

IM Monthly Report



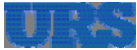
Mississippi Public Service Commission Kemper IGCC Project

August, 2016



URS Corporation
600 Carondelet Street
New Orleans, LA 70130-3587
Tel: 504.586.8111 ♦ Fax: 504.522.0554
www.urscorp.com

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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 August, 2016, and review of the project status reported by MPC for the period from June, 2016 to August, 2016 (EPC Status Production Meeting Reports July 20 and August 24, 2016, June and July 2016 PSC Reports, and Kemper County IGCC Weekly Executive Summary, Metrics and Control Meeting Reports through September 6, 2016).

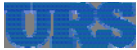
During this reporting period, the IM has conducted weekly status review meetings with MPSC staff. Several meetings, teleconferences and reviews were also conducted with MPC and SCS staff, as described below (refer to other Report Sections where referenced for more details):

- August, 2016 – Accounting audit of financial records from end of May, 2016 through end of June, 2016 held at MPC offices in Gulfport, MS (Appendix C).
- August, 2016 – Daily monitoring of on-going site construction and startup activities at the jobsite (Appendix E).
- Week of August 8, 2016 – Review of gasifier startup activities held at the jobsite (Section 1.10).
- August 15 and 16, 2016 – Review of project EPC status held at the jobsite (Appendix D).
- August 31, 2016 – Update from MPC on status of open RFI's (Appendix B).

Project Status through July, 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, is 100% complete for base scope. 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.
- E&CS and MPC Management of Change (MOC) process implementation and training.
- Design revisions from PHA, support requests, updated vendor information, and scope additions.
- 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 August, there were no new awards issued; and five vendor recommendations were accepted for 25,000 gallons of Selexol, coal pulverizer sample collection and lab analysis, lignite dryer roll crusher gear box, ultrasonic flow meter, and gate valve.

Construction (through August 28, 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, terminations, conduit, tubing, and heat tracing. Plant work in progress includes equipment insulation (98% complete, about 13,000 SF remaining), and pipe insulation (98% complete, about 20,000 LF remaining), plus ongoing punchlist and scope addition activities. Overall plant construction remained at 99% complete (through July, 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 supply), Tennessee Gas Pipeline (NG supply), Denbury Resources (CO₂ sales), Air Liquide (nitrogen supply from onsite Air Separation Unit), and Martin Product Sales (sulfuric acid and ammonia sales by truck). The CO₂ contract provides for termination by Denbury at its discretion if CO₂ deliveries do not occur by July 1, 2017.

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 July, 2016, including mine Allowance for Funds Used during Construction (AFUDC), was unchanged at \$232.2M, which is the forecast final cost.

Mississippi Economic Impact

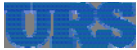
IM has reported for each contract and purchase order whether MS bidders were involved, and if so, status and basis of the award decision (refer to Appendix F). Through July, 2016, contracts totaling \$2.086 billion have been awarded to MS companies, and total MS spending is \$2.071 billion (about 30% of the total, including uncapped costs). MS workforce contributed 407 construction jobs and 358 plant/mine jobs in July. A total of 560 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:*
 - Syngas cooler leaks – *leak repairs and hydrotest completed on both Trains; IM has concerns with future leaks under operating conditions.*
 - Pump seal leaks – *seals on all the [REDACTED] pumps in the 140 and 210 areas have been replaced; seals on the [REDACTED] selexol solvent pumps and syngas scrubber pumps in the 130 and 230 areas have been replaced.*
 - Particulate Control Devices – *leakage of low amounts of particulate coal fines (1 to 2 lb's/hr) was detected in the upper section of one of the two PCD's in train B due to failure of a weld on one of the candle filters; the module containing the candle filter has been removed for repair.*
- Train 2 venturi scrubber pumps cavitation issues – *continue to be evaluated during the lignite feed tests.*
- Venturi scrubber solids carryover issues – *new duplex strainers will be installed on all 6 trains to allow the system to run while one strainer is in operation and the other strainer is back flushing (piping complete for 4 of 6 trains; strainers will be installed after all piping is complete).*
- Recovered water filters plugging – *testing the new set of filter elements in the 3 Recovered Water Candle Filters [REDACTED] is being monitored during the limited lignite runs; plugging and extended back flushing durations continue.*
- Gasifier refractory repairs – *refractory repairs and dry out is complete in both Gasifier A and B; Gasifier A still requires cure out scheduled for September.*
- Plugging issues at the roll crushers - *new sealed bearings have been installed in all six gear boxes; results to be determined during testing.*
- Ash moisturizer system – *modifications on all 4 ash moisturizers have improved operation; these systems continue to be monitored.*
- Lignite dryer solids accumulation – *material testing and evaluation in progress.*
- Bridging in the coal feed lock vessels on Trains 4, 5, and 6 - *piping modifications (piping extensions) and logic modifications on all lock vessels complete.*
- Additional gasifier thermal stresses due to changes in thermal refractory used in repair of Gasifier A and recognition of higher operating delta T for both gasifiers during startup – *new structural supports were added on Gasifier A and B.*
- AGR Compressors – *Train B CO2 Recycle Compressor (CO-2066) gear box rebuild is complete with alignment underway.*
- Gasifier B plugging - *Due to bridging in the lock vessels and plugging at the roll crushers and inlet rotary air locks, Gasifier B experienced low feed rates of between 20,000 and 90,000 lbs/hr at pressures well below design values; Gasifier B was shut down August 23, 2016 after bed circulation issues arose and hot spots were detected on reactor shell;*



