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March 31, 2015

Ms. Joan Conrad, Executive Secretary  
Iowa Utilities Board  
1375 East Court Avenue, Room 69  
Des Moines, IA 50319-0069

RE: Interstate Power and Light Company  
Docket No. EPB-2014-0150  
Periodic Report  
Application and Affidavit for Confidentiality

Dear Ms. Conrad:

Enclosed please find Interstate Power and Light Company's (IPL) Periodic Report in the above-referenced docket, as filed today on EFS.

Also enclosed is a copy of IPL's Application for Confidential Treatment and Affidavit in Support of Request for Confidentiality.

Very truly yours,

/s/ Benjamin M. Clark  
Benjamin M. Clark  
Attorney - Regulatory

BMC/tab  
Enclosure

**EPB-2014-0150**

Interstate Power and Light Co.  
An Alliant Energy Company

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**FILED WITH  
Executive Secretary**

**March 31, 2015**

**IOWA UTILITIES BOARD**

**FILED WITH  
Executive Secretary  
March 31, 2015**

**STATE OF IOWA  
BEFORE THE IOWA UTILITIES BOARD**

**IOWA UTILITIES BOARD**

<b>IN RE:</b>	
<b>INTERSTATE POWER AND LIGHT COMPANY</b>	<b>DOCKET NO. EPB-2014-0150</b>

**INTERSTATE POWER AND LIGHT COMPANY'S  
PERIODIC REPORT**

Interstate Power and Light Company (IPL) hereby submits its Periodic Report as referenced in its January 16, 2015 Proposed Joint Motion and Settlement Agreement in the above-referenced docket.

Dated this 31<sup>st</sup> day of March, 2015.

Respectfully submitted,

**INTERSTATE POWER AND LIGHT  
COMPANY**

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**STATE OF IOWA**  
**BEFORE THE IOWA UTILITIES BOARD**

**FILED WITH**  
**Executive Secretary**  
**March 31, 2015**  
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**IN RE:**

**INTERSTATE POWER AND LIGHT  
COMPANY**

**DOCKET NO. EPB-2014-0150**

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**INTERSTATE POWER AND LIGHT COMPANY'S  
PERIODIC REPORT**

**I. INTRODUCTION**

Interstate Power and Light Company (IPL) filed with the Iowa Utilities Board (Board) its Emission Plan and Budget (EPB) on April 1, 2014, for the period 2015 through 2016. On January 16, 2015, IPL, the Office of Consumer Advocate (Consumer Advocate), the Environmental Law and Policy Center (ELPC), and the Iowa Environmental Council (IEC) (ELPC and IEC collectively referred to herein as "Environmental Intervenors") filed a proposed Joint Motion and Settlement Agreement. The Settlement Agreement provides that periodic reports be filed with the Consumer Advocate, the Environmental Intervenors, and the Board every 12 months updating implementation of IPL's emissions plan, with the first report to be filed within 12 months of IPL filing its proposed 2015 through 2016 Emissions Plan and Budget. The Settlement Agreement was approved in its entirety in the Board's March 23, 2015 Order Addressing Completeness of Emissions Filing and Approving Settlement.

This periodic report represents the annual update in accordance with the aforementioned Settlement Agreement. The outline of this periodic report follows the same format as established in the Settlement Agreement's Exhibit 1. This periodic report addresses those projects approved in the Settlement Agreement resulting from IPL's April 2014 EPB filing.

## **II. IMPLEMENTATION TO DATE**

The following addresses the implementation of IPL's emission plan consistent with the Settlement Agreement. Budget information is contained in Confidential Attachment A.

In 2014, IPL pursued the following emissions-related activities:

1. Began construction of the scrubber at IPL's Lansing Generating Station Unit 4 to reduce SO<sub>2</sub> emissions.
2. Completed all major construction at IPL and MidAmerican Energy's Ottumwa Generating Station related to the scrubber and baghouse emission control project that supports compliance with Utility MATS and Cross State Air Pollution Rule (CSAPR).
3. Completed energy efficiency projects at Ottumwa Generating Station.
4. Advanced completion of emission control projects at Burlington and Prairie Creek Generating Stations to support compliance with the Utility Mercury and Air Toxics Standard (MATS).

5. Continued to pursue options to resolve the sulfur dioxide (SO<sub>2</sub>) allowance forward contracts in customer's best interest.

The following summaries provide an update of the specific activities for facilities with on-hold, in-progress and proposed emissions control projects as identified in IPL's April 2014 EPB update.

