

IM Monthly Report



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Mississippi Public Service Commission Kemper IGCC Project

March, 2016

URS

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Executive Summary

URS Corporation (URS), later acquired by AECOM, was requested by the Mississippi Public Service Commission (MPSC) to provide Independent Monitoring services for the Kemper Integrated Gasification Combined Cycle (IGCC) Project located in Kemper County, MS. The scope of services includes monthly reporting by URS (AECOM) and its subcontractors, the Independent Monitor (IM), of the status and prudence of the on-going engineering, procurement, construction and startup activities performed by Mississippi Power Company (MPC or the Company), its parent Southern Company and subsidiary Southern Company Services (SCS), and its subcontractors on the project. This IM Monthly Report provides the results of this assessment for the reporting period of March, 2016, and review of the project status reported by MPC for the period from January, 2016 to March, 2016 (EPC Status Production Meeting Reports February 22 and March 23, 2016, January and February 2016 PSC Reports, and Kemper County IGCC Weekly Executive Summary, Metrics and Control Meeting Reports through March 29, 2016).

During this reporting period, the IM has conducted weekly status review meetings with MPSC staff. Several meetings, teleconferences and reviews were also conducted with MPC and SCS staff, as described below (refer to other Report Sections where referenced for more details):

- March, 2016 – Accounting audit of financial records from end of December, 2015 through end of January, 2016 held at MPC offices in Gulfport, MS (Appendix C).
- March, 2016 – Daily monitoring of on-going site construction and startup activities at the jobsite (Appendix E).
- March 7 and 8, 2016 – Review of project EPC status held at the jobsite (Appendix D).
- Week of March 7, 2016 – Review of gasifier startup activities held at the jobsite (Section 1.10).
- March 24, 2016 – IM Presentation to MPSC at Public Hearing held in Jackson, MS (Appendix D).
- March 30, 2016 – Update from MPC on status of open RFI's (Appendix B).

Project Status through February, 2016 (Unless Noted Otherwise)

Engineering - The gasification island design performed by KBR, and the SCS design of the combined cycle island and the balance of plant (BOP) work, was 99% complete. All major Revision 0 design packages have been issued for construction. Remaining effort will be focused on resource pool and scope addition activities, including:

- Resource pool activities.
- Support to construction on key contracts – emergency notification, heat tracing, and fire protection systems.
- PSSR functional turnover punchlist items.
- Design Management of Change (MOC) process implementation and training.
- Design revisions from PHA, support requests, updated vendor information, and scope additions.

- Supporting Startup in turnover package checkouts.
- Addressing PSSR functional turnover punchlist items.

Procurement - All major equipment and commodity orders have been placed. Major equipment deliveries are complete. Remaining effort will be focused on final construction and startup needs including procurement of miscellaneous items as identified (scope additions). During March, four awards were issued for turbidity instruments, isolation slidegates, coal analysis building, and nuclear source shields; and seven vendor recommendations were accepted for inspection and realignment of WSA ESP, chemical cleaning heat exchangers, temporary equipment to support WW tank repairs, gasifier refractory NDE, LDF tank, LDF sump piping, and de-inventory orifice valves.

Construction (through March 27, 2016) – Plant construction is complete for the combined cycle unit, nitrogen plant, water plant, water storage pond, ash storage, buildings, lignite delivery facilities, piling and caissons, underground utilities, mass grading, concrete, structural steel, equipment, piping, instrumentation, cable tray, cable, conduit, tubing, and heat tracing. Plant work in progress includes terminations (99% complete, about 30 remaining), equipment insulation (97% complete, about 28,000 SF remaining), and pipe insulation (94% complete, about 62,000 LF remaining), plus ongoing punchlist and scope addition activities. Overall plant construction was 99% complete (through February, 2016).

Transmission – Right of way acquisition and construction is complete for all 11 line segments and all 8 substations. MPC will continue to monitor transmission right of ways for any needed restoration and maintenance.

Pipelines – Right of way acquisition and construction is complete for all 3 pipelines. Long term sales or supply contracts have been signed with the City of Meridian (water), Denbury Resources Inc. (CO₂), Tellus (CO₂), Tennessee Gas Pipeline (NG), Air Liquide (nitrogen from onsite Air Separation Unit), and Martin Product Sales (sulfuric acid and ammonia by truck). CO₂ contracts specified CO₂ delivery dates have been exceeded. MPC will continue to monitor pipeline right of ways for any needed restoration and maintenance.

Liberty Mine - Current land control is 100% complete for the initial five year permit area. Construction activities are complete. Mine is operating and stockpiling lignite. Total actual spending for the mine development through February, 2016, including mine Allowance for Funds Used during Construction (AFUDC), was unchanged at \$232.2M, which is the forecast final cost.

