

## **NGS Part II: Proposed NO<sub>x</sub> Emissions Guidelines for the Navajo Generating Station**

*Published: April, 2013*

### ***The Essentials:***

- The Environmental Protection Agency's (EPA) Regional Haze Rule, authorized under the Clean Air Act, requires a state or federal agency to draft plans to reduce haze and increase visibility in the nation's National Parks.
- On January 18, 2013, the EPA issued its air pollution limits proposal for the Navajo Generating Station (NGS) due to its proximity to the Grand Canyon National Park and ten other Class I Federal protected areas, including seven other National Parks and Wilderness Areas. The NGS is one of the largest sources of nitrogen dioxide (NO<sub>x</sub>) emissions in the United States.
- Under these rules, NGS's owners will be required to install Selective Catalytic Reduction (SCR) technology by 2018. Due to the NGS's economic importance to several Native American tribes, the EPA is considering allowing a five-year extension for the installation.
- The EPA is accepting public comments during a 90-day period that ends April 17, 2013. The EPA will hold public meetings on its proposed rules in the spring of 2013.

***For background on the Navajo Generation Station and its impacts on AZ, please see our [Navajo Generating Station Background Sheet: pre-EPA NO<sub>x</sub> rulemaking](#).***

### ***EPA/DOE/DOI statement on developing Navajo Generating Station regulations***

In advance of the EPA's publication of a proposal for emissions limits on the Navajo Generating Station (NGS), the Environmental Protection Agency (EPA), the Department of Energy (DOE) and the Department of the Interior (DOI) released a [joint statement](#) to assuage stakeholder concerns. The statement acknowledges the potential impacts that regulatory action establishing emissions limits on the Navajo Generating Station (NGS) could have on Navajo and Hopi economies and on electricity and water pricing for residents of Arizona. The statement announces four goals that will inform future NGS regulatory decision-making:

- 1) Create an interagency Working Group that will collect science-based information on all the issues surrounding the Navajo Generating Station to inform Federal decision-making.
- 2) Develop a long-term "roadmap" for the NGS in cooperation with various stakeholders, including tribes, the Central Arizona Project (CAP) and environmental and community groups.

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- 3) Support the National Renewable Energy Laboratory’s (NREL) plan to develop a second report on the NGS that builds on the first report’s findings and detailing long-term clean energy options.
- 4) Endorse the implementation of emissions-reduction technologies on the NGS, but develop an implementation process that does not breach Federal responsibilities to Indian tribes or disrupt widespread economic development.

***The EPA’s NOx regulation proposal***

On January 18, 2013, the EPA issued its [“Proposed Federal Implementation Plan,”](#) (Proposed FIP) to reduce nitrogen oxide (NOx) emissions at the Navajo Generating Station (NGS) in northern Arizona. The Proposed FIP identifies the Selective Catalytic Reduction (SCR) technology as the Best Available Retrofit Technology (BART). The EPA proposed a compliance deadline of 2018; alternatively, the EPA could allow an additional five years for compliance (see Fig. 1 for a comparative chart).

As indicated in the Proposed FIP, regulations on emissions other than NOx at the NGS are also possible, but the owners would be granted a longer compliance timeframe.

**What’s a BART?** The EPA’s Regional Haze Rule, which became effective in 2005, required states (or the EPA if the emissions source is located on tribal land, as the NGS is) to identify the best available retrofit technology (BART) for emissions reductions in power plants and other greenhouse gas sources that were less than 15 years old as of August 7, 1977. The Regional Haze Rule mandates five criteria to determine a BART:

- cost effectiveness of compliance
- environmental impacts from compliance
- currently installed emissions reduction equipment
- the source’s remaining life span

	<b>Alt. 1: Best Available Retrofit Technology (BART)</b>	<b>Alt. 2: Alternative to BART</b>
<b>Requirements</b>	Plant-wide NOx emissions limit of 0.055 lb/MMBtu <sup>1</sup> (i.e, annual reduction of 25,800 lbs.). Achieved by installing Selective Catalytic Reduction (SCR).	Plant-wide NOx emissions limit of 0.055 lb/MMBtu (i.e, annual reduction of 25,800 lbs.). Achieved by installing Selective Catalytic Reduction (SCR).
<b>Timeframe</b>	2018	2023
<b>Reasoning for timeframe</b>	SCRs are currently available and can be installed at NGS within the given timeframe.	Credit in the form of extra time is given to NGS’s owners, who voluntarily installed low-NOx burners in 2009-2011. Extra time is also given due to the economic importance of NGS to some tribes, as well as the NGS’s centrality to tribal water settlement agreements.

Fig. 1. Source: [U.S. EPA Fact Sheet](#)

<sup>1</sup> Million Metric British Thermal Units.

***More about Selective Catalytic Reduction technology***

[SCR technology converts emissions into pure nitrogen and water vapor](#). An SCR system can remove [80-90 percent](#) of a coal-fired power plant's total NOx emissions; in this case, SCR will reduce emissions by [84 percent](#). The Salt River Project, a part owner of the NGS, estimates [installation costs for SCR technology could range from almost \\$500 million to \\$1.1 billion](#). In the FIP, the EPA found that installing SCR technology by 2018 would cost less than purchasing electricity from other sources in the West. The agency also found that the electricity upgrades will have an impact on Central Arizona Project water pricing because of the CAP's heavy reliance on electricity from the NGS. Under the EPA's calculation, a resident of a municipality that depends exclusively on water from CAP could see a maximum increase of 6 percent on his or her water bill.

***Learn more***

- The EPA's NGS web page: <http://www.epa.gov/region9/mediacenter/ngs/>
- A timeline of the Clean Air Act and Regional Haze Rule activity surrounding the Navajo Generating Station: <http://www.ngspower.com/timeline.aspx>

***Contact Information:***

*To submit comments on the Proposed FIP, go to the Federal eRulemaking Portal: [www.regulations.gov](http://www.regulations.gov). Follow the on-line instructions.*

*To send comments via email: [r9ngsbart@epa.gov](mailto:r9ngsbart@epa.gov).*

*To mail comments via USPS:*

Anita Lee (Air-2), U.S. Environmental Protection Agency Region 9,  
75 Hawthorne Street,  
San Francisco, CA 94105-3901.

***Latest Developments:***

- On January 31, 2013, Arizona State Attorney General Tom Horne filed a Petition for Review of the EPA's FIP with the Ninth Circuit Court of Appeals.
- Arizona State Senate bill [SCR 1012](#) rejects the plan to require an SCR installation and supports the Arizona plan to install different technology.
- On March 12<sup>th</sup>, 2013, the Arizona Corporation Commission [voted to file comments](#) with the EPA on its Proposed Rule for Regional Haze Requirements by its August 5<sup>th</sup>, 2013 deadline.