APPENDIX R

DRAFT GENERAL CONFORMITY DETERMINATION FOR MARYLAND AND PENNSYLVANIA

Federal Energy Regulatory Commission

Office of Energy Projects

September 2008

AES Sparrows Point LNG, LLC
Mid-Atlantic Express, LLC

Docket Nos. CP07-62-000 and CP07-63-000

Sparrows Point LNG Terminal and Pipeline Project

Draft General Conformity Determination for Maryland and Pennsylvania

In Reply Refer To:
OEP/DG2E/Gas Branch 2
AES Sparrows Point LNG, LLC and
Mid-Atlantic Express, LLC
Docket Nos. CP07-62-000, CP07-63-000,

TO THE PARTY ADDRESSED:

The staff of the Federal Energy Regulatory Commission (FERC or Commission) has prepared this Draft General Conformity Determination to assess the potential air quality impacts associated with the construction and operation of a liquefied natural gas (LNG) import terminal and natural gas pipeline proposed by AES Sparrows Point LNG, LLC and Mid-Atlantic Express, LLC, collectively referred to as AES, in the above-referenced dockets.

This Draft General Conformity Determination was prepared to satisfy the requirements of the Clean Air Act.

Comment Procedures

Any person wishing to comment on this Draft General Conformity Determination may do so. To ensure consideration of your comments in the Final General Conformity Determination, it is important that we receive your comments before the date specified below. For your convenience, there are three methods in which you can use to submit your comments to the Commission. In all instances please reference the project docket numbers Docket No. CP07-62-000 and CP07-63-000 with your submission. The docket number can be found on the front of this notice. **The Commission strongly encourages electronic filing of any comments on this Draft General Conformity Determination** and has dedicated eFiling expert staff available to assist you at 202-502-8258 or efiling@ferc.gov.

1. You may file your comments electronically by using the Quick Comment feature, which is located on the Commission's internet website at http://www.ferc.gov under the link to Documents and Filings. A Quick Comment is an easy method for interested persons to submit text-only comments on a project;

2. You may file your comments electronically by using the eFiling feature, which is located on the Commission's internet website at http://www.ferc.gov under the link to Documents and Filings. FERC's eFiling involves preparing your submission in the same manner as you

would if filing on paper, and then saving the file on your computer's hard drive. You will attach that file as your submission. New eFiling users must first create an account by clicking on "Sign up" or "eRegister." You will be asked to select the type of filing you are making. A comment on a particular project is considered a "Comment on a Filing"; or

3. You may file your comments via mail to the Commission by sending an original and two copies of your letter to:

   Kimberly D. Bose, Secretary
   Federal Energy Regulatory Commission
   888 First St., N.E., Room 1A
   Washington, DC 20426

- Reference Docket Nos. CP07-62-000, CP07-63-000, CP07-64-000, and CP07-65-000 on the original and both copies;

- Label one copy of your comments for the attention of Gas Branch 2; PJ11.2; and;

- **Mail your comments so that they will be received in Washington, DC on or before October 27, 2008.**

After all comments are reviewed, the staff will publish and distribute a Final General Conformity Determination for the Project.

Kimberly D. Bose,
Secretary

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1.0 Introduction

AES Sparrows Point LNG, LLC ("Sparrows Point LNG") filed an application in January 2007 with the Federal Energy Regulatory Commission ("FERC") seeking all of the necessary authorizations pursuant to the Natural Gas Act to construct, own, and operate a new liquefied natural gas (LNG) import, storage, and regasification terminal ("LNG Terminal") at the Sparrows Point Industrial Complex situated on the Sparrows Point Peninsula east of the Port of Baltimore in Maryland. As proposed, LNG would be delivered to the LNG Terminal via LNG marine traffic, offloaded from these ships to shoreside storage tanks, regasified on the LNG Terminal site ("Terminal Site"), and transported to consumers via pipeline. The LNG Terminal would have a regasification capacity of 1.5 billion standard cubic feet of natural gas per day ("bscfd"), with potential to expand to 2.25 bscfd. Regasified natural gas would be delivered to markets in the Mid-Atlantic Region and northern portions of the South Atlantic Region through an approximately 88-mile-long, 30-inch outside diameter natural gas pipeline ("Pipeline") to be constructed and operated by Mid-Atlantic Express, LLC ("Mid-Atlantic Express"). Mid-Atlantic Express also filed an application with FERC in January 2007. The Pipeline would extend from the LNG Terminal to interconnections with existing interstate natural gas pipeline systems near Eagle, Pennsylvania. Together, the LNG Terminal and Pipeline projects are referred to as the Sparrows Point Project or Project. Both Sparrows Point LNG and Mid-Atlantic Express (hereinafter collectively referred to as "AES") are subsidiaries of The AES Corporation.

As described in the applications to FERC, AES is also considering the possibility of constructing and operating a combined-cycle cogeneration power plant ("Power Plant") on the Terminal Site. The Power Plant would not be subject to FERC jurisdiction under the NGA, but it would be considered a related action to the LNG Terminal and Pipeline. Therefore, this draft General Conformity Determination evaluates both scenarios.

The Project footprint is located in Baltimore, Harford, and Cecil Counties, Maryland, and in portions of Lancaster and Chester Counties, Pennsylvania. The Terminal Site, which is located entirely within Baltimore County, is a parcel located within a former shipyard. The route proposed for the Pipeline ("Pipeline Route"), which crosses all of the listed counties, includes industrial, commercial, agricultural, and residential lands. Together, the Terminal Site and the Pipeline Route comprise the Project Area. The LNG ship transit would take place through State of Maryland and State of Virginia waters. Ship transit routes would traverse Baltimore, Anne Arundel, Queen Anne's, Somerset, St. Mary's, Dorchester, and Talbot counties in Maryland and York County, Poquoson City, Northampton County, Accomack County, and Virginia Beach City in Virginia. Processed dredge material ("PDM") would potentially be hauled to a disposal site in Virginia. Potential truck transit routes used to haul PDM from dredging activities during the LNG Terminal construction phase and periodically during the operating phase for dredge maintenance activities would traverse Baltimore, Anne Arundel, and Prince George's Counties in Maryland; the District of Columbia; and Fairfax and Prince William Counties in Virginia to disposal sites located in Virginia.

Portions of the Project subject to General Conformity review would be undertaken in Air Quality Control Regions in Maryland, Pennsylvania, and Virginia that have been designated moderate or marginal ozone non-attainment areas or maintenance areas with respect to the 8-hour ozone

standard or areas designated as non-attainment for $PM_{2.5.}$ If the emissions associated with the Project would exceed the applicability thresholds for Maryland (set by the Maryland Department of the Environment ("MDE")), Virginia (set by the Virginia Department of Environmental Quality ("VADEQ")) and Pennsylvania (set by the Pennsylvania Department of Environmental Protection ("PDEP")) under the General Conformity Rule, separate General Conformity Determinations would be required for each affected state.

2.0 REGULATORY BACKGROUND

The U.S. Environmental Protection Agency ("EPA") promulgated the General Conformity Rule on November 30, 1993, in Volume 58 of the Federal Register ("FR") Page 63214 (58 FR 63214) to implement the conformity provision of Title I, section 176(c)(1) of the CAA. Section 176(c)(1) requires that the federal government not engage, support, or provide financial assistance for permit or license, or approve any activity that fails to conform to an approved CAA implementation plan.

The General Conformity Rule is codified in Title 40 of the Code of Federal Regulations ("CFR") Part 51, Subpart W and Part 93, Subpart B, "Determining Conformity of General Federal Actions to State or Federal Implementation Plans" ("General Conformity Rule"). The General Conformity Rule applies to all federal actions, except programs and projects that require funds or approval from the U.S. Department of Transportation ("DOT"), the Federal Highway Administration, the Federal Transit Administration, or the Metropolitan Planning Organization. In lieu of a conformity analysis, these latter types of programs and projects must comply with the Transportation Conformity Rule promulgated by DOT on November 24, 1993 (58 FR 62197).

3.0 REQUIREMENTS

As defined in the CAA, Title I, section 176(c)(1), conformity means to uphold air quality goals through reduction or elimination of NAAQS violations to achieve attainment with NAAQS standards. Accordingly, a proposed action or activity achieves conformity if the associated or pollutant emissions would not:

- Cause or contribute to new violations of any NAAQS in any area;
- Increase the frequency or severity of any existing violation of any NAAQS; or
- Delay timely attainment of any NAAQS or interim emission reductions.

The General Conformity Rule establishes conformity in coordination with and as part of the National Environmental Policy Act ("NEPA") environmental review process. The General Conformity Rule affects air pollutant emissions associated with actions that are federally funded, licensed, permitted, or approved, and ensures emissions do not contribute to air quality degradation or prevent the achievement of state and federal air quality goals. In short, General Conformity, if applicable, refers to the process to evaluate plans, programs, and projects to determine and demonstrate that they satisfy the requirements of the CAA and applicable State Implementation Plan (SIP).

4.0 PROCESS

The process to determine conformity for a proposed action involves two steps: applicability and determination. Applicability is an assessment of whether a proposed action is subject to the General Conformity Rule. If the General Conformity Rule is applicable for the proposed action, then a General Conformity Determination may be required. The determination process is an assessment of whether the proposed action conforms to the applicable implementation plan.

An applicability evaluation is required for any action that is federally funded, licensed, permitted, or approved where the total direct and indirect emissions for criteria pollutants in a nonattainment or maintenance area exceed the rates listed specified in Title 40 CFR 58.853(b)(1) and (2) and identified in Section 5.0 below. If emissions exceed these rates, or if the emissions are determined to be regionally significant, then a General Conformity Determination is required. A proposed action is considered regionally significant if the total direct and indirect emissions for any criteria pollutant represent 10 percent or more of a nonattainment or maintenance area emissions inventory for that pollutant. The General Conformity Determination process does not apply to a new source or existing source modification that is subject to New Source Review (NSR).

If the General Conformity Rule is determined to be applicable for the proposed action, an evaluation must be performed to determine if the action conforms to the SIP. Positive conformity can be shown through state emission budgets, emission offsets, and/or air quality models, or any combination of these.

5.0 APPLICABILITY

The General Conformity Rule applies only to actions in a NAAQS nonattainment or maintenance area. Applicability is based on direct and indirect emissions from the proposed Project. As noted above, the Project footprint is located in the counties of Baltimore, Harford, and Cecil in Maryland, and in the counties of Lancaster and Chester in Pennsylvania ("Project Counties"). LNG ships and PDM haul trucks associated with the LNG Terminal would also transit through other Maryland and Virginia counties. Table 5.1 provides a list of the Project Counties and their attainment status. The applicability thresholds apply to each air quality control region (AQCR) within nonattainment or maintenance areas individually. Pollutants of particular concern in these areas are ozone and particulate matter less than 2.5 microns ($PM_{2.5}$).

TABLE 5.1
NAAQS Status of Air Quality Control Regions

Location	State	AQCR	NAAQS Status
Sparrows Point LNG Terminal – Baltimore, MD	MD	(Metro. Baltimore Intrastate – 115)	Nonattainment Ozone, $PM_{2.5}$
Mid-Atlantic Express Pipeline – Baltimore + Harford Cos., MD portion	MD	(Metro. Baltimore Intrastate – 115);	Nonattainment Ozone, $PM_{2.5}$

TABLE 5.1 NAAQS Status of Air Quality Control Regions			
Location	**State**	**AQCR**	**NAAQS Status**
Mid-Atlantic Express Pipeline – Cecil Co., MD + Chester Co., PA portion	MD + PA	(Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE Interstate AQCR)	Nonattainment Ozone
Mid-Atlantic Express Pipeline – Chester Co., PA portion	PA	(Philadelphia-Wilmington, PA-NJ-DE Interstate AQCR)	Nonattainment $PM_{2.5}$
Mid-Atlantic Express Pipeline – Lancaster Co., PA portion	PA	Lancaster Co., PA (196)	Nonattainment Ozone, $PM_{2.5}$
LNG Ship Transit routes in MD	MD	Baltimore, Anne Arundel (115)	Nonattainment Ozone, $PM_{2.5}$
	MD	Queen Anne's (114)	Maintenance Area Ozone
LNG Ship Transit routes in VA	VA	(Norfolk-Virginia Beach-Newport News (Hampton Roads) (223)	Maintenance Area Ozone
PDM haul truck transit routes in MD, Washington, D.C. and VA	MD	Baltimore, Anne Arundel (115)	Nonattainment Ozone, $PM_{2.5}$
	MD, D.C., VA	(Washington, DC-MD-VA – 047)	Nonattainment Ozone, $PM_{2.5}$

The affected counties from ship transit were identified by comparing the LNG ship transit route, as determined through the Waterway Suitability Assessment (WSA) issued by the U.S. Coast Guard, to county boundaries along the route. Emissions were directly allocated to each county along the route according to the length of the transit route located within the county as shown in Table 5-2.