Mississippi Economic Impact

IM has reported for each contract and purchase order whether MS bidders were involved, and if so, status and basis of the award decision (refer to Appendix F). Through February, 2016, contracts totaling \$1.897 billion have been awarded to MS companies, and total MS spending is \$1.881 billion (about 29% of the total, including uncapped costs). MS workforce contributed 515 construction jobs and 333 plant/mine jobs in February. A total of 549 MS Companies have provided construction, equipment, material or professional services for the Project.

Key Concerns

The following Project Execution related concerns have been reported with associated resolution status:

- Differential settlement and/or slope movement during initial loading of lignite stockpile in the storage dome - *Survey benchmarks will be monitored for settlement and slope stability during initial stockpile placement. IM suggests MPC consider development of mitigation plans in the event excessive settlements and/or slope movements are discovered, and staging of the initial placement of the lignite stockpile.*
- System testing has discovered numerous pressure leaks due primarily to inadequate installation, quality control, and quality assurance of flanged and welded connections (bolt torquing, gaskets, seals, pipe alignment, missing or inadequate welds) – *MPC is repairing the leaks when identified. Key concerns are noted below:*
 - Extraction Air Compressors – *location of piping leak on EAC-1 determined; repairs in progress.*
 - Syngas cooler leaks – *leak repairs and hydrotest completed on both Trains; IM has concerns with future leaks under operating conditions (evidence of additional cracks during boroscope, heat, fatigue stresses from the rappers). MPC reported that RCA is on hold.*
 - Coal mill loop leak rate exceeding maximum 150 SCF/minute – *leak testing and repairs will continue until the 150 SCF/min leak rate is achieved on all six trains (5 of 6 achieved).*
 - Coal dryer loop leak rate exceeding maximum 250 SCF/minute – *leak testing and repairs will continue until the 250 SCF/minute leak rate is achieved on all 6 trains (4 of 6 achieved).*
 - WSA Scrubber Quench Column body flange leaks – *repair plan developed for the top of the Quench Column.*
 - Multiclone weld and conveyor leaks have been detected in all six trains – *internal welding completed on 6 of 6 trains.*
 - CCAD/CFAD piping leaks – *repairs in progress.*
- Train 2 venturi scrubber pumps cavitation issues – *continue to be reviewed during the lignite feed tests.*
- Redesign of the venturi scrubber internals (4 scrubbers/train) – *wiring down the upper demister pads (6 of 6 complete); plugging of strainers and pumparound coolers (carryover) under investigation; back flush system for the strainers will be installed on all 6 trains (3 of 6 complete); new piping is being added to maintain a constant flow to the plate cooler when the strainers are plugged to prevent the coolers from plugging (3 of 6 complete).*
- Due to the amount of coal fines not being collected in the venturi scrubbers the candle filters will not work as designed – *a temporary skid unit (coal fine removal system) was installed for testing; testing new type of recovered water candle filters on one train for higher solids content.*
- Excessive flow across butterfly valve on gasifier high pressure relief system – *addition of restriction orifices on both trains was completed during CC shutdown in March.*

- Gasifier A refractory repairs – *replacement of 70' section in the riser and J-leg is complete; additional refractory repairs and modifications of inserts/nozzles in the standpipe are underway.*
- Gasifier B refractory repairs - *internal inspection is underway with some needed refractory repairs noted; an inspection report detailing extent of refractory repairs is due the first week of April.*
- Wastewater treatment tank buckling – *root cause was failure of the vacuum relief valve; valve replacement and tank repairs are complete.*
- Wastewater treatment tank liner replacement - *the liner did not meet the thickness or quality requirements of the coating specified; liner replacement is complete.*
- Rotary air lock valves plugging - *new internals with nitrogen cannons for the 6 HP discharge HP and 6 LP discharge valves will be installed; fabrication in progress.*
- Particulate Control Devices - *all the blow back pots on Train B ruptured during refractory cure and will be replaced; PCD vendor is in the process of confirming a new design; Train A blow back pots will also be replaced.*
- Elevators – *operational issues with the freight and personnel elevators are being addressed; one option being considered is having another vendor remove and replace the German made controls with American made.*
- WSA – *realignment of some rods in the ESP completed; repairing some bent rods.*

Contractor Hotline

MPC has established a toll free telephone number for contractors or others to provide observations of any concerns with improper activities associated with the project. Comments are collected by a third party and reported to MPC for follow up investigation and action. The IM is copied on all correspondence and will report status of all cases. There was one new concern filed this reporting period (March, 2016) involving wrongful discharge of a contract employee.

A summary of the twenty five (25) claims received to date and their status, including corrective actions taken, is included in Appendix I.