De-inventory of the Gasifier is still in progress to allow further inspection, repairs and determination of impact.

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 were no new concerns filed this reporting period (August, 2016).

A summary of the twenty six (26) 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 (17 open items remaining). Primary concerns noted by the engineering disciplines are summarized below:

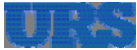
- Scope Additions – *MPC has posted updated list through May, 2016 for approved items (\$123 Million) and through July 12, 2016 for pending items (20 items); August update is in progress; weekly updates are being provided to the IM Site Team for all FCR's, OCR's and Resource Pool Listings.*
- Process and Technology – *MPC responses to five new RFI's were submitted in August (refer to Section 1.10 and Appendix B).*
- Operations and Maintenance – *final RAM Analysis Model was posted and is being reviewed.*

Project Cost and Schedule

In the July 2016 PSC Report, MPC reported a one month slip in forecast completion date to October 31, 2016, and an increase in forecast capped cost of \$43.0 million to \$5.428 billion, including an increase in base contingency of \$5.8 million to \$33.8 million and no change in Schedule Risk at \$35 million. Forecast uncapped costs increased in July by \$20.2 million to \$1.396 billion.

Total capped spending for the plant through July, 2016, with deduction for Department of Energy (DOE) funding, was \$5.259 billion. Overall plant EPC remained at 99% complete. Uncapped spending through July was \$1.321 billion. Refer to Appendix G for the PSC Report Summary.

As of August 28, 2016, the current working schedule indicates TOD of 10/11/16, which is a 335 day slip from the November 2014 rebaseline date, and a 31 day slip from the 7/24/16 report. With the shift from Gasifier 'B' to Gasifier 'A' due to a temperature excursion in Gasifier 'B' and slag formation in the Gasifier, the critical path to TOD is now through



Gasifier 'A' Refractory Cure, Gasifier 'A' Coal Feed Tests, Reliable/Clean Syngas Gasifier 'A', Reliable/Clean Syngas Gasifier 'B', Train 'A' and 'B' Syngas Operations, and TOD.

Key drivers on secondary path include:

First Lignite Feed - Train 'A'

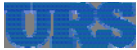
- Lignite Dryers Ready Gasifier 'A' (1 day off critical path), driven by reliability test runs for dryers 1-2, to complete by September 06.
- Sour Water System Readiness (5 days off critical path), driven by completion of scope additions scheduled for September 02.

TOD

- WSA readiness (1 day off critical path), driven by the decision to delay heating up to hot standby until closer to the start of Gasifier 'A' Coal Feed Test 2 on September 17.
- Six dryers ready to support TOD (1 day off critical path), driven by full commissioning of all Dryers. All dryers are to complete by October 09.
- AGR 'A' Operational Readiness (4 days off critical path), driven by completion of PSSR.
- Flash Gas Compressor B Commissioning (4 days off critical path), driven by test package completion, scheduled for September 07.
- Gasifier 'B' inspection/restoration (6 days off critical path), driven by de-inventory of coal/ash and inspection of the gasifier and PCDs.
- Recycle Gas Compressor A readiness (6 days off critical path), driven by completing compressor repairs/restoration by September 03.

Overall project execution status was reviewed on July 12, 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 October 31, 2016. MPC will continue to evaluate startup schedule and remaining risks, and has included \$35 million for schedule risk in the July cost forecast, equivalent to October 31, 2016 COD; however, recent trends in startup progress (1.15% per month over the last six months with 7% remaining) will have to improve to meet the forecasted COD. Schedule risks remain for completion of punchlists, scope additions, and on-going issues with the solids handling systems have yet to be resolved. IM believes remaining process risks in gas cleanup are being under estimated, and results completion of performance testing on CTA will be required to obtain full capacity that is scheduled post 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, gas cleanup, overall plant process



control integration, chemical product quality and off taker performance. Issues associated with several of these concerns (equipment failures, coal feed, ash removal, refractory reliability), have already been reported and are still being addressed.

