

**ADOPTED REGULATION OF THE  
STATE ENVIRONMENTAL COMMISSION**

**LCB File No. R190-08**

Effective April 23, 2009

EXPLANATION – Matter in *italics* is new; matter in brackets ~~[omitted material]~~ is material to be omitted.

AUTHORITY: §§1-7, NRS 445B.210.

A REGULATION relating to air quality; defining the term “best available retrofit technology” for certain purposes relating to regional haze; setting the standards for emission limitation for that technology for certain sources; and providing other matters properly relating thereto.

**Section 1.** Chapter 445B of NAC is hereby amended by adding thereto the provisions set forth as sections 2, 3 and 4 of this regulation.

**Sec. 2.** *“Best available retrofit technology” means an emission limitation based on the degree of reduction achievable through the application of the best system of continuous emission reduction for each pollutant that is emitted by an existing stationary facility as defined in 40 C.F.R. § 51.301.*

**Sec. 3.** *The emission limitation for BART must be established on a case-by-case basis, taking into consideration:*

- 1. The technology available;*
- 2. The costs of compliance;*
- 3. The energy and nonair quality environmental impacts of compliance;*
- 4. Any pollution control equipment in use or in existence at the source or unit;*
- 5. The remaining useful life of the source or unit; and*

6. *The degree of improvement in visibility which may reasonably be anticipated to result from the use of such technology.*

**Sec. 4. 1.** *The sources listed below must install, operate and maintain the following control measures which constitute BART and must not emit or cause to be emitted NO<sub>x</sub>, SO<sub>2</sub>, or PM<sub>10</sub> in excess of the following limits:*

*(a) For power-generating units numbers 1 and 2 of NV Energy’s Fort Churchill Generating Station, located in hydrographic area 108:*

<i>UNIT (Boiler)</i>	<i>NO<sub>x</sub></i>		<i>SO<sub>2</sub></i>		<i>PM<sub>10</sub></i>	
	<i>Emission Limit (lb/10<sup>6</sup> Btu, 12-month rolling average)</i>	<i>Control Type</i>	<i>Emission Limit (lb/10<sup>6</sup> Btu, 24-hr average)</i>	<i>Control Type</i>	<i>Emission Limit (lb/10<sup>6</sup> Btu, 3-hr average)</i>	<i>Control Type</i>
<i>1</i>	<i>0.20</i>	<i>Low NO<sub>x</sub> burners with flue gas recirculation</i>	<i>0.05</i>	<i>Pipeline natural gas and/or No. 2 fuel oil</i>	<i>0.03</i>	<i>Pipeline natural gas and/or No. 2 fuel oil</i>
<i>2</i>	<i>0.16</i>		<i>0.05</i>		<i>0.03</i>	

*(b) For power-generating units numbers 1, 2 and 3 of NV Energy’s Tracy Generating Station, located in hydrographic area 83:*

<i>UNIT (Boiler)</i>	<i>NO<sub>x</sub></i>		<i>SO<sub>2</sub></i>		<i>PM<sub>10</sub></i>	
	<i>Emission Limit (lb/10<sup>6</sup> Btu, 12-month rolling average)</i>	<i>Control Type</i>	<i>Emission Limit (lb/10<sup>6</sup> Btu, 24-hr average)</i>	<i>Control Type</i>	<i>Emission Limit (lb/10<sup>6</sup> Btu, 3-hr average)</i>	<i>Control Type</i>
<i>1</i>	<i>0.15</i>	<i>Low NO<sub>x</sub></i>	<i>0.05</i>	<i>Pipeline natural gas and/or No. 2 fuel oil</i>	<i>0.03</i>	<i>Pipeline natural gas and/or No. 2 fuel oil</i>
<i>2</i>	<i>0.12</i>	<i>burners with flue gas recirculation</i>	<i>0.05</i>		<i>0.03</i>	
<i>3</i>	<i>0.19</i>	<i>Low NO<sub>x</sub> burners with selective noncatalytic reduction</i>	<i>0.05</i>		<i>0.03</i>	

*(c) For power-generating units numbers 1, 2 and 3 of NV Energy's Reid Gardner  
Generating Station, located in hydrographic area 218:*

