

# RGGS control scenario names used by CH2MHill for Nevada Energy in BART analysis

CALPUFF modeling files modeling file title lines		Emissions spreadsheet 1 rg-emissions-data.xls		Emissions spreadsheet 2 rg-emissions-data-2.xls		BART Reports Table 5-4 (p.5-5; pdf.42)	
scen	run title	Scenario	Control	Scenario	Control	Scenario	Controls
rg-rm	RMC Baseline	RMC	(none?)	RMC	(none?)		
rg-00	RMC Baseline			Baseline	(base LNB w/OFA)	Base	(base LNB w/OFA)
rg-01	BART Baseline	Baseline	(base LNB w/OFA)	Baseline	(base LNB w/OFA)	1	LNB w/OFA
rg-02	BART Scenario 1	Scenario 1	LNB w/OFA	Scenario 1	LNB w/OFA	2	LNB w/OFA and SNCR
rg-03	BART Scenario 2	Scenario 2	ROFA w/Rotamix	Scenario 2	ROFA w/Rotamix	3	ROFA w/Rotamix
rg-04	BART Scenario 3 and 5	Scenario 3	ROFA w/SCR	Scenario 3	ROFA w/SCR	4	ROFA w/SCR
rg-05	BART Scenario 4 and 6	Scenario 4	LNB w/OFA & SNCR	Scenario 4	LNB w/OFA & SNCR	5	LNB w/OFA and SCR
rg-10	"RMC Baseline"	Scenario 5	LNB w/OFA & SCR	Scenario 5	LNB w/OFA & SCR		
rg-20	"RMC Baseline"	Scenario 6	ROFA	Scenario 6	ROFA		
rg-30	"RMC Baseline"	Scenario 7	Presumptive				
				Scenario 10	WRAP Baseline		(2008 Update)
				Scenario 20	Title V Permit Limit		(2008 Update)
				Scenario 30	SPR BART Limit		(2008 Update)

CALPUFF input files labelled "rg-rm" ("RMC") were identical to those labelled "rg-00" ("Baseline")

"RMC" is the Western Regional Air Partnership (WRAP) Regional Modeling Center

"BART Reports" are the CH2MHill BART Analysis reports, such as "Reid\_Gardner\_1\_10-03-08.pdf"