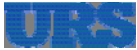
Accounting

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 June 30, 2016, and the examination of special-purpose Forecasted Schedules for the period beginning July 1, 2016, through the completion of the Project.

On August 8, 2016, the Company filed their Form 10-Q for the Second Quarter ended June 30, 2016, with the SEC which reported that the Company had recorded pre-tax charges to income for revisions to the cost estimate of \$81 million in the second quarter 2016 and a total of \$134 million for the six months ended June 30, 2016. Since 2012, in the aggregate, Mississippi Power has incurred charges of \$2.55 billion as a result of changes in the cost estimate above the cost cap for the Kemper IGCC through June 30, 2016. The increase to the cost estimate in 2016 primarily reflects costs for the extension of the Kemper IGCC's projected in-service date through October 31, 2016 and increased efforts related to operational readiness and challenges in start-up and commissioning activities, which includes the cost of repairs and modifications associated with the lignite feed process and the refractory lining for the gasifiers.

On September 6, 2016, the Company filed their July 2016, monthly Form 8K with the SEC which did not change its Capped Plant Cost Current View (forecast) for the Kemper IGCC Project which is approximately \$5.428 billion, net of DOE grants and Cost Cap Exceptions which it had reported previously in the August 8, 2016, filing of its 10-Q with the SEC for the Second Quarter ended June 30, 2016. The Company's Monthly Status Report through July 2016, did not change its Current View (forecast) of Total Exemptions and Exceptions (Non-Capped Cost) of approximately \$1.397 billion which it had reported previously in the August 8, 2016, filing of its 10-Q for the Second Quarter ended June 30, 2016. The total Current View (forecast) for Capped Plant Cost and Total Exemptions and Exceptions (Non-Capped Cost) in the Company's Monthly Status Report through July 31, 2016, is \$6.824 billion.

Also, the July PSC Report reflects the schedule extension for the Kemper IGCC and the related increase in the cost estimate subject to the cost cap of approximately \$43 million as previously disclosed in the Form 10-Q. The July PSC Report also includes information regarding the schedule for the "A" and "B" gasifiers. Specifically, during the nearly six-week period following first syngas production on July 14, 2016, gasifier "B" operated on lignite for over sixty percent of that time. During this time, mechanical equipment modifications to the lignite feed and ash systems were completed to support necessary capacity levels. In late August, gasifier "B" was taken offline for inspection and what is expected to be minor repairs and maintenance. Gasifier "A" has incorporated the known mechanical modifications from gasifier "B" and is now proceeding with startup to support sustained capacity levels necessary for completion of the activities for the initial operations and testing of the syngas clean-up systems and the production of electricity using syngas.



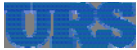
The next set of critical milestones for the facility includes operation of gasifier “A” to support production of electricity using clean syngas, which is scheduled to occur by the end of September, followed by completion of repairs and the successful restart of gasifier “B”, which is also scheduled to occur by the end of September. If these milestones are not achieved by these dates, the October 31, 2016 expected in-service date and related cost estimate for the Kemper IGCC may require further revision.

Further cost increases and/or extensions of the expected in-service date may result from factors including, but not limited to, the results of the inspection of gasifier “B”, difficulties integrating the systems required for sustained operations, major equipment failure, unforeseen engineering or design problems including any repairs and/or modifications to systems, and/or operational performance (including additional costs to satisfy any operational parameters ultimately adopted by the Mississippi PSC). 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 Initial DOE Grants and excluding the Cost Cap Exceptions, will be reflected in the Company’s statements of income and these changes could be material.

Any extension of the in-service date beyond October 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 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 \$14 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 \$3 million per month. The ultimate outcome of this matter cannot be determined at this time.

The Commission issued an order on August 17, 2016, titled “CREATION OF DISCOVERY DOCKET TO MANAGE ALL FILINGS RELATED TO THE PUDENCE OF THE KEMPER COUNTY INTERGRATED GASIFICATION COMBINED CYCLE GENERATING FACILITY” which established Docket Number 2016-AD-161. The Commission expects that this order, and the procedures established with it, will promote efficiency and will reduce the contentiousness of disputes related to future Kemper Project dockets.

