolling average basis (or on a 30 boiler-operating-day basis as proposed for Boiler 8), which would be consistent with most BART limits.
- Because of its proposal to rely upon stack testing with its inherent variability, EPA has had to allow a 25 percent "compliance margin" instead of the lower compliance margin proposed for Boiler 8. If the stack test results cited by EPA are truly representative, then we recommend that a 30-day rolling average of 0.24 lb/mmBtu (20 percent above the lower value and 10 percent above the higher value) would be more appropriate.

NewPage Paper has already implemented measures to meet the limits on Boilers 8 and 9. Therefore, we agree with EPA's proposal that the final limits take effect upon the effective date of the rulemaking promulgating these limits.