Project Document Status

The overall status of the project document reviews are summarized in Appendix B to this monthly report. Most of the RFI's have been posted, reviewed and closed (26 open items remaining). Primary concerns noted by the engineering disciplines are summarized below:

- Scope Additions – *MPC has posted updated list through March 23, 2016 for approved items (\$111M) and through April 5, 2016 for pending items; weekly updates are being provided to the IM Site Team for all FCR's, OCR's and Resource Pool Listings.*
- PHA Action Items – *MPC has posted updated list through February 19, 2016 (131 open items of 3230 total items); March update is in progress.*
- Vendor Recommendations – *there are 37 open items, mostly certified budget amounts (refer to Appendix F).*
- Accounting – *responses to the remaining MPSC items were posted in March.*

- Process and Technology – *IM has additional questions on some of the posted responses (see Section 1.10); responses to 3 new items regarding the venturi scrubber system will be reviewed with MPC on April 12.*

Project Cost and Schedule

In the February 2016 PSC Report, MPC reported no change in forecast completion date in third quarter of 2016, and an increase in forecast capped cost of \$18 million to \$5.312 billion, including a decrease in base contingency of \$0.6 million to \$56.4 million and a decrease in Schedule Risk of \$35 million to \$35 million. Forecast uncapped costs decreased by \$2.3 million in February to \$1.348 billion.

Total capped spending for the plant through February, 2016, with deduction for Department of Energy (DOE) funding, was \$4.994 billion. Overall plant EPC was 99% complete. Uncapped spending through February was \$1.221 billion.

As of March 29, 2016, the current working schedule indicates TOD of 8/13/16, which is a 276 day slip from the November 2014 rebaseline date, and a 57 day slip from the 3/1/16 report. The critical path is currently through Gasifier 'A' Refractory Repairs, Refractory Cure - Train 'A', Gasifier 'A' First Coal Feed Test, First Syngas Production Train 'A', Reliable/Clean Syngas Available 'A', Testing and Tuning of CTs on Syngas, and TOD.

Key drivers on secondary path include:

- Gasifier 'B' PCD repairs (1 day off the top path). Repairs to the blowback pots and thermocouples are to be complete by May 3, 2016.
- Gasifier 'B' PSSR action items (4 days off the top path). The team is currently conducting this PSSR. Once complete, PSSR Action Items will be assigned and then need to be resolved before Operational Sign Off.
- Lignite Dryer 6 commissioning (5 days off the top path) for 1st Syngas. Ash Mixer issues delayed when this dryer will be ready for First Coal Feed (TP2027) by 7 days. The Lignite Dryer Ready for First Lignite Feed milestone is now scheduled to be achieved by May 3, 2016.
- Gasifier 'B' refractory inspections (7 days off the top path). The team continues the post-cure out inspection work while simultaneously addressing the necessary PCD repair work. All of the work on Gasifier 'B' is currently scheduled to complete by May 1, 2016, but inspection results could move this date out further.
- Ammonia Storage PSSR action items (7 days off the top path). Signing off of the Ammonia Storage PSSR is needed before filling the Ammonia Storage drums and commissioning the Sour Water system.
- Revalidation Plant Safety Systems (10 days off the top path). Revalidation activities are in progress and are to be complete by Apr 29, 2016 to support Return to Temperature on Gasifier 'B'.
- Train B syngas operations (13 days off the critical path).

Overall project execution status was reviewed on March 8, 2016 at the jobsite. Refer to Appendix D for detailed meeting notes. Primary concern is additional schedule slippage and associated cost increases, and unknown startup and technology risks.

- Additional schedule slippage – MPC has reported a delay in COD to third quarter of 2016. MPC will continue to evaluate startup schedule and remaining risks, and has included \$35 million for schedule risk in the February cost forecast, equivalent to August 31, 2016 COD; however, recent trends in startup progress (1% in March) will have to improve to meet the forecasted COD. Schedule impact of recently discovered issues with Gasifier B refractory and PCD's have yet to be quantified, and on-going issues with the lignite preparation system have yet to be resolved. IM believes remaining process risks are being under estimated, and results of the latest Quantitative Risk Assessment indicate the possibility of high impact risk events affecting COD.
- Associated cost increases – While increases in the indirect project costs due to schedule delays are capped and therefore being absorbed by the MPC shareholders, the rate payers are also at risk for alternative power generation and AFUDC costs, to the extent these are allowed by the MPSC.
- Unknown startup and technology risks – key concerns include premature equipment failures, coal feed, ash removal, refractory reliability, overall plant process control integration, chemical product quality and off taker performance. Issues associated with several of these concerns (equipment failures, coal feed, refractory reliability), have already been reported and are still being addressed.