On June 9, 2016, Treetop Midstream Services, LLC; Greenleaf CO2 Solutions, LLC; Tenrgys, LLC; Tellus Energy, LLC; WCOA, LLC; and Tellus Operating Group, LLC filed a Complaint against the Southern Company, Southern Company Services, Inc., and Mississippi Power Company in the State Court of Gwinnett County, Georgia. The Plaintiffs allege that the Southern Company Defendants concealed and misrepresented the Start Date of the Kemper Project, and that Treetop relied upon those misrepresentations while building a roughly \$100 million pipeline and conducting other work necessary to take CO2 from the Kemper Project. The Plaintiffs assert claims of fraudulent misrepresentation, fraudulent concealment, and civil conspiracy with respect to the Southern Company Defendants, and breach of contract with respect to MPC. The Plaintiffs seek compensatory damages and punitive damages as well as costs and interest. On August 10, MPC, Southern Company, and Southern Company Services filed their Answers as well as their (i) Motion to Dismiss for Lack of Personal Jurisdiction, (ii) Motion to Compel Arbitration, (iii) Motion to Dismiss for Forum Non Conveniens, and (iv) request for oral



argument. All of the above motions remain pending and the Southern Company Defendants will vigorously defend the matter, and the final outcome of this matter cannot now be determined.

As reported in the Form 10Q for the first quarter ended March 31, 2016, and again in the Form 10Q for the second quarter ended June 30, 2016, Mississippi Power Company disclosed that the Securities Exchange Commission (SEC) is conducting a formal investigation of Southern Company and Mississippi Power Company concerning the estimated costs and expected in-service date of the Kemper IGCC Project. Southern Company and Mississippi Power Company believe the investigation is focused primarily on periods subsequent to 2010 and on accounting matters, disclosure controls and procedures, and internal controls over financial reporting associated with the Kemper IGCC Project. As of the date of this report, September 8, 2016, Southern Company and Mississippi Power Company are still in the document production stage and continue to cooperate with the SEC. The ultimate outcome of this matter cannot be determined at this time; however, it is not expected to have a material impact on the financial statements of Mississippi Power Company.

Discipline Summaries

Environmental / Permitting

CCE has completed its review of additional environmental/permitting documentation provided by MPC since October 2015. The IM's review of these documents has not identified any major concerns or issues. However, there will be additional monitoring reports (Mitigation Action Plan, Wetlands Mitigation and Water Quality and Macroinvertebrate Monitoring Reports) prepared by MPC and LF for the MDEQ and the Corps of Engineers. These documents and reports should be provided to and reviewed by the IM to insure that the permit requirements for the IGCC Plant Site and Linear Facilities and for the Liberty Mine continue to be met.

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

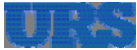
- Title IV Acid Rain Permit – Application was submitted 10/13/11; MDEQ issued draft permit on 2/11/14; Public comments have been received.
- Title V Operating Air Permit Modification – Application was submitted on 8/22/14; MDEQ issued draft permit.

Process and Technology

Implementing site monitoring plan for gasifier startup by IM gasification technology specialist. Last site visit was conducted week of August 8 (see Section 1.10). Next visit will be conducted week of September 12. MPC responded to five new RFI's in August (refer to Section 1.10 and Appendix B).

Lignite Delivery Facility

LDF construction is 100% complete. Coal silos 5 and 6 have been deinventoried as of Wednesday night (8/25) with Coal silo 4 to follow. Approximately 10,000 tons of coal is being



maintained in the dome to support lignite testing. Mobile coal screening equipment continues to screen the coal at the coal storage pile before it is sent to the truck dump.

Procurement

IM reviews of Procurement Activities are complete. Most known key Contracts and Purchase Orders, including construction and Liberty Mine facilities, have been included, totaling about 700 items (excluding O&M Service Contracts, MS Tier II contractors, and Transmission). Refer to the IM July 2016 Monthly Report (Appendix F), for the final update of completed reviews.

Site Activities (Plant metrics through August 21, 2016)

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) – A nitrogen blanket to protect the catalyst in the Water Shift Reactors is being maintained on train A. Startup is ensuring all punch list items on train A are complete in preparation for Gasifier A first syngas production which was to follow after Gasifier B first syngas production. On August 23 Gasifier B was shut down after bed circulation issues arose. Train A Gas Clean Up is now air freeing the system in preparation for nitrogen heat up and circulation for Gasifier A first syngas production. Train B will be cooled down and maintained with a nitrogen cap. Crews removed Ash Moisturizer Booster pump PU-6102B early this month and reinstalled it in place of Ash Moisturizer Booster pump PU-6102A due to a mechanical seal failure.