The reports are available at: <http://ndep.nv.gov/baqp/planmodeling/rhaze.html>

# Reid Gardner G.S. Visibility Impacts as Modeled by CH2MHill in 2008

## Unit 1

## 98th percentile delta deciviews

Area	mod scen	re- port	Scenario	NOx lb/MMbtu	2001	2002	2003	avg	multi- year	Redn rel. to WRAP	Redn rel. to Base B
Bryce Canyon	20	TitleV	Title V	0.460	0.17	0.13	0.17	0.16	0.15		
	00	WRAP	WRAP	0.591	0.14	0.09	0.14	0.12	0.12		
	01	B	Baseline LNB+OFA	0.381	0.06	0.03	0.06	0.05	0.06	-0.07	
	02	1	LNB+OFA Enh.	0.300	0.05	0.03	0.05	0.04	0.05	-0.08	-0.01
	05	2	ROFA / SNCR+LNB+OFA	0.225	0.04	0.02	0.04	0.03	0.04	-0.09	-0.02
	03	3	ROFA+Rotamix	0.161	0.03	0.02	0.03	0.03	0.03	-0.10	-0.03
	04	4,5	SCR+LNB+OFA / SCR+ROFA	0.070	0.02	0.01	0.02	0.02	0.02	-0.11	-0.04
Grand Canyon	20	TitleV	Title V	0.460	0.87	0.91	1.05	0.94	0.92		
	00	WRAP	WRAP	0.591	0.80	0.73	0.91	0.81	0.81		
	01	B	Baseline LNB+OFA	0.381	0.43	0.41	0.52	0.46	0.45	-0.36	
	02	1	LNB+OFA Enh.	0.300	0.35	0.34	0.43	0.37	0.36	-0.44	-0.08
	05	2	ROFA / SNCR+LNB+OFA	0.225	0.27	0.26	0.34	0.29	0.29	-0.52	-0.16
	03	3	ROFA+Rotamix	0.161	0.20	0.20	0.26	0.22	0.22	-0.59	-0.23
	04	4,5	SCR+LNB+OFA / SCR+ROFA	0.070	0.11	0.11	0.14	0.12	0.12	-0.70	-0.33
Joshua Tree	20	TitleV	Title V	0.460	0.52	0.41	0.30	0.41	0.41		
	00	WRAP	WRAP	0.591	0.42	0.30	0.21	0.31	0.30		
	01	B	Baseline LNB+OFA	0.381	0.17	0.14	0.09	0.13	0.14	-0.18	
	02	1	LNB+OFA Enh.	0.300	0.14	0.11	0.07	0.11	0.11	-0.20	-0.03
	05	2	ROFA / SNCR+LNB+OFA	0.225	0.11	0.09	0.05	0.09	0.09	-0.22	-0.05
	03	3	ROFA+Rotamix	0.161	0.09	0.07	0.04	0.07	0.07	-0.24	-0.07
	04	4,5	SCR+LNB+OFA / SCR+ROFA	0.070	0.06	0.04	0.03	0.04	0.04	-0.27	-0.10
Sycamore Canyon	20	TitleV	Title V	0.460	0.07	0.07	0.11	0.08	0.08		
	00	WRAP	WRAP	0.591	0.05	0.06	0.08	0.06	0.06		
	01	B	Baseline LNB+OFA	0.381	0.02	0.02	0.02	0.02	0.02	-0.04	
	02	1	LNB+OFA Enh.	0.300	0.02	0.02	0.02	0.02	0.02	-0.04	-0.01
	05	2	ROFA / SNCR+LNB+OFA	0.225	0.01	0.02	0.02	0.02	0.02	-0.05	-0.01
	03	3	ROFA+Rotamix	0.161	0.01	0.01	0.02	0.01	0.01	-0.05	-0.01
	04	4,5	SCR+LNB+OFA / SCR+ROFA	0.070	0.01	0.01	0.01	0.01	0.01	-0.05	-0.02
Zion NP	20	TitleV	Title V	0.460	0.24	0.21	0.31	0.26	0.25		
	00	WRAP	WRAP	0.591	0.18	0.15	0.27	0.20	0.19		
	01	B	Baseline LNB+OFA	0.381	0.09	0.07	0.12	0.09	0.09	-0.11	
	02	1	LNB+OFA Enh.	0.300	0.07	0.06	0.10	0.08	0.08	-0.12	-0.02
	05	2	ROFA / SNCR+LNB+OFA	0.225	0.06	0.04	0.08	0.06	0.06	-0.14	-0.03
	03	3	ROFA+Rotamix	0.161	0.04	0.03	0.06	0.05	0.05	-0.15	-0.04
	04	4,5	SCR+LNB+OFA / SCR+ROFA	0.070	0.03	0.02	0.04	0.03	0.03	-0.17	-0.07

avg = average of p98 from each 2001-2003; multiyear=p98 from all three years considered together

"mod scen" = scenario number used in CH2MHill CALPUFF modeling files

"report" = scenario code or short name used in CH2MHill BART Analysis report, tables 5-3 and 5-4