#### **Lansing Generating Station Unit 4**

- Low Nitrogen Oxide (NO<sub>x</sub>) Burners (LNB) and Select Catalytic Reduction (SCR)

The LNB and SCR went into service in July 2010, and the projects were closed in May 2011. The SCR was designed to hold three (3) layers of catalyst. During the construction of the SCR the decision was made to only install two layers. The existing two catalyst layers are showing signs of routine deactivation and required an additional layer or replacement of the existing layers to maintain SCR removal efficiency. A third layer of catalyst was purchased and installed in September of 2014. The SCR has maintained design removal efficiency since the installation of the third layer of catalyst. The existing two catalyst layers are now within the manufacturer's expected replacement window. As part of the ongoing long-term catalyst management plan, a replacement layer is being purchased for installation in the spring of 2015.

- Mercury (Hg) Control

IPL has completed testing at Lansing Generating Station Unit 4 and validated the ability of the Activated Carbon Injection System (ACI) and

baghouse to remove Hg and particulate matter (PM) to the levels required by the Utility MATS rule.

- SO<sub>2</sub> Control – Circulating Fluidized Bed (CFB) Dry Scrubber

The installation of a Lansing Generating Station CFB is progressing as planned. Detailed engineering and procurement activities are predominantly complete. All major equipment and material have been delivered to the site. Construction of the CFB began in June of 2014. Construction activities are proceeding on plan. The CFB is scheduled to start-up in May and be in-service by the end of July 2015.

#### **Ottumwa Generating Station Unit 1<sup>1</sup>**

- Hg Control

Detailed engineering, fabrication and construction of the ACI system and baghouse began in 2012 and continued, as scheduled, in 2013 and 2014. Fabrication and construction of the ACI system and baghouse was completed in November 2014. Start-up and commissioning commenced following the tie-in outage completion in November 2014. The project forecast at completion is within the budget. IPL has conducted preliminary testing that demonstrates the ability of the ACI system and baghouse to remove Hg and PM to the levels required by the Utility MATS rule.

- SO<sub>2</sub> Control - Spray Dryer Absorber (SDA) Dry Scrubber

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<sup>1</sup> Although IPL's share of Ottumwa Generating Station is only 48%, the information and numbers presented in this EPB Periodic Report represent the total (100%) plant.

Detailed engineering, fabrication and construction of the SDA scrubber began in 2012 and continued, as scheduled, in 2013 and 2014. Fabrication and construction of the SDA continued until November 2014. Start-up and commissioning began following the tie-in outage completion in November 2014. The project forecast at completion is within the budget. IPL intends to comply with the Utility MATS Hydrogen Chloride emission limit requirements through the use of SO<sub>2</sub> removal as a surrogate, per the rule. IPL has conducted preliminary testing of the SDA's SO<sub>2</sub> removal performance. The testing demonstrates the ability of the SDA to reduce SO<sub>2</sub> to levels under the Utility MATS rule.

- Energy Efficiency Projects <sup>2</sup>

The Comprehensive Asset Management Program (CAMP) includes the Steam Turbine/Generator Upgrade Project that will improve plant heat rate, plant output, and steam turbine/generator reliability. This project replaced the existing steam turbine high pressure (HP), intermediate pressure (IP) and low pressure (LP) rotors and inner shells, as well as the generator stator rewind. Installation was completed during the tie-in outage that ended in November 2014. Start-up and commissioning was completed in December 2014.

### **Burlington Generating Station Unit 1**

- PM Control

To further control PM emissions from Burlington Generating Station Unit 1, a liquid flue gas conditioning system was installed in 2014 and the

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<sup>2</sup> This supplemental information describes projects that are outside of the Settlement Agreement.

Electrostatic Precipitator (ESP) was upgraded through sectionalization. Both projects were completed during the 2014 fall outage. To demonstrate continued compliance, a PM Continuous Emission Monitor System (CEMS) was also installed and certified in 2014, and is in service. All project work was completed within budget. All systems are now in place to meet and demonstrate compliance with the limits going into effect in April 2015.

- Hg Control

To address Hg emissions, calcium bromide and ACI systems were installed on Burlington Unit 1 in 2014. The calcium bromide system applies the additive pre-combustion and the activated carbon is injected post-combustion; the combined effect results in lowered Hg emissions. Both projects were completed on budget and on schedule in late 2014 and are currently in service. All systems are now in place to meet and demonstrate compliance with the limits going into effect in April 2015.

All of the aforementioned systems will continuously operate at Burlington Generating Station and will facilitate compliance with the Utility MATS rule. Given the chlorine content of the Powder River Basin coal used at Burlington Generating Station, no controls will be required to address acid gas emissions.

### **Prairie Creek Generating Station Unit 3**

- PM Control

To further control PM emissions, a liquid flue gas conditioning system was installed on Prairie Creek Generating Station Unit 3 in 2014 and the ESP was upgraded through sectionalization. Both projects were completed during the

2014 fall outage. To demonstrate continued compliance, a PM CEMS was also installed and certified in 2014, and is in service. All project work was completed within budget. All systems are now in place to meet and demonstrate compliance with the limits going into effect in April 2015.

