Exhibit C

STATE OF INDIANA

INDIANA UTILITY REGULATORY COMMISSION

VERIFIED PETITION OF INDIANAPOLIS POWER & LIGHT COMPANY ("IPL"), AN INDIANA CORPORATION, FOR (1) ISSUANCE OF CERTIFICATES OF PUBLIC CONVENIENCE AND NECESSITY AND APPROVAL OF PROJECTS TO COMPLY WITH FEDERALLY MANDATED REQUIREMENTS, INCLUDING THE CONSTRUCTION OF WATER TREATMENT TECHNOLOGIES, OPERATIONAL CHANGES AND USE OF MODIFIED STORMWATER MANAGEMENT PRACTICES AT PETERSBURG AND HARDING STREET GENERATING STATIONS, AND REFUELING OF HARDING STREET STATION UNIT 7 ("COMPLIANCE PROJECT"); (2) FOR ONGOING REVIEW; AND (3) APPROVAL OF ASSOCIATED RATEMAKING AND ACCOUNTING TREATMENT, INCLUDING COST RECOVERY IN ACCORDANCE WITH IND. CODE § 8-1-8.4-7 AND AUTHORITY TO DEFER COSTS UNTIL SUCH COSTS ARE REFLECTED IN RATES	)	**CAUSE NO. 44540**

INDIANAPOLIS POWER AND LIGHT COMPANY'S SUBMISSION OF ITS DIRECT TESTIMONY AND EXHIBITS

Case-In-Chief Volume 2

4. Angelique Oliger

VERIFIED DIRECT TESTIMONY

OF

ANGELIQUE OLIGER

ON BEHALF OF

INDIANAPOLIS POWER & LIGHT COMPANY

IURC CAUSE NO. 44540

INCLUDING ATTACHMENTS AO-1 THROUGH AO-6

VERIFIED DIRECT TESTIMONY OF ANGELIQUE OLIGER
ON BEHALF OF
INDIANAPOLIS POWER & LIGHT COMPANY

Q1. Please state your name, employer, and business address.

A1. My name is Angelique Oliger. I am employed by AES US Services, LLC ("AES"), One Monument Circle, Indianapolis, Indiana 46204.

Q2. What is your position with AES?

A2. I am Director of Environmental Policy.

Q3. Please describe your duties as Director of Environmental Policy for AES.

A3. As Director of Environmental Policy, I am responsible for ensuring compliance with all environmental regulatory programs at AES's US generating plants and within AES's power delivery operations. In this capacity, I monitor and participate in the development of regulations at the federal, state, and local levels. Further, I provide environmental support by applying for and obtaining environmental permits for new and existing operations or overseeing these processes. Finally, I participate in and oversee the processes associated with developing written procedures and policies, conducting employee training, and conducting audits to help ensure compliance with permit requirements and environmental regulations.

Q4. Please summarize your previous work experience with IPL and AES.

A4. Prior to accepting my current position in September of 2013, I began employment with Indianapolis Power & Light Company ("IPL" or the "Company") on May 5, 2008. During my tenure with IPL, I worked as an Environmental Coordinator and as a Senior

Environmental Coordinator within IPL's corporate offices. My primary focus has been interpreting and applying upcoming and new environmental regulations, and obtaining air and water permits.

Q5. Please summarize your education, professional qualifications, and prior work experience.

A5. I obtained a Bachelor of Science Degree in Physics, with a specialty in Atmospheric Science from Purdue University in West Lafayette, Indiana in 2001. In addition, I obtained a Master of Science Degree in Environmental Pollution Control from the Pennsylvania State University in State College, Pennsylvania in 2002. Prior to joining IPL, I worked for four years with the air permitting agencies in Indiana. I worked for two years at the Indianapolis Office of Environmental Services as an air permit writer, where I drafted, amended, modified and renewed air permits for industries in Marion County. I then worked for two years at the Indiana Department of Environmental Management ("IDEM") as a Senior Environmental Manager, providing guidance and assistance as a mentor to permit writers, including review of permits for industries in Indiana. Finally, I worked for a local environmental consulting firm, Keramida, where I assisted clients in various industry sectors in obtaining environmental permits and complying with permit requirements and environmental regulations.