<i>UNIT (Boiler)</i>	<i>NO<sub>x</sub></i>		<i>SO<sub>2</sub></i>		<i>PM<sub>10</sub></i>	
	<i>Emission Limit (lb/10<sup>6</sup> Btu, 12-month rolling average)</i>	<i>Control Type</i>	<i>Emission Limit (lb/10<sup>6</sup> Btu, 24-hr average)</i>	<i>Control Type</i>	<i>Emission Limit (lb/10<sup>6</sup> Btu, 3-hr average)</i>	<i>Control Type</i>
<i>1</i>	<i>0.20</i>	<i>Rotating</i>	<i>0.25</i>	<i>Wet soda ash flue gas desulphurization</i>	<i>0.015</i>	<i>Fabric filter</i>
<i>2</i>	<i>0.20</i>	<i>Opposed Fire</i>	<i>0.25</i>		<i>0.015</i>	
<i>3</i>	<i>0.28</i>	<i>Air with Rotamix<sup>1</sup></i>	<i>0.25</i>		<i>0.015</i>	

*(d) For power-generating units numbers 1 and 2 of Southern California Edison's Mohave Generating Station, located in hydrographic area 213:*

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<sup>1</sup> *Rotamix is a technology for adding selective noncatalytic reduction using ammonia or urea-based reagent.*

UNIT (Boiler)	NO <sub>x</sub>			SO <sub>2</sub>		PM <sub>10</sub>	
	Emission Limit (lb/10 <sup>6</sup> Btu, 12- month rolling average)	Mass Emission Rate (lb/hr, 1-hr average)	Control Type	Emission Limit (lb/10 <sup>6</sup> Btu, 30-day rolling average)	Control Type	Emission Limit (lb/10 <sup>6</sup> Btu, 3-hr average)	Control Type
1	0.15	788	Low NO <sub>x</sub> burners with over-fire air and conversion	0.0019	Conversion to pipeline natural	0.0077	Conversion to pipeline natural
2	0.15	788	to pipeline natural gas only	0.0019	gas only	0.0077	gas only

*2. The control measures established in subsection 1 may be replaced or supplemented with alternative technologies approved in advance by the Director, provided that the emission limits in subsection 1 are met. The established or approved control measures must be installed and operating:*

*(a) For NV Energy's Fort Churchill, Tracy and Reid Gardner generating stations:*

*(1) On or before January 1, 2015; or*

*(2) Not later than 5 years after approval of Nevada's state implementation plan for*

*regional haze by the United States Environmental Protection Agency Region 9,*

*↳ whichever occurs first.*

*(b) For Southern California Edison's Mohave Generating Station, at the time that each unit resumes operation.*

3. *If the ownership of any BART regulated emission unit changes, the new owner must comply with the requirements set forth in subsection 2.*

4. *For purposes of this section, emissions of PM<sub>10</sub> include the components of PM<sub>2.5</sub> as a subset.*

Sec. 5. NAC 445B.001 is hereby amended to read as follows:

445B.001 As used in NAC 445B.001 to 445B.3791, inclusive, *and sections 2, 3 and 4 of this regulation*, unless the context otherwise requires, the words and terms defined in NAC 445B.002 to 445B.211, inclusive, *and section 2 of this regulation* have the meanings ascribed to them in those sections.

Sec. 6. NAC 445B.211 is hereby amended to read as follows:

445B.211 The abbreviations used in NAC 445B.001 to 445B.3791, inclusive, *and sections 2, 3 and 4 of this regulation* have the following meanings:

~~[BACT ..... best available control technology]~~

*BART ..... Best available retrofit technology*

Btu ..... British thermal unit

C.F.R. .... Code of Federal Regulations

CO<sub>2</sub> ..... carbon dioxide

°F ..... degree Fahrenheit

Hg ..... mercury

H<sub>2</sub>S ..... hydrogen sulfide

lb ..... pound

NO ..... nitric oxide

NO <sub>x</sub> .....	nitrogen oxides
O <sub>2</sub> .....	oxygen
ppm.....	parts per million
SO <sub>2</sub> .....	sulfur dioxide
VOC .....	volatile organic compound

**Sec. 7.** NAC 445B.221 is hereby amended to read as follows:

445B.221 1. Title 40 C.F.R. §§ 51.100(s) , ~~and~~ 51.100(nn) , *and 51.301* and Appendix S of 40 C.F.R. Part 51 are hereby adopted by reference as they existed on July 1, 2007.