TABLE 5.2 NAAQS Status of Counties Along LNG Ship Transit Route to LNG Terminal					
County or City	**State**	**LNG Ship Transit Route Segment, South to North**	**Ship Transit Route Mileage**	**8-hr O_3 Attainment Status**	**PM2.5 Attainment Status**
Virginia Beach City	VA	1	9.92	Maintenance	Attainment
Northampton Co.	VA	2	31.03	Attainment	Attainment
Poquoson City	VA	3	4.78	Maintenance	Attainment
York Co.	VA	4	3.19	Maintenance	Attainment
Accomack Co.	VA	5	28.73	Attainment	Attainment
Somerset Co.	MD	6	8.08	Attainment	Attainment
St. Mary's Co.	MD	7	6.47	Attainment	Attainment
Dorchester Co.	MD	8	33.98	Attainment	Attainment
Talbot Co.	MD	9	16.16	Attainment	Attainment

TABLE 5.2
NAAQS Status of Counties Along LNG Ship Transit Route to LNG Terminal

Queen Anne's Co.	MD	10	10.34	Maintenance	Attainment
Anne Arundel Co.	MD	11	17.11	Nonattainment	Nonattainment
Baltimore Co.	MD	12	5.90	Nonattainment	Nonattainment

Similarly, potential truck transit routes used to haul PDM from dredging activities during the LNG Terminal construction phase and periodically during the operating phase for dredge maintenance activities would traverse several attainment, nonattainment, and maintenance counties. Nonattainment and maintenance counties that would be traversed by the PDM haul trucks include: Baltimore, Anne Arundel, and Prince George's Counties in Maryland; the District of Columbia; and Fairfax and Prince William Counties in Virginia to disposal sites located in Virginia. Each of these counties is designated as moderate nonattainment for the 8-hour ozone standard and as nonattainment for $PM_{2.5}$. All other counties in Virginia along the potential PDM haul truck routes are designated as attainment for all pollutants.

The General Conformity applicability threshold for ozone precursors for an area in either moderate or basic ozone nonattainment within an ozone transport region ("OTR") or in a maintenance area is 50 tons per year (TPY) of volatile organic compounds (VOCs) and 100 TPY of nitrogen oxides (NO_X). The applicability threshold for $PM_{2.5}$ nonattainment areas is 100 TPY of $PM_{2.5}$ or SO_2 emissions. In addition, pending development of SIP revisions for $PM_{2.5}$ attainment, precursor emissions of NO_X (unless determined not to be a significant precursor) and VOC or ammonia (NH_3) (if determined to be significant precursors) may also need to be compared to a 100 TPY applicability threshold.

Construction and vessel activity (including PDM emissions for the proposed Project were estimated as a product of engine size (horsepower), engine-specific emission factors, operating load factors, transient adjustment factors, deterioration factors and the estimated hours of equipment operation, in accordance with the calculation methodology in EPA's NONROAD model. Indirect emissions from on-road mobile sources were estimated based on the methodology and emission factors from the EPA MOBILE6 model. LNG ship, assist tugs, and security boat emissions for the operating phase of the Project were estimated based on emission factors and operating assumptions for a mix of vessel types, engine technologies and fuels to conservatively represent roundtrip operation in state waters potentially affected by the Project. Documentation of all assumptions and emissions calculations are provided in Appendix 9A to Resource Report 9 of the applications to the FERC.

Table 5.3 summarizes emissions calculations for NO_X, VOC, $PM_{2.5}$, SO_2, and NH_3 emissions during all Project years in nonattainment and maintenance areas in Maryland, Pennsylvania and Virginia. Emissions in Table 5.3 do not account for any additional mitigation measures beyond air quality regualtions.

Based on comparison of estimated emissions in Project nonattainment and maintenance areas to the applicability thresholds, NO_X emissions in Maryland AQCR 115 during both the construction phase (2009 through 2011) and operating phase (2012 and after) are estimated to exceed the 100 TPY NO_X applicability threshold. In Chester County, Pennsylvania (Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE Interstate AQCR), NO_X emissions during the construction phase

(in 2010) are estimated to exceed the applicability threshold. Also, in Chester County, Pennsylvania (Philadelphia-Wilmington, PA-NJ-DE Interstate AQCR), which is nonattainment for $PM_{2.5}$, NO_X precursor emissions are estimated to exceed the applicability threshold in 2010. For all other AQCRs and all other Project years, emissions of ozone precursors NO_X and VOC, $PM_{2.5}$, and $PM_{2.5}$ precursors are not estimated to exceed any of the applicability thresholds.

Table 5.4 summarizes the same analysis as presented in Table 5.3, but includes the additional construction and indirect emissions associated with construction of the nonjurisdictional Power Plant at the Terminal Site. This analysis demonstrates that the conclusions of the conformity applicability analysis would not be changed as a result of construction of the Power Plant if the nonjurisdictional emissions were included, i.e., the Project triggers the conformity applicability thresholds for ozone precursor NO_X emissions during all Project years in Maryland AQCR 115 and for ozone and $PM_{2.5}$ precursor NO_X emissions in Chester County, Pennsylvania for construction year 2010.

Although ozone and $PM_{2.5}$ precursor emissions are lower than applicability thresholds in the majority of the construction and operating years in Project-affected nonattainment and maintenance areas, the General Conformity applicability analysis must also consider whether total direct and indirect emissions from a federal action are regionally significant, i.e., whether such emissions represent 10 percent or more of the total annual emissions inventory of that pollutant for the nonattainment or maintenance area. Based on the estimated emissions summarized in Tables 5.3 and 5.4, even for the worst-case assumptions involving construction of the nonjurisdictional Power Plant, NO_X, VOC, $PM_{2.5}$, and SO_2 emissions from the Project in all Project years are estimated to be significantly less than 10 percent of the 2001 emissions inventory for the affected AQCRs[1]. The 2001 emissions inventory by Project-affected AQCR is summarized in Table 5.5. Table 5.6 summarizes Project emissions as a percentage of the 2001 emissions inventory by AQCR. Based on the results of this analysis, emissions from the Project would not be regionally significant and the General Conformity requirements do not apply to emissions from the Project in nonattainment or maintenance areas where estimated Project emissions are less than the applicability thresholds.

Because none of the exemptions listed in 40 CFR 51.853(c), (d) or (e) are applicable to the Project (other than the portion of the LNG Terminal operations subject to NSR permitting) and the Project is not presumed to conform in accordance with the requirements and procedures in 40 CFR 51.853(f)-(h), a General Conformity Determination is required for those Project-related emissions and the nonattainment areas identified.

Because emissions resulting from the Project in nonattainment areas exceed the applicability thresholds in Maryland and Pennsylvania, a Draft General Conformity Determination has been prepared for each of these states. It should also be noted that SIPs demonstrating attainment with

[1] Most recent available county emissions inventory data available from U.S. EPA AirData website (http://www.epa.gov/air/data/geosel.html). Regional significance analysis would be updated pending availability of more recent county emissions inventory data.

Table 5.3
Total Project Annual Emissions (TPY) Within All Project Areas – No Mitigation (without Power Plant)

Year	Baltimore, Harford and Anne Arundel Counties, MD (Metro. Baltimore Intrastate AQCR 115)	Phila.-Wilmington-Atlantic City, PA-NJ-MD-DE Interstate AQCR			Chester Co., PA (Phila-Wilmington, PA-NJ-DE Interstate AQCR)	Lancaster Co., PA (AQCR 196)	Kent & Queen Anne's Cos. (AQCR 114)	Washington, DC-MD-VA AQCR				Norfolk-Virginia Beach-Newport News (Hampton Roads) VA (AQCR 223)	Total MD Attain. Areas	Total VA Attain Areas
		Cecil Co., MD	Chester Co., PA	Total NA area				Calvert and Prince George's Cos., MD	Wash., D.C.	Fairfax and Prince Williams Cos., VA	Total Wash., DC-MD-VA AQCR			
	O_3 + PM2.5 NA	*O_3 NA*			*PM2.5 NA*	*O_3 + PM2.5 NA*	*O_3 Maint. Area*	*O_3 + PM2.5[b] NA*	*O_3 + PM2.5 NA*	*O_3 + PM2.5 NA*	*O_3 + PM2.5[b] NA*	*O_3 Maint. Area*		
NOx Emissions														
2009	**364.5**							17.2	14.2	39.3	70.8	0.3		103.9
2010	**756.1**	61.5	**223.6**	**285.0**	**223.6**	57.0		20.6	17.1	47.2	84.9	0.3		124.7
2011	**212.9**	3.1	29.1	32.2	29.1	7.4		8.7	7.1	19.7	35.5	0.3		51.9
2012[a]	**129.3**						19.7	1.5	1.2	3.4	6.1	43.9	124.9	142.1
2013 + later	**194.0**						29.6	2.2	1.9	5.1	9.2	65.9	187.4	213.1
VOC Emissions														
2009	28.8							2.1	1.8	4.8	8.7	0.01		12.8
2010	63.6	5.7	22.2	27.9	22.2	5.7		2.5	2.1	5.8	10.4	0.01		15.4
2011	18.3	0.3	3.1	3.5	3.1	0.8		1.1	0.9	2.4	4.3	0.01		6.4
2012[a]	9.2						0.5	0.5	0.2	0.4	1.1	1.2	3.3	3.5
2013 + later	13.8						0.8	0.3	0.2	0.6	1.1	1.8	4.9	5.2
PM2.5 Emissions														
2009	26.2							0.4	0.3	0.9	1.7	0.02		2.5
2010	50.2	3.9	15.9	19.8	15.9	4.0		0.5	0.4	1.1	2.0	0.02		2.9
2011	14.5	0.2	2.0	2.2	2.0	0.5		0.2	0.2	0.5	0.8	0.02		1.2
2012[a]	6.9						1.2	0.0	0.03	0.1	0.1	2.61	7.0	8.6

Table 5.3
Total Project Annual Emissions (TPY) Within All Project Areas – No Mitigation (without Power Plant)

Year	Baltimore, Harford and Anne Arundel Counties, MD (Metro. Baltimore Intrastate AQCR 115)	Phila.-Wilmington-Atlantic City, PA-NJ-MD-DE Interstate AQCR			Chester Co., PA (Phila-Wilmington, PA-NJ-DE Interstate AQCR)	Lancaster Co., PA (AQCR 196)	Kent & Queen Anne's Cos. (AQCR 114)	Washington, DC-MD-VA AQCR				Norfolk-Virginia Beach-Newport News (Hampton Roads) VA (AQCR 223)	Total MD Attain. Areas	Total VA Attain Areas
		Cecil Co., MD	Chester Co., PA	Total NA area				Calvert and Prince George's Cos., MD	Wash., D.C.	Fairfax and Prince Williams Cos., VA	Total Wash., DC-MD-VA AQCR			
	O_3 + PM2.5 NA	*O_3 NA*			*PM2.5 NA*	*O_3 + PM2.5 NA*	*O_3 Maint. Area*	*O_3 + PM2.5[b] NA*	*O_3 + PM2.5 NA*	*O_3 + PM2.5 NA*	*O_3 + PM2.5[b] NA*	*O_3 Maint. Area*		
2013 + later	10.4						1.8	0.1	0.04	0.1	0.2	3.91	10.5	12.9
SOx Emissions														
2009	6.1											0.004		0.0
2010	13.7	1.2	4.5	5.7	4.5	1.1						0.004		0.0
2011	6.3	0.1	0.6	0.6	0.6	0.1						0.004		0.0
2012[a]	32.3						13.4					29.4	84.1	98.1
2013 + later	48.4						20.2					44.1	126.2	147.2
NH3 Emissions														
2009	1.5							0.04	0.03	0.08	0.15	0.005		0.22
2010	1.4	0.08	0.41	0.49	0.41	0.10		0.05	0.04	0.10	0.18	0.005		0.26
2011	0.6	0.01	0.06	0.06	0.06	0.01		0.02	0.02	0.04	0.08	0.005		0.11
2012[a]	1.7						0.23	0.00	0.003	0.01	0.01	0.50	1.4	1.7
2013 + later	2.5						0.34	0.00	0.004	0.01	0.02	0.75	2.2	2.5

a. AES anticipates commercial operation to begin 1/1/2012 at partial (1/3) capacity. Full capacity operation is anticipated to begin 6/1/2013.
b. Calvert Co., MD is attainment for PM2.5.

