APPENDIX A

INDIANA ELECTRIC GENERATING UNITS
WITH
EXISTING AND PROJECTED CONTROLS

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INDIANA ELECTRIC GENERATING UNITS

Source Name	County ID	Source ID	Unit ID	Existing PM Control	Projected Retrofit/Construction	Existing SO2 Control	Projected Retrofit/Construction	Existing NOx Control	Projected Retrofit/Construction	Existing Hg Control	Projected Retrofit/Construction	Existing Control(s)	Retrofit by 2012	Retrofit by 2018
A B Brown	129	00010	1	Baghouse		Dual Alkali FGD		Selective Catalytic Reduction			Bromide Hg Control-	B+FGD+SCR		Bromide Hg Control
			2	Cold-side Electrostatic Precipitator	1 year MATS ext.	Dual Alkali FGD	1 year MATS ext.	Selective Catalytic Reduction	1 year MATS ext.		Bromide Hg Control-1 year MATS ext.	ESP+FGD+SCR		Bromide Hg Control
Alcoa	173	00002	1*	Hot-side Electrostatic Precipitator		Wet Limestone FGD		Low NOx Burner Technology w/ Overfire Air				ESP+LNB w/SOFA+FGD		
			2*	Hot-side Electrostatic Precipitator		Wet Limestone FGD		Low NOx Burner Technology w/ Overfire Air				ESP+LNB w/SOFA+FGD		
			3*	Hot-side Electrostatic Precipitator		Wet Limestone FGD		Low NOx Burner Technology w/ Overfire Air				ESP+LNB w/SOFA+FGD		
			4	Cold-side Electrostatic Precipitator		Wet Limestone FGD		Low NOx Cell Burner Selective Catalytic Reduction				ESP+FGD+SCR		
Bailly	127	00002	7	Cold-side Electrostatic Precipitator		Wet Limestone		Overfire Air / Selective Catalytic Reduction (2008)			ACI	ESP+FGD+SCR		ACI
			8	Cold-side Electrostatic Precipitator		Wet Limestone		Overfire Air / Selective Catalytic Reduction			ACI	ESP+FGD+SCR		ACI
Cayuga	165	00001	1	Cold-side Electrostatic Precipitator		Wet Limestone	Dry Sorbent Injection System and Activated Carbon Injection System installed in 2015	Low NOx Burner Technology w/ Separated OFA	Selective Catalytic Reduction installed in 2015		Hg Re-Emission Chem.+Hg Trim Tech.	ESP+FGD+LNB w/SOFA		SCR, Hg Re-Emission Chem. and Hg Trim Tech.
			2	Cold-side Electrostatic Precipitator	1 year MATS ext.	Wet Limestone	Dry Sorbent Injection System and Activated Carbon Injection System scheduled to be installed by 2015-1 year MATS ext.	Low NOx Burner Technology w/ Separated OFA	Selective Catalytic Reduction scheduled to be installed by 2015-1 year MATS ext.		Hg Re-Emission Chemical Additive+Hg Trim Technology-1 year MATS ext.	ESP+FGD+LNB w/SOFA		SCR, Hg Re-Emission Chem. and Hg Trim Tech.
			4**	Shut Down and removed from permit in 2009		Shut Down and removed from permit in 2009		Shut Down and removed from permit in 2009		Shut Down and removed from permit in 2009			Shut Down 2009	
Clifty Creek	077	00001	1	Cold-side Electrostatic Precipitator			FGD installation completed in 2014	Overfire Air Selective Catalytic Reduction				ESP+SCR		FGD
			2	Cold-side Electrostatic Precipitator			FGD installation completed in 2014	Overfire Air Selective Catalytic Reduction				ESP+SCR		FGD
			3	Cold-side Electrostatic Precipitator			FGD installation completed in 2014	Overfire Air Selective Catalytic Reduction				ESP+SCR		FGD
			4	Cold-side Electrostatic Precipitator			FGD installation completed in 2014	Overfire Air Selective Catalytic Reduction				ESP+SCR		FGD
			5	Cold-side Electrostatic Precipitator			FGD installation completed in 2014	Overfire Air Selective Catalytic Reduction				ESP+SCR		FGD
			6	Hot-side Electrostatic Precipitator			FGD installation completed in 2014	Overfire Air				ESP		FGD
Dean H Mitchell	089	00117	11	Shut Down 2010	Units 4, 5, 6 & 11 retired in 2010-New Combustion Turbine (natural gas only), Boiler Id 9A, startup in 2012	Shut Down 2010	Units 4, 5, 6 & 11 retired in 2010-New Combustion Turbine (natural gas only), Boiler Id 9A, startup in 2012	Shut Down 2010	Units 4, 5, 6 & 11 retired in 2010-New Combustion Turbine (natural gas only), Boiler Id 9A, startup in 2012	Shut Down 2010	Units 4, 5, 6 & 11 retired in 2010-New Combustion Turbine (natural gas only), Boiler Id 9A, startup in 2012		Shut Down 2010	
			4	Shut Down 2010		Shut Down 2010		Shut Down 2010		Shut Down 2010			Shut Down 2010	
			5	Shut Down 2010		Shut Down 2010		Shut Down 2010		Shut Down 2010			Shut Down 2010	
			6	Shut Down 2010		Shut Down 2010		Shut Down 2010		Shut Down 2010			Shut Down 2010	