Q6. Have you previously testified before this Commission?

A6. Yes, I testified in Cause No. 44242 regarding IPL's Environmental Compliance Project and Cause No. 44399 regarding IPL's Eagle Valley ("EV") Combined Cycle Gas Turbine and Harding Street Unit 5 & 6 Refueling Project. I have also submitted testimony in

IPL's previous semi-annual Environmental Compliance Cost Recovery Adjustment ("ECCRA") proceedings, beginning with Cause No. 42170 ECR-20.

Q7. What is the purpose of your testimony in this proceeding?

A7. The purpose of my testimony is to describe environmental regulations associated with the proposal to convert Harding Street Unit 7 ("HS-7") to natural gas; to discuss the need for new wastewater treatment technology, operational changes, and Stormwater management practices at Harding Street ("HS") and Petersburg ("Pete") Generating Stations; and to identify the necessary permits and environmental requirements for this Compliance Project. I will also describe anticipated future environmental regulations and requirements.

Q8. Does your testimony include any attachments?

A8. Yes. My testimony includes the following attachments:

Attachment AO-1, which is a list of acronyms used in my testimony and testimony of other IPL's witness.

Attachment AO-2, which is a copy of NPDES permit renewal to Petersburg (Permit No. IN0002887);

Attachment AO-3, which is a copy of the NPDES permit renewal to Harding Street (Permit No. IN0004685);

Attachment AO-4, which is the Agreed Order for Case No. 2013-21497-W for Petersburg Generating Station;

Attachment AO-5, which is the Agreed Order for Case No. 2013-21498-W for Harding Street Generating Station;

Attachment AO-6, which is a Summary of anticipated Environmental Regulations and Requirements and associated cost.

Q9. Were the above referenced attachments prepared or assembled by you or under your direction or supervision?

A9. Yes.

Q10. Please provide a brief summary of the federally mandated requirements addressed by IPL's proposed Compliance Project.

A10. IPL's proposed Compliance Project is a comprehensive plan to ensure compliance with National Pollutant Discharge Elimination System ("NPDES") permit requirements, which regulate and authorize specific industrial wastewater and Stormwater discharges to the waters of the United States under Section 402 of the Clean Water Act ("CWA"). The CWA is also known as the Federal Water Pollution Control Act, 33 U.S.C 1251 *et seq*. The plan includes installation of wastewater treatment technologies, operational changes, and Stormwater management practices as detailed by IPL Witness Fink. In addition, the refueling of HS-7 to natural gas will allow the unit to continue to operate without additional controls which would be needed to meet requirements of the Mercury and Air Toxics Standards ("MATS").

Q11. Please describe the NPDES permits and identify the pollutants limited by these permits.

A11. On August 28, 2012, the IDEM issued NPDES permit renewals to Pete (Permit No. IN0002887, presented as Attachment AO-2) and HS (Permit No. IN0004685, presented as Attachment AO-3). These permits contain new Water Quality Based Effluent Limits ("WQBELs") and Technology-Based Effluent Limits ("TBELs") for the regulated facility NPDES discharges with a compliance date of October 1, 2015 for the new

WQBELs. This compliance date was extended to September 29, 2017, in the Agreed Order for Case No. 2013-21497-W (presented as Attachment AO-4) and Case No. 2013-21498-W (presented as Attachment AO-5) for the Pete and HS Generating Stations, respectively. Pollutants limited by the NPDES permits include Boron, Cadmium, Chromium, Copper, Iron, Lead, Mercury, Nickel, oil and grease, pH, Selenium, Sulfate, total residual Chlorine, total residual oxidants, total suspended solids, and Zinc.

Q12. Why did IPL request an extension to comply with NPDES permit requirements?