Table 5.4
Total Project Annual Emissions (TPY) Within All Project Areas – No Mitigation (with Power Plant)

Year	Baltimore, Harford and Anne Arundel Counties, MD (Metro. Baltimore Intrastate AQCR 115)	Phila.-Wilmington-Atlantic City, PA-NJ-MD-DE Interstate AQCR			Chester Co., PA (Phila-Wilmington, PA-NJ-DE Interstate AQCR)	Lancaster Co., PA (AQCR 196)	Kent & Queen Anne's Cos. (AQCR 114)	Washington, DC-MD-VA AQCR				Norfolk-Virginia Beach-Newport News (Hampton Roads) VA (AQCR 223)	Total MD Attain. Areas	Total VA Attain Areas
		Cecil Co., MD	Chester Co., PA	Total NA area				Calvert and Prince George's Cos., MD	Wash., D.C.	Fairfax and Prince Williams Cos., VA	Total Wash., DC-MD-VA AQCR			
	O_3 + PM2.5 NA	*O_3 NA*			*PM2.5 NA*	*O_3 + PM2.5 NA*	*O_3 Maint. Area*	*O_3 + PM2.5[b] NA*	*O_3 + PM2.5 NA*	*O_3 + PM2.5 NA*	*O_3 + PM2.5[b] NA*	*O_3 Maint. Area*		
NOx Emissions														
2009	**399.9**							17.2	14.2	39.3	70.8	0.3		103.9
2010	**803.6**	61.5	**223.6**	**285.0**	**223.6**	57.0		20.6	17.1	47.2	84.9	0.3		124.7
2011	**219.4**	3.1	29.1	32.2	29.1	7.4		8.7	7.1	19.7	35.5	0.3		51.9
2012[a]	**129.3**						19.7	1.5	1.2	3.4	6.1	43.9	124.9	142.1
2013 + later	**194.0**						29.6	2.2	1.9	5.1	9.2	65.9	187.4	213.1
VOC Emissions														
2009	33.7							2.1	1.8	4.8	8.7	0.01		12.8
2010	70.1	5.7	22.2	27.9	22.2	5.7		2.5	2.1	5.8	10.4	0.01		15.4
2011	19.5	0.3	3.1	3.5	3.1	0.8		1.1	0.9	2.4	4.3	0.01		6.4
2012[a]	9.2						0.5	0.5	0.2	0.4	1.1	1.2	3.3	3.5
2013 + later	13.8						0.8	0.3	0.2	0.6	1.1	1.8	4.9	5.2
PM2.5 Emissions														
2009	28.8							0.4	0.3	0.9	1.7	0.02		2.5
2010	53.3	3.9	15.9	19.8	15.9	4.0		0.5	0.4	1.1	2.0	0.02		2.9
2011	15.0	0.2	2.0	2.2	2.0	0.5		0.2	0.2	0.5	0.8	0.02		1.2
2012[a]	6.9						1.2	0.0	0.03	0.1	0.1	2.61	7.0	8.6

Table 5.4
Total Project Annual Emissions (TPY) Within All Project Areas – No Mitigation (with Power Plant)

Year	Baltimore, Harford and Anne Arundel Counties, MD (Metro. Baltimore Intrastate AQCR 115)	Phila.-Wilmington-Atlantic City, PA-NJ-MD-DE Interstate AQCR			Chester Co., PA (Phila-Wilmington, PA-NJ-DE Interstate AQCR)	Lancaster Co., PA (AQCR 196)	Kent & Queen Anne's Cos. (AQCR 114)	Washington, DC-MD-VA AQCR				Norfolk-Virginia Beach-Newport News (Hampton Roads) VA (AQCR 223)	Total MD Attain. Areas	Total VA Attain Areas
		Cecil Co., MD	Chester Co., PA	Total NA area				Calvert and Prince George's Cos., MD	Wash., D.C.	Fairfax and Prince Williams Cos., VA	Total Wash., DC-MD-VA AQCR			
	O_3 + PM2.5 NA	*O_3 NA*			*PM2.5 NA*	*O_3 + PM2.5 NA*	*O_3 Maint. Area*	*O_3 + PM2.5[b] NA*	*O_3 + PM2.5 NA*	*O_3 + PM2.5 NA*	*O_3 + PM2.5[b] NA*	*O_3 Maint. Area*		
2013 + later	10.4						1.8	0.1	0.04	0.1	0.2	3.91	10.5	12.9
SOx Emissions														
2009	6.8											0.004		0.0
2010	14.5	1.2	4.5	5.7	4.5	1.1						0.004		0.0
2011	6.4	0.1	0.6	0.6	0.6	0.1						0.004		0.0
2012[a]	32.3						13.4					29.4	84.1	98.1
2013 + later	48.4						20.2					44.1	126.2	147.2
NH3 Emissions														
2009	1.6							0.04	0.03	0.08	0.15	0.005		0.22
2010	1.5	0.08	0.41	0.49	0.41	0.10		0.05	0.04	0.10	0.18	0.005		0.26
2011	0.7	0.01	0.06	0.06	0.06	0.01		0.02	0.02	0.04	0.08	0.005		0.11
2012[a]	1.7						0.23	0.00	0.003	0.01	0.01	0.50	1.4	1.7
2013 + later	2.5						0.34	0.00	0.004	0.01	0.02	0.75	2.2	2.5

a. AES anticipates commercial operation to begin 1/1/2012 at partial (1/3) capacity. Full capacity operation is anticipated to begin 6/1/2013.
b. Calvert Co., MD is attainment for PM2.5.

Table 5.5
2001 Nonattainment Area Emission Inventory - All Sources (TPY)
source: http://www.epa.gov/air/data/geosel.html

	Baltimore, Harford and Anne Arundel Counties, MD (Metro. Baltimore Intrastate AQCR 115)	Phila.-Wilmington-Atlantic City, PA-NJ-MD-DE Interstate AQCR			Chester Co., PA (Phila-Wilmington, PA-NJ-DE Interstate AQCR)	Lancaster Co., PA (AQCR 196)	Kent & Queen Anne's Cos. (AQCR 114)	Washington, DC-MD-VA AQCR				Norfolk-Virginia Beach-Newport News (Hampton Roads) VA (AQCR 223)
		Cecil Co., MD	Chester Co., PA	Total NA area				Calvert and Prince George's Cos., MD	Washington, D.C.	Fairfax and Prince Williams Cos., VA	Total Washington, DC-MD-VA AQCR	
	O_3 + PM2.5 NA	*O_3 NA*			*PM2.5 NA*	*O_3 + PM2.5 NA*	*O_3 Maint. Area*	*O_3 + PM2.5[c] NA*	*O_3 + PM2.5 NA*	*O_3 + PM2.5 NA*	*O_3 + PM2.5[c] NA*	*O_3 Maint. Area*
NOx	88,841	5,502	16,909	22,411	16,909	20,902	3,158	37,843	14,823	49,359	102,025	101,243
VOC	53,010	4,441	17,699	22,140	17,699	27,385	4,477	28,215	17,755	47,692	93,662	72,860
PM2.5	17,106				5,004	6,785	1,532	8,516	2,563	6,678	17,757	14,081
SOx	116,104				11,391	10,786	656	45,460	8,200	25,984	79,644	95,098
NH3	3,475				2,220	17,081	1,829	1,247	1,384	1,654	4,285	3,387

Table 5.6
Annual Emissions within Nonattainment Areas as Percentage of 2001 Emission Inventory

	Baltimore, Harford and Anne Arundel Counties, MD (Metro. Baltimore Intrastate AQCR 115)	Phila.-Wilmington-Atlantic City, PA-NJ-MD-DE Interstate AQCR			Chester Co., PA (Phila-Wilmington, PA-NJ-DE Interstate AQCR)	Lancaster Co., PA (AQCR 196)	Kent & Queen Anne's Cos. (AQCR 114)	Washington, DC-MD-VA AQCR				Norfolk-Virginia Beach-Newport News (Hampton Roads) VA (AQCR 223)
		Cecil Co., MD	Chester Co., PA	Total NA area				Calvert and Prince George's Cos., MD	Washington, D.C.	Fairfax and Prince Williams Cos., VA	Total Washington, DC-MD-VA AQCR	
	O_3 + PM2.5 NA	*O_3 NA*			*PM2.5 NA*	*O_3 + PM2.5 NA*	*O_3 Maint. Area*	*O_3 + PM2.5[c] NA*	*O_3 + PM2.5 NA*	*O_3 + PM2.5 NA*	*O_3 + PM2.5[c] NA*	*O_3 Maint. Area*
NOx Emissions												
2009	0.45%							0.05%	0.10%	0.08%	0.07%	0.0003%
2010	0.90%	1.12%	1.32%	1.27%	1.32%	0.27%		0.05%	0.12%	0.10%	0.08%	0.0003%
2011	0.25%	0.06%	0.17%	0.14%	0.17%	0.04%		0.02%	0.05%	0.04%	0.03%	0.0003%
2012[a]	0.15%						0.63%	0.004%	0.01%	0.01%	0.01%	0.04%
2013 + later	0.22%						0.94%	0.01%	0.01%	0.01%	0.01%	0.07%
VOC Emissions												
2009	0.06%							0.01%	0.01%	0.01%	0.01%	0.00001%
2010	0.13%	0.13%	0.13%	0.13%	0.13%	0.02%		0.01%	0.01%	0.01%	0.01%	0.00001%
2011	0.04%	0.01%	0.02%	0.02%	0.02%	0.003%		0.004%	0.00%	0.01%	0.005%	0.00001%
2012[a]	0.02%						0.01%	0.002%	0.001%	0.001%	0.001%	0.002%
2013 + later	0.03%						0.02%	0.001%	0.001%	0.001%	0.001%	0.002%
PM2.5 Emissions												
2009	0.17%	b	b	b			b	0.005%	0.01%	0.01%	0.01%	b
2010	0.31%	b	b	b	0.32%	0.06%	b	0.01%	0.02%	0.02%	0.01%	b
2011	0.09%	b	b	b	0.04%	0.008%	b	0.002%	0.01%	0.01%	0.005%	b
2012[a]	0.04%	b	b	b			b	0.0004%	0.001%	0.001%	0.001%	b

Table 5.6
Annual Emissions within Nonattainment Areas as Percentage of 2001 Emission Inventory

	Baltimore, Harford and Anne Arundel Counties, MD (Metro. Baltimore Intrastate AQCR 115)	Phila.-Wilmington-Atlantic City, PA-NJ-MD-DE Interstate AQCR			Chester Co., PA (Phila-Wilmington, PA-NJ-DE Interstate AQCR)	Lancaster Co., PA (AQCR 196)	Kent & Queen Anne's Cos. (AQCR 114)	Washington, DC-MD-VA AQCR				Norfolk-Virginia Beach-Newport News (Hampton Roads) VA (AQCR 223)
		Cecil Co., MD	Chester Co., PA	Total NA area				Calvert and Prince George's Cos., MD	Washington, D.C.	Fairfax and Prince Williams Cos., VA	Total Washington, DC-MD-VA AQCR	
	O_3 + PM2.5 NA	*O_3 NA*			*PM2.5 NA*	*O_3 + PM2.5 NA*	*O_3 Maint. Area*	*O_3 + PM2.5[c] NA*	*O_3 + PM2.5 NA*	*O_3 + PM2.5 NA*	*O_3 + PM2.5[c] NA*	*O_3 Maint. Area*
2013 + later	0.06%	b	b	b			b	0.001%	0.002%	0.002%	0.001%	b
SOx Emissions												
2009	0.01%	b	b	b			b					b
2010	0.01%	b	b	b	0.04%	0.01%	b					b
2011	0.01%	b	b	b	0.005%	0.001%	b					b
2012[a]	0.03%	b	b	b			b					b
2013 + later	0.04%	b	b	b			b					b
NH3 Emissions												
2009	0.04%	b	b	b			b	0.003%	0.002%	0.01%	0.004%	b
2010	0.04%	b	b	b	0.02%	0.0006%	b	0.004%	0.003%	0.01%	0.004%	b
2011	0.02%	b	b	b	0.003%	0.0001%	b	0.002%	0.001%	0.003%	0.002%	b
2012[a]	0.05%	b	b	b			b	0.0003%	0.0002%	0.0004%	0.0003%	b
2013 + later	0.07%	b	b	b			b	0.0004%	0.0003%	0.001%	0.000%	b

a. AES anticipates commercial operation to begin 1/1/2012 at partial capacity. Full capacity operation is anticipated to begin 6/1/2013.
b. Area in attainment with respective AAQS.
c. Calvert Co., MD is attainment for PM2.5.

the 8-hour standard have been submitted to the EPA for approval (MDE submitted its 8-hour ozone SIP to EPA on June 15, 2007 and PDEP submitted its SIP on August 29, 2007) and both states are waiting for EPA SIP approval. Therefore, this General Conformity Determination is based on the SIPs developed for the 1-hour ozone standard currently in place.