- Hg Control

To address Hg emissions, calcium bromide and ACI were installed on Prairie Creek Generating Station Unit 3. The calcium bromide system applies the additive pre-combustion and the activated carbon is injected post-combustion; the combined effect resulting in lower Hg emissions. To demonstrate continued compliance, a mercury CEMS was installed. Both control projects and the new monitor are now in service and were completed within budget. All systems are now in place to meet and demonstrate compliance with the limits going into effect in April 2015.

All of the aforementioned systems will continuously operate on Prairie Creek Generating Station Unit 3 and will facilitate compliance with the Utility MATS rule. Given the chlorine content of the Powder River Basin Coal used at Prairie Creek Generating Station, no controls will be required to address acid gas emissions.

#### **Prairie Creek Generating Station Unit 4**

- PM Control

To further control PM emissions on Prairie Creek Generating Station Unit 4 the ESP was upgraded through sectionalization; that project was completed during the 2014 fall outage. To demonstrate continued compliance, a PM CEMS

was also installed and both projects were completed within budget and are now in service. All PM control systems are now in place to meet and demonstrate compliance with the limits going into effect in April 2015.

- Hg Control

To address Hg emissions, calcium bromide and ACI systems were installed on Prairie Creek Generating Station Unit 4. The calcium bromide system applies the additive pre-combustion and the activated carbon is injected post-combustion; the combined effect resulting in lower Hg emissions. To demonstrate continued compliance, a mercury CEMS was also installed. Both control projects and the new monitor are now in service and were completed within budget. All systems are now in place to meet and demonstrate compliance with the limits going into effect in April 2015.

All of the aforementioned mentioned systems will continuously operate on Prairie Creek Generating Station Unit 4 and will facilitate compliance with the Utility MATS rule. Given the chlorine content of the Powder River Basin Coal used at Prairie Creek Generating Station, no controls will be required to address acid gas emissions.

### **M.L. Kapp Generating Station**

IPL provided the following updates to the Board regarding activities related to operating M.L. Kapp Generating Station solely on natural gas:

- December 18, 2014, Additional information in response to Board's December 3, 2014 Order Requiring Additional Information in which IPL provides a comprehensive response to several Board questions regarding the fuel conversion at M.L. Kapp Generating Station.

- February 6, 2015, Supplement to Additional Information notifying the Board that IPL filed its Attachment Y with Midcontinent Independent System Operator, Inc. (MISO).
- February 25, 2015, Second Supplement to Additional Information notifying the Board that IPL is seeking a one-year Utility MATS compliance extension.

IPL was informed by MISO that, given the projected reduction in capacity associated with fueling M.L. Kapp Generating Station on natural gas, that IPL should file an Attachment Y Notice with MISO. IPL filed an Attachment Y Notice on January 30, 2015. MISO has indicated to IPL that its review of IPL's Attachment Y Notice could take up to 26 weeks.

In the event MISO takes the full 26 weeks (up to July 31, 2015), MISO's review and response to IPL's Attachment Y Notice would extend beyond IPL's April 16, 2015 Utility MATS compliance date for M.L. Kapp. Accordingly, on February 23, 2015, IPL filed a request with the United States Environmental Protection Agency (EPA) for a one-year Utility MATS compliance extension. On March 26, 2015 IPL received an approved one-year Utility MATS extension from EPA, which will enable M.L. Kapp to continue to operate on coal while MISO completes its review of the Attachment Y Notice. The Utility MATS extension is valid until April 16, 2016 by which time M.L. Kapp shall achieve final Utility MATS compliance. As a condition of the extension approval, M.L. Kapp is required to co-fire the maximum amount of natural gas as possible to minimize emissions. A copy of the EPA-granted extension is provided as Attachment B.

## **Hg Control & Compliance Testing Program**

Throughout 2014, IPL completed testing of various carbon types and injection rates for control of Hg emissions at Burlington Generating Station Unit 1 and Prairie Creek Generating Station Units 3 and 4 in anticipation of Utility MATS compliance.