A12. The request for an extension is an example of how IPL creates value for customers as it allowed IPL to complete a more robust evaluation and ensure that the reasonable, least cost compliance option was selected. The extension provided the additional time needed, based on CH2M HILL experience and as discussed by Witness Fink, to select, permit, procure, construct and startup a wastewater treatment system of the magnitude and complexity needed to meet the limits.

Q13. How did IDEM establish the new WQBELs and TBELs in the NPDES permits?

A13. Technology-based treatment requirements under section 301(b) of the CWA represent the minimum level of control that must be imposed in a permit issued under section 402 of the CWA. These technology-based requirements are implemented in NPDES permits through TBELs, and are based on effluent guidelines, which are national standards or Best Professional Judgment in the absence of effluent guidelines. Effluent guidelines are based on the performance of treatment and control technologies, which are developed by the U.S. Environmental Protection Agency ("EPA") on an industry-by-industry basis, and are intended to represent the greatest pollutant reductions that are economically

achievable for an industry. The effluent guidelines do not require facilities to install the particular technology identified by EPA. However, the regulations do require facilities to achieve the regulatory standards which were developed based on a particular model technology. WQBELs involve a site-specific evaluation of a discharge and its effect on the receiving water. A WQBEL is designed to protect the quality of the receiving water by ensuring that water quality standards developed pursuant to Section 303(c) of the CWA are met. A WQBEL is applied if it is determined by IDEM that after TBELs are applied, there is reasonable potential to exceed an applicable water quality standard for individual pollutants.

Q14. Please describe the effluent limitations, monitoring, and reporting requirements associated with the pollutants described above and applicable to IPL.

A14. The applicable effluent limitations, monitoring, and reporting requirements are included in Condition I.A of the NPDES permits for HS (Attachment AO-3) and Pete (Attachment AO-2) Generating Stations. In addition, the applicable effluent limitations, monitoring, and reporting requirements discussed above for HS Outfalls 006 and 101 are summarized in Table 2-2 on page 2-2 of the CH2M Hill NPDES Compliance Strategy Plan Report, included with IPL Witness Fink's testimony as Petitioner's Attachment DHF-2 and referred to herein as the "Hill Report". The applicable limitations, monitoring, and reporting requirements summarized above for HS Outfalls 001, 002, and 005 are presented in Table 2-3 on page 2-2 of the Hill Report. The applicable limitations, monitoring, and reporting requirements discussed above for Pete Outfalls 001, 007, 011 and 012 are summarized in Table 2-5 on page 2-5 of the Hill Report.

Q15. Please describe the Stormwater requirements in the NPDES permits applicable to IPL.

A15. Section 402(p) of the CWA requires discharges of Stormwater associated with industrial activities to be regulated through NPDES permits. The NPDES permits for HS and Pete Generating Stations contain new Stormwater non-numeric effluent limits, which include, but are not limited to, minimization of exposure, good housekeeping, operation and maintenance, spill prevention and response, management of runoff, and training. IPL was required to perform evaluations of existing Stormwater structural and non-structural control measures to ensure appropriate controls are in place to minimize exposure and to identify areas where existing control measures do not minimize exposure and modify or replace with appropriate control measures. IPL also was required to revise and update the Stormwater Pollution Prevention Plan ("SWPPP").

Q16. How does IPL plan to comply with the NPDES requirements?

A16. IPL plans to implement operational changes and modified Stormwater management practices to comply with the Stormwater requirements at HS and Pete Generating Stations as further described by Witness Fink. IPL also plans to install necessary wastewater treatment technologies at Pete and HS to comply with the new NPDES effluent limits as further described by Witness Fink.

However, IPL determined that installation of the necessary wastewater treatment technologies for HS-7 to continue combusting coal in addition to the necessary MATS controls described in IPL's case-in-chief in Cause No. 44242 was not the reasonable least cost plan. This determination is discussed by IPL Witness Ayers. In order to meet our

current and future generation needs IPL proposes to refuel HS-7 (subject to Commission approval) to operate on natural gas, which reduces the impact on the environment.