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Edwardsport	083	00003	6-1**	Shut Down 2012	Units 6-1, 7-1, 7-2, & 8-1 retired in 2011-New Integrated Gasification Combined Cycle Electric Generating Plant - 2 Combustion Turbines (natural gas or syngas), Boiler Ids - CTHRSG1 and CTHRSG2	Shut Down 2012	Units 6-1, 7-1, 7-2, & 8-1 retired in 2011-New Integrated Gasification Combined Cycle Electric Generating Plant - 2 Combustion Turbines (natural gas or syngas), Boiler Ids - CTHRSG1 and CTHRSG2	Shut Down 2012	Units 6-1, 7-1, 7-2, & 8-1 retired in 2011-New Integrated Gasification Combined Cycle Electric Generating Plant - 2 Combustion Turbines (natural gas or syngas), Boiler Ids - CTHRSG1 and CTHRSG2	Shut Down 2012	Units 6-1, 7-1, 7-2, & 8-1 retired in 2011-New Integrated Gasification Combined Cycle Electric Generating Plant - 2 Combustion Turbines (natural gas or syngas), Boiler Ids - CTHRSG1 and CTHRSG2		Shut Down 2012	
			7-1	Shut Down 2012		Shut Down 2012		Shut Down 2012		Shut Down 2012			Shut Down 2012	
			7-2	Shut Down 2012		Shut Down 2012		Shut Down 2012		Shut Down 2012			Shut Down 2012	
			8-1	Shut Down 2012		Shut Down 2012		Shut Down 2012		Shut Down 2012			Shut Down 2012	
F B Culley	173	00001	1**	Shut Down 2007		Shut Down 2007		Shut Down 2007		Shut Down 2007			2007	
			2	Baghouse		Wet Limestone		Low NOx Burner Technology (Dry Bottom only) Selective Catalytic Reduction			Bromide Hg Control	B+FGD+SCR		Bromide Hg Control
			3	Baghouse		Wet Limestone		Low NOx Burner Technology (Dry Bottom only) Selective Catalytic Reduction			Bromide Hg Control	B+FGD+SCR		Bromide Hg Control
Frank E Ratts	125	00001	1SG1	Cold-side Electrostatic Precipitator	Shut Down 2015-1 year MATS ext.		Shut Down 2015-1 year MATS ext.	SNCR/Low NOx Burner Technology (Dry Bottom only)	Shut Down 2015-1 year MATS ext.		Shut Down 2015-1 year MATS ext.	ESP+LNB		Shut Down 2015
			2SG1	Cold-side Electrostatic Precipitator				SNCR/Low NOx Burner Technology (Dry Bottom only)				ESP+LNB		Shut Down 2015
Gibson	051	00013	1	Cold-side Electrostatic Precipitator		Wet Limestone		Low NOx Burner Technology w/ Overfire Air Selective Catalytic Reduction			Hg Re-Emission Chemical and Fuel Additive	ESP+FGD+SCR		Hg Re-Emission Chem.+Fuel Add.
			2	Cold-side Electrostatic Precipitator		Wet Limestone		Low NOx Burner Technology w/ Overfire Air Selective Catalytic Reduction			Hg Re-Emission Chemical and Fuel Additive	ESP+FGD+SCR		Hg Re-Emission Chem.+Fuel Add.
			3	Cold-side Electrostatic Precipitator	ESP Upgrade-6 month MATS ext.	Wet Limestone	6 month MATS ext.	Low NOx Burner Technology w/ Overfire Air Selective Catalytic Reduction	6 month MATS ext.		HG Re-Emission Chemical and Fuel Additive-6 month MATS ext.	ESP+FGD+SCR		ESP Upgrade, Hg Re-Emission Chem. and Fuel Add.
			4	Cold-side Electrostatic Precipitator	ESP Upgrade	Wet Limestone		Low NOx Burner Technology w/ Overfire Air Selective Catalytic Reduction			Fuel Additive	ESP+FGD+SCR		ESP Upgrade, Hg Re-Emission Chem. and Fuel Add.
			5	Cold-side Electrostatic Precipitator	1 year MATS ext.	Wet Limestone	1 year MATS ext.	Low NOx Burner Technology w/ Overfire Air Selective Catalytic Reduction	1 year MATS ext.		HG Re-Emission Chemical and Fuel Additive-1 year MATS ext.	ESP+FGD+SCR		Hg Re-Emission Chem.+Fuel Add.
Harding Street	097	00033	50	Cold-side Electrostatic Precipitator	Convert to Natural Gas-1 year MATS ext.		Convert to Natural Gas-1 year MATS ext.	Low NOx Burner Technology w/ Separated OFA Selective Non-catalytic Reduction	Convert to Natural-1 year MATS ext.		Convert to Natural Gas-1 year MATS ext.	ESP+SNCR		Convert to Natural
			60	Cold-side Electrostatic Precipitator	Convert to Natural Gas-1 year MATS ext.		Convert to Natural Gas-1 year MATS ext.	Low NOx Burner Technology w/ Separated OFA Selective Non-catalytic Reduction	Convert to Natural-1 year MATS ext.		Convert to Natural Gas-1 year MATS ext.	ESP+SNCR		Convert to Natural
			70	Cold-side Electrostatic Precipitator	Convert to Natural Gas-1 year MATS ext.	Wet Limestone	Convert to Natural Gas-1 year MATS ext.	Low NOx Burner Technology w/ Closed-coupled/Separated OFA Selective Catalytic Reduction	Convert to Natural-1 year MATS ext.		Convert to Natural Gas-1 year MATS ext.	ESP+FGD+SCR		Convert to Natural