Accounting

Topp McWhorter Harvey, PLLC (formerly known as Nicholson & Company, PLLC and hereinafter referred to as TMH) has completed the accounting audit of the special-purpose Historical Schedules of Capped and Uncapped Plant Costs of the Project for the historical project-to-date and month-to-date periods ended January 31, 2016, and the examination of special-purpose Forecasted Schedules for the period beginning February 1, 2016, through the completion of the Project.

On April 1, 2016, the Company filed their February 2016 monthly Form 8K with the SEC which increased its Capped Plant Cost Current View (forecast) for the Kemper IGCC Project to approximately \$5.312 billion, net of DOE grants and Cost Cap Exceptions. The Company's Monthly Status Report through February 2016 decreased its Current View (forecast) of Total Exemptions and Exceptions (Non-Capped Cost) by \$2.3 million to approximately \$1.348 billion.

During March 2016, the Company has continued to conduct repairs and modifications to the refractory lining inside each of the gasifiers and to inspect and evaluate the need for additional refractory work, which could impact the projected in-service date and/or the related cost estimate for the Kemper IGCC. The Company's previously disclosed projected in-service date for the Kemper IGCC is during the third quarter 2016. Any related updates to the schedule for

each gasifier would be reflected in the Kemper IGCC Project Monthly Status Report that the Company expects to file in late April 2016.

Any extension of the in-service date beyond August 31, 2016 is currently estimated to result in additional base costs of approximately \$25 million to \$35 million per month, which includes maintaining necessary levels of start-up labor, materials, and fuel, as well as operational resources required to execute start-up and commissioning activities. However, additional costs may be required for remediation of any further equipment and/or design issues identified. Any extension of the in-service date with respect to the Kemper IGCC beyond August 31, 2016 would also increase costs for the Cost Cap Exceptions, which are not subject to the \$2.88 billion cost cap established by the Mississippi PSC. These costs include AFUDC, which is currently estimated to total approximately \$13 million per month, as well as carrying costs and operating expenses on Kemper IGCC assets placed in service and consulting and legal fees of approximately \$2 million per month.

The analysis of the time needed to complete the start-up and commissioning activities for the Kemper IGCC will continue until the remaining Kemper IGCC assets are placed in service. Further cost increases and/or extensions of the in-service date may result from factors including, but not limited to, labor costs and productivity, adverse weather conditions, shortages and inconsistent quality of equipment, materials, and labor, contractor or supplier delay, non-performance under operating or other agreements, operational readiness, including specialized operator training and required site safety programs, unforeseen engineering or design problems, start-up activities for this first-of-a-kind technology (including major equipment failure and system integration), and/or operational performance (including additional costs to satisfy any operational parameters ultimately adopted by the Mississippi PSC). In subsequent periods, any further changes in the estimated costs to complete construction and start-up of the Kemper IGCC subject to the \$2.88 billion cost cap, net of the DOE Grants and excluding the Cost Cap Exceptions, will be reflected in Southern Company's and Mississippi Power's statements of income and these changes could be material. The ultimate outcome of this matter cannot be determined at this time.

On February 25, 2016, Greenleaf CO₂ Solutions filed a notice of appeal in the Mississippi Supreme Court regarding the decision in Mississippi Public Service Commission docket 2015-UN-80. On February 29, 2016, the Company filed a Motion to Intervene as a party in the appeal. The appeal seeks to reverse the Commission's In-Service Asset Order and Temporary Rate Order awarding rate relief to the Company related to the Kemper Project. The Commission, as appellee, filed a Motion to Dismiss the Appeal, which has now been fully briefed and the parties are awaiting a ruling from the Court. The Company will vigorously defend the matter, and the final outcome of this matter cannot now be determined.

On March 2, 2016, Biloxi Freezing & Processing, Inc., Gulfside Casino Partnership and John Carlton Dean filed a Complaint against the Company in Harrison County Circuit Court. The Plaintiffs allege the Company violated the Mississippi Unfair Trade Practices Act, that the

Company concealed, falsely represented and failed to fully disclose important facts concerning the cost and schedule of the Kemper Project and that the Company's breaches interfered with and destroyed economically advantageous relationships between the plaintiffs and their current and prospective business associates. The Plaintiffs seek unspecified actual damages and punitive damages as well as attorney's fees, costs and interest. Plaintiffs also seek an injunction to prevent any Kemper Project costs from being charged to customers through electric rates. On April 1, 2016, the Company filed a Notice of Removal to the United States District Court for the Southern District of Mississippi. The Company believes the claims are without merit and will vigorously defend the matter. However, the final outcome of this matter cannot now be determined.