Q17. Please identify the compliance timeframe in which IPL will need to complete the necessary measures to ensure its compliance.

A17. IPL must install, modify, and operate all additional wastewater treatment technologies and implement all associated operational changes in order to comply with the NPDES permit discharge limits no later than September 29, 2017 in accordance with Agreed Order for Case No. 2013-21497-W (presented as Attachment AO-4) and Case No. 2013-21498-W (presented as Attachment AO-5).

IPL must install, modify, and operate the treatment technologies and operational changes associated with fly ash wastewater required for NPDES compliance, which are associated with fly ash prior to implementation of MATS control measures. This is necessary to ensure that changes associated with MATS Compliance (carbon injection in flue gas) do not hinder the ability to comply with existing NPDES requirements and to ensure that the anti-degradation standards are not violated. Section 303(d)(4)(B) in particular and Sections 101(a) and 303 in general of the CWA require that the lowering of water quality in waters that satisfy an applicable water quality standard only be allowed pursuant to an anti-degradation policy and 40 CFR 131.12 requires states to adopt a statewide anti-degradation policy. IDEM's statewide anti-degradation standards and implementation procedures, 327 IAC 2-1.3-1 et seq., were developed to comply with those requirements.

Regarding Stormwater, IPL was required to evaluate existing Stormwater control measures and revise and update the SWPPP by October 1, 2013 and these actions have

been completed. IPL has already taken some actions to modify existing control measures as needed and will continue to implement these measures over the next several years as discussed in Sections 2.1.2 and 2.2.2 of the Hill Report.

Because IPL has determined that it is not economic to invest in the necessary MATS controls and the NPDES wastewater treatment technologies required to continue combusting coal, HS-7 must cease burning coal no later than April 16, 2016 in order to comply with MATS. This is the earlier of the two compliance dates: April 16, 2016 for MATS and September 30, 2017 for NPDES.

Q18. What environmental permits are needed for installation of the various treatment technologies, operational changes, and conversion of HS-7 to natural gas as reflected in the Compliance Project?

A18. IPL will be faced with a number of permit requirements to install new wastewater technologies, implement operational changes, and convert HS-7 to natural gas. A list of potential environmental permits includes, but is not limited to the following:

- Construction in a Floodway or other similar Indiana Department of Natural Resources permit;[1]
- U.S. Army Corps of Engineers Section 404 permit;[2]
- Modifications to Title V permit;[3]

[1] Per 312 IAC 10.

[2] Per Sections 401 and 404 of the CWA.

[3] Per 326 IAC 2-7.

- Modifications to NPDES permit;[4]
- Modification to Solid Waste Facility Permit;[5] and
- SWPPP associated with construction activities.[6]

IPL is currently evaluating engineering information to evaluate all environmental permitting requirements and gather necessary permit application information. IPL is working diligently to ensure that permits will be obtained in a timely manner.

Q19. Please describe the environmental benefits associated with refueling HS-7 to use natural gas.

A19. Substantial reductions in most air emissions will result from refueling of the existing coal-fired unit with natural gas as indicated in the table below.

Pollutant	Emission rate, lbs/MMBtu		% Reduction *(% increase)* (on a per MMBtu basis)
	Current Coal-Fired Unit	Proposed Natural gas-fired Unit	
NO_x	0.147	0.095	50%
CO	0.05	0.082	*(64%)*
VOCs	0.00375	0.0054	*(44%)*
SO_2	0.184	0.0006	99.7%
PM_{10}/ $PM_{2.5}$	1.58	0.0075	99.5%
Mercury	.0000052	0.00000389	25%
CO_2	205	118	42%

Wastewater generation will also be reduced because gas firing eliminates ash and flue gas desulfurization ("FGD") wastewater. In addition, as a result of the cessation of coal

[4] Per 327 IAC 5.

[5] Per 329 IAC 10.