## **Emission Allowance Management**

- Update on Clean Air Interstate Rule/Cross-State Air Pollution Rule

In Section I (pages 9-12) of IPL's 2014 EPB, IPL discussed the status of the Clean Air Interstate Rule (CAIR), and its successor, the Cross-State Air Pollution Rule (CSAPR). As noted, the U.S. Court of Appeals for the District of Columbia Circuit stayed and subsequently vacated CSAPR in August 2012, and the EPA appealed the decision to the U.S. Supreme Court. On April 29, 2014, subsequent to IPL's filing of its EPB, the Supreme Court reversed the D.C. Circuit's decision. On November 21, 2014, the EPA issued a ministerial rule that realigned the dates of the two phases of CSAPR. As updated, CSAPR Phase I came into effect as of January 1, 2015, and CSAPR Phase II will come into effect on January 1, 2017.<sup>3</sup>

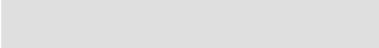
CAIR remained the applicable regulation during the course of the proceedings regarding CSAPR; however, CSAPR has replaced CAIR effective January 1, 2015. As result of continued emission control planning and project

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<sup>3</sup> Even though CSAPR requirements are in effect, there are still outstanding legal challenges before the D.C. Circuit Court.

implementation, IPL is well positioned to meet CSAPR Phase I compliance requirements, which began on January 1, 2015.

- Emission Allowances

IPL responsibly managed emission allowances under the CAIR and under the Acid Rain Program (ARP) during 2014. IPL sold 

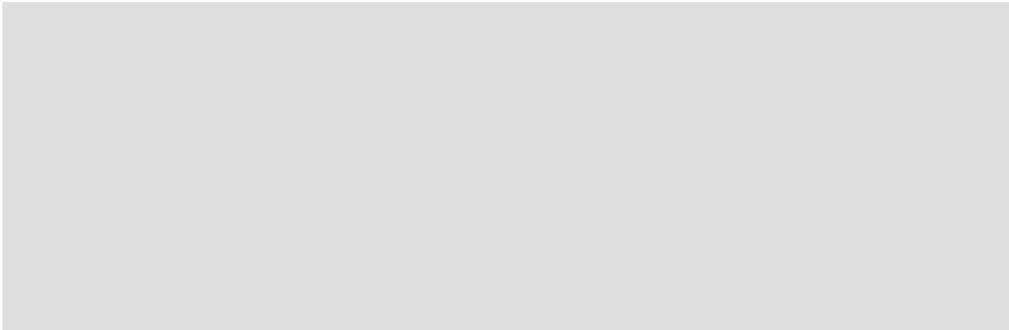


Given that CSAPR has replaced CAIR, the value of CAIR NO<sub>x</sub> emission allowances and ARP allowances (which were used to comply with CAIR's SO<sub>2</sub> emission requirements) has decreased.

IPL began recording amortization expense for 2014 and 2015 SO<sub>2</sub> allowances in 2014 and 2015, respectively, in accordance with generally accepted accounting principles, Federal Energy Regulatory Commission (FERC) regulations and Board rules.

- Forward Contracts

IPL is undertaking efforts to mitigate costs associated with SO<sub>2</sub> allowance forward contracts, which were executed in 2007 and 2008. In Section II of IPL's 2014 EPB (pages 41-42), IPL explained that:



Additionally, with the replacement of CAIR with CSAPR as of January 1, 2015, the market value of those SO<sub>2</sub> allowances has decreased.

IPL is undertaking efforts to mitigate costs associated with those SO<sub>2</sub> forward contracts. [REDACTED]

[REDACTED]

As part of its efforts, IPL has also considered [REDACTED]

[REDACTED]

### **Section 316(a) and 316(b) Compliance**

Compliance with the Section 316(a) Clean Water Act (CWA) rules is being evaluated on a case-by-case basis during wastewater discharge permit renewals for IPL's generating facilities. To determine the ability to meet permit limits and conditions, thermal modeling studies are conducted and submitted to the Iowa Department of Natural Resources (IDNR) for review. Final determination is

made by IDNR and ensures that the resulting thermal discharge limitation complies with the Section 316(a) requirements.

IPL planned to conduct thermal modeling studies in 2014 at its Burlington, Dubuque, M.L. Kapp and Lansing Generating Stations. The studies gather information necessary to determine compliance with thermal discharge limits and satisfy compliance schedule requirements contained in facility wastewater permits.

In May of 2014, IPL obtained the first 316(a) variance approved by IDNR for its Prairie Creek Generating Station. This was a culmination of work that was initiated in 2011. The variance provides the facility with an alternate to meeting specific thermal limits and conditions in the facility's wastewater discharge permit and is a cost-effective means of compliance. IPL's M.L. Kapp Generating Station continued meeting its 316(a) compliance schedule requirements, submitting a progress report to the IDNR at the end of September 2014. This report presented information indicating that all thermal modeling studies for the facility's 316(a) variance process had been completed. Initial thermal modeling studies at IPL's Dubuque Generating Station began in mid-2014. As detailed in Section III, initial thermal modeling studies at Burlington and Lansing Generating Stations which were planned for 2014 are now planned for 2015.