6.0 GENERAL CONFORMITY DETERMINATION – MARYLAND

Based on the data in Tables 5.3 and 5.4, the anticipated NO_x emissions associated with construction of the various Project facilities and indirect emissions from operation of the Project, primarily from marine vessel activities, exceed the applicability threshold for ozone and $PM_{2.5}$ precursor NO_X emissions in the Metropolitan Baltimore Intrastate AQCR 115. In addition, ozone precursor NO_X emissions are anticipated to exceed applicability threshold during construction of the Project in 2010 in the Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE Interstate AQCR (which includes Cecil County, Maryland and Chester County, Pennsylvania) along the Pipeline Route. Therefore a General Conformity Determination is required in both of these AQCRs.

The criteria for determining conformity are provided in 40 CFR 51.858. An action would be determined to conform for a specific pollutant if it meets the requirements of § 51.858(c) and any of the applicable requirements in § 51.858(a)(1) through (5). Sectopm 51.858(c) requires the total of direct and indirect emissions from the action be in compliance with all relevant requirements and milestones contained in the applicable SIP. Section 51.858(a)(1) through (5) provide a number of pollutant- and state-specific options for demonstrating conformity. The demonstration of compliance with the Maryland SIP requirements, in accordance with § 51.858(c), is provided in this document at Section 6.1, and an analysis of the option the Project would use to demonstrate conformity under § 51.828(a) is documented in Section 6.2 of this document.

6.1 CONSISTENCY WITH RELEVANT MARYLAND SIP REQUIREMENTS

The emission control measures and regulations included in the Maryland SIP that may apply to the Project construction activities, operating facilities and related vessel activities are listed in Table 6.1.

TABLE 6.1
Control Measures in Maryland Ozone and $PM_{2.5}$ Nonattainment Areas

Emission Control Measure	Type	Potential Applicability to the Sparrows Point Project Construction Activities, Facilities and Vessels
Motor Vehicle Inspection	State rule	Delivery and commuter vehicles
Clean-Fuel Fleets	State rule	Delivery and commuter vehicles
Control of Particulate Matter from Materials Handling and Construction	State rule	Construction equipment and dredged material processing

TABLE 6.1 Control Measures in Maryland Ozone and $PM_{2.5}$ Nonattainment Areas		
Emission Control Measure	**Type**	**Potential Applicability to the Sparrows Point Project Construction Activities, Facilities and Vessels**
Visible Emission Standards	State rule	Visible emissions from stationary sources
National LEV Program	Federal rule	Construction equipment
Alternate Fuel Incentive Program	Federal rule	Construction equipment
Federal Non-road Heavy Duty Diesel Engines	Federal rule	Construction equipment
Federal Marine Engines	Federal rule	Tug and security boat engines. (LNG ships are not US-flagged and are not subject to the Federal rule).
NO_x SIP Call	EPA requirement	All project emissions

Several of the regulations identified in Table 6.1 would indirectly affect the emissions from the proposed Project through implementation of new standards for refineries and engine manufacturers. These regulations include the heavy duty non-road diesel engine rule and the federal marine engine rule. AES would use construction equipment powered by diesel engines during construction of the facilities subject to these federal programs. Implementation and compliance with these programs would be required by the engine manufacturers, not AES. Therefore, it is assumed that the Project would be in compliance with these regulations. The MDE has implemented NO_x and VOC emission requirements for stationary sources that include emissions trade programs and reasonably available control technology ("RACT") requirements.

As discussed below, AES would commit to additional control and mitigation measures that would be implemented during construction and operation of the Project. These control and mitigation measures are in addition to any emissions reduction requirements under the applicable federal and state air quality regulations. AES would commit to include the following mitigation measures (see Appendix A for specific construction equipment commitments and other assumptions):

Construction Phase Mitigation

- Commitment that 89 percent of diesel engine-powered Pipeline and LNG terminal construction equipment will meet EPA Non-road Tier 1 standards or better;
- Commitment to retrofit 19 percent of diesel construction equipment used in LNG Terminal construction and pier rehabilitation with selective catalytic reduction (SCR) and diesel particulate filters (DPF); and

Operating Phase Mitigation

- Commitment for three (3) tugs to be used in LNG Terminal-related LNG ship assist operations to be equipped with new engines meeting, at a minimum, EPA Tier 2 standards applicable to non-road marine engines and fueled with ultra-low sulfur diesel (ULSD - 0.0015%) fuel; and

- Commitment for all LNG ships to use maximum of 1.5% sulfur fuel while operating in U.S. waters.

Table 6.2 summarizes estimates of NO_X, VOC, $PM_{2.5}$, SO_2, and NH_3 emissions without the nonjuristictional power plant during all Project years in nonattainment and maintenance areas in Maryland, Pennsylvania and Virginia accounting for proposed mitigation measures. The resulting emissions reductions from proposed mitigation measures are summarized in Table 6.3. Similarly, Table 6.4 summarizes estimates of NO_X, VOC, $PM_{2.5}$, SO_2, and NH_3 emissions during all Project years in nonattainment and maintenance areas in Maryland, Pennsylvania and Virginia with the nonjuristional power plant accounting for proposed mitigation measures. The resulting emissions reductions from proposed mitigation measures for this scenario are summarized in Table 6.5.

As shown in Tables 6.3 and 6.5, these mitigation commitments are estimated to reduce total Project NO_X emissions in the worst-case construction year (2010) by 343 to 358 tons per year, VOC emissions by 67 to 69 tons per year and $PM_{2.5}$ emissions by 38 to 39 tons per year, for the cases without and with the optional Power Plant, respectively. During the operating phase, mitigation measures are estimated to reduce total Project NO_X emissions by 22 tons per year, VOC emissions by 7.8 tons per year and SO_2 emissions by 111 tons per year in the first full operating year of the LNG Terminal. As described below in Section 7, the construction emissions in Chester County, Pennsylvania would be accounted for in Pennsylvania's existing SIP. Therefore, only the Maryland portion of emissions in the Philadelphia-Wilmington, PA-NJ-DE Interstate AQCR need to be offset.

AES is continuing to evaluate further mitigation options that have not been reflected in the updated calculations. For example, AES is evaluating the feasibility of retrofitting additional tugs used in the Baltimore harbor area for non-AES related activities with selective catalytic reduction (SCR) and diesel particulate filters (DPF) and obtaining commitments from the tug operators for exclusive use of ultra-low sulfur diesel (ULSD) fuel. AES is also evaluating the feasibility of implementing emissions reductions at another AES-owned stationary source.

Should any element of the Project or additional mitigation measures significantly change the emissions calculations for the Project, AES would revise and resubmit its calculations to the Commission.

6.2 MARYLAND EMISSION BUDGET AND PROJECT EMISSION OFFSETS

In addition to meeting the requirements in § 51.858(c) for demonstrating compliance or consistency with the applicable SIP, the Project must meet one of the applicable requirements in § 51.858(a)(1) through (5) for each pollutant subject to conformity. An analysis of the applicability of each of the compliance options to Project emissions subject to conformity determination in MD is presented in the following paragraphs along with documentation of the rationale for the selected compliance option.

1. § 51.858(a)(1) - *For any criteria pollutant, the total of direct and indirect emissions from the action are specifically identified and accounted for in the applicable SIP's attainment or maintenance demonstration.*

This conformity option is not applicable. Emissions from the Project are not specifically identified and accounted for in the applicable SIP.

2. § 51.858(a)(2) - *For ozone or nitrogen dioxide, the total of direct and indirect emissions from the action are fully offset within the same nonattainment or maintenance area through a revision to the applicable SIP or a similarly enforceable measure that effects emission reductions so that there is no net increase in emissions of that pollutant.*

   Table 6.2 identifies the total annual quantities of NO_X offsets that would be required for emissions from the Project within the metropolitan Baltimore intrastate air quality control region, taking into consideration reductions in actual emissions that would be achieved through implementation of certain air quality mitigation measures or projects, as discussed in Section 6.1. AES has been informed by the Commission staff that the emissions reductions to be achieved through implementation of certain air quality mitigation measures or projects would be included in the general federal conformity statement for the Project.

   Pennsylvania and Maryland have a reciprocity agreement in place that permits trading of emission reduction credits (ERCs) between the two states. ERCs may be traded within the same non-attainment area even though the non-attainment area may span both Maryland and Pennsylvania. In addition, ERCs may be transferred from a non-attainment area with a more severe classification to one with a lower (e.g., cleaner) non-attainment classification. Therefore NO_x ERCs generated in Buck's, Chester, Delaware, Montgomery, and Philadelphia counties (located in Pennsylvania) that are located in the Philadelphia-Wilmington, PA-NJ-DE Interstate Non-attainment area can be used to offset the 2010 NO_x emissions in Cecil County, MD from the pipeline construction without the need for additional modeling demonstrations because Cecil County is in the same non-attainment area as these counties.

   Based on discussions with MDE, ERCs from the Baltimore non-attainment area may also be used to offset emissions in Cecil County. However, AES would have to submit modeling to EPA to demonstrate that the air quality in the two different non-attainment areas are connected. MDE recently conducted modeling in support of their 8-hour ozone SIP, and has indicated that this analysis may be sufficient for using Baltimore ERCs for Cecil County offsets or for using Philadelphia area ERCs to offset emissions in Baltimore.

   AES has consulted with MDE, PDEP, and several trading brokerage firms and has indicated that NO_x ERCs are currently not available in either the Baltimore or Philadelphia non-attainment areas to cover the amount required under general conformity. However, sufficient NO_x ERCs could potentially be pieced together from the two non-attainment areas to meet the long-term offset requirement of both the construction and operating phases of the project (approximately 175 tons NO_x).