[6] Per 327 IAC 15-5.

combustion at HS Generating Station resulting from the NPDES and MATS requirements, the coal pile and the ash ponds require closure.

Q20. Will the coal pile and ash ponds at HS be closed once the Generating Station ceases burning coal?

A20. The federal Solid Waste Disposal Act, 42 U.S.C. §§ 6901 et seq. (also known as the Resource Conservation and Recovery Act or "RCRA") requires ash ponds and coal piles to be properly closed at the end of their operating life because, if they were not properly closed, they would constitute open dumps that are prohibited by federal law. To avoid being classified as a prohibited open dump, the ash pond with the accumulated ash either must be upgraded to comply with the applicable solid waste regulations if continued to be operated as an on-site landfill or closed pursuant to the state requirements addressing the closure of ash ponds.

Like the ash ponds, the coal pile, once no longer in use, would constitute prohibited open dumping unless the unit in which this material is placed satisfies applicable solid waste landfill regulations. IPL plans to remove the coal pile as it does not plan to operate the coal pile as an active landfill.

IPL will work with IDEM to determine the appropriate measures and associated timing for closure of the ash ponds in accordance with state requirements and future federal requirements.

Q21. Does IPL anticipate being required to comply with additional future regulations and requirements adopted by the EPA or other regulatory agencies?

A21. Yes. IPL and other coal-fired utilities will continue to face new environmental requirements. A number of additional environmental rules – either proposed or final – affect these units. These rules include but are not limited to the Cross State Air Pollution Rule ("CSAPR"), National Ambient Air Quality Standards ("NAAQS"), Cooling Water Intake Structures Rule, Coal Combustion Residuals ("CCR") Rule, and federal Effluent Limitation Guidelines ("ELG") for Steam Electric Generating Stations. Additional requirements could also result from the Notice of Violation ("NOV") and Finding of Violation from EPA received in October 2009 related to alleged violations of the New Source Review ("NSR"). These regulations and requirements could potentially require IPL to incur additional expenses for compliance in the future.

Q22. Does IPL expect that any of these anticipated requirements would have an impact on the projects that are the subject of this proceeding?

A22. No. While IPL's Compliance Strategy is focused on compliance with the NPDES permit requirements, IPL is very aware and mindful of future environmental requirements. IPL's NPDES compliance strategy was developed in a manner to allow adaptability for compliance with these future requirements. While IPL believes the recommended compliance strategy is the preferred approach even when considering the potential impacts of future requirements, additional wastewater treatment technology may be required depending on the outcome of future requirements, as indicated below.

Q23. Please describe the current status and potential impact of the federal ELG regulations for Steam Electric Generating Stations.

A23. The ELG regulations for Steam Electric Generating Stations were last updated in 1982. EPA and plaintiffs in Defenders of Wildlife, et al v. EPA, No. 10-01915 (D.C.C) have reached an agreement that extends the Court ordered deadlines for EPA to revise the ELG regulations for the steam electric power generating industry. EPA published the proposed rule on June 7, 2013 and is currently required by the Court to issue a final rule by September 30, 2015. Based on the Proposed Rule, the ELG regulations may require additional wastewater treatment technology as detailed by Witness Fink. Specifically, the ELG may require dry bottom ash handling. Compliance is expected to be required three to eight years following the final rule.

Q24. Please describe the current status and potential impact of the CCR Rule.

A24. Utilities generate ash and other CCRs from the burning of coal and associated activities. Some of the CCRs are beneficially used in products such as concrete and wallboard while some are generally treated in on-site ash ponds or disposed in on-site landfills.

On three separate occasions over the last 20 years, EPA has conducted extensive research on what impacts CCRs have on land and water. Each time, EPA has ruled that CCRs were not hazardous waste. Now, EPA is once again determining how and at what level to regulate CCRs.