EPA published its final Section 316(b) rule on August 15, 2014. The final rule requires existing generating stations that withdraw greater than 2 million gallons of cooling water per day to demonstrate how they currently meet or will meet national performance standards to reduce impingement mortality and

entrainment of fish and shellfish. Entrainment, which is the taking in of organisms with the cooling water, occurs when organisms pass through the plant, subjecting them to harm or damage. Impingement is the trapping of organisms that enter the cooling water intake within a physical part of the intake structure. The final Section 316(b) rule requires a series of data collection studies which support determination of future controls to reduce impacts of entrainment and impingement. Data from these studies is included with a facility's wastewater permit renewal application or as determined necessary by IDNR through a compliance schedule. The data will be evaluated by IDNR and will ultimately influence the final compliance plan for plants affected by the rule.

In its 2012 EPB Update, and reiterated in the 2014 EPB filing, IPL included 316(b) studies that would have been performed in 2014 had the final rule been published as originally expected in 2013. However, since the issuance of the final 316(b) rule was delayed, no studies were performed in 2014. In late 2014, IDNR provided IPL a pre-draft wastewater permit for its Burlington Generating Station, which contained a 316(b) compliance schedule. A final permit has yet to be issued, however IPL anticipates that when issued, it will include a requirement for 316(b) compliance within a 5-year timeframe.

### **Effluent Limitations Guidelines**

In June 2013, EPA signed the proposed revisions to the Effluent Limitation Guidelines (ELG) for steam electric generating units. EPA is expected to publish the final revisions in September 2015. The final ELG rules will have varying impacts on all IPL coal-fired and certain gas-fired generating facilities.

While there is some uncertainty around the yet-to-be published final ELG, IPL continued evaluating potential impacts at its generating facilities in 2014. Potential outcomes for IPL plants may include closing ash ponds, converting ash handling systems to dry or recirculating systems, and re-designing the balance of plant wastewater discharge streams. There were no ELG-specific projects undertaken in 2014.

### **Water Quality Standards**

Project planning and engineering was performed in 2014 at the Prairie Creek Generating Station to meet compliance schedule requirements associated with water quality limits contained in the facility's wastewater permit. This work included engineering for the conversion of wet bottom ash handling systems.

### **Coal Combustion Residual Compliance**

On December 19, 2014, EPA signed the final Coal Combustion Residuals (CCR) rule. The final rule establishes minimum federal criteria for disposing CCR in landfills and surface impoundments under Subtitle D of the Resource Conservation and Recovery Act (RCRA). The final rule becomes effective 6-months after publication in the Federal Register, which has not occurred as of the date of this filing.

IPL conducted a preliminary assessment of the final rule prior to the end of 2014 and concluded the following:

- No impact to current encapsulated beneficial use practices;
- Ash pond closures are required if performance criteria are not met;

- There will be changes to facility operations and increased compliance activities; and
- Incentive for proactive closure of inactive ponds.

While there were no direct, final CCR rule projects undertaken in 2014, IPL completed major construction activities at the Ottumwa Midland Landfill (OML) in 2014 as planned in preparation for long-term CCR disposal needs. In addition, IPL continued landfill planning at the Lansing Generating Station.

### **Plant Decommissioning**

Generating plants that have been retired by IPL will be subject to decommissioning. Decommissioning activities undertaken at the Sixth Street Generating Station in 2014 included preparation of site for building removal and finalizing closure options for the existing ash ponds. Decommissioning planning continued for the Dubuque Generating Station, although no firm activities have been identified or scheduled.

### **Clean Power Plan**

In June 2014, the EPA proposed the Clean Power Plan (CPP) to reduce carbon dioxide (CO<sub>2</sub>) emissions from existing fossil-fueled electric generating units (EGUs). The EPA proposed standards under Section 111(d) of the CAA that include interim and final state-specific goals on an emissions rate basis measured in pounds per net MWh. Iowa's proposed interim 2020-2029 goal is 1,341 lb/MWh net and the final goal is 1,301 lb/MWh net. The EPA is currently expected to issue final standards in 2015.

IPL participated in stakeholder discussions held by the IDNR and Board after the proposed CPP was issued to better understand the potential impacts and consider rule revisions to recommend in public comments. In December 2014, IPL submitted comments to the EPA on the proposed CPP.<sup>4</sup>

### **III. AFFIRMATIVE ACTIONS TAKEN BY IPL TO MINIMIZE COST INCURRENCE**

IPL took the affirmative actions outlined below within each of its emissions-related areas of focus to maximize the value and to minimize the costs incurred.

#### **Leverage spending for emissions control consumables**

IPL is working with the various suppliers of emission control chemicals to leverage the spending for these consumables so that IPL may receive more competitive pricing. By consolidating the procurement of these consumables with those used at the plants of Alliant Energy Corporation's Wisconsin Power and Light Company subsidiary, IPL has been able to keep costs for these consumables at a reasonable price for multiple years as designated by each contract.