Table 6.2
Total Project Annual Emissions (TPY) With Mitigation Within All Project Areas (without Power Plant)

Year	Baltimore, Harford and Anne Arundel Counties, MD (Metro. Baltimore Intrastate AQCR 115)	Phila.-Wilmington-Atlantic City, PA-NJ-MD-DE Interstate AQCR			Chester Co., PA (Phila-Wilmington, PA-NJ-DE Interstate AQCR)	Lancaster Co., PA (AQCR 196)	Kent & Queen Anne's Cos. (AQCR 114)	Washington, DC-MD-VA AQCR				Norfolk-Virginia Beach-Newport News (Hampton Roads) VA (AQCR 223)	Total MD Attain. Areas	Total VA Attain Areas
		Cecil Co., MD	Chester Co., PA	Total NA area				Calvert and Prince George's Cos., MD	Wash., D.C.	Fairfax and Prince Williams Cos., VA	Total Wash., DC-MD-VA AQCR			
	O_3 + PM2.5 NA	*O_3 NA*			*PM2.5 NA*	*O_3 + PM2.5 NA*	*O_3 Maint. Area*	*O_3 + PM2.5[b] NA*	*O_3 + PM2.5 NA*	*O_3 + PM2.5 NA*	*O_3 + PM2.5[b] NA*	*O_3 Maint. Area*		
NOx Emissions														
2009	**297.2**							17.2	14.2	39.3	70.8	0.3		103.9
2010	**595.4**	45.2	**157.1**	**202.3**	**157.1**	40.0		20.6	17.1	47.2	84.9	0.3		124.7
2011	**173.8**	2.2	20.8	23.0	20.8	5.3		8.7	7.1	19.7	35.5	0.3		51.9
2012[a]	**114.6**						19.9	1.5	1.2	3.4	6.1	44.2	123.7	142.9
2013 + later	**171.9**						29.8	2.2	1.9	5.1	9.2	66.3	185.5	214.4
VOC Emissions														
2009	17.6							2.1	1.8	4.8	8.7	0.01		12.8
2010	33.4	2.5	8.7	11.2	8.7	2.2		2.5	2.1	5.8	10.4	0.01		15.4
2011	11.3	0.2	1.5	1.6	1.5	0.4		1.1	0.9	2.4	4.3	0.01		6.4
2012[a]	9.2						0.5	0.5	0.2	0.4	1.1	1.2	2.9	3.5
2013 + later	13.8						0.8	0.3	0.2	0.6	1.1	1.8	4.3	5.2
PM2.5 Emissions														
2009	19.5							0.4	0.3	0.9	1.7	0.02		2.5
2010	33.0	2.1	8.4	10.4	8.4	2.1		0.5	0.4	1.1	2.0	0.02		2.9
2011	10.3	0.1	1.1	1.2	1.1	0.3		0.2	0.2	0.5	0.8	0.02		1.2
2012[a]	5.6						1.0	0.0	0.03	0.1	0.1	2.13	5.4	7.0
2013 + later	8.4						1.4	0.1	0.04	0.1	0.2	3.19	8.1	10.5

Table 6.2
Total Project Annual Emissions (TPY) With Mitigation Within All Project Areas
(without Power Plant)

Year	Baltimore, Harford and Anne Arundel Counties, MD (Metro. Baltimore Intrastate AQCR 115)	Phila.-Wilmington-Atlantic City, PA-NJ-MD-DE Interstate AQCR			Chester Co., PA (Phila-Wilmington, PA-NJ-DE Interstate AQCR)	Lancaster Co., PA (AQCR 196)	Kent & Queen Anne's Cos. (AQCR 114)	Washington, DC-MD-VA AQCR				Norfolk-Virginia Beach-Newport News (Hampton Roads) VA (AQCR 223)	Total MD Attain. Areas	Total VA Attain Areas
		Cecil Co., MD	Chester Co., PA	Total NA area				Calvert and Prince George's Cos., MD	Wash., D.C.	Fairfax and Prince Williams Cos., VA	Total Wash., DC-MD-VA AQCR			
	O_3 + PM2.5 NA	*O_3 NA*			*PM2.5 NA*	*O_3 + PM2.5 NA*	*O_3 Maint. Area*	*O_3 + PM2.5[b] NA*	*O_3 + PM2.5 NA*	*O_3 + PM2.5 NA*	*O_3 + PM2.5[b] NA*	*O_3 Maint. Area*		
SOx Emissions														
2009	6.1											0.004		0.0
2010	13.7	1.2	4.5	5.7	4.5	1.1						0.004		0.0
2011	6.3	0.1	0.6	0.6	0.6	0.1						0.004		0.0
2012[a]	22.9						9.6					20.9	59.9	69.9
2013 + later	34.3						14.4					31.4	89.8	104.8
NH3 Emissions														
2009	1.4							0.04	0.03	0.08	0.15	0.005		0.22
2010	1.3	0.06	0.31	0.36	0.31	0.08		0.05	0.04	0.10	0.18	0.005		0.26
2011	0.6	0.00	0.04	0.05	0.04	0.01		0.02	0.02	0.04	0.08	0.005		0.11
2012[a]	1.7						0.23	0.00	0.003	0.01	0.01	0.50	1.4	1.7
2013 + later	2.5						0.34	0.00	0.004	0.01	0.02	0.75	2.1	2.5

a. AES anticipates commercial operation to begin 1/1/2012 at partial (1/3) capacity. Full capacity operation is anticipated to begin 6/1/2013.
b. Calvert Co., MD is attainment for PM2.5.

Table 6.3
Emission Reductions from Mitigation Measures
(Without Power Plant)

Year	Baltimore, Harford and Anne Arundel Counties, MD (Metro. Baltimore Intrastate AQCR 115)	Phila.-Wilmington-Atlantic City, PA-NJ-MD-DE Interstate AQCR			Chester Co., PA (Phila-Wilmington, PA-NJ-DE Interstate AQCR)	Lancaster Co., PA (AQCR 196)	Kent & Queen Anne's Cos. (AQCR 114)	Washington, DC-MD-VA AQCR				Norfolk-Virginia Beach-Newport News (Hampton Roads) VA (AQCR 223)	Total MD Attain. Areas	Total VA Attain Areas
		Cecil Co., MD	Chester Co., PA	Total NA area				Calvert and Prince George's Cos., MD	Wash., D.C.	Fairfax and Prince Williams Cos., VA	Total Wash., DC-MD-VA AQCR			
	O_3 + PM2.5 NA	*O_3 NA*			*PM2.5 NA*	*O_3 + PM2.5 NA*	*O_3 Maint. Area*	*O_3 + PM2.5[b] NA*	*O_3 + PM2.5 NA*	*O_3 + PM2.5 NA*	*O_3 + PM2.5[b] NA*	*O_3 Maint. Area*		
NOx Emissions														
2009	**67.3**							0	0	0	0	0		0
2010	**160.7**	16.3	**66.5**	**82.7**	**66.5**	17.0		0	0	0	0	0		0
2011	**39.1**	0.9	8.3	9.2	8.3	2.1		0	0	0	0	0		0
2012[a]	**14.7**						-0.2	0	0	0	0	0.3	1.2	-0.8
2013 + later	**22.1**						-0.2	0	0	0	0	-0.4	2	2.0
VOC Emissions														
2009	11.2							0	0	0	0	0		0
2010	30.2	3.2	13.5	16.7	13.5	3.5		0	0	0	0	0		0
2011	7.0	0.1	1.6	1.9	1.6	0.4		0	0	0	0	0		0
2012[a]	0						0	0	0	0	0	0	0.4	0
2013 + later	0						0	0	0	0	0	0	0.6	0
PM2.5 Emissions														
2009	6.7							0	0	0	0	0		0
2010	17.2	1.8	7.5	9.4	7.5	1.9		0	0	0	0	0		0
2011	4.2	0.1	0.8	1.0	0.9	0.2		0	0	0	0	0		0
2012[a]	1.3						0.2	0	0	0	0	0.48	1.6	1.6

Table 6.3
Emission Reductions from Mitigation Measures
(Without Power Plant)

Year	Baltimore, Harford and Anne Arundel Counties, MD (Metro. Baltimore Intrastate AQCR 115)	Phila.-Wilmington-Atlantic City, PA-NJ-MD-DE Interstate AQCR			Chester Co., PA (Phila-Wilmington, PA-NJ-DE Interstate AQCR)	Lancaster Co., PA (AQCR 196)	Kent & Queen Anne's Cos. (AQCR 114)	Washington, DC-MD-VA AQCR				Norfolk-Virginia Beach-Newport News (Hampton Roads) VA (AQCR 223)	Total MD Attain. Areas	Total VA Attain Areas
		Cecil Co., MD	Chester Co., PA	Total NA area				Calvert and Prince George's Cos., MD	Wash., D.C.	Fairfax and Prince Williams Cos., VA	Total Wash., DC-MD-VA AQCR			
	O_3 + PM2.5 NA	*O_3 NA*			*PM2.5 NA*	*O_3 + PM2.5 NA*	*O_3 Maint. Area*	*O_3 + PM2.5[b] NA*	*O_3 + PM2.5 NA*	*O_3 + PM2.5 NA*	*O_3 + PM2.5[b] NA*	*O_3 Maint. Area*		
2013 + later	2.0						0.4	0	0	0	0	0.72	2.4	2.4
SOx Emissions														
2009	0											0		0.0
2010	0	0	0	0	0	0						0		0.0
2011	0	0	0	0	0	0						0		0.0
2012[a]	9.4						3.8					8.5	24.2	28.2
2013 + later	14.1						5.8					12.7	36.4	42.4
NH3 Emissions														
2009	0.1							0	0	0	0	0		0
2010	0.1	0.02	0.1	0.18	0.1	0.02		0	0	0	0	0		0
2011	0	0.01	0.02	0.02	0.02	0		0	0	0	0	0		0
2012[a]	0						0	0	0	0	0	0	0	0
2013 + later	0						0.	0	0	0	0	0	0.1	0

a. AES anticipates commercial operation to begin 1/1/2012 at partial (1/3) capacity. Full capacity operation is anticipated to begin 6/1/2013.
b. Calvert Co., MD is attainment for $PM^{2.5}$.

Table 6.4
Total Project Annual Emissions (TPY) With Mitigation Within All Project Areas (with Power Plant)

Year	Baltimore, Harford and Anne Arundel Counties, MD (Metro. Baltimore Intrastate AQCR 115)	Phila.-Wilmington-Atlantic City, PA-NJ-MD-DE Interstate AQCR			Chester Co., PA (Phila-Wilmington, PA-NJ-DE Interstate AQCR)	Lancaster Co., PA (AQCR 196)	Kent & Queen Anne's Cos. (AQCR 114)	Washington, DC-MD-VA AQCR				Norfolk-Virginia Beach-Newport News (Hampton Roads) VA (AQCR 223)	Total MD Attain. Areas	Total VA Attain Areas
		Cecil Co., MD	Chester Co., PA	Total NA area				Calvert and Prince George's Cos., MD	Wash., D.C.	Fairfax and Prince Williams Cos., VA	Total Wash., DC-MD-VA AQCR			
	O_3 + PM2.5 NA	*O_3 NA*			*PM2.5 NA*	*O_3 + PM2.5 NA*	*O_3 Maint. Area*	*O_3 + PM2.5[b] NA*	*O_3 + PM2.5 NA*	*O_3 + PM2.5 NA*	*O_3 + PM2.5[b] NA*	*O_3 Maint. Area*		
NOx Emissions														
2009	**318.8**							17.2	14.2	39.3	70.8	0.3		103.9
2010	**628.3**	45.2	**157.1**	**202.3**	**157.1**	40.0		20.6	17.1	47.2	84.9	0.3		124.7
2011	**178.3**	2.2	20.8	23.0	20.8	5.3		8.7	7.1	19.7	35.5	0.3		51.9
2012[a]	**114.6**						19.9	1.5	1.2	3.4	6.1	44.2	123.7	142.9
2013 + later	**171.9**						29.8	2.2	1.9	5.1	9.2	66.3	185.5	214.4
VOC Emissions														
2009	20.9							2.1	1.8	4.8	8.7	0.01		12.8
2010	38.2	2.5	8.7	11.2	8.7	2.2		2.5	2.1	5.8	10.4	0.01		15.4
2011	12.3	0.2	1.5	1.6	1.5	0.4		1.1	0.9	2.4	4.3	0.01		6.4
2012[a]	9.2						0.5	0.5	0.2	0.4	1.1	1.2	2.9	3.5
2013 + later	13.8						0.8	0.3	0.2	0.6	1.1	1.8	4.3	5.2
PM2.5 Emissions														
2009	21.0							0.4	0.3	0.9	1.7	0.02		2.5
2010	35.0	2.1	8.4	10.4	8.4	2.1		0.5	0.4	1.1	2.0	0.02		2.9
2011	10.7	0.1	1.1	1.2	1.1	0.3		0.2	0.2	0.5	0.8	0.02		1.2
2012[a]	5.6						1.0	0.0	0.03	0.1	0.1	2.13	5.4	7.0
2013 + later	8.4						1.4	0.1	0.04	0.1	0.2	3.19	8.1	10.5

Table 6.4
Total Project Annual Emissions (TPY) With Mitigation Within All Project Areas
(with Power Plant)

Year	Baltimore, Harford and Anne Arundel Counties, MD (Metro. Baltimore Intrastate AQCR 115)	Phila.-Wilmington-Atlantic City, PA-NJ-MD-DE Interstate AQCR			Chester Co., PA (Phila-Wilmington, PA-NJ-DE Interstate AQCR)	Lancaster Co., PA (AQCR 196)	Kent & Queen Anne's Cos. (AQCR 114)	Washington, DC-MD-VA AQCR				Norfolk-Virginia Beach-Newport News (Hampton Roads) VA (AQCR 223)	Total MD Attain. Areas	Total VA Attain Areas
		Cecil Co., MD	Chester Co., PA	Total NA area				Calvert and Prince George's Cos., MD	Wash., D.C.	Fairfax and Prince Williams Cos., VA	Total Wash., DC-MD-VA AQCR			
	O_3 + PM2.5 NA	*O_3 NA*			*PM2.5 NA*	*O_3 + PM2.5 NA*	*O_3 Maint. Area*	*O_3 + PM2.5[b] NA*	*O_3 + PM2.5 NA*	*O_3 + PM2.5 NA*	*O_3 + PM2.5[b] NA*	*O_3 Maint. Area*		
SOx Emissions														
2009	6.8											0.004		0.0
2010	14.5	1.2	4.5	5.7	4.5	1.1						0.004		0.0
2011	6.4	0.1	0.6	0.6	0.6	0.1						0.004		0.0
2012[a]	22.9						9.6					20.9	59.9	69.9
2013 + later	34.3						14.4					31.4	89.8	104.8
NH3 Emissions														
2009	1.5							0.04	0.03	0.08	0.15	0.005		0.22
2010	1.4	0.06	0.31	0.36	0.31	0.08		0.05	0.04	0.10	0.18	0.005		0.26
2011	0.6	0.00	0.04	0.05	0.04	0.01		0.02	0.02	0.04	0.08	0.005		0.11
2012[a]	1.7						0.23	0.00	0.003	0.01	0.01	0.50	1.4	1.7
2013 + later	2.5						0.34	0.00	0.004	0.01	0.02	0.75	2.1	2.5

a. AES anticipates commercial operation to begin 1/1/2012 at partial (1/3) capacity. Full capacity operation is anticipated to begin 6/1/2013.
b. Calvert Co., MD is attainment for PM2.5.

