

The State of Wyoming requires that PacifiCorp shall tune the existing low NO_x burners with OFA and install selective catalytic reduction and a full-scale fabric filter on Unit 3, in accordance with the Division's BART determination to demonstrate compliance as expeditiously as practicable, but no later than five years after EPA approval of the state implementation plan revision.

IV. Proper Maintenance and Operation of Control Equipment

The State of Wyoming requires that PacifiCorp follow the monitoring and recordkeeping requirements of Section 6.4 V. to ensure proper maintenance and operation of control equipment.

6.5.7 PacifiCorp - Wyodak Power Plant

I. The Five-Factor Analysis

After considering (1) the costs of compliance, (2) the energy and non-air quality environmental impacts of compliance, (3) any pollution equipment in use or in existence at the source, (4) the remaining useful life of the source, and (5) the degree of improvement in visibility (all five statutory factors) from each proposed control technology, the Division determined BART for NO_x and PM₁₀ emitted from the single unit subject to BART at the Wyodak Power Plant.

For control of NO_x emissions, the State of Wyoming requires that PacifiCorp install and operate LNB with advanced OFA as BART for Unit 1. Annual NO_x emission reductions from baseline with LNB with advanced OFA on Unit 1 are 1,483 tons. LNB with advanced OFA on Unit 1 is cost effective, with an average cost effectiveness of \$881 per ton of NO_x removed over a twenty-year operational life. Combustion control using LNB with advanced OFA does not require non-air quality environmental mitigation for the use of chemical reagents (i.e., ammonia or urea) and there is a minimal energy impact.

For control of PM/PM₁₀ emissions from Unit 1, the State of Wyoming requires that PacifiCorp install and operate a new, full-scale fabric filter to meet a corresponding BART emission limit on a continuous basis. When considering all the factors above and beyond the benefits associated with regional haze which include the existing precipitator's current condition and performance and end of life issues, the ability of the current electrostatic precipitator to meet an ESP BART rate of 0.10 lb/MMBtu on a continuous basis, and the enhanced mercury removal co-benefits the baghouse provides, the Wyoming Air Quality Division has determined that the costs associated with the installation of a new full-scale fabric filter are reasonable. A full-scale fabric filter is the most stringent PM/PM₁₀ control technology and therefore the Division accepts it as BART. The Division considers the installation and operation of the BART-determined PM/PM₁₀ controls of a new full-scale fabric filter at Wyodak, as recently permitted under Air Quality Permit MD-7487, to meet the requirements of BART.

Visibility impacts were addressed in a comprehensive visibility modeling analysis covering three visibility impairing pollutants and associated control options. The cumulative 3-year averaged 98th percentile visibility improvement from the baseline summed across both Class I areas (Badlands and Wind Cave national parks) achieved with LNB with advanced OFA, upgrading the dry FGD, and a new full-scale fabric filter was 0.996 Δdv.

The State of Wyoming considers the BART-determined permit limit to be equivalent to the control effectiveness of a control technology. The limit is based on continuous compliance when the control equipment is well maintained and operated in a manner consistent with good air pollution control practices for minimizing emissions.

Unit-by-unit BART determinations for NO_x and PM/PM₁₀:

Unit	Pollutant	Control Type	lb/MMBtu	lb/hr	tpy
1	NO _x	LNB/OFA	0.23 (30-day rolling)	1,081.0 (30-day rolling)	4,735
	PM/PM ₁₀ ^(a)	Fabric Filter	0.015	71.0	309

^(a) Filterable portion only

LNB = low NO_x burners

OFA = overfire air

III. Expedient Installation and Operation of BART

The State of Wyoming requires that PacifiCorp install new low NO_x burners with advanced OFA and a new full-scale fabric filter on Unit 1, in accordance with the Division's BART determination, and conduct the initial performance tests to demonstrate compliance as expeditiously as practicable, but no later than five years after EPA approval of the state implementation plan revision.

IV. Proper Maintenance and Operation of Control Equipment

The State of Wyoming requires that PacifiCorp follow the monitoring and recordkeeping requirements of Section 6.4 V. to ensure proper maintenance and operation of control equipment.

6.5.8 Basin Electric Power Cooperative - Laramie River Station

The Air Quality Division issued a BART permit for Basin Electric Power Cooperative - Laramie River Station on December 31, 2009 under Permit No. MD-6047. A summary of the Division's five-factor analysis performed to support the BART permit issued on December 31, 2009 is included below. The detailed five-factor analysis is included in Attachment A of this SIP.

I. The Five-Factor Analysis

After considering (1) the costs of compliance, (2) the energy and non-air quality environmental impacts of compliance, (3) any pollution equipment in use or in existence at the source, (4) the remaining useful life of the source, and (5) the degree of improvement in visibility (all five statutory factors) from each proposed control technology, the Division determined BART for NO_x and PM₁₀ emitted from the three units at the Laramie River Station.

For control of NO_x emissions, the State of Wyoming requires that Basin Electric install new LNB with OFA as BART for Units 1 through 3. Annual NO_x emission reductions from new LNB