# Reid Gardner G.S. Visibility Impacts as Modeled by CH2MHill in 2008

## Unit 2

## 98th percentile delta deciviews

Area	mod scen	re- port	Scenario	NOx lb/MMbtu	2001	2002	2003	avg	multi- year	Redn rel. to WRAP	Redn rel. to Base B
Bryce Canyon	20	TitleV	Title V	0.460	0.18	0.13	0.16	0.15	0.15		
	00	WRAP	WRAP	0.635	0.13	0.08	0.13	0.12	0.12		
	01	B	Baseline LNB+OFA	0.393	0.06	0.03	0.06	0.05	0.06	-0.06	
	02	1	LNB+OFA Enh.	0.300	0.05	0.03	0.05	0.04	0.05	-0.07	-0.01
	05	2	ROFA / SNCR+LNB+OFA	0.225	0.04	0.02	0.04	0.03	0.04	-0.08	-0.02
	03	3	ROFA+Rotamix	0.161	0.03		0.03	0.03	0.03	-0.09	-0.03
	04	4,5	SCR+LNB+OFA / SCR+ROFA	0.070	0.02	0.01	0.02	0.02	0.02	-0.10	-0.04
Grand Canyon	20	TitleV	Title V	0.460	0.83	1.05	1.01	0.96	0.94		
	00	WRAP	WRAP	0.635	0.76	0.75	0.89	0.80	0.82		
	01	B	Baseline LNB+OFA	0.393	0.43	0.43	0.50	0.45	0.46	-0.35	
	02	1	LNB+OFA Enh.	0.300	0.34	0.36	0.40	0.36	0.36	-0.44	-0.09
	05	2	ROFA / SNCR+LNB+OFA	0.225	0.26	0.30	0.31	0.29	0.29	-0.51	-0.17
	03	3	ROFA+Rotamix	0.161	0.20		0.24	0.22	0.21	-0.58	-0.25
	04	4,5	SCR+LNB+OFA / SCR+ROFA	0.070	0.11	0.14	0.13	0.13	0.11	-0.67	-0.35
Joshua Tree	20	TitleV	Title V	0.460	0.52	0.43	0.31	0.42	0.42		
	00	WRAP	WRAP	0.635	0.38	0.31	0.20	0.30	0.31		
	01	B	Baseline LNB+OFA	0.393	0.17	0.15	0.09	0.14	0.15	-0.16	
	02	1	LNB+OFA Enh.	0.300	0.13	0.12	0.07	0.11	0.12	-0.19	-0.03
	05	2	ROFA / SNCR+LNB+OFA	0.225	0.11	0.10	0.06	0.09	0.10	-0.21	-0.05
	03	3	ROFA+Rotamix	0.161	0.09		0.04	0.07	0.08	-0.23	-0.07
	04	4,5	SCR+LNB+OFA / SCR+ROFA	0.070	0.06	0.04	0.03	0.04	0.04	-0.25	-0.10
Sycamore Canyon	20	TitleV	Title V	0.460	0.07	0.07	0.11	0.08	0.08		
	00	WRAP	WRAP	0.635	0.05	0.06	0.08	0.06	0.06		
	01	B	Baseline LNB+OFA	0.393	0.02	0.02	0.03	0.02	0.02	-0.04	
	02	1	LNB+OFA Enh.	0.300	0.02	0.02	0.02	0.02	0.02	-0.04	-0.01
	05	2	ROFA / SNCR+LNB+OFA	0.225	0.01	0.02	0.02	0.02	0.02	-0.04	-0.01
	03	3	ROFA+Rotamix	0.161	0.01		0.02	0.01	0.01	-0.05	-0.01
	04	4,5	SCR+LNB+OFA / SCR+ROFA	0.070	0.01	0.01	0.01	0.01	0.01	-0.05	-0.02
Zion NP	20	TitleV	Title V	0.460	0.24	0.21	0.32	0.26	0.24		
	00	WRAP	WRAP	0.635	0.20	0.16	0.28	0.21	0.20		
	01	B	Baseline LNB+OFA	0.393	0.09	0.07	0.13	0.10	0.10	-0.12	
	02	1	LNB+OFA Enh.	0.300	0.07	0.06	0.11	0.08	0.08	-0.14	-0.02
	05	2	ROFA / SNCR+LNB+OFA	0.225	0.06	0.04	0.08	0.06	0.06	-0.15	-0.04
	03	3	ROFA+Rotamix	0.161	0.05		0.07	0.06	0.05	-0.16	-0.05
	04	4,5	SCR+LNB+OFA / SCR+ROFA	0.070	0.03	0.02	0.04	0.03	0.03	-0.19	-0.07

avg = average of p98 from each 2001-2003; multiyear=p98 from all three years considered together

"mod scen" = scenario number used in CH2MHill CALPUFF modeling files

"report" = scenario code or short name used in CH2MHill BART Analysis report, tables 5-3 and 5-4