Process Air (Area 110) – EAC 1 (Extraction Air Compressor CO-1004) was run at the end of July to check the safeties on the Extraction Air Trim Cooler (HX-1019) which had lifted during testing in June with no issues found. EAC 1 was then fully commissioned on Tuesday (7/26). A faulty SIS (Safety Instrument System) control system instrument shutdown train B Recycled Gas Compressor (CO-2008) on Sunday (7/31) which in turn tripped Gasifier B for a short time before it was reset. Startup has looked into this because there is a redundant instrument on the compressor which should have prevented the trip. Alignment checks were completed on train A Recycled Gas Compressor (CO-1008) with crews checking for pipe stress issues as pipe restoration continues this month. A random lube oil sample taken on Process Air Compressor 2 found condensation in the lube oil. A dehydration unit has been connected to the lube oil system to remove the condensation.

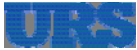


Selexol (Areas 130 and 230) – In area 130 – the AGR system was completely filled with Selexol and pressured up with nitrogen. During a compressor run on Flash Gas Compressor CO-1065 before commissioning the compressor unexpectedly shut down. Crews pulled the spool looking for a possible blockage between the first stage discharge and the second stage suction. No blockage was found and the spool was reinstalled for commissioning later. Ammonia was loaded into all the AGR Loaded Solvent Refrigerant Drums this month with circulation underway. Circulating the selexol was stopped for about a week this month on both trains A and B when it was discovered that a large amount of nitrogen was being consumed by the AGR units. The nitrogen was being absorbed by the selexol during circulation just as the selexol would absorb the CO₂ from the syngas during the process. Circulation on both the lean and semi-lean loops was resumed later in the month. In area 230, issues with both the Flash Gas Compressor CO-2065 and CO₂ Recycle Compressor (CO-1066) were discovered this month. Elliot representatives ran the Flash Gas Compressor CO-2065 when a problem in the gear box was detected. The top of the gear box was removed for inspection and it was determined that the thrust bearing and bull gear would have to be replaced. The repairs were completed but running and commissioning the compressor was rescheduled for next month. The CO₂ Recycle Compressor (CO-1066) was run by operations for precommissioning when during the run the compressor surged and damaged the thrust bearings. The compressor was removed and brought to the maintenance shop for inspection and repairs. The compressor has since been reinstalled but inspection on the gear box found bearing issues. The gear box is still being rebuilt with commissioning now scheduled for next month. Both lube oil systems for these compressors are being flushed to insure no contamination before commissioning. Both train A and B Flash Gas Compressors (CO-1065 and CO-2065) are waiting to be commissioned. Train B CO₂ Recycle Compressor (CO-2066) will have to be recommissioned due to the repairs to the compressor last week. Pump seal issues on Syngas Scrubber pump PU-2007A were discovered early this month but repairs couldn't commence until the pump could be isolated. After Gasifier B was shut down and the 90 degree elbows on the PCD's were removed the pump was isolated. Seal replacement is currently underway.

Tankage Area (Area 140) – Anhydrous Ammonia Reflux Makeup Pump (PU-59B) and Anhydrous Ammonia Rerun Pumps (PU-54A and B) are still out for seal replacement.

Gasifier (Areas 150 and 250) – The following activities are in progress or complete:

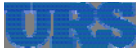
- **Gasifier B**– the Gasifier has been operating at low feed rates of between 40,000 lb's/hr and 125,000 lb's/hr this month due to trips and mechanical issues. The Gasifier went down Tuesday (8/2) due to loss of nitrogen when Air Liquide tripped a 480V main electrical breaker and was down for 6 hours. The breaker was repaired and nitrogen was restored to the Gasifier. Tuesday (8/23) engineering and plant management decided to shut down Gasifier B after bed circulation issues arose. It's suspected that due to the high temperature excursion that they reached the fusion temperature of the ash which produced clinkers at the lower mixing zone and or the J-leg at the Riser restricting the flow in the Gasifier. This fusion may have potentially produced slag on the walls of the refractory in these areas as well as the Seal Leg. Operations began removing solids from the Gasifier Thursday (8/25) with the Standpipe and the Seal Leg empty. A level in the Pre-Salter of around 15' remains along with an undetermined level in the Riser.