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IPL Eagle Valley	109	4	3	Cold-side Electrostatic Precipitator	Replaced 4 coal-fired units with 2 natural gas-fired combined cycle systems/1 year MATS ext.		Replaced 4 coal-fired units with 2 natural gas-fired combined cycle systems/1 year MATS ext.		Replaced 4 coal-fired units with 2 natural gas-fired combined cycle systems/1 year MATS ext.		Replaced 4 coal-fired units with 2 natural gas-fired combined cycle systems/1 year MATS ext.	ESP	Shut Down 2015	
			4	Cold-side Electrostatic Precipitator	Replaced 4 coal-fired units with 2 natural gas-fired combined cycle systems/1 year MATS ext.		Replaced 4 coal-fired units with 2 natural gas-fired combined cycle systems/1 year MATS ext.	Low NOx Burner Technology w/ Separated OFA	Replaced 4 coal-fired units with 2 natural gas-fired combined cycle systems/1 year MATS ext.		Replaced 4 coal-fired units with 2 natural gas-fired combined cycle systems/1 year MATS ext.	ESP+LNB w/SOFA	Shut Down 2015	
			5	Cold-side Electrostatic Precipitator	Replaced 4 coal-fired units with 2 natural gas-fired combined cycle systems/1 year MATS ext.		Replaced 4 coal-fired units with 2 natural gas-fired combined cycle systems/1 year MATS ext.	Low NOx Burner Technology w/ Separated OFA	Replaced 4 coal-fired units with 2 natural gas-fired combined cycle systems/1 year MATS ext.		Replaced 4 coal-fired units with 2 natural gas-fired combined cycle systems/1 year MATS ext.	ESP+LNB w/SOFA	Shut Down 2015	
			6	Cold-side Electrostatic Precipitator	Replaced 4 coal-fired units with 2 natural gas-fired combined cycle systems/1 year MATS ext.		Replaced 4 coal-fired units with 2 natural gas-fired combined cycle systems/1 year MATS ext.	Low NOx Burner Technology w/ Separated OFA	Replaced 4 coal-fired units with 2 natural gas-fired combined cycle systems/1 year MATS ext.		Replaced 4 coal-fired units with 2 natural gas-fired combined cycle systems/1 year MATS ext.	ESP+LNB w/SOFA	Shut Down 2015	
Merom	153	00005	1SG1	Cold-side Electrostatic Precipitator		Wet Limestone	Redesign FGD	Selective Catalytic Reduction Low NOx Burner Technology w/ Overfire Air			ACI	ESP+FGD+SCR		Redesign FGD and ACI
			2SG1	Cold-side Electrostatic Precipitator		Wet Limestone	Redesign FGD	Selective Catalytic Reduction Low NOx Burner Technology w/ Overfire Air			ACI	ESP+FGD+SCR		Redesign FGD and ACI
Michigan City	091	00021	12	Cold-side Electrostatic Precipitator	Baghouse-1 year ext.		Wet Limestone FGD completed 2015/1 year MATS ext.	Overfire Air - Selective Catalytic Reduction	1 year ext.		ACI and Fuel Additives-1 year ext.	ESP+SCR		Baghouse, FGD, ACI and Fuel Additives
Petersburg	125	00002	1	Cold-side Electrostatic Precipitator	ESP Upgrade	Wet Limestone	Bypass Scrubber Upgrade installed in 2014	Low NOx Burner Technology w/ Closed-coupled/Separated OFA			ACI installed in 2014	ESP+FGD+LNB	Upgrade ESP+Upgrade FGD+ACI	
			2	Cold-side Electrostatic Precipitator	ESP Replaced with Baghouse in 2014	Wet Limestone	Bypass Scrubber Upgrade	Low NOx Burner Technology w/ Closed-coupled/Separated OFA Selective Catalytic Reduction			ACI installed in 2014	ESP+FGD+SCR	B+Upgrade FGD+ACI	
			3	Cold-side Electrostatic Precipitator	ESP to be Replaced with Baghouse in 2015-1 year MATS ext.	Wet Limestone	1 year MATS ext.	Selective Catalytic Reduction Low NOx Burner Technology w/ Closed-coupled OFA	1 year MATS ext.		ACI installed in 2014-1 year MATS ext.	ESP+FGD+SCR		Baghouse and ACI
			4	Cold-side Electrostatic Precipitator	ESP Upgrade-1 year MATS ext.	Wet Limestone		Low NOx Burner Technology w/ Closed-coupled OFA			ACI installed in 2014-1 year MATS ext.	ESP+FGD+LNB		Upgrade ESP and ACI