2. *The amendments to Appendix S of Title 40 C.F.R. Part 51 as set forth in Volume 73 of the Federal Register at pages 28321 et seq., May 16, 2008, are hereby adopted by reference.*

3. Title 40 C.F.R. § 51.165 is hereby adopted by reference as it existed on July 1, 2002.

~~3.~~ 4. Appendix W of 40 C.F.R. Part 51 is hereby adopted by reference as it existed on July 1, 2007.

~~4.~~ 5. Title 40 C.F.R. § 52.21 is hereby adopted by reference as it existed on July 1, 2007.

~~5.~~ 6. *The amendments to Title 40 C.F.R. § 52.21 as set forth in Volume 73 of the Federal Register at pages 28321 et seq., May 16, 2008, are hereby adopted by reference.*

7. Except as otherwise provided in subsection ~~6.~~ 8, the following subparts of 40 C.F.R. Part 60 are hereby adopted by reference:

(a) Subpart A, except §§ 60.4, 60.8(b)(2), 60.8(b)(3) and 60.11(e), as it existed on July 1, 2007;

(b) Section 60.21 of Subpart B, as it existed on July 1, 2006;

(c) Subparts C, Cb, Cc, Cd, Ce, D, Da, Db, Dc, E, Ea, Eb, Ec, F, G, H, I, J, K, Ka, Kb, L, M, N, Na, O, P, Q, R, S, T, U, V, W, X, Y, Z, AA, AAa, BB, CC, DD, EE, GG, HH, KK, LL, MM,

NN, PP, QQ, RR, SS, TT, UU, VV, WW, XX, BBB, DDD, FFF, GGG, HHH, III, JJJ, KKK, LLL, NNN, OOO, PPP, QQQ, RRR, SSS, TTT, UUU, VVV, WWW, AAAA, CCCC, DDDD, EEEE, FFFF, IIII and KKKK as they existed on July 1, 2007;

(d) Subpart HHHH, except §§ 60.4105(b)(2), 60.4106, 60.4120 to 60.4142, inclusive, 60.4153(a) and (b) and 60.4176, as set forth in Volume 70 of the Federal Register at pages 28606 et seq., May 18, 2005, and the amendments to Subpart HHHH as set forth in Volume 71 of the Federal Register at pages 33388 et seq., June 9, 2006; and

(e) Subpart JJJJ as set forth in Volume 73 of the Federal Register at pages 3568 et seq., January 18, 2008.

~~6.~~ **8.** The amendments to Subpart A of Title 40 C.F.R. Part 60 as set forth in Volume 73 of the Federal Register at pages 3568 et seq., January 18, 2008, are hereby adopted by reference.

~~7.~~ **9.** Appendices B and F of 40 C.F.R. Part 60 are hereby adopted by reference as they existed on July 1, 2007.

~~8.~~ **10.** Subparts A, C, D, E, F, H, I, J, K, L, N, O, P, Q, R, T, V, W, Y, BB and FF of 40 C.F.R. Part 61 are hereby adopted by reference as they existed on July 1, 2007.

~~9.~~ **11.** Except as otherwise provided in subsection ~~10.~~ **12**, the following subparts of Title 40 C.F.R. Part 63 are hereby adopted by reference:

(a) Subparts A, B, C, F, G, H, I, J, L, M, N, O, Q, R, S, T, U, W, X, Y, AA, BB, CC, DD, EE, GG, HH, II, JJ, KK, LL, MM, OO, PP, QQ, RR, SS, TT, UU, VV, WW, XX, YY, CCC, DDD, EEE, GGG, HHH, III, JJJ, LLL, MMM, NNN, OOO, PPP, QQQ, RRR, TTT, UUU, VVV, XXX, AAAA, CCCC, DDDD, EEEE, FFFF, GGGG, HHHH, IIII, JJJJ, KKKK, MMMM, NNNN, OOOO, PPPP, QQQQ, RRRR, SSSS, TTTT, UUUU, VVVV, WWWW, XXXX, YYYY, ZZZZ, AAAAA, BBBBB, CCCCC, DDDDD, EEEEE, FFFFF, GGGGG, HHHHH,

JJJJ, KKKKK, LLLLL, MMMMM, NNNNN, PPPPP, QQQQQ, SSSSS, DDDDDD, EEEEE, FFFFF and GGGGG as they existed on July 1, 2007;

(b) Subpart WWWW as set forth in Volume 72 of the Federal Register at pages 73611 et seq., December 28, 2007;

(c) Subpart YYYYY as set forth in Volume 72 of the Federal Register at pages 74088 et seq., December 28, 2007;

(d) Subpart ZZZZ as set forth in Volume 73 of the Federal Register at pages 226 et seq., January 2, 2008;

(e) Subparts LLLLLL, MMMMM, NNNNN, OOOOO, PPPPP and QQQQQ as set forth in Volume 72 of the Federal Register at pages 38864 et seq., July 16, 2007; and

(f) Subparts RRRRR, SSSSS and TTTTT as set forth in Volume 72 of the Federal Register at pages 73180 et seq., December 26, 2007.

