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July 13, 2015

Mr. Darrell Nitschke
Director of Administration/Executive Secretary
North Dakota Public Service Commission
State Capitol
Bismarck, ND 58505

**RE: Montana-Dakota Utilities Co., a Division of MDU Resources Group, Inc.
Application for Advance Determination of Prudence Big Stone Air Quality Control
System Project
Case No. PU-11-163**

**Otter Tail Power Company Application for Advance Determination of Prudence
Big Stone Air Quality Control System Project
Case No. PU-11-165**

Quarterly Report - Compliance Filing

Dear Mr. Nitschke:

On May 9, 2012 the North Dakota Public Service Commission issued a Findings of Fact Conclusions of Law and Order Granting Advance Determination of Prudence in the above described cases. In compliance with ordering paragraph 2, Otter Tail Power Company hereby submits the Big Stone Air Quality Control System Project Report. This report has been electronically filed. Enclosed you will find an original and seven (7) copies.

I have been authorized by Montana-Dakota Utilities Co. to file this report in both cases described above.

128 PU-11-165 Filed 07/13/2015 Pages: 11
Compliance filing - Big Stone Air Quality Control System Project Report
Otter Tail Power Company
Mark Rolfes, P.E.

An Equal Opportunity Employer

130 PU-11-163 Filed 07/13/2015 Pages: 11
Compliance filing - Big Stone Air Quality Control System Project Report
Otter Tail Power Company
Mark Rolfes, P.E.

Mr. Darrell Nitschke

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If you have any questions regarding this report, please contact me at 218-739-8648 or at mrolfes@otpc.com.

Sincerely,

/s/ MARK ROLFES

Mark Rolfes, P.E.

Manager, Generation Development

wao

Enclosures

By electronic filing and US mail

c: Tamie A. Aberle (by email)

**BIG STONE PLANT
AIR QUALITY CONTROL SYSTEM PROJECT
QUARTERLY REPORT**

TO THE

NORTH DAKOTA PUBLIC SERVICE COMMISSION

FOR THE

PERIOD APRIL 1 THROUGH JUNE 30, 2015



July 13, 2015

Montana-Dakota Utilities Co. and Otter Tail Power Company submit this report on the Big Stone Plant Air Quality Control System (“AQCS”) Project in compliance with the North Dakota Public Service Commission May 9, 2012 Order in Cases No. PU-11-163 & PU-11-165, ordering paragraph 2.

This report describes progress made on the project during the period ending June 30th, 2015. Specifically, in compliance with the above-referenced Order, this report includes information on the status of the United States Environmental Protection Agency (“EPA”) review of the South Dakota Regional Haze State Implementation Plan (“SIP”); it describes the types and amounts of costs incurred on the project to date; and it describes changed circumstances that are expected to affect the cost, schedule or installation of the AQCS Project.

Section I

Status of the United States Environmental Protection Agency’s (“EPA”) review of the South Dakota Regional Haze State Implementation Plan (“SIP”)

On March 29, 2012, the Administrator for EPA Region 8 signed as a final rule the approval of South Dakota’s Regional Haze SIP. The final rule was published in the *Federal Register* on April 26, 2012 and became effective on May 29, 2012.

Section II

Types and amounts of Project cost actually incurred

Actual construction on the project is now over 99 percent completed. The project entered a new phase with the shut down of Big Stone Plant on the evening of February 27, 2015 for the start of the outage to “tie-in” all of the AQCS Project equipment. The outage also signals the start of the large amount of boiler work that is part of the AQCS project.

The outage was scheduled to be completed and the unit back on line by June 9, 2015. Because of problems found with the plant’s High Pressure (“HP”) turbine during routine inspection (nearly all ten rows of HP turbine blading and the control stage blades were found in need of replacement because of cracking), the outage has been extended.

The current expected time for Big Stone Plant to return to service is early August, an approximate 9 week extension from the original schedule. This HP turbine work is unrelated to the AQCS Project.

During the last quarter the AQCS-related Project work has centered around the boiler modifications that are part of the AQCS Project, and completing the construction work on the remainder of the AQCS equipment. All that remains are some minor construction detailing,

demolition of the unused equipment, site restoration activities and clean-up. Examples of work performed this quarter include:

- All inlet ductwork to the Flue Gas Desulfurization (“FGD”) system has been set in place.
- All ductwork from the FGD outlet to the ID Fans, and then to the stack, is complete.
- All baghouse bags and cages are installed.
- Installation of insulation and lagging is ongoing.
- The ID Fans have been run and tested.
- Commissioning work is well underway, with almost all systems being checked out.
- Final installation of area lighting and final installation of insulation (and its lagging covering) are ongoing.
- Boiler work is complete except for some lagging installation to cover insulation.
- The quarter began with approximately 650 and ended with staffing of approximately 175.