# Reid Gardner G.S. Visibility Impacts as Modeled by CH2MHill in 2008

## Unit 3

## 98th percentile delta deciviews

Area	mod scen	re- port	Scenario	NOx lb/MMbtu	2001	2002	2003	avg	multi- year	Redn rel. to WRAP	Redn rel. to Base B
Bryce Canyon	20	TitleV	Title V	0.460	0.16	0.12	0.18	0.15	0.15		
	00	WRAP	WRAP	0.592	0.14	0.08	0.15	0.12	0.12		
	01	B	Baseline LNB+OFA	0.321	0.05	0.03	0.06	0.05	0.05	-0.08	
	02	1	LNB+OFA Enh.	0.300	0.05	0.03	0.06	0.04	0.05	-0.08	0.00
	05	2	ROFA / SNCR+LNB+OFA	0.225	0.04	0.02	0.04	0.03	0.04	-0.09	-0.01
	03	3	ROFA+Rotamix	0.198	0.03	0.02	0.04	0.03	0.03	-0.09	-0.02
	04	4,5	SCR+LNB+OFA / SCR+ROFA	0.070	0.02	0.01	0.02	0.02	0.02	-0.11	-0.03
Grand Canyon	20	TitleV	Title V	0.460	0.70	0.82	0.87	0.79	0.79		
	00	WRAP	WRAP	0.592	0.68	0.84	0.77	0.76	0.76		
	01	B	Baseline LNB+OFA	0.321	0.34	0.42	0.34	0.36	0.36	-0.40	
	02	1	LNB+OFA Enh.	0.300	0.32	0.39	0.32	0.34	0.34	-0.42	-0.02
	05	2	ROFA / SNCR+LNB+OFA	0.225	0.24	0.30	0.25	0.27	0.26	-0.49	-0.10
	03	3	ROFA+Rotamix	0.198	0.22	0.27	0.23	0.24	0.23	-0.52	-0.13
	04	4,5	SCR+LNB+OFA / SCR+ROFA	0.070	0.10	0.12	0.11	0.11	0.11	-0.65	-0.25
Joshua Tree	20	TitleV	Title V	0.460	0.50	0.41	0.30	0.40	0.39		
	00	WRAP	WRAP	0.592	0.36	0.32	0.22	0.30	0.32		
	01	B	Baseline LNB+OFA	0.321	0.14	0.13	0.08	0.12	0.12	-0.18	
	02	1	LNB+OFA Enh.	0.300	0.13	0.13	0.07	0.11	0.12	-0.19	-0.01
	05	2	ROFA / SNCR+LNB+OFA	0.225	0.10	0.10	0.06	0.09	0.09	-0.21	-0.03
	03	3	ROFA+Rotamix	0.198	0.09	0.09	0.05	0.08	0.08	-0.22	-0.04
	04	4,5	SCR+LNB+OFA / SCR+ROFA	0.070	0.05	0.05	0.03	0.04	0.05	-0.25	-0.08
Sycamore Canyon	20	TitleV	Title V	0.460	0.07	0.08	0.11	0.08	0.08		
	00	WRAP	WRAP	0.592	0.05	0.07	0.08	0.07	0.06		
	01	B	Baseline LNB+OFA	0.321	0.02	0.02	0.03	0.02	0.02	-0.04	
	02	1	LNB+OFA Enh.	0.300	0.02	0.02	0.03	0.02	0.02	-0.05	0.00
	05	2	ROFA / SNCR+LNB+OFA	0.225	0.01	0.02	0.02	0.02	0.02	-0.05	-0.01
	03	3	ROFA+Rotamix	0.198	0.01	0.02	0.02	0.02	0.02	-0.05	0.00
	04	4,5	SCR+LNB+OFA / SCR+ROFA	0.070	0.01	0.01	0.01	0.01	0.01	-0.06	-0.01
Zion NP	20	TitleV	Title V	0.460	0.23	0.20	0.31	0.25	0.23		
	00	WRAP	WRAP	0.592	0.20	0.15	0.27	0.21	0.20		
	01	B	Baseline LNB+OFA	0.321	0.08	0.06	0.11	0.08	0.09	-0.12	
	02	1	LNB+OFA Enh.	0.300	0.07	0.06	0.10	0.08	0.09	-0.13	-0.01
	05	2	ROFA / SNCR+LNB+OFA	0.225	0.06	0.05	0.08	0.06	0.07	-0.15	-0.03
	03	3	ROFA+Rotamix	0.198	0.05	0.04	0.07	0.06	0.06	-0.15	-0.03
	04	4,5	SCR+LNB+OFA / SCR+ROFA	0.070	0.03	0.02	0.04	0.03	0.03	-0.18	-0.06

avg = average of p98 from each 2001-2003; multiyear=p98 from all three years considered together

"mod scen" = scenario number used in CH2MHill CALPUFF modeling files

"report" = scenario code or short name used in CH2MHill BART Analysis report, tables 5-3 and 5-4