On June 21, 2010, EPA published regulations for CCRs. EPA indicated that it is considering two primary options: (a) regulate CCRs as a solid waste under Subtitle D of RCRA; or (b) regulate ash as a hazardous waste under Subtitle C of RCRA. It is currently expected that EPA will issue a final rule in December 2014. The outcome

could potentially require closure and capping of existing ponds, additional CCR disposal costs, and the installation of groundwater monitoring.

Compliance with NPDES requirements and potential ELG requirements are expected to contribute to compliance with anticipated CCR requirements. In addition, the CCR Rule may require modification of the existing landfill at Pete and construction of an onsite landfill at HS (if coal combustion were to continue after the CCR compliance date). Compliance is expected to be required five to seven years following the final rule.

Q25. Please describe the current status of the Cooling Water Intake Structures Rule.

A25. Section 316(b) of the Clean Water Act requires that the location, design, construction and capacity of cooling water intake structures reflect the best technology available for minimizing adverse environmental impact. Specifically, the 316(b) Rule is intended to reduce the impacts to aquatic organisms through impingement and entrainment due to the withdrawal of cooling water by facilities. In April 2011, EPA published a proposed rule which would set requirements that establish the "Best Technology Available" to minimize such impact. EPA released a final rule on May 19, 2014.

The rule could require closed cycle cooling systems. Alternatively, utilities could be faced with installing less costly controls, like modified travelling screens and fish handling and return systems. Three of the five IPL coal-fired units are currently equipped with closed cycle cooling systems. Another is equipped with a cooling tower which dissipates approximately one-half of the waste heat generated by that unit. The impact of this rule will be dependent upon IDEM's determination for Best Technology Available for the IPL generating stations. Modified travelling screens and fish handling

and return systems may be required in 2016, while closed cycle cooling systems may be required in 2020.

Q26. Please describe the current status and potential impact of greenhouse gas regulations.

A26. On June 18, 2014, EPA published its proposed Clean Power Plan, which establishes the proposed Best System of Emissions Reductions available for existing sources in accordance with Section 111(d) of the Clean Air Act. The President has set a target date of June 1, 2015 for a final rule. States will then be expected to submit their State Plans to EPA by June 30, 2016, with potential for a one to two year extension.

The proposed Clean Power Plan establishes state-specific rate-based (lbs CO_2/MWh) goals for carbon intensity for which States must develop plans in order to achieve by 2030. States may adopt the rate-based form of the goal or an equivalent mass-based form. EPA based these reductions on "building blocks," or measures of reduction, which include heat rate improvements for existing coal-fired electric generating units ("EGUs"), substituting generation from carbon-intensive affected EGUs with generation from existing (construction began prior to January 8, 2014) natural gas combined cycle units and renewables, and demand side energy efficiency. States may include some or all of these measures to varying degrees in their State regulations or they may use other measures.

For Indiana, the EPA proposal establishes an interim goal of 1,607 lbs CO_2/MWh, which must be achieved by the State of Indiana on average over the years 2020-2029, in addition to a final goal of 1,531 lbs CO_2/MWh which must be achieved by the State of

Indiana in 2030. EPA based these standards on the "building blocks" previously mentioned. Specifically, EPA first used a basis of a six percent heat rate improvement of the coal-fired units in Indiana, resulting in a reduction of 2,158 to 2,029 lbs CO_2/MWh. Second, EPA based the standards on an increase in dispatch of existing natural gas combined cycle units from 53% capacity factor in 2012 to 70% capacity factor in 2020. Third, EPA based the standards on re-dispatch to renewables from a 2012 value of 3% of Indiana's total generation to a value of 6.6% by 2029. Lastly, EPA based the standards on Indiana achieving a 1.5% annual incremental savings as a percentage of retail sales by 2025 and cumulative savings as a percentage of retail sales of 11.66% by 2029.

At this time, we cannot predict the final outcome of the Clean Power Plan as it is currently a proposed rule and the State will have discretion in its implementation. The potential impact of greenhouse gas regulations is further discussed by Witness Rose.

Q27. Please describe the current status and potential impact of the CSAPR.