Discipline Summaries

Environmental / Permitting

The IMs review of documents provided by MPC and LF has not identified any major concerns or issues.

Prior to Commercial Operation of the IGCC Plant, there will be additional monitoring reports (Mitigation Action Plan, Wetlands Mitigation and Water Quality and Macroinvertebrate Monitoring Reports) prepared by LF for MDEQ as required by permits issued for the project. These documents and reports should be provided to and reviewed by the IM to insure that the permit requirements for the plant, off-site linear facilities and lignite mine continue to be met. MPC posted updates in January through the end of 2015.

IM is monitoring status of approvals for the two (2) remaining plant permits:

- Title IV Acid Rain Permit – Application was submitted 10/13/11; MDEQ issued draft permit on 2/11/14; Public comments have been received.
- Title V Operating Air Permit Modification – Application was submitted on 8/22/14; MDEQ issued draft permit.

Process and Technology

Implementing site monitoring plan for gasifier startup by IM gasification technology specialist. Last site visit was conducted week of March 7 (see Section 1.10). Next visit will be conducted week of April 11. MPC responses to 13 RFI's were posted in February regarding gasifier refractory and other equipment issues in the gasifier coal preparation area. IM has additional questions on some of the posted responses, and submitted 3 new RFI's regarding the venturi scrubber issues (see Section 1.10 and Appendix B).

Lignite Delivery Facility

LDF construction is 100% complete. Automatic gate operator installation between the plant and the North LDF continues. The PVC ductbank with stubups have been poured in red concrete.

The forms for the card reader mounts, electrical equipment foundation, and gate operator drive installation are complete. Light poles have been set and pull boxes are mounted. Electrical equipment mounting is in progress.

The 300 tons of coal in Crushed Coal Silo 2 (SI-1102) and the 100 tons of less handled (screened) coal in Crushed Coal Silo 6 continue to be monitored. This coal is being used for trains 2 and 6 lignite test runs. Crews continue to maintain approximately 10,000 tons of coal in the dome to support the upcoming lignite runs. Mobile coal screening equipment continues to screen the coal at the coal storage pile.

Procurement

Initial IM reviews of Vendor Recommendation Forms are complete. Most known key Contracts and Purchase Orders, including construction and Liberty Mine facilities, have been included, totaling about 500 items (excluding O&M Service Contracts, MS Tier II contractors, and Transmission). Refer to IM September 2014 Monthly Report (Appendix F) for the last update of completed reviews.

IM conducted closeout audit of procurement packages and prepared a listing of over 200 additional items not reviewed. From this list, the IM identified and requested about 75 items for review. MPC has begun posting the requested documents which are currently being reviewed. Refer to Appendix F for an update of the current reviews (37 open items remaining).

Site Activities (Plant metrics through March 20, 2016)

The following activities are **ahead of or on schedule** – Steel, Pipe, Instruments, Cable Tray, Tubing, Cable, Terminations, Conduit, Process Heat Tracing, and Freeze Protection Heat Tracing. The following activities are **behind schedule** with the percentage behind; include Equipment Insulation (3%), Pipe Insulation (3%), and Startup (13%).

Mechanical work has been proceeding in the following areas - Area 210 - Waste Water & Selexol Storage Area, Area 140 – Tankage Area, Area 150A/250A - Coal Prep Area, Area 120/220 – Gas Cleanup, Area 150/250 - Gasifier Area, Area 160 – Wet Sulfuric Acid Area, Area 230 – Selexol Area (North), Area 130 – Selexol Area (South), Area 105 – Train 1 Gas Clean Up Area, Area 110 – Compressor Area, Area 180 – CO₂ Compression and Dehydration Area, and Area 260 – Sulfuric Acid Recovery Area.

Electrical & Instrumentation work has been proceeding in the following areas - Area 105 – Train 1 Gas Clean Up Area, Area 110 – Compressor Area, Area 120/220 - Gas Cleanup Area, Area 130/ 230 – Selexol Area (South & North), Area 140 – Tankage Area, Area 150/250 - Gasifier 1 & 2, Area 150A/250B – Coal Feed 1 & 2, Area 160 – Wet Sulfuric Acid Area, Area 170 – Pipe rack, Area 180 – CO₂ Compression/Dehydration Area, Area 200 - Main Electrical Building, Area 210 - Waste Water Treatment Area, and Area 260 – Sulfuric Acid Recovery Area.