~~10.~~ **12.** The amendments to the following subparts of Title 40 C.F.R. Part 63 are hereby adopted by reference:

(a) Subparts A and ZZZZ as set forth in Volume 73 of the Federal Register at pages 3568 et seq., January 18, 2008;

(b) Subpart DDDD as set forth in Volume 72 of the Federal Register at pages 61060 et seq., October 29, 2007;

(c) Subpart EEEEE as set forth in Volume 73 of the Federal Register at pages 7210 et seq., February 7, 2008;

(d) Subparts EEEEE and FFFFF as set forth in Volume 72 of the Federal Register at pages 36363 et seq., July 3, 2007; and

(e) Subparts LLLLLL, MMMMMM, NNNNNN, OOOOOO, PPPPPP and QQQQQQ as set forth in Volume 73 of the Federal Register at pages 15923 et seq., March 26, 2008.

~~{H1}~~ **13.** Title 40 C.F.R. Part 72 is hereby adopted by reference as it existed on July 1, 2007. If the provisions of 40 C.F.R. Part 72 conflict with or are not included in NAC 445B.001 to 445B.3791, inclusive, *and sections 2, 3 and 4 of this regulation*, the provisions of 40 C.F.R. Part 72 apply.

~~{H2}~~ **14.** Title 40 C.F.R. Part 76 is hereby adopted by reference as it existed on July 1, 2007. If the provisions of 40 C.F.R. Part 76 conflict with or are not included in NAC 445B.001 to 445B.3791, inclusive, *and sections 2, 3 and 4 of this regulation*, the provisions of 40 C.F.R. Part 76 apply.

~~{H3}~~ **15.** Title 42 of the United States Code, section 7412(b), List of Hazardous Air Pollutants, is hereby adopted by reference as it existed on October 1, 1993.

~~{H4}~~ **16.** The *Standard Industrial Classification Manual*, 1987 edition, published by the United States Office of Management and Budget, is hereby adopted by reference. A copy of the manual may be obtained, free of charge, from the United States Department of Labor at the Internet address <http://www.dol.gov>.

~~{H5}~~ **17.** A copy of the publications which contain the provisions adopted by reference in subsections 1 to ~~{H3}~~ **15**, inclusive, may be obtained from the:

(a) Division of State Library and Archives of the Department of Cultural Affairs for 10 cents per page.

(b) Government Printing Office, free of charge, at the Internet address <http://www.gpoaccess.gov/nara/index.html>.

~~{16.}~~ **18.** For the purposes of the provisions of 40 C.F.R. Parts 60, 61 and 63, adopted by reference pursuant to this section, the Director may not approve alternate or equivalent test methods or alternative standards or work practices.

~~{17.}~~ **19.** Except as otherwise provided in subsections ~~{11.}~~ **13** and ~~{12.}~~ **14**, the provisions adopted by reference in this section supersede the requirements of NAC 445B.001 to 445B.3791, inclusive, *and sections 2, 3 and 4 of this regulation* for all stationary sources subject to the provisions adopted by reference only if those requirements adopted by reference are more stringent.

~~{18.}~~ **20.** For the purposes of this section, “administrator” as used in the provisions of 40 C.F.R. Part 60, except Subpart B § 60.21 and Subpart HHHH §§ 60.4101 to 60.4105, inclusive, 60.4107 to 60.4114, inclusive, 60.4151 to 60.4173, inclusive, and 60.4175, and Parts 61 and 63, adopted *by reference* pursuant to this section, means the Director.

**NOTICE OF ADOPTION OF PROPOSED REGULATION  
LCB File No. R190-08**

The State Environmental Commission adopted regulations assigned LCB File No. R190-08 which pertain to chapter 445B of the Nevada Administrative Code.