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R Gallagher	043	00004	1	Retired in 2012		Retired in 2012		Retired in 2012		Retired in 2012			Shut Down in 2012	
			2	Baghouse			Dry Sorbent Injection System installed 2011	Low NOx Burner Technology w/ Overfire Air				B+LNB	DSI	
			3	Retired in 2012		Retired in 2012		Retired in 2012		Retired in 2012			Shut Down in 2012	
			4	Baghouse			Dry Sorbent Injection System installed 2011	Low NOx Burner Technology w/ Overfire Air				B+LNB	DSI	
R M Schahfer	073	00008	14	Cold-side Electrostatic Precipitator	1 year ext.		FGD and DSI to be installed by 2016-1 year MATS ext.	Overfire Air Selective Catalytic Reduction	1 year ext.		ACI-1 year MATS ext.	ESP+SCR		FGD, DSI and ACI
			15	Cold-side Electrostatic Precipitator	1 year ext.		FGD and DSI to be installed by 2016-1 year MATS ext.	Low NOx Burner Technology (Dry Bottom only) A 35% efficient stratified overfire air system was added in 2008	SNCR to be installed by 2013-1 year MATS ext.		ACI-1 year MATS ext.	ESP+LNB		FGD, DSI, SNCR and ACI
			17	Cold-side Electrostatic Precipitator		Wet Limestone		Low NOx Burner Technology w/ Closed-coupled/Separated OFA				ESP+FGD+LNB		
			18	Cold-side Electrostatic Precipitator		Wet Limestone		Low NOx Burner Technology w/ Closed-coupled/Separated OFA				ESP+FGD+LNB		
Rockport	147	00020	MB1	Cold-side Electrostatic Precipitator			DSI to be intalled by 2015-1 year MATS ext.	Low NOx Burner Technology (Dry Bottom only)	SCR to be installed by 2016			ESP+LNB w/OFA		SCR and DSI
			MB2	Cold-side Electrostatic Precipitator			DSI to be intalled by 2015-1 year MATS ext.	Low NOx Burner Technology (Dry Bottom only)	SCR to be installed by 2016			ESP+LNB w/OFA		SCR and DSI
State Line	089	00210	3	Shut Down 2012		Shut Down 2012		Shut Down 2012		Shut Down 2012			Shut Down 2012	
			4	Shut Down 2012		Shut Down 2012		Shut Down 2012		Shut Down 2012			Shut Down 2012	