Table 6.5
Emission Reductions from Mitigation Measures
(Without Power Plant)

Year	Baltimore, Harford and Anne Arundel Counties, MD (Metro. Baltimore Intrastate AQCR 115)	Phila.-Wilmington-Atlantic City, PA-NJ-MD-DE Interstate AQCR			Chester Co., PA (Phila-Wilmington, PA-NJ-DE Interstate AQCR)	Lancaster Co., PA (AQCR 196)	Kent & Queen Anne's Cos. (AQCR 114)	Washington, DC-MD-VA AQCR				Norfolk-Virginia Beach-Newport News (Hampton Roads) VA (AQCR 223)	Total MD Attain. Areas	Total VA Attain Areas
		Cecil Co., MD	Chester Co., PA	Total NA area				Calvert and Prince George's Cos., MD	Wash., D.C.	Fairfax and Prince Williams Cos., VA	Total Wash., DC-MD-VA AQCR			
	O_3 + PM2.5 NA	*O_3 NA*			*PM2.5 NA*	*O_3 + PM2.5 NA*	*O_3 Maint. Area*	*O_3 + PM2.5[b] NA*	*O_3 + PM2.5 NA*	*O_3 + PM2.5 NA*	*O_3 + PM2.5[b] NA*	*O_3 Maint. Area*		
NOx Emissions														
2009	**81.1**							0	0	0	0	0		0
2010	**175.3**	16.3	**66.5**	**82.7**	**66.5**	17.0		0	0	0	0	0		0
2011	**41.1**	0.9	8.3	9.2	8.3	2.1		0	0	0	0	0		0
2012[a]	**14.7**						-0.2	0	0	0	0	0.3	1.2	-0.8
2013 + later	**22.1**						-0.2	0	0	0	0	-0.4	2	2.0
VOC Emissions														
2009	12.8							0	0	0	0	0		0
2010	31.9	3.2	13.5	16.7	13.5	3.5		0	0	0	0	0		0
2011	7.2	0.1	1.6	1.9	1.6	0.4		0	0	0	0	0		0
2012[a]	0						0	0	0	0	0	0	0.4	0
2013 + later	0						0	0	0	0	0	0	0.6	0
PM2.5 Emissions														
2009	7.8							0	0	0	0	0		0
2010	18.3	1.8	7.5	9.4	7.5	1.9		0	0	0	0	0		0
2011	4.3	0.1	0.8	1.0	0.9	0.2		0	0	0	0	0		0
2012[a]	1.3						0.2	0	0	0	0	0.48	1.6	1.6
2013 + later	2.0						0.4	0	0	0	0	0.72	2.4	2.4

Table 6.5
Emission Reductions from Mitigation Measures
(Without Power Plant)

Year	Baltimore, Harford and Anne Arundel Counties, MD (Metro. Baltimore Intrastate AQCR 115)	Phila.-Wilmington-Atlantic City, PA-NJ-MD-DE Interstate AQCR			Chester Co., PA (Phila-Wilmington, PA-NJ-DE Interstate AQCR)	Lancaster Co., PA (AQCR 196)	Kent & Queen Anne's Cos. (AQCR 114)	Washington, DC-MD-VA AQCR				Norfolk-Virginia Beach-Newport News (Hampton Roads) VA (AQCR 223)	Total MD Attain. Areas	Total VA Attain Areas
		Cecil Co., MD	Chester Co., PA	Total NA area				Calvert and Prince George's Cos., MD	Wash., D.C.	Fairfax and Prince Williams Cos., VA	Total Wash., DC-MD-VA AQCR			
	O_3 + PM2.5 NA	*O_3 NA*			*PM2.5 NA*	*O_3 + PM2.5 NA*	*O_3 Maint. Area*	*O_3 + PM2.5[b] NA*	*O_3 + PM2.5 NA*	*O_3 + PM2.5 NA*	*O_3 + PM2.5[b] NA*	*O_3 Maint. Area*		
SOx Emissions														
2009	0											0		0.0
2010	0	0	0	0	0	0						0		0.0
2011	0	0	0	0	0	0						0		0.0
2012[a]	9.4						3.8					8.5	24.2	28.2
2013 + later	14.1						5.8					12.7	36.4	42.4
NH3 Emissions														
2009	0.1							0	0	0	0	0		0
2010	0.1	0.02	0.1	0.18	0.1	0.02		0	0	0	0	0		0
2011	0	0.01	0.02	0.02	0.02	0		0	0	0	0	0		0
2012[a]	0						0	0	0	0	0	0	0	0
2013 + later	0						0.	0	0	0	0	0	0.1	0

a. AES anticipates commercial operation to begin 1/1/2012 at partial (1/3) capacity. Full capacity operation is anticipated to begin 6/1/2013.
b. Calvert Co., MD is attainment for PM2.5.

Another offset strategy for the project offset requirements suggested by MDE is the substitution of VOC ERCs for NO_x ERCs. EPA Region III has approved a VOC ERC for NO_x ERC substitution in at least one non-attainment New Source Review (NSR) permitting project in Maryland at a ratio of 1.3 tons of VOC for each ton of NO_x. MDE, PDEP, and trading brokers have all indicated that sufficient VOC ERCs are available to meet the Project ERC requirements on a year-by-year basis.

Based on the discussion above, AES must commit to a combination of the following ERC options for general conformity compliance, subject to final approval from EPA, MDE, and PDEP:

1. NO_x ERCs from the Baltimore non-attainment area;
2. NO_x ERCs from the Philadelphia non-attainment area;
3. VOC ERCs from the Baltimore non-attainment area at an approved VOC to NO_x ratio; and/or
4. VOC ERCs from the Philadelphia non-attainment area at an approved VOC to NO_x ratio.

3. § 51.858(a)(3) - *For any criteria pollutant, except ozone and nitrogen dioxide, the total of direct and indirect emissions from the action meet the requirements:*
   - *(i) Specified in paragraph (b) of this section, based on areawide air quality modeling analysis and local air quality modeling analysis; or*
   - (ii) *Meet the requirements of paragraph (a)(5) of this section and, for local air quality modeling analysis, the requirement of paragraph (b) of this section;*

This conformity option is not applicable. The only emissions from the Project subject to general conformity are nitrogen dioxide, both as ozone and $PM_{2.5}$ precursors.

4. § 51.858(a)(4) - *For CO or PM–10—*
   - *(i) Where the State agency primarily responsible for the applicable SIP determines that an areawide air quality modeling analysis is not needed, the total of direct and indirect emissions from the action meet the requirements specified in paragraph (b) of this section, based on local air quality modeling analysis; or*
   - (ii) *Where the State agency primarily responsible for the applicable SIP determines that an areawide air quality modeling analysis is appropriate and that a local air quality modeling analysis is not needed, the total of direct and indirect emissions from the action meet the requirements specified in paragraph (b) of this section, based on areawide modeling, or meet the requirements of paragraph (a)(5) of this section.*

This conformity option is not applicable. The only emissions from the Project subject to general conformity are nitrogen dioxide, both as ozone and $PM_{2.5}$ precursors.

5. § 51.858(a)(5) - *For ozone or nitrogen dioxide, and for purposes of paragraphs (a)(3)(ii) and (a)(4)(ii) of this section, each portion of the action or the action as a whole meets any of the following requirements:*
   - *(i)* *Where EPA has approved a revision to an area's attainment or maintenance demonstration after 1990 and the State makes a determination as provided in paragraph (a)(5)(i)(A) of this section or where the State makes a commitment as provided in paragraph (a)(5)(i)(B) of this section:*
     - (A) *The total of direct and indirect emissions from the action (or portion thereof) is determined and documented by the State agency primarily responsible for the applicable SIP to result in a level of emissions which, together with all other emissions in the nonattainment (or maintenance) area, would not exceed the emissions budgets specified in the applicable SIP;*
     - (B) *The total of direct and indirect emissions from the action (or portion thereof) is determined by the State agency responsible for the applicable SIP to result in a level of emissions which, together with all other emissions in the nonattainment (or maintenance) area, would exceed an emissions budget specified in the applicable SIP and the State Governor or the Governor's designee for SIP actions makes a written commitment to EPA which includes the following:*

       (1) A specific schedule for adoption and submittal of a revision to the SIP which would achieve the needed emission reductions prior to the time emissions from the Federal action would occur;

       (2) Identification of specific measures for incorporation into the SIP which would result in a level of emissions which, together with all other emissions in the nonattainment or maintenance area, would not exceed any emissions budget specified in the applicable SIP;

       (3) A demonstration that all existing applicable SIP requirements are being implemented in the area for the pollutants affected by the Federal action, and that local authority to implement additional requirements has been fully pursued;

       (4) A determination that the responsible Federal agencies have required all reasonable mitigation measures associated with their action; and

       (5) Written documentation including all air quality analyses supporting the conformity determination;
     - (C) *Where a Federal agency made a conformity determination based on a State commitment under paragraph (a)(5)(i)(B) of this section, such a State commitment is automatically deemed a call for a SIP revision by EPA under section 110(k)(5) of the Act, effective on the date of the Federal conformity determination and requiring response within 18 months or any shorter time within which the State commits to revise the applicable SIP;*

> On June 2, 2008, AES participated in a telephone conference with FERC Staff and representatives of MDE and Maryland Department of Natural Resources ("MDNR") to discuss the scope and timing of the draft and final general federal conformity statements to be issued for the project, as well as certain aspects of the methodology required to complete the conformity analysis. During that telephone conference, MDE advised that AES would not be able to pursue a determination from the State that the ozone and $PM_{2.5}$ precursor NO_X emissions from the proposed action, together with all other actions within the affected Maryland nonattainment areas, would fit within the SIP budget. MDE explained that the emissions budgets included in the SIP currently in effect were developed by MDE to include emissions from those future projects that had been identified as of the date the most recent SIP revision was submitted to U.S. EPA for approval. Because the ozone and NO_2 emissions associated with the project were not included in Maryland's 2002 SIP revision, MDE indicated that it would not be able to make a determination that these emissions from the project would fit within the current SIP budget. Accordingly, AES and Mid-Atlantic Express do not plan to seek a determination from the State of Maryland under Sections 51.858(a)(5)(i)(A) and 93.158(a)(5)(i)(A) of the general federal conformity regulations.
>
> Instead, as discussed above, AES plans to obtain offsets for the total ozone and $PM_{2.5}$ precursor NO_X emissions from the Project that would occur within the metropolitan Baltimore intrastate air quality control region (AQCR 115), in accordance with 40 C.F.R. §§ 51.858(a)(2). In addition, AES would commit to obtaining offsets for the total ozone precursor NO_X emissions that would occur in 2010 from construction of the Pipeline in the Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE Interstate AQCR either from within the same AQCR, from AQCR 115, or from a combination of locations within both AQCRs.
>
> Section 51.858(a)(5)(ii), (iv) and (v) are not applicable to the Project, and Section 51.858(a)(5)(iii) is identical to Section 51.858(a)(2).