Gas Clean-Up (Areas 105, 120, and 220) – Trains A and B Micron Filters have been inspected and cleaned with filter elements ordered. Inspecting the inside of trains A and B WGS Reactors for contaminated stainless steel is complete along with inspecting the reactors skirts. Trains A and B COS Hydrolysis by-pass valves were removed and sent

off for repair due to bent valve stems. Train B by-pass valve was received and reinstalled. Modifications on trains A and B Sulfiding piping spools were completed and both spools reinstalled. Punch list items on train B are being verified due to Gasifier B being readied for first syngas production. Final tie-ins to trains A and B HP flare headers were completed during the Combined Cycle outage this month. Prepping continues on both trains A and B WGS Reactors for catalysis loading which is scheduled for April 11.

Process Air (Area 110) – EAC 2 was fully commissioned the last week of February. Siemens conducted pressure testing on EAC 1 on Wednesday (3/9) to determine the source of an air leak. Pressure testing so far has determined that both the compressor and heat exchanger are not leaking. Additional pressure testing will continue on the piping and flanges to find the source of the leak. A Dehydration unit has been connected to the lube oil reservoir on Process Air Compressor CO-1202LO to begin removing condensation that was found in the lube oil. The filler caps are being replaced on all the reservoirs due to degradation.

Selexol Area (Areas 130 and 230) – In the 130 area precommissioning on the Flash Gas Compressor is complete with commissioning scheduled for April. Circulating demin water through the Syngas Scrubber for tuning activities and the Scrubber Pumparound IPS Heater was completed and the systems safely drained. Gasket replacement is complete on top of the Cricket Filters in both trains A and B with leak testing to follow. Selexol fill in both trains is pending train B 1st coal feed, schedule to be determined. In the 230 area the remaining water in the Lean loop was moved to the Semi Lean loop for a nil foam test which was successful. Cleaning and inspecting the AGR Sump Drum is complete. The pump has been reinstalled, scaffolding removed from the sump and the lid replaced. Both 24" control valves on top of train B CO₂ Flash Drums were removed, new internals installed, and the valves reinstalled. Scaffold crews are scaffolding sections of the CO₂ Absorbers for vents and drains to be installed with hydro to follow. Punch list items continue to be addressed in both areas.

Tankage (Area 140) – Testing is complete on the 50 % Caustic Tank to the new truck loading pad. Leak testing (with air) on the Ammonia Storage Drums for TP-1031 continues with the Wastewater Ammonia Purifier CL-0052 to follow. Eyewash & safety shower stations and water heater control panels are being relocated.

Gasifier (150 and 250) – In Gasifier B the sand was deinventoried and scaffolded for a full inspection. Six snubbers were installed on each Gasifier as part of the improved vibration dampening system to reduce the gasifier vibration that was believed to have contributed to some of the refractory damage. Gasifier A refractory removal and reinstallation in the Riser is complete. Tear out continues in the J-leg and a 50' circumferential ring in the Standpipe from elevation 575' down to the bottom of the Standpipe. Modifications on the nozzles/inserts (in the tear out zone) will follow the refractory tear out in the Standpipe. Train A & B PCD's elbows have been removed for access and inspection after the blow back pots were found ruptured in train B after the refractory cure out. Pall & Lavender are on site to perform the inspections on the PCD's.

Coal Prep (150A and 250A) – Train 6 dryer fan dorsal fin installation (vanes) was completed with a test fan run that indicated lower vibration reading. Prepping to run lignite coal in April is underway. In train 2 a new rotary air lock internal was installed

along with a modified housing with a 2" nitrogen cannon. The existing inlet rotary air lock internal was swapped out with the HP discharge rotary air lock. The 12 vane HP discharge rotary air lock internal that was removed was sent out to be modified. Train 3 and 4 dryer leak repairs are ongoing. Internal multiclone seal welding in train 1 is complete with scaffolds being removed for a gross leak test. Fabricating the permanent back flushing piping for the Venturi Scrubber strainers and plate coolers was completed on trains 1, 2 and 6. Crews continue fabricating the piping on the remaining trains. Tying down the demister pads in all the remaining Venturi Scrubbers is complete. Coal fines in the water from the Venturi Scrubbers during lignite coal runs are being stored in Frac tanks on the west side of the Gasifier, the sumps on the north and south sides of the Gasifier, and the LDF sump. Investigation continues on the Venturi Scrubbers design. The LP Vent Gas Compressor is still out for cleaning with no estimated time of arrival on the return of the compressor.

Wet Acid Area (Area 160) – Inspecting the equipment and vessels in the area was completed by the vendor with all punch list items addressed. During the inspection 17 glass tubes that were found broken in the Condenser were replaced. After inspecting the Combustor the manways were bricked followed by final manway closure on the Combustor and Waste Steam Generator. The Scrubber Column was drained for Beltran to begin the alignment inspection on the rods in the electrostatic precipitator. The initial inspection was completed in mid-March. The final inspection on the electrostatic precipitator will be conducted during the first week of April followed by the commissioning of the system. Alignment and expansion joint issues were discovered on the Scrubber Water pumps with startup looking at repair options and duration.