- Gasifier A and B CCAD and CFAD systems - The 4 CFAD piping systems on train A were cleaned and inspected early this week. Leak checks to verify gasket replacements were completed for the 650 psi test Tuesday (8/9). Issues persist on Train B CCAD system with conveying coarse ash to the Coarse Ash Silo. A 250 psi nitrogen tap was added below the “B” side clinker catcher to help convey the ash to the silo. This tap did show some improvement with lowering the level in the Standpipe. Crews added the 250 psi tap on the “A” side Wednesday (8/10). A clearance was executed Wednesday (8/24) and a borescope inspection completed on the CCAD Secondary Cooler. A large amount of sand was found inside of the cooler which is being vacuumed out of the cooler Thursday (8/25). Adding the 250 psig nitrogen modification below sides A and B CCAD clinker catchers was completed.
- Train B PCD’s – the two 90 degree elbows were removed over the weekend to isolate train B Syngas Scrubber to begin seal replacement on PU-2007A. Inspection inside the PCD’s was completed Wednesday (8/31) with the source of the leak detected. A weld on one of the candle filters had failed allowing particulates to flow into the top of the PCD. Crews have removed the module containing the candle filter for repair.
- Train A and B Lock Vessels (Feeders) – All piping modifications with the exception of 6A and 4A and logic modifications are complete on trains A and B. Both 6A and 4A lock vessel bottom spools were removed and sent off to have the nitrogen nozzles installed. (Piping modifications complete on 1A & B, 2A & B, 3A & B, 4B, 5A & B, and 6B)
- HRSG Condensate Booster Pump PU-0091B was reinstalled and alignment completed on Thursday (8/25).
- **Gasifier A** - the 300 psi pressure tests on the CCAD and CFAD system was completed along with the 650 psi pressure test Monday (8/29). Fluidization controls and pressure transmitter purges were tested and set up. Solids flow isolation valves were stroked with only a few issues that have been addressed. PCD back pulse system has been set up for operation, as is the PCD preheat system using the Syngas Coolers. Bed Ash from Gasifier “B” was loaded into the Gasifier this week with a level established Wednesday (8/31) followed by circulation at 4 pm lighting the Start-up Burners at 7 pm. An issue with one of the Start-up Burners is preventing it from reaching the set point temperature this morning (9/1). The outlet temperature was at 300 degrees as of 8 am this morning (9/1) and holding. Prepping for Gasifier A cure out is underway along with moving all parts, instruments, and equipment borrowed for train B back to train A.

Area 150A/250A - Coal Prep Area: The following activities are in progress or complete:

- **Train B Dryers** – Trains 4, 5, and 6 dryers had issues with all three dryers this month. Issues include Inlet Rotary Lock valves, Roll Crusher plugs, Gear Box failures, and nitrogen cannons not firing. These three trains were down due to the Gasifier not running as of Thursday (8/4). All three gear boxes for train B Roll Crushers have been replaced with sealed bearing.
- Train 5 – Inlet Rotary Air Lock plugged Monday (8/15) which required shutting down the dryer. A decision was made to go ahead and make the nitrogen piping modifications at

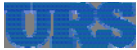


the bottom of 5A lock vessel. Modifications were completed Tuesday (8/16). The Coal Storage Silo and Fluid Bed Dryer were deinventoried Wednesday (8/24).

- Train 4 – Tuesday (8/9) train 4 Inlet Rotary Air Lock motor was replaced with a new 10hp motor. Inlet Rotary Air Lock plugged Tuesday (8/16) due to the bearing in the gear box seizing. This gear box was replaced Tuesday (8/16) with the new modified gear box with the sealed bearing. Additional coal was added to the Crushed Coal Storage Silo Wednesday night (8/24) for Malvern to compete the testing on the Particle Size Analyzer on Thursday (8/25). When the testing is complete the silo and Fluid Bed Dryer will be deinventoried.
- Train 6 – Deinventoring the Coal Storage Silo and Fluid Bed Dryer continued Thursday (8/25) after the Malvern representatives successfully inspected and ran the Particle Size Analyzer located at the discharge of the Baghouse.
- **Dryers on train A** – Crews will begin replacing parts and instruments that were removed and installed on train B dryers Wednesday (8/24) in preparation for pressure testing and eventually lignite runs.
- Train 2 – Crews successfully pressure tested the dryer Thursday (8/25) to prove the new loop seal that was installed Friday (8/19) which replaces the existing PRV. Additional structural support plates were installed for the new loop seals on trains 1, 2 and 3.
- Pipe fabrication for the new Venturi Scrubber duplex strainers continues on trains 1 and 2. The new strainers will be installed at a later date after all piping fabrication is complete. (These new strainers will allow the system to run while one strainer is in operation and the other strainer is back flushing) (Trains 3, 4, 5, and 6 piping is complete)
- LP Vent Gas Compressor (CO-0041) – Sunday (8/14) during a compressor run the LP Vent Gas Compressor motor tripped. Tuesday (8/16) during another attempt to run the compressor the compressor motor tripped again but this time it was due to the compressor seizing. The compressor was removed and sent to the vendor for inspection and repairs.

Ash Removal System (Area 150A/250A) – The following activities are in progress or complete:

- Ash Moisturizer D was shut down Tuesday (7/26) due to the coal and water mixture causing one of the paddles to break loose, spin around, and gouge a hole in the bottom of the moisturizer. On Friday (8/5) D Moisturizer experienced the same issues with the paddles breaking loose and gouging another hole on the lower side of the shell. Repairs were completed both times to the Moisturizer.
- Modifications were completed on Ash Moisturizer A and B which included installing the discharge slide gate valve on the discharge of Ash Moisturizers. Temporary air was run to the solenoids that operate the valves.