AES is still in the process of developing a specific plan to offset the proposed Project NO_X emissions every year they are predicted to exceed the applicable thresholds established by the General Conformity Rule. The emissions offset plan has identified specific reduction measures to generate emissions offsets that are contemporaneous with applicable Project emissions. Emissions offsets, as defined in 40 CFR §51.852, are quantifiable reductions, consistent with the applicable SIP attainment and reasonable further progress demonstrations, surplus to reductions required by, and credited to, other applicable SIP provisions, enforceable at both the state and federal levels, and permanent within the timeframe specified by the program. Table 6.6 summarizes the year-by-year portion of the Project emissions that would be offset by AES through the Maryland and Pennsylvania offset purchase program. NO_x offsets would be required for construction beginning in 2009 and for operation beginning in 2012.

Table 6.6 does not include NO_X emissions due to operation of LNG Terminal stationary sources, including emissions from unloading LNG. Stationary source ozone precursor emissions are authorized through the federal NSR and permit programs and therefore are evaluated separately through the state program.

TABLE 6.6
Project Emissions Offsets in MD

Ozone and $PM_{2.5}$ Precursor Nitrogen Oxides Offsets			
Year	**Offset Amount Without Power Plant (tons)**	**Offset Amount With Power Plant (tons)**	**Note**
2009	297.2	318.8	Emissions from construction equipment, marine vessels and commuter and delivery vehicles in Baltimore, Harford and Anne Arundel Counties, MD (Metro. Baltimore Intrastate AQCR 115)
2010	595.4	628.3	Emissions from construction equipment, marine vessels and commuter and delivery vehicles in Baltimore, Harford and Anne Arundel Counties, MD (Metro. Baltimore Intrastate AQCR 115)
2011	173.8	178.3	Emissions from construction equipment, marine vessels and commuter and delivery vehicles in Baltimore, Harford and Anne Arundel Counties, MD (Metro. Baltimore Intrastate AQCR 115)
2012	114.6	114.6	Emissions from LNG Terminal operations marine vessels and commuter and delivery vehicles in Baltimore and Anne Arundel Counties, MD (Metro. Baltimore Intrastate AQCR 115)
2013 and later years	171.9	171.9	Emissions from LNG Terminal operations marine vessels and commuter and delivery vehicles in Baltimore and Anne Arundel Counties, MD (Metro. Baltimore Intrastate AQCR 115)
Ozone Precursor Nitrogen Oxides Offsets			
Year	**Offset Amount Without Power Plant (tons)**	**Offset Amount With Power Plant (tons)**	**Note**
2010	202.3	202.3	Emissions from construction equipment, commuter and delivery vehicles in Cecil Co., MD + Chester Co., PA (Phila.-Wilmington-Atlantic City, PA-NJ-MD-DE Interstate AQCR)

7.0 GENERAL CONFORMITY DETERMINATION – PENNSYLVANIA

Based on the data provided in Tables 6.2 through 6.5, the anticipated total direct and indirect NO_x emissions associated with construction of Pipeline segments in Chester County, Pennsylvania exceed the applicability threshold for $PM_{2.5}$ precursor NO_X emissions in the Philadelphia-Wilmington, PA-NJ-DE Interstate AQCR and ozone precursor NO_X emissions in the Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE Interstate AQCR (only in 2010). Therefore, a General Conformity Determination for NO_x is required in both of these AQCRs.

The criteria for determining conformity are provided in 40 CFR 51.858. An action would be determined to conform for a specific pollutant if it meets the requirements of § 51.858(c) and any of the applicable requirements in § 51.858(a)(1) through (5). Section 51.858(c) requires the total of direct and indirect emissions from the action be in compliance with all relevant requirements and milestones contained in the applicable SIP. Section 51.858(a)(1) through (5) provide a number of pollutant- and state-specific options for demonstrating conformity. The demonstration of compliance with the Pennsylvania SIP requirements, in accordance with § 51.858(c), is provided in Section 7.1 of this document, and an analysis of the option the Project would use to demonstrate conformity under § 51.828(a) is in Section 7.2 of this document.

7.1 CONSISTENCY WITH RELEVANT PENNSYLVANIA SIP REQUIREMENTS

The emission control measures and regulations included in the Pennsylvania SIP that may apply to the Project construction activities are listed in Table 7.1.

TA BLE 7.1
Control Measures in Pennsylvania Ozone and $PM_{2.5}$ Nonattainment Areas

Emission Control Measure	Type	Potential Applicability to the Sparrows Point Project Construction Activities, Facilities and Vessels
Motor Vehicle Inspection	State rule	Delivery and commuter vehicles
Clean-Fuel Fleets	State rule	Delivery and commuter vehicles
National LEV Program	Federal rule	Construction equipment
Alternate Fuel Incentive Program	Federal rule	Construction equipment
Federal Non-road Heavy Duty Diesel Engines	Federal rule	Construction equipment

Several of the regulations identified in Table 7.1 indirectly would affect the emissions from the proposed Project through implementation of new standards for refineries and engine manufacturers. These regulations include the heavy duty non-road diesel engine rule. AES would use construction equipment powered by diesel engines during construction of the facilities subject to these federal programs. Implementation and compliance with these programs would be required by the engine manufacturers, not AES. Therefore, it is assumed that the Project would comply with these regulations. The PDEP has implemented NO_x and VOC emission requirements for stationary sources that include emissions trade programs and RACT requirements.

As discussed in Section 6.0 of this analysis, AES would commit to additional control and mitigation measures that would be implemented during construction and operation of the Project. The emissions reductions that would be achieved through implementation of these control and mitigation measures are in addition to any such reductions required under applicable federal and state air quality regulations. AES would commit to specify that 96 percent of diesel engine-powered Pipeline construction equipment will meet EPA Non-road Tier 1 standards.

With respect to Pennsylvania-specific reductions, Tables 6.3 and 6.5 show these mitigation commitments are estimated to reduce NO_X emissions in Chester and Lancaster Counties in 2010 by 83.5 tons per year compared to the base case without mitigation. AES is continuing to evaluate further mitigation options that have not been reflected in the mitigated emissions calculations. For example, AES is evaluating the feasibility of implementing emissions reductions at another AES-owned stationary source.

Should any element of the Project or additional mitigation measures change Project emissions substantially, AES would revise and resubmit revised calculations.

7.2 PENNSYLVANIA EMISSION BUDGET AND PROJECT EMISSION OFFSETS

In addition to meeting the requirements in § 51.858(c) for demonstrating compliance or consistency with the applicable SIP, the Project must meet one of the applicable requirements in § 51.858(a)(1) through (5) for each pollutant subject to conformity. An analysis of the applicability of each of the compliance options to the Project emissions that are subject to a conformity determination in Pennsylvania is presented in this section, along with documentation of the rationale for the selected compliance option.

1. § 51.858(a)(1) - *For any criteria pollutant, the total of direct and indirect emissions from the action are specifically identified and accounted for in the applicable SIP's attainment or maintenance demonstration.*

   This conformity option is not applicable. Based on AES's discussion with PDEP staff, emissions from the Project are not specifically identified and accounted for in the applicable SIP.

2. § 51.858(a)(2) - *For ozone or nitrogen dioxide, the total of direct and indirect emissions from the action are fully offset within the same nonattainment or maintenance area through a revision to the applicable SIP or a similarly enforceable measure that effects emission reductions so that there is no net increase in emissions of that pollutant.*

   Based on discussions with PDEP staff and pending a PDEP determination under § 51.858(a)(5)(i)(A) that the total of direct and indirect emissions from the portion of the Project in Chester County would not exceed the emissions budgets specified in the applicable SIP, AES would not need to obtain offsets for the total ozone and $PM_{2.5}$ precursor NO_X emissions that would occur within Chester County.

3. § 51.858(a)(3) - *For any criteria pollutant, except ozone and nitrogen dioxide, the total of direct and indirect emissions from the action meet the requirements:*

   (ii) Specified in paragraph (b) of this section, based on areawide air quality modeling analysis and local air quality modeling analysis; or

   (iii) *Meet the requirements of paragraph (a)(5) of this section and, for local air quality modeling analysis, the requirement of paragraph (b) of this section;*

   This conformity option is not applicable. The only emissions from the Project in Pennsylvania subject to general conformity are nitrogen dioxide, both as ozone and $PM_{2.5}$ precursors.

4. § 51.858(a)(4) - *For CO or PM–10—*

   (iv) Where the State agency primarily responsible for the applicable SIP determines that an areawide air quality modeling analysis is not needed, the total of direct and indirect emissions from the action meet the requirements specified in paragraph (b) of this section, based on local air quality modeling analysis; or

   (v) *Where the State agency primarily responsible for the applicable SIP determines that an areawide air quality modeling analysis is appropriate and that a local air quality modeling analysis is not needed, the total of direct and indirect emissions from the action meet the requirements specified in paragraph (b) of this section, based on areawide modeling, or meet the requirements of paragraph (a)(5) of this section.*

   This conformity option is not applicable. The only emissions from the Project subject to general conformity are nitrogen dioxide, both as ozone and $PM_{2.5}$ precursors.

5. § 51.858(a)(5) - *For ozone or nitrogen dioxide, and for purposes of paragraphs (a)(3)(ii) and (a)(4)(ii) of this section, each portion of the action or the action as a whole meets any of the following requirements:*

   (vi) Where EPA has approved a revision to an area's attainment or maintenance demonstration after 1990 and the State makes a determination as provided in paragraph (a)(5)(i)(A) of this section or where the State makes a commitment as provided in paragraph (a)(5)(i)(B) of this section:

   (A) *The total of direct and indirect emissions from the action (or portion thereof) is determined and documented by the State agency primarily responsible for the applicable SIP to result in a level of emissions which, together with all other emissions in the nonattainment (or maintenance) area, would not exceed the emissions budgets specified in the applicable SIP;*

   (B) *The total of direct and indirect emissions from the action (or portion thereof) is determined by the State agency responsible for the applicable SIP to result in a level of emissions which, together*

with all other emissions in the nonattainment (or maintenance) area, would exceed an emissions budget specified in the applicable SIP and the State Governor or the Governor's designee for SIP actions makes a written commitment to EPA which includes the following:

(1) A specific schedule for adoption and submittal of a revision to the SIP which would achieve the needed emission reductions prior to the time emissions from the Federal action would occur;

(2) Identification of specific measures for incorporation into the SIP which would result in a level of emissions which, together with all other emissions in the nonattainment or maintenance area, would not exceed any emissions budget specified in the applicable SIP;

(3) A demonstration that all existing applicable SIP requirements are being implemented in the area for the pollutants affected by the Federal action, and that local authority to implement additional requirements has been fully pursued;

(4) A determination that the responsible Federal agencies have required all reasonable mitigation measures associated with their action; and

(5) Written documentation including all air quality analyses supporting the conformity determination;

(C) *Where a Federal agency made a conformity determination based on a State commitment under paragraph (a)(5)(i)(B) of this section, such a State commitment is automatically deemed a call for a SIP revision by EPA under section 110(k)(5) of the Act, effective on the date of the Federal conformity determination and requiring response within 18 months or any shorter time within which the State commits to revise the applicable SIP;*

AES participated in a telephone conference on June 13, 2008 and several follow-up calls with PDEP staff to discuss the feasibility of obtaining a state determination under Subsection (A) of the general federal conformity regulations for ozone and $PM_{2.5}$ precursor NO_2 emissions associated with construction of the Pipeline in Pennsylvania. Based on these discussions, the total of direct and indirect emissions from the portion of the Project in Chester County would not exceed the emissions budgets specified in the applicable SIP, and PDEP staff advised that a determination under § 51.858(a)(5)(i)(A) would be feasible based on the following demonstrations:

a. The nonroad construction equipment population associated with the pipeline construction spread in Chester County would be a small percentage of the county population of such construction equipment included in the applicable SIP; and

b. On-road vehicles associated with AES pipeline construction activities in Chester County would represent a small percentage of the daily vehicle miles

travelled or emissions associated with the same class of on-road vehicles included within Chester County.