Costs incurred through June 30, 2015, can be broken down into the following general categories:

Category	Costs Through June 30, 2015
Equipment/Material Procurement:	\$102.2M
Construction:	\$202.2M
Engineering/Field Engineering Support:	\$ 23.7M
Owners Cost:	\$ 13.0M
Total:	\$341.1M

(Project costs identified do not include individual company costs.)

Equipment and Material Procurement: All owner-procured material for the project, such as the flue-gas desulfurization system equipment, selective catalytic reduction catalyst, induced draft fans and their motors, transformers, structural steel, ductwork, ammonia handling equipment and the Distributed Control System.

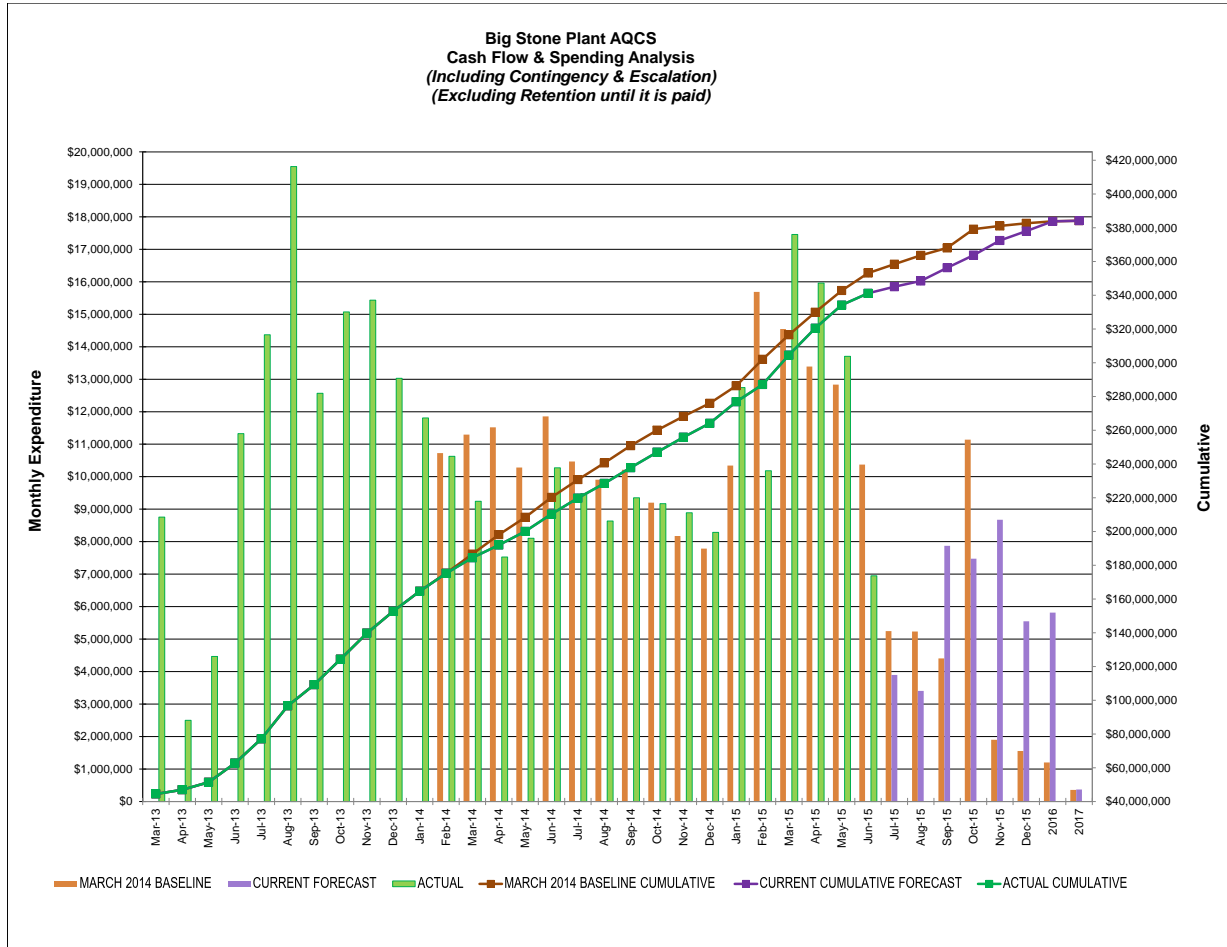
Construction: Payments made to Graycor (the General Work Contractor), site preparation work, testing work, surveying work and work to remove equipment that is no longer needed or which needs to be moved.