Pipe Rack & BOP (Area 170) – Construction is complete.

CO₂ Compression / Dehydration Area (Area 180 and 260) – Train A CO₂ Compressor coupled run is on standby. Hydrolazing the CO₂ underground line to the metering station was completed but after bore scoping the pipe standing water was identified in the line. Hydro vacuuming is underway to remove the standing water in the 10" pipe. Pressure testing at 350 psig on all 8 Refrigeration Compressors A-H is complete. Train B CO₂ Compressor motor has been removed from its foundation due to alignment issues. Inspecting the sole plates is underway which will require shaving down the plates.

Flare (Area 190) – Sand removal in the 10" line to train A HP Flare is underway with crews cutting the line to help with the removal (this is the sand that collected in the pipe due to a normally closed valve that was left open during the sand fill in train a Gasifier).

Waste Water Treatment (Area 210) – Due to a relief/vacuum valve being left blocked in one night in late February the sides of the tank buckled in causing 3 dents (20' x 40') on the Wastewater Storage Tank shell. Structural steel was ordered and installed on the outside of the tank as stiffeners at one of the repaired dent locations. While inspecting the inside of the tank the coating vendors report indicated that at least 80% of the liner inside the tank did not meet the thickness or quality requirements of the coating specified. It was decided and approved that the liner would be replaced and rerated for a higher temperature. The existing coating/liner was removed and the new coating/liner was applied. The outside of the tank at the dent locations were blasted and painted. Leak testing is underway on the Ammonia Storage tanks and the Wastewater Ammonia

Purifier for test package commissioning. Working other punch list items continue in the Sour Water area.

Acid Storage Tanks and Off Spec Acid Tank (Area 260) – Construction is complete.

Nitrogen Plant (Area 260) – The nitrogen plant was shut down Sunday (3/13) for minor repairs and was back up and running by Thursday (3/17).

Combined Cycle HRSG's, and CT's (Area 510, 520, 530, and 540) – In preparation for installing the fine mesh screens during the Combined Cycle outage some of the roof panels were removed over the Steam Turbine early this month. All 4 fine mesh screens were installed, flanges torqued, and roof panel reinstalled. These screens were installed in preparation for steam from the Gasifier to be sent to the Steam Turbine during syngas production. The Combined Cycle outage was completed with HRSG A back up on Thursday (3/24) followed by HRSG B on Saturday (3/26).

Steam Turbine & Auxiliary Boiler Area (Area 550) – Construction is complete.

Water Treatment Area (Area 570) – Construction is complete.

Cooling Towers (Area 580 and 590) – Construction is complete.

Main Gate Security (Area 700) – Construction is complete.

Sewer Plant and Ash Storage Pond (Area 800) – The exchangers continue to reduce the water level in the containment ponds by approximately 2 inches of water per day. The new 48" evaporator was put in operation with an additional 1 inch of water being evaporated per day.

Project Safety Summary: Since the beginning of the project, there has been 83 reportable incidents at the site with 38,250,125 man hours worked. This year, the site has worked 1,208,468 man hours with 1 reportable incident. The project RIR stands at 0.17 for the year and 0.43 for the Project Total to Date.

Schedule

The construction schedule for remaining base scope dated 4/3/16, and the schedule for scope additions dated 3/30/16, are included in Appendix E.

Key metrics reported through March 27 are summarized below:

- Terminations installation was 1% behind plan overall. All available terminations have been completed. The remaining Gasifier and Gas Cleanup termination activity has not yet begun due to Startup activity. Quantities to be reforecast during the next forecasting cycle.
- Equipment insulation installation was 2% behind plan overall. Progress is being impacted by Startup activity.

- Pipe insulation installation was 3% behind plan overall. Gasifier progress was delayed due to Startup activity and is expected to resume in April. Not reflected in the planned or actual quantities is additional insulation rework to reinstall insulation that had been removed for Startup activity.
- Construction to Startup punchlist summary for base scope (excluding scope additions) shows a reduction in remaining open items from 428 on February 21 to 406 on March 27.
- Overall, turnover packages from construction to startup are on schedule as 966 are received out of a plan of 966 to date (99% complete, 2 of 968 packages remaining). The only remaining packages are Potable Water that will be turned over on March 28, and Gasifier Structure Personnel Elevator that will be turned over April 19.