#### **Continued focus on commodity markets for raw materials**

IPL continues to monitor commodity costs for raw materials used for emissions control construction through the monitoring of the various indices that are available from the various commodity markets. Information obtained through

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<sup>4</sup> The comment submission is publicly available at:  
<http://www.regulations.gov/#!documentDetail;D=EPA-HQ-OAR-2013-0602-22934>

this effort is used to monitor trends in the commodity markets and allow IPL to react to any significant changes which may affect costing or timing and to help in the negotiation of longer term pricing.

### **Emission controls optimization**

Optimization of the various emission control systems begins shortly after commissioning. IPL uses engineering and statistical processes to determine the optimum quantities of consumables that will provide the maximum emission reduction for the lowest cost. For example, at Prairie Creek Generating Station Unit 4, optimization analysis revealed that the volume of ACI and calcium bromide could be reduced by 74% and 23%, respectively, from the quantities originally proposed by the manufacturer and still achieve the required Hg removal. The emission equipment, the consumable quantities and the resulting emission levels are regularly monitored to assure that emission requirements are met for the lowest cost.

## **IV. AFFIRMATIVE ACTIONS CONTEMPLATED BY IPL DURING THE NEXT 12 MONTHS**

In general, actions to be taken in the next 12 months will focus on the following:

- Monitoring and optimization of controls;
- CCR rule compliance; and
- Continue planning for wastewater and ash requirements.

#### **Lansing Generating Station Unit 4**

- LNB and SCR

Replacement for the first catalyst layer has been purchased and is scheduled to be installed during the spring of 2015. Even with the addition of the third layer in 2014, the replacement of the second catalyst layer is required since the existing two layers have continued to deactivate having been in service since 2010.

- Hg Control

IPL will operate the ACI system and baghouse to remove Hg and PM to achieve emission limits required by the Utility MATS rule.

- SO<sub>2</sub> Control – CFB

An extended outage will be taken in the spring of 2015 to tie-in the Lansing CFB. There will be a tuning and testing period, with performance guarantee and compliance testing tentatively scheduled for July of 2015. The CFB is expected to be in-service by the end of July 2015.

#### **Ottumwa Generating Station Unit 1<sup>5</sup>**

- Hg Control

Start-up and commissioning activities including tuning, testing, and compliance demonstration will be completed in 2015. IPL will operate the ACI system and baghouse to remove Hg and PM to achieve emission limits required by the Utility MATS rule.

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<sup>5</sup> Although IPL's share of Ottumwa Generating Station is only 48%, the information and numbers presented in this Periodic Report represent the total (100%) plant.

- SO<sub>2</sub> Control - SDA

Start-up and commissioning activities including tuning, testing, and compliance demonstration will be completed in 2015. IPL intends to comply with the Utility MATS Hydrogen Chloride emission limit requirements through the use of SO<sub>2</sub> removal as a surrogate per the rule.

### **Burlington Generating Station Unit 1**

IPL will operate the calcium bromide and ACI systems that remove Hg, while the ESP and liquid flue gas conditioning system will be monitored to control PM emissions. All equipment will be continually optimized to achieve emission limits required by the Utility MATS rule, while managing chemical and operating costs.

### **M.L. Kapp Generating Station Unit 2**

IPL will continue to coordinate with EPA and MISO to ensure the goals of Utility MATS compliance and necessary capacity requirements are properly balanced. IPL still plans to make the necessary modifications to M.L. Kapp Generating Station so that it efficiently operates solely on natural gas in compliance with Utility MATS.

### **Prairie Creek Generating Station Unit 3**

IPL will operate the calcium bromide and ACI systems that remove Hg and the ESP and liquid flue gas conditioning system will be monitored to control PM emissions. All equipment will be continually optimized to achieve emission limits required by the Utility MATS rule, while managing chemical and operating costs.

## **Prairie Creek Generating Station Unit 4**

IPL will operate the ACI system that removes Hg and the ESP will be monitored to control PM emissions. All equipment will be continually optimized to achieve emission limits required by the Utility MATS rule, while managing chemical and operating costs.

## **Performance and Compliance Testing Program**

Testing associated with emission control performance and optimization is planned in 2015 for Lansing Unit 4 and Ottumwa Unit 1. Otherwise, 2015 will be the first year for compliance testing required by Utility MATS. Compliance testing includes certification required for newly installed and existing CEMS as well as collection of stack test data to meet rule and permit conditions.