A27. The CAIR was promulgated in 2005, but was vacated by the D.C. Circuit Court. On appeal, the Court ruled that CAIR would remain in effect until such time as EPA promulgated a replacement rule. In August 2010, the EPA issued a proposed replacement rule, known as CSAPR, which was subsequently finalized in July 2011. The CSAPR mandated additional cuts in SO_2 and NO_x emissions in two phases: 2012 and 2014. Further, it was a modified cap and trade rule with unlimited trading of allowances within individual states but limited interstate trading. However, prior to CSAPR becoming effective in 2012, several appeals were filed challenging its implementation. On December 31, 2011, the Court granted a request for stay and instructed EPA to

implement CAIR during the stay. On August 21, 2012, the Court vacated and remanded back to EPA the CSAPR. As a result, CAIR remains in effect.

On April 29, 2014, the Supreme Court upheld CSAPR, remanding the Rule to the D.C. Circuit to determine if the Rule's stay should be lifted. Many uncertainties remain related to the potential implementation of CSAPR, including timing, allocation of allowances, and market pricing. As it relates to timing, the U.S. Supreme Court left several issues open and remanded the case to the Circuit Court for further litigation on these issues. Therefore, the Circuit Court may keep the stay on the rule taking effect in place during this litigation. As it relates to allowances, they may be allocated as originally included in the final Rule or EPA may re-evaluate and re-allocate allowances prior to re-instating the Rule. EPA may address new lower standards in the Rule prior to implementation, making the Rule more stringent. As a result of the uncertainty around the timing and allocation of allowances, there is also significant uncertainty around market pricing associated with this final Rule.

While we cannot predict the outcome of the Court decision or the final Rule which will be implemented, we expect that such a Rule would have a similar impact as that of CAIR or the original CSAPR. As such, IPL expects to comply through the successful operation of our existing pollution control equipment.

Q28. Please describe the current status and potential impact of NAAQS.

A28. EPA is required under the CAA to set NAAQS for air pollutants that endanger public health or welfare. There are several NAAQS but only three directly impacting coal-fired power plants: SO_2, ozone, and particulate. NAAQS do not directly limit emissions from

utilities, but states must develop State Implementation Plans ("SIPs") to achieve emissions reductions to address each NAAQS.

First, as it relates to SO_2, EPA added a new one hour standard for SO_2 of 75 ppb in June 2010. This short-term standard is more stringent than prior standards and may require additional SO_2 reductions in any area that is designated as not meeting the standard (known as a non-attainment area). On July 25, 2013, the areas in which IPL's HS and Pete Generating Stations operate were designated as non-attainment for this standard. SO_2 reductions may be required by a SIP developed to meet new SO_2 NAAQS as early as 2017. On September 10, 2014, IDEM published proposed SO_2 SIP limits for IPL facilities. Pete will likely require enhanced operation of the existing FGDs to further reduce SO_2 emissions. IPL is currently evaluating the impact of the proposed limits on the Petersburg facility. IPL's HS Generating Station is expected to comply with the proposed limits because coal-fired operation will cease prior to the compliance date of the SO_2 SIP, January 2017.

Second, in January 2010, EPA proposed a revision to the NAAQS for ozone. EPA subsequently indicated that it would not propose revisions to the ozone standard until 2013 or later. It is expected that EPA may propose a revision to the NAAQS for ozone in 2014. Although ozone is not directly emitted by power plants, it forms in the atmosphere as a result of chemical reactions involving NO_x and volatile organic compounds in the presence of sunlight. As such, utilities may be required to reduce emissions of NO_x as a result of the revised ozone NAAQS and associated SIP. It is expected that NAAQS

attainment under a revised standard and compliance with associated SIP would be required as early as late 2019.