**INFORMATIONAL STATEMENT**

**Regulation R190-08: [BART] Best Available Retrofit Technology & Emission Limitations for Major Electric Generating Units:** This regulation adds a requirement for certain electric generating units to install best available retrofit technology and comply with emission limitations for NO<sub>x</sub>, SO<sub>2</sub> and PM<sub>10</sub>. These requirements apply to NV Energy's Fort Churchill and Tracy Generating Stations in the Mason Valley and the Truckee River Basins, respectively; as well as NV Energy's Reid Gardner Generating Station in the California Wash northeast of Las Vegas; and Southern California Edison's Mohave Generating Station near Laughlin. The regulation is necessary to comply with the federal Regional Haze Regulations promulgated in July 1999 (64FR35714). The regulation also updates NAC 445B.221, NDEP's provisions that adopt federal regulations by reference.

**1. A description of how public comment was solicited, a summary of public response and an explanation of how other interested persons may obtain a copy of the summary.** The Nevada Division of Environmental Protection (NDEP), Bureaus of Air Pollution Control and Air Quality Planning worked closely with the affected power industry to develop the regulation. Federal Land Management agencies reviewed and commented on the regulation, and their comments were taken into account. NDEP held a public workshop for this regulation at the location noted below.

**CARSON CITY**

October 21, 2008 9:00 AM to 1:00 PM  
State Legislative Building  
401 S. Carson Street (at 5th St.)  
Room 3143

Following this workshop, the State Environmental Commission (SEC) held a public hearing to consider the regulation on February 11, 2009. The hearing was conducted as a video conference in Carson City and Las Vegas. The hearing location in Carson City was the Bryan Building located at 901 South Stewart Street. In Las Vegas the hearing location was at the offices of the Nevada Division of Environmental Protection, 2030 E. Flamingo Rd. Suite 230. The SEC hearing agenda was posted at the meeting locations, at the State Library in Carson City, at the Offices of the Division of Environmental Protection in Carson City and Las Vegas and at the Department of Wildlife in Reno. Copies of the agenda, the public notice, and the proposed regulation were also made available to all public libraries throughout the state as well as to individuals on the SEC electronic and ground-based mailing lists.

The public notice for the regulation was published on Monday January 26, 2009, and on February 2nd and February 9<sup>th</sup> 2009 in the Las Vegas Review Journal and Reno Gazette Journal newspapers. Information about the regulation was also made available on the SEC website at: [http://sec.nv.gov/main/hearing\\_021109.htm](http://sec.nv.gov/main/hearing_021109.htm)

**2. The number persons who attended the SEC Regulatory Hearing:**

- (a) Attended February 11, 2009 hearing; 30 (approx.)
- (b) Testified on this Petition at the hearing: 1 (NDEP Staff)
- (c) Submitted to the agency written comments: 1 (support letter from NV Energy)

**3. A description of how comment was solicited from affected businesses, a summary of their response, and an explanation of how other interested persons may obtain a copy of the summary.**

Comments were solicited from affected businesses and responded to through e-mail and telephone exchanges, working meetings and the public workshop indicated in number 1 above.

**4. If the regulation was adopted without changing any part of the proposed regulation, a summary of the reasons for adopting the regulation without change.**

The LCB draft of the regulation was amended by the agency. The amended draft of the regulation was posted on the SEC web site during the public participation process. The SEC adopted the amended draft of the regulation without any changes.

**5. The estimated economic effect of the adopted regulation on the business which it is to regulate and on the public.**

In some cases, the BART regulation will require the regulated industry to install new control technologies, upgrade existing controls and/or switch to a different fuel. In other cases, BART is the same as what is required under existing permit conditions, and so the regulation will impose no additional cost. The proposed regulation will have no economic effect on the public, unless the regulated industry chooses to pass cost along to the consumer.

**6. The estimated cost to the agency for enforcement of the adopted regulation.**

There will be no additional cost to the agency for enforcement of the proposed regulation.

**7. A description of any regulations of other state or government agencies which the proposed regulation overlaps or duplicates and a statement explaining why the duplication or overlapping is necessary. If the regulation overlaps or duplicates a federal regulation, the name of the regulating federal agency.**

The regulation does not overlap or duplicate any regulations of other state or government agencies. The proposed amendments to NAC 445B.221 adopt federal regulations by reference.

**8. If the regulation includes provisions which are more stringent than a federal regulation, which regulates the same activity, a summary of such provisions.**

The regulation is not more stringent than any local or federal laws and regulations.

**9. If the regulation provides a new fee or increases an existing fee, the total annual amount the agency expects to collect and the manner in which the money will be used.**

The proposed regulation does not address any fees.