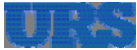
- Tuesday (8/9) while trying to deinventory Ash Silo B through Ash Moisturizer B the moisturizer was overwhelmed with ash causing a large dust cloud throughout the structure. Another attempt later that night caused another large dust cloud causing the deinventorying to be suspended. The ash was flowing so fast past the slide gate valve at the silo that by the time the valve was closed the system was overwhelmed. On Tuesday (8/16) the slide gate valve above Ash Moisturizer B was removed and was sent back to the vendor to repair the seals which failed while deinventorying Ash Silo B through Ash Moisturizer B. Operators closed the manual valve at Ash Silo B and deinventoryed the chute all the way through Ash Moisturizer B successfully.
- **Wet Acid (Area 160)** – The catalyst in both the SO₂ Converter and the SCR was completed with the manway doors closed, bolted, and torqued. The fans were run and a successful leak check of the system was completed. A temporary dehumidifier was installed to protect the catalyst beds in the SCR and the SO₂ Converter but the dehumidifier was only able to bring the humidity down to 49%. A nitrogen supply was added which has brought the humidity down to 37%. The vendor, Haldor Topsoe, recommends that the humidity be kept below 40% to protect the catalyst. Daily monitoring continues while the WSA remains in hot standby. Demin water is being circulated through the Scrubber Column and Quench Column while leak checks on the 24" lined tee that leaked earlier in the month is monitored. Boil out and steam blows on both temporary Wabash package boilers were completed early this month. Steam piping to and from the evaporator was completed with both boilers operating at 60% supplying 325# steam to the plants 325# steam header.

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

CO₂ Compression / Dehydration (Areas 180 and 260) – Leak testing on Train B CO₂ Compressor CO-2080 with CO₂ continues this month with leaks that are detected repaired before commissioning. During commissioning the CO₂ will be run through the compressor and discharged into the underground CO₂ line up to the plants boundary limit. All 8 of the Refrigeration Compressors have been tested and run with 5 of the 8 running for AGR trains A and B. Insulating was completed in the Dehydration unit early this month.

Flare (Area 190) – Train A HP Flare is ready for operation with Train B HP Flare, LP Acid Gas Flare, and the Ammonia Flare all operational. Water still remains drained from trains A and B HP Flare K.O. drums due to water being picked up during flow and putting out the pilots. Startup is working with the vendor to determine a fix.

Waste Water Treatment (Area 210) – Water levels are being lowered in the Wastewater Drum (DR-0040) and the Wastewater Tank (TK-0042) now that Gasifier is down as the ammonia is being recovered out of the water. Carbon replacement was completed on Carbon Bed Filters A and B. The temporary cooler remains in service cooling the dilute liquid ammonia in the Wastewater Ammonia Stripper Reflux Drum (DR-0045) that was previously flashing in the Wastewater Ammonia Stripper Reflux Pumps (45A and 45B). The Wastewater Ammonia Purifier Bottoms Pump PU-57 B is still



out for seal replacement. Ash Moisturizer Booster Pump PU-6102 had bearing issues and the bearings were replaced.

Acid Storage Tanks and Off Spec Acid Tank (Area 260) – Final inspection was completed on the Acid Storage tank TK-072A and B with the manway doors closed, bolted, and torqued.

Nitrogen Plant (Area 260) – The nitrogen plant shut down for 6 hours early this month due to a trip on the 480V main breaker which prevented the unit from supplying any nitrogen during this time. The breaker was repaired and nitrogen was restored to the plant later that same day. An investigation was completed to prevent this complete shutdown from reoccurring. The plant is running this week supporting the plant with HP and LP nitrogen.

Combined Cycle HRSG's and CT's (Areas 510, 520, 530, and 540) – Power Block outage on train A to install limited instrumentation on CTA for Syngas testing was completed. The valves on the fuel skid were stroked and tested with nitrogen used to air free the skid. HRSG A was turned over to fleet on Friday July 29.

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

Water Treatment (Area 570) – Construction is complete.

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

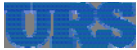
Main Gate Security (Area 700) – Construction is complete.