While IDEM has not yet developed a SIP, the IPL coal-fired fleet may be able to comply using existing controls because three of the five units are equipped with selective catalytic reduction ("SCR") and the other two (Pete-1 and Pete-4) are equipped with low NO_x burners. However, it is possible that the SIP developed to address the revised ozone standard could require SCR technology on Pete-4, the larger of the two units not already equipped with this technology. An alternative to installation of an SCR on Pete-4 would be planned dispatching of the Pete Units to result in reduced NO_x emissions by increased operation of the Units equipped with SCRs and reduced operation of the Units not equipped with SCRs.

Third, on January 15, 2013, EPA issued a final rule, which lowered the NAAQS for fine particulate matter ("$PM_{2.5}$"). While designations are not yet final and IDEM has not developed a SIP, EPA has indicated that they expect 99% of counties (including all of Indiana) to meet the standard by 2020, when attainment is required, without any additional controls. In addition, the baghouses currently planned to be installed on Pete-2 and Pete-3 will further reduce $PM_{2.5}$ emissions.

Q29. Please describe the current status and potential impact of the NOV related to NSR received in October 2009.

A29. In October 2009, IPL received an NOV and Finding of Violation from the EPA pursuant to the CAA Section 113(a). The NOV alleges violations of the CAA at IPL's three

primarily coal-fired electric generating facilities dating back to 1986. The alleged violations primarily pertain to the Prevention of Significant Deterioration ("PSD") and nonattainment New Source Review requirements under the CAA. Since receiving the letter, IPL has made plans to retire or convert seven of its eleven coal-fired generating units and install additional pollution controls on the remaining coal-fired units in response to environmental regulation. At this time, we cannot predict the ultimate resolution of this matter. Existing controls and those required by proposed rules could satisfy any NSR requirements. It is also possible that IPL would be required to install additional pollution control technology, improve the efficiency of existing pollution control technology, and/or take other compliance actions. For example, it is possible that in addition to potential compliance measures required for NAAQS SIPs, IPL would be required to install Selective Non-Catalytic Reduction ("SNCR") on Pete-4.

Q30. Has IPL evaluated the probabilities associated with potential outcomes of future regulations?

A30. Witness Rose presents probabilities associated with potential outcomes of future regulations, where possible.

Q31. Please provide a summary of these potential future regulations including potential impact, timing, and cost.

A31. These regulations would potentially require IPL to incur additional expenses for compliance in the future. While IPL's Compliance Strategy is focused on compliance with the NPDES permit requirements, IPL is aware and mindful of these future environmental requirements and IPL's NPDES compliance strategy was developed in a

manner to allow adaptability for compliance with these future requirements. Attachment AO-6 provides a summary of these potential regulations including potential impact, timing, and cost.

Q32. Please summarize your testimony.

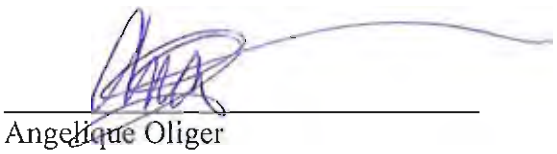
A32. In order to comply with NPDES permit requirements and Section 402 of the CWA, IPL will require new wastewater treatment technology, operational changes, and modified Stormwater management practices at HS and Pete Generating Stations. In addition, IPL plans to convert HS-7 to natural gas, resulting in environmental benefits. This refueling will reduce the cost of complying with the NPDES permit requirements, the MATS Rule and other environmental mandates. These changes will require environmental permitting, and IPL is working diligently to ensure that all required permitting is completed in a timely manner. There are a number of additional environmental rules – either proposed or final – which will affect IPL's coal-fired units and potentially require IPL to incur additional expenses for compliance in the future. IPL is mindful of these future environmental requirements and the NPDES compliance strategy was developed in a manner to allow adaptability for compliance with these future requirements.

Q33. Does this conclude your verified prefiled direct testimony?

A33. Yes.

VERIFICATION

I, Angelique Oliger, Director of Environmental Policy, AES US Services, LLC, affirm under penalties of perjury that the foregoing representations are true and correct to the best of my knowledge, information and belief.



Angelique Oliger

Dated: October 15, 2014