Startup

- At the end of February, total startup employee staffing was at 293, including 24 SCS startup employees, 262 supplemental, and 7 OPCO's staff; plus 359 supplemental craft support and 46 I&C field technicians (grand total of 698 – an increase of 37 from January).
- Through March 27, startup progress was 87.4% complete overall (1.3% increase from February 21) vs. planned 100%.
 - 927 TOP's have been commissioned out of a total of 968 (96% complete). Of the 40 behind plan, 15 are complete for commissioning with the exception of completing all I/O loop checks. 28% (268 of planned 967) have been turned over from startup to operations (mostly CC and associated BOP).
 - Startup test packages are 62% complete (58 of 94 complete vs. plan of 94). Of the 36 late test packages, 15 are currently in progress.
 - Overall, I/O checks are <1% behind plan (99% complete, 155 of 31,372 remaining). Scope additions will potentially continue to change the total point count over the coming weeks as loops are added or deleted. These changes will be incorporated into the plan. The majority of the remaining loops are not available to be checked due to needed design, construction, or release from clearance. A plan is in place to address and expedite the availability of this I/O. There is no impact to test package execution or milestone completion.
 - Startup to Operations punchlist summary for base scope (excluding scope additions) shows a decrease in remaining open items from 17,482 on February 21 to 17,338 on March 27 (4,527 of these are high priority).
 - Completed Refractory Cure on Gasifier 'B' and successfully used 'B' Bottom Drain Feeder to de-inventory sand.
 - Gasifier 'B' Direct Diesel Injection (DDI) package operated successfully.
 - 'B' train PCDs were successfully tested during Gasifier 'B' cure out.
 - Gasifier 'A' third lift of hard-face form installation completed and is being inspected.
 - AGR 'B' Packinox (plate & Frame) Heat Exchanger Piping restoration complete.

- Work in both #2 and #6 Dryer/Pulverizer/Baghouse Loops complete (Fan Dorsal Fins, Multi-Clone and Casing Inspections, Rotary Valve Modifications).
- Power Block outage was completed.
- Product ammonia storage tanks successfully passed in-service leak checks.

Operations and Maintenance

Overall 249 of the planned 309 permanent employees are on staff (306 of 309 including contractors). Current supplemental contract staff will be considered for remaining permanent positions.

Process Safety Management (PSM) program development:

- GT board operator training complete – can provide trained operators to support any test package.
- Overall Risk Management Plan (RMP) is complete and will be filed with EPA prior to implementation – RMP for HRSG ammonia system was approved by EPA.
- There are 14 PSM elements – 10 of the 14 are complete (ready for chemicals).
- Executing PSM consultants' recommendations for the remaining 4 elements - Process Hazard Analyses, Pre Startup Safety Review, Process Safety Information, and Mechanical Integrity

PSSR durations is a concern (included in monthly schedule risk assessments). As of 3/27/16, there are 2,572 high priority PSSR punchlist items remaining open, and 101 high priority action items remaining open.

Land

IM Review of Documents and Purchases from the Kemper County Courthouse, Lauderdale County Courthouse and Update on the Lawsuit Concerning the Kemper IGCC Power Plant Site and Liberty Mine, Kemper County, Mississippi

In the February 2016 report, the IM reported on two new land purchases, one corrected land deed and one timber deed in Kemper County, one new land purchase in Lauderdale County and the status of the Kemper County lawsuit.

In the March 2016 report the IM will discuss three new land purchases with one purchase covering land in Kemper and Lauderdale Counties located during a March 28 and 29, 2016 visit to the Kemper County and Lauderdale County Chancery Clerk's Office, a spreadsheet on land purchases in Kemper County and the status of the Kemper County lawsuit.

The IM has reviewed information about the purchase of new mining land for the Kemper County IGCC Power Plant and Liberty Mine, the purchase of mining land set out in Exhibit "A" and the status of the Kemper lawsuit and determined the following:

- Mississippi Power Company purchased three new tracts of coal mining land covering 202.15 acres of land including 77.15 acres in Lauderdale County, MS. The land is located in Sections 27 and 33, Township 9 North, Range 15 North, Kemper County and Sections 3 and 4, Township 8 North, Range 15 East, Lauderdale County, MS. The land is located in Mine Block Two and Three.
- Mississippi Power Company has purchased 895.57 acres, more or less, in Kemper County for over \$4.8 million dollars or an average of \$5,399 an acre since May 2015. Since 2012 MPC has purchased a total of 5,814 acres, more or less, of land for over \$37 million dollars or an average of \$6,422 per acre. These totals do not include over 258 acres purchased in Lauderdale County discussed below.
- The IM has received information regarding purchases of land in Lauderdale County, MS.; the IM is reviewing this information and will report on these purchases next month.
- The parties to the Barham versus Mississippi Power Company lawsuit are still waiting for a ruling from the Judge dealing with the Summary Judgment Motions filed by both parties and argued at a court hearing held August 27, 2015 in the Chancery Court in Philadelphia, MS.