## **Emission Allowance Management**

The first year of Phase I CSAPR compliance occurs in 2015. CSAPR replaces CAIR, although compliance with Acid Rain continues. IPL does not anticipate the need to purchase any emission allowances under either CSAPR or Acid Rain. IPL retains a large bank of Acid Rain allowances (SO<sub>2</sub> emission allowances); consistent with the Board's March 23, 2015 Order, IPL will not sell these SO<sub>2</sub> allowances in the near term for the purpose of accelerating recovery of costs from customers. IPL expects an excess of CSAPR SO<sub>2</sub> Phase I allowances. Allowances of NO<sub>x</sub> under CSAPR are also expected to provide a comfortable compliance margin, although less so compared to SO<sub>2</sub>. IPL will evaluate opportunities in 2015 to manage CSAPR emission allowances in the best interest of its customers.

IPL will continue recording amortization expense for SO<sub>2</sub> allowances in accordance with generally accepted accounting principles, FERC regulation, and Board rules.

### **Section 316(a) and 316(b) Compliance**

IPL expects that 316(a) modeling and variances will be necessary for the cooling water discharges at Lansing and Burlington Generating Stations. Initial thermal modeling studies at Burlington and Lansing Generating Stations which were planned for 2014 are now planned for 2015 pending issuance of final wastewater permits. IPL plans to submit final 316(a) variance applications for its Dubuque and M.L. Kapp Generating Stations in 2015.

IPL anticipated commencing field studies associated with a final 316(b) rule starting in 2014. However, these studies were delayed due to the final rule's implementation date being delayed until late 2014. IPL expects to initiate 316(b) studies at Burlington, Lansing, M.L. Kapp, Prairie Creek and Ottumwa Generating Stations in 2015.

IPL is unable to predict how current legal challenges against the final 316(b) rule may impact compliance options and/or timing.

### **Effluent Limitations Guidelines**

Due to the overlap in regulatory impacts from the final CCR rule and final ELG, IPL has combined its compliance planning efforts for its active ash ponds with both rules in mind. Affected IPL facilities include Burlington, Fox Lake, Lansing, M.L. Kapp, Ottumwa, Prairie Creek and Sutherland Generating Stations.

IPL will undertake engineering studies in 2015 to enable more detailed project activities, their associated costs, and schedules to be developed. This may include evaluating closure of ash ponds, converting ash handling systems to dry or recirculating ash systems, and re-designing the balance of plant wastewater discharge streams.

IPL will evaluate the final ELG when it is published (expected in late 2015) and adjust its compliance planning activities accordingly.

### **Coal Combustion Residual Compliance**

The final CCR rule has compliance requirements that begin 6 months after the rule is published in the Federal Register. IPL expects the final rule to be published in Q2 2015, however that could be delayed. Affected IPL facilities include Burlington, Fox Lake, Lansing, M.L. Kapp, Ottumwa, Prairie Creek and Sutherland Generating Stations.

Compliance obligations planned for 2015 include O&M costs for activities contained in the final rule such as on-site signage, development of compliance recordkeeping and documentation processes, and professional engineer certifications of pond embankment inspections and fugitive dust control plans. Capital projects associated with the CCR rule include compliance projects such as groundwater monitoring well installation, as well as engineering work related to possible ash pond closures at affected facilities. Finally, IPL expects to complete landfill expansion at OML and to begin engineering and permitting for the Lansing landfill expansion.

## **Plant Decommissioning**

IPL expects to complete the demolition of the Sixth Street Generating Station in 2015, and will begin implementation of the ash pond closure plan. Additional planning may occur at other IPL facilities if all units at a location will be retired. The actual steps to decommission a facility will depend on many factors including but not limited to: end use evaluation of the facility and site; environmental site assessments; and site location issues such as safety and security.

## **Clean Power Plan**

IPL is continuing to monitor the EPA's proposed CPP rulemaking and participate in related efforts including evaluation by the MISO, North American Electric Reliability Corporation, and FERC.

IPL will continue to implement its current strategic plan that is focused on a balanced and flexible portfolio of diversified energy resources to meet IPL's customers' short- and long-term energy needs.

IPL's strategy has been developed with an expectation of future carbon reductions and supports a transition to a cleaner and more responsible energy future. These actions will transform IPL's generation fleet to one that is more efficient with lower carbon emissions and will align with the intent of EPA's CPP.

IPL's strategy includes:

- Retirement or fuel switching at several older, smaller and less efficient EGUs.
- Investing in generation performance and reliability to ensure the operating efficiency of IPL's newer and larger coal-fired EGUs.

- Extension of IPL's nuclear power purchase agreement (implemented in 2014).
- Increasing energy produced from natural gas-fired EGUs through construction of the Marshalltown Generation Station.
- Generating and acquiring energy from renewable resources.
- Continuing to support robust energy-efficiency programs.

IPL's primary objective regarding this proposal is to advocate on behalf of its customers for a plan that is flexible and can be implemented cost-effectively and reliably. IPL plans to work constructively with the IDNR, Board, and stakeholders on compliance plans when the final CPP rule is issued.

### **CSAPR**

Implementation of CSAPR Phase 1 began on January 1, 2015. This outcome is the result of several recent court decisions.