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Tanners Creek	029	00002	U1	Cold-side Electrostatic Precipitator	Shut Down in 2015-45 day MATS ext.		Shut Down in 2015-45 day MATS ext.	Low NOx Burner Technology (Dry Bottom only)/SNCR on 2010	Shut Down in 2015-45 day MATS ext.		Shut Down in 2015-45 day MATS ext.	ESP+LNB	SNCR	Shut Down in 2015
			U2	Cold-side Electrostatic Precipitator	Shut Down in 2015-45 day MATS ext.		Shut Down in mid 2015-45 day MATS ext.	Low NOx Burner Technology (Dry Bottom only)/SNCR on 2010	Shut Down in 2015-45 day MATS ext.		Shut Down in 2015-45 day MATS ext.	ESP+LNB	SCNR	Shut Down in 2015
			U3	Cold-side Electrostatic Precipitator	Shut Down in 2015-45 day MATS ext.		Shut Down in mid 2015-45 day MATS ext.	Low NOx Burner Technology (Dry Bottom only)/SNCR on 2010	Shut Down in 2015-45 day MATS ext.		Shut Down in 2015-45 day MATS ext.	ESP+LNB	SCNR	Shut Down in 2015
			U4	Cold-side Electrostatic Precipitator	Shut Down in 2015-45 day MATS ext.		Shut Down in mid 2015-45 day MATS ext.	Overfire Air	Shut Down in 2015-45 day MATS ext.		Shut Down in 2015-45 day MATS ext.	ESP+OFA		Shut Down in 2015
Wabash River	167	00021	1	Other	IGCC	Other	IGCC	Steam injection	IGCC					Convert to NG
			2	Cold-side Electrostatic Precipitator	Shut down in 2016-1 year ext.		Shut Down in 2016-1 year MATS ext.	Low NOx Burner Technology w/ Overfire Air	Shut down in 2016-1 year ext.		Shut down in 2016-1 year ext.	ESP+LNB wOFA		Shut Down 2016
			3	Cold-side Electrostatic Precipitator	Shut down in 2016-1 year ext.		Shut Down in 2016-1 year MATS ext.	Low NOx Burner Technology w/ Overfire Air	Shut down in 2016-1 year ext.		Shut down in 2016-1 year ext.	ESP+LNB wOFA		Shut Down 2016
			4	Cold-side Electrostatic Precipitator	Shut down in 2016-1 year ext.		Shut Down in 2016-1 year MATS ext.	Low NOx Burner Technology w/ Overfire Air	Shut down in 2016-1 year ext.		Shut down in 2016-1 year ext.	ESP+LNB wOFA		Shut Down 2016
			5	Cold-side Electrostatic Precipitator	Shut down in 2016-1 year ext.		Shut Down in 2016-1 year MATS ext.	Low NOx Burner Technology w/ Overfire Air	Shut down in 2016-1 year ext.		Shut down in 2016-1 year ext.	ESP+LNB wOFA		Shut Down 2016
			6	Cold-side Electrostatic Precipitator	Convert to NG-1 year ext.		Convert to NG/1 year MATS ext.	Low NOx Burner Technology w/ Separated OFA	Convert to NG-1 year ext.		Convert to NG-1 year ext.	ESP+LNB		Convert to NG

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Whitewater Valley	177	00009	1	Cold-side Electrostatic Precipitator/ Baghouse	1 year MATS ext.		DSI-1 yr MATS ext.	Low NOx Burner Technology (Dry Bottom only) Ammonia Injection Overfire Air	1 year MATS ext.		ACI-1 year MATS ext.	ESP+LNB		DSI+ACI
			2	Cold-side Electrostatic Precipitator/ Baghouse	1 year MATS ext.		DSI-1 yr MATS ext.	Low NOx Burner Technology w/ Separated OFA Ammonia Injection Overfire Air	1 year MATS ext.		ACI-1 year MATS ext.	ESP+LNB		DSI+ACI

*Not an affected EGU

**Not included in original BART-Eligible EGU list from Indiana's Regional Haze SIP