Compliance with both of these criteria is documented in Tables 7.2 and 7.3. Table 7.2 documents that the nonroad construction equipment population associated with construction of the AES pipeline in Chester County is about 4 percent of the total county population included in the applicable SIP for the same categories of construction equipment, as provided by PDEP staff. Table 7.3 shows that the vehicle miles travelled by on-road vehicles associated with AES pipeline construction activities in Chester County are less than 0.1 percent of vehicle miles travelled in Chester County by the same vehicle classifications. Therefore, sufficient documentation has been provided for PDEP to make a conformity determination in accordance with § 51.858(a)(5)(i)(A).

§ 51.858(a)(5)(ii), (iv) and (v) are not applicable to the Project and § 51.858(a)(5)(iii) is identical to § 51.858(a)(2).

TABLE 7.2
Comparison of AES Pipeline Nonroad Construction Equipment Population in Chester County with Total Chester County Construction Equipment Population

Equipment	No. of Units AES Pipeline Construction in Chester County	Equipment Population in Chester County in 2005 with Growth in SIP[a]	% Project / Chester Co.
Cranes	2	188	1%
Trackhoes	13	573	2%
Fuel trucks+dump trucks	4	32	13%
Trenching Machines	2	97	2%
Crawlers/Dozers	19	547	3%
Motor Graders	4	134	3%
Road Bore Machines	4	15	27%
Welding rigs	31	209	15%
Pumps	2	128	2%
Total	81	1923	4%

[a] Chester Co. construction equipment population data provided by PDEP.

TABLE 7.3
Comparison of On-road Vehicles Associated With AES Pipeline Construction Activities in Chester County with Total Estimated Chester County On-road Vehicle Daily Vehicle Miles Travelled (VMT) By Same Vehicle Types

Vehicle Type	Vehicle Trips per Day	Round Trip Miles Within Chester Co.	Daily Project VMT Within Chester Co.	Daily Total VMT Within Chester Co.[b]	% Project / Chester Co.
Spoils Haul Trucks (HDDV8)	16	20	320		
Supplies Trucks, port to laydown yards (HDDV8)	16	20	320		
Supplies Trucks, laydown yards to pipe trenches (HDDV8)	15	20	300		
Total HDDV8A and B Vehicles	47	60	940	608,787	0.15%
Workers Commuting (LDGV)	80	30	2,400	5,365,896	0.04%
Workers Commuting (LDGT34)	80	30	2,400	1,761,394	0.14%
Total			5,740	7,736,076	0.07%

[b] Chester Co. daily VMTs for applicable vehicle types estimated from statewide total daily VMTs (provided by PDEP) by multiplying statewide daily VMTs for each vehicle type by 4%. 4% factor was estimated from PA DOT document "Pennsylvania Highway Statistics, Bureau of Planning and Research 2006 Highway Data", PUB 600 (1-.08), by dividing Chester Co. DVMT by t

Appendix A

Listing of Construction Equipment Mitigation Commitments

Appendix A
Construction Equipment Mitigation Commitments

Construction Equipment	No. of Units	Bhp each	Mitigation Commitments	No. of Units Meeting EPA Tier 1	% of Units Meeting EPA Tier 1	% BHp Meeting EPA Tier 1	No. of Units w/ SCR+ DPF	% of Units w/ SCR+ DPF	% Bhp w/ SCR+ DPF
HDD spreads (each of 2 spreads)									
HDD engine	1	450	Pre-Tier 1						
Aux. Generator	1	503	EPA Tier 1 Standards						
Crane	1	200	EPA Tier 1 Standards						
Pump	2	200	Pre-Tier 1						
Welding Rig	3	10	EPA Tier 1 Standards						
Crawlers	3	500	EPA Tier 1 Standards						
3/4 ton pickups	5	250	EPA Tier 1 Standards						
TOTAL	16	4333		13	81%	80%	0	0%	0%
Pipeline construction spreads (each of 2 spreads)									
Cranes	2	200	EPA Tier 1 Standards						
Trackhoes	13	140	EPA Tier 1 Standards						
Fuel trucks	2	400	EPA Tier 1 Standards						
Trenching Machines	2	200	EPA Tier 1 Standards						
3/4 ton pickups	53	250	EPA Tier 1 Standards						
Welding rigs	31	10	EPA Tier 1 Standards						
Crawlers/Dozers	19	500	EPA Tier 1 Standards						
Dump Trucks	2	400	EPA Tier 1 Standards						
Motor Graders	4	200	EPA Tier 1 Standards						
Pumps	2	150	Pre-Tier 1						
Road Bore Machines	4	125	Pre-Tier 1						
Pipe Haul Trucks	16	500	EPA Tier 1 Standards						
TOTAL	150	36880		144	96%	98%	0	0%	0%

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Construction Equipment Mitigation Commitments

Construction Equipment	No. of Units	Bhp each	Mitigation Commitments	No. of Units Meeting EPA Tier 1	% of Units Meeting EPA Tier 1	% BHp Meeting EPA Tier 1	No. of Units w/ SCR+ DPF	% of Units w/ SCR+ DPF	% Bhp w/ SCR+ DPF
LNG Terminal Onshore Construction Activities									
Crane-M.888 Crawler	1	350	Pre-Tier 1						
15 Ton Picker	2	150	Pre-Tier 1 w/ SCR + DPF						
60 Ton Crane	1	290	Pre-Tier 1						
Backhoe	3	150	Pre-Tier 1 w/ SCR + DPF						
450 Dozer	1	150	Pre-Tier 1 w/ SCR + DPF						
D6 Dozer	1	350	Pre-Tier 1 w/ SCR + DPF						
Front End Loader	1	150	Pre-Tier 1 w/ SCR + DPF						
Bobcat	1	150	EPA Tier 1 Standards						
Cat 225 TrackHoe	1	520	EPA Tier 1 Standards						
Compactor	2	300	EPA Tier 1 Standards						
Pulvimixer Cat	1	300	EPA Tier 1 Standards						
Roller	1	300	EPA Tier 1 Standards						
Scrapers	1	350	EPA Tier 1 Standards						
Asphalt Paver	1	65	EPA Tier 1 Standards						
Tandem Truck	1	200	EPA Tier 1 Standards						
Stake Bed	1	200	EPA Tier 1 Standards						
Water Truck	1	200	EPA Tier 1 Standards						
Pickup 150	5	200	EPA Tier 1 Standards						
Dump Truck 12/14	4	340	EPA Tier 1 Standards						
Fuel Truck	1	200	EPA Tier 1 Standards						
Forklift 8000 lbs.	2	75	EPA Tier 1 Standards						
Diesel Welder	2	55	EPA Tier 1 Standards						
Generator	2	55	EPA Tier 1 Standards						
Air Compressor	0	55	EPA Tier 1 Standards						

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Construction Equipment Mitigation Commitments

Construction Equipment	No. of Units	Bhp each	Mitigation Commitments	No. of Units Meeting EPA Tier 1	% of Units Meeting EPA Tier 1	% BHp Meeting EPA Tier 1	No. of Units w/ SCR+ DPF	% of Units w/ SCR+ DPF	% Bhp w/ SCR+ DPF
Pump 4" & 6"	2	55	EPA Tier 1 Standards						
Man Lifts	2	50	EPA Tier 1 Standards						
Light Tower	1	50	EPA Tier 1 Standards						
Pile Drivers	2	350	EPA Tier 1 Standards						
Concrete Pump Truck	1	500	EPA Tier 1 Standards						
TOTAL	45	9315		35	78%	78%	8	18%	15%
Pier Rehabilitation									
400 Amp Welder	3	30	EPA Tier 1 Standards						
Air Compressor	2	275	EPA Tier 1 Standards						
35 Ton Crane	1	234	EPA Tier 1 Standards						
GVW Truck	1	340	EPA Tier 1 Standards						
20 kW Generator	1	28	EPA Tier 1 Standards						
Backhoe	1	77	EPA Tier 1 Standards						
Dump Truck	1	325	EPA Tier 1 Standards						
Concrete Pump Truck	1	350	EPA Tier 1 Standards						
Excavator	1	137	EPA Tier 1 Standards						
TOTAL	12	2131		12	100%	100%	0	0%	0%
Dredging Onshore Start-up Construction Activities									
Cranes	1	400	EPA Tier 1 Standards						
Backhoes	1	85	EPA Tier 1 Standards						
Dozers	2	185	EPA Tier 1 Standards						
Excavators	2	225	EPA Tier 1 Standards						
Loaders	1	300	EPA Tier 1 Standards						
Trucks	2	355	EPA Tier 1 Standards						
Graders	1	215	EPA Tier 1 Standards						

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Construction Equipment	No. of Units	Bhp each	Mitigation Commitments	No. of Units Meeting EPA Tier 1	% of Units Meeting EPA Tier 1	% BHp Meeting EPA Tier 1	No. of Units w/ SCR+ DPF	% of Units w/ SCR+ DPF	% Bhp w/ SCR+ DPF
Skid Steers	1	80	EPA Tier 1 Standards						
TOTAL	11	2610		11	100%	100%	0	0%	0%
Dredging Onshore Process									
Water Trucks	2	300	Pre-Tier 1						
Backhoes	2	85	EPA Tier 1 Standards						
Dozers	2	185	EPA Tier 1 Standards						
Excavators	6	225	EPA Tier 1 Standards						
Loaders	4	300	EPA Tier 1 Standards						
Trucks	6	355	EPA Tier 1 Standards						
Sweepers	1	200	EPA Tier 1 Standards						
Skid Steers	2	80	EPA Tier 1 Standards						
TOTAL	25	6180		23	92%	90%	0	0%	0%
Power Plant Onshore Construction Activities									
Crane-M.888 Crawler	1	350	Pre-Tier 1						
15 Ton Picker	1	150	Pre-Tier 1 w/ SCR + DPF						
60 Ton Crane	1	290	Pre-Tier 1						
Backhoe	2	150	Pre-Tier 1 w/ SCR + DPF						
450 Dozer	1	150	Pre-Tier 1 w/ SCR + DPF						
D6 Dozer	1	350	Pre-Tier 1 w/ SCR + DPF						
Front End Loader	1	150	Pre-Tier 1 w/ SCR + DPF						
Bobcat	1	150	EPA Tier 1 Standards						
Cat 225 TrackHoe	1	520	EPA Tier 1 Standards						
Compactor	1	300	EPA Tier 1 Standards						
Pulvimixer Cat	0	300	EPA Tier 1 Standards						
Roller	1	300	EPA Tier 1 Standards						

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Construction Equipment Mitigation Commitments

Construction Equipment	No. of Units	Bhp each	Mitigation Commitments	No. of Units Meeting EPA Tier 1	% of Units Meeting EPA Tier 1	% BHp Meeting EPA Tier 1	No. of Units w/ SCR+ DPF	% of Units w/ SCR+ DPF	% Bhp w/ SCR+ DPF
Scrapers	0	350	EPA Tier 1 Standards						
Asphalt Paver	1	65	EPA Tier 1 Standards						
Tandem Truck	1	200	EPA Tier 1 Standards						
Stake Bed	1	200	EPA Tier 1 Standards						
Water Truck	1	200	EPA Tier 1 Standards						
Pickup 150	2	200	EPA Tier 1 Standards						
Dump Truck 12/14	1	340	EPA Tier 1 Standards						
Fuel Truck	1	200	EPA Tier 1 Standards						
Forklift 8000 lbs.	1	75	EPA Tier 1 Standards						
Diesel Welder	1	55	EPA Tier 1 Standards						
Generator	1	55	EPA Tier 1 Standards						
Air Compressor	1	55	EPA Tier 1 Standards						
Pump 4" & 6"	1	55	EPA Tier 1 Standards						
Man Lifts	1	50	EPA Tier 1 Standards						
Light Tower	0	50	EPA Tier 1 Standards						
Pile Drivers	1	350	EPA Tier 1 Standards						
Concrete Pump Truck	1	500	EPA Tier 1 Standards						
TOTAL	28	5810		20	71%	70%	6	21%	19%

Appendix A
Summary of Construction Equipment Mitigation Commitments

	Total No. of Units	Total BHp	No. of Units Meeting EPA Tier 1	% of Units Meeting EPA Tier 1	% BHp Meeting EPA Tier 1	No. of Units w/ SCR+ DPF	% of Units w/ SCR+ DPF	% Bhp w/ SCR+ DPF
Total Project	453	108472	415	92%	93%	14	3%	2%
Total in MD	303	71592	271	89%	90%	14	5%	3%
MD LNG Terminal + Power Plant	73	15125	55	75%	75%	14	19%	17%
Total in PA	150	36880	144	96%	98%	0	0%	0%