On April 29, 2014, the U.S. Supreme Court reversed the D.C. Circuit Court's August 21, 2012 decision to vacate CSAPR. Following this decision, on June 26, 2014, EPA requested that the D.C. Circuit Court lift the stay of CSAPR. This request was granted on October 23, 2014, effectively clearing the way for CSAPR implementation to begin. On November 21, 2014, EPA issued a rule to revise CSAPR to reflect the commencement of Phase 1 requirements on January 1, 2015 and Phase 2 requirements on January 1, 2017. This rule also contained provisions to sunset CAIR compliance requirements.

Even though CSAPR requirements are in effect, there are still outstanding legal challenges. Oral argument on these challenges was held by the D.C. Circuit Court on February 25, 2015.

As discussed in the Emissions Allowance Management section page 22, IPL fully expects to meet CSAPR requirements.

**Attachment A**  
**Pages 1 - 9**

## **Periodic Report**

**Public notice of additional confidential documents included in this filing**



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 7

11201 Renner Boulevard  
Lenexa, Kansas 66219

**MAR 26 2015**

Mr. John Watts  
Plant Manager  
M.L. Kapp Generating Station  
2001 Beaver Channel Parkway  
Clinton, Iowa 52732-0370

Dear Mr. Watts:

This letter is in response to your February 23, 2015 request for a one-year compliance extension for the M.L. Kapp Generating Station's Unit 2 to comply with the Mercury and Air Toxics Standard (MATS). The MATS compliance date for this boiler is April 16, 2015. Interstate Power and Light Company (IPL) has requested a compliance extension until April 16, 2016, according to the provisions under 40 CFR § 63.6(i), because IPL asserts it needs additional time to convert this unit to natural gas so it is not subject to the MATS. The U.S. Environmental Protection Agency, Region 7 (EPA), by this letter approves a compliance extension as described further below.

Unit 2 will cease burning coal and operate using only natural gas and operate in such a manner that it will not meet the definition of a "coal fired EGU." This fuel switch will lower the generating capacity of the unit. Alliant Energy is awaiting approval from the Midcontinent Independent System Operator, Inc. (MISO) to lower the unit's generating capacity. Due to the extension, IPL is now required to achieve final compliance with MATS for M.L. Kapp Generating Station's Unit 2 by April 16, 2016<sup>1</sup>. For clarity, we confirm that this extension also applies to the Part 63 Subpart A requirements triggered by the compliance date of the MATS. Final compliance shall include the conversion of the unit to natural gas so that it meets the definition of a natural gas-fired electric utility steam generating unit in 40 CFR § 63.10042 by the extended compliance date. From April 16, 2015 until Unit 2 is in compliance, IPL will minimize emissions by co-firing the maximum amount of natural gas possible.

The EPA understands that IPL may continue to review potential pollution control methods and equipment in the future and may select other equipment or methods that become available to meet compliance requirements at that time.

Pursuant to 40 CFR § 63.6(i)(11), IPL shall provide a letter stating when MISO authorizes IPL to convert Unit 2 to become fully operational on natural gas within 30 days of the approval. The letter will also provide an updated schedule, including the expected timing to complete any remaining on-site activities to implement the fuel switch.

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<sup>1</sup> An extension to April 16, 2016 is the maximum allowed by section 112(i)(3)(B) of the Clean Air Act. EPA has an enforcement response policy, available at <http://www2.epa.gov/enforcement/enforcement-response-policy-mercury-and-air-toxics-standard-mats>, that describes the use of Section 113(a) administrative orders with respect to the sources that must operate in noncompliance with the MATS for up to a year to address specific documented liability concerns.

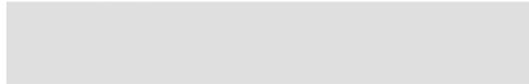


The letter shall be sent to Mr. Ward Burns, at EPA Region 7, and to the Iowa Department of Natural Resources (IDNR).

Pursuant to 40 CFR § 63.6(i)(4)(i), the compliance extension must be incorporated into the Title V permit. Notwithstanding this extension of compliance for the provisions listed above, IPL Unit 2 must meet all other applicable federal and State requirements. Pursuant to Section 113 of the Clean Air Act, IPL may be subject to civil fines and penalties of up to \$37,500 per day per violation, should compliance with 40 CFR Part 63 Subpart UUUUU not be achieved by the extended compliance date of April 16, 2016.

If you have any further questions regarding this compliance extension, please contact Mr. Ward Burns, at (913) 551-7960.

Sincerely,

A rectangular grey box redacting the signature of Mark A. Smith.

Mark A. Smith, Chief  
Air Permitting and Compliance Branch

cc: Brian Hutchins  
Iowa Department of Natural Resources