Engineering and Field Engineering Support: Engineering and procurement work done by Sargent & Lundy (Project engineer) and engineering field support for construction and commissioning.

Owners Cost: Items such as labor for project development and construction management, and such things as insurance, legal costs, permitting, office space and equipment; also spare parts and consumables used during testing and commissioning.

As described in previous quarterly reports, the project budget was reviewed in early 2013 and then again in early 2014. Following both reviews the projected project budget was reduced. The original project budget was \$491M; it was reduced in 2013 to \$405M and again reduced to \$384M in 2014. Because of the outage extension, the project budget will be negatively impacted but should finish on or under budget.

Actual project cash flow and spending through June 2015, and forecast through project completion, is illustrated on the following graph:



The following photographs illustrate various construction activities on the project during the quarter.



04-01 Welding in reheater inlets



04-01 Removing primary module



04-01 Econ primary removal



04-02 Reheat header removal



04-04 New reheat header lift



04-03 Baghouse, ID Fans



04-14 G29 duct lift



04-15 Progression of G6A duct lift



04-28 Welding inlet modules in secondary superheat



04-28 Secondary superheat in place



05-07 10th floor convection pass sidewall install



05-14 Install refractory on penthouse floor



05-21 Installing sootblowers



05-27 SCR sootblowers and sonic horns



05-27 SCR ammonia layup heater



06-03 Ammonia unloading & storage



06-02 Baghouse, ID Fans, SCR



06-02 Damper seal air blowers



06-02 Waste ash/pebble lime silos



06-07 CFB/baghouse, SCR, corner PL silo



06-10 Painting structural steel



06-11 Taking a break while working to disassemble the construction elevator – 220 feet above ground! They removed a section at a time.

Safety is very important to us. We are taking extra steps to insure a safe work site. The table below is included to provide information on recordable and lost-time injuries and near miss incidents for the total labor hours worked on the project through June 30, 2015:

	Hours	Recordable	Lost Time	Near Miss	First Aid
Graycor	1,633,796	3	0	10	13
Project Team & Contractors	141,604	0	0	0	1
Engineering	171,434	0	0	0	0
B&W (Boiler)	278,757	7	1	5	55
Totals	2,226,022	10	1	15	69

OSHA rate for recordable incidents: 0.90

OSHA rate for lost time: 0.09

Section III

Any changed circumstances that will affect cost or project installation

The EPA has issued the Mercury and Air Toxic Standards (“MATS”) rule, also known as the utility Maximum Achievable Control Technology (“MACT”) rules, which require control of hazardous air pollutants. While the final rule has been issued, on June 29, 2015 the U.S. Supreme Court held that EPA must consider cost, including cost of compliance, before deciding whether regulation is appropriate and necessary. However, the MATS rule remains in effect while the rule is remanded to the D.C. Circuit for further proceedings. The rule as issued requires the Big Stone Plant to reduce mercury emissions, which can be controlled by adding Activated Carbon Injection (“ACI”) to the project. The estimated cost to add ACI as a standalone project is \$5M. Because of the synergies of installing the system at the same time as the AQCS, the owners have decided to include the ACI system as part of the scope of the AQCS Project; we have only increased the projected cost of the AQCS Project by \$2.1M to account for the ACI system. Although the standard MATS rule compliance date is April 16, 2015, on August 27, 2013 the South Dakota Department of Environment and Natural Resources granted a one year compliance extension for Big Stone Plant, such that the new compliance date is April 16, 2016.

Construction is now 99+ percent complete. To date we have not seen anything to cause us to alter our schedule or increase our final project cost estimate.

Summary

The project’s in service date will be delayed by the extended outage due to the problems with the HP turbine. The AQCS Project should be ready to start tuning and testing systems as soon as the plant is ready to go on line, which is expected to be early August. The extended outage will slightly increase costs for the project, but we should still be able to complete work at or below budget.