Sewer Plant and Ash Storage Pond (Area 800) – The last modular tank (tank 5) was cleaned and filled with 6" of water Thursday (8/4). Modular tanks 7 and 8 are maintaining 500,000 gallons of demin water to supply the two temporary Wabash package boilers. (Modular tanks 7 and 8 are being used to store demin water which will be produced by processing water from the north pond through the GE trailers or from the plants condensate tank. This demin water is for the two temporary Wabash package boilers)

Process Water Reservoir (Area 900) – North Ash Pond- Haul trucks continue hauling the coal/ash to the pond for dewatering. Construction on the temporary truck wash station started Tuesday (8/9) on the northeast corner of the GAMU (Gasification Ash Management Unit). The last concrete pour was completed Saturday (8/21). Crews are completing the drain piping under the new ramp and are expected to have the truck wash operational by the end of the month.

Safety

Project Safety Summary: Since the beginning of the project, there has been 84 reportable incidents at the site with 40,053,752 man hours worked. This year, the site has worked 30,120,095 man hours with 2 reportable incidents. The project RIR stands at 0.13 for the year and 0.42 for the Project Total to Date.



Schedule

The construction schedules for remaining base scope, and the schedule for scope additions, all as of 8/28/16, are included in Appendix E.

Key construction metrics reported through August 28 are summarized below:

- Equipment insulation installation was 1% behind schedule overall. Remaining work in the Gasifier area is scheduled to complete in October, and remaining quantity in Gas Cleanup is scheduled to complete in September.
- Pipe insulation installation was on plan overall. Work in the Gas Cleanup area is complete. The remaining quantity is in the Gasifier area and is scheduled to restart and complete in September.
- Construction to Startup punchlist summary for base scope (excluding scope additions) shows a decrease in open items remaining from 374 on July 24 to 136 on August 28.
- Overall, turnover packages from construction to startup are 100% complete as 968 are received out of a total of 968. The last remaining packages for Gasifier Structure Personnel Elevator was turned over on July 31 and Potable Water was turned over on August 18.

Startup

- At the end of July, total startup employee staffing was at 243, including 22 SCS startup employees, 214 supplemental, and 7 OPCO's staff; plus 395 startup supplemental craft support and 46 I&C field technicians (grand total of 684 – an increase of 28 from end of June).
- Through August 28, startup progress was 93.0% complete overall (0.9% increase from July 24) vs. planned 100%.
 - 957 TOP's have been commissioned out of a total of 968 (99% complete). Of the 11 remaining, 5 are complete for commissioning with the exception of completing all I/O loop checks. 39% (377 of 968) have been turned over from startup to operations (mostly CC and associated BOP).
 - Startup test packages are 79% complete (76 of 96 complete). Of the remaining 20 test packages, 15 are currently in progress.
 - Overall, I/O checks are 1% behind plan (99% complete, 223 of 31,850 remaining). New scope accounts for approximately 210 points of the 223 points that require testing. 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. 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 9,853 on July 24 to 6,673 on August 28 (135 of these are high priority).
- MPC reported the following startup achievements in August:
 - Gasifier 'B' completed 100+ hours continuous operation on lignite.
 - Completed 'A' Extraction Air Compressor run-in.
 - Completed WSA leak checks.
 - Gasifier 'B' achieved operation up to 170,000 lbs. per hour lignite.
 - Completed run-in and tuning of all 8 Refrigeration Compressors.
 - AGR 'A' circulation established.
 - Completed pressurization of 'B' side WGS catalyst warm up loop.
 - Gasifier 'A' PSSR sign off completed.
 - Ammonia Purification test completed.
 - Gasifier 'A' Safety Instrumented Function testing completed.
 - Syngas Cleanup 'A' PSSR sign off completed.
 - 'A' Gasifier, CFAD, CCAD pressure tests completed.
 - Total hours of syngas production Y-T-D: 580 hrs. on Gasifier 'B'.

Operations and Maintenance

Overall 275 of the planned 309 permanent employees are on staff (333 of 309 including contractors). Current supplemental contract staff will be considered for remaining 34 permanent positions.

Process Safety Management (PSM) program development:

- There are 14 PSM elements – 12 of the 14 are complete (ready for chemicals).
- Executing PSM consultants' recommendations for the remaining 2 elements - Process Hazard Analyses and Pre Startup Safety Review.
 1. Process Hazard Analysis - all eight PHA's requiring updates are complete, working through last few remaining recommendations (>99% complete).
 2. Pre-Startup Safety Reviews - Initial Equipment Walkdowns using PSSR checklist are complete for all 14 required systems (346 TOPs walked down out of 346, 100% complete). 12 of 14 PSSR's are complete, last 2 for AGR A and B are scheduled for September (1 priority PSSR Action Item remaining).

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 July 2016 report, the IM reported that there were no new purchases of mining land during the month in Kemper County and Lauderdale County, MS., discussed land purchases of interests in the Crogman W. Wooten Estate, review of land documents covering prior land purchases and the status of the Kemper County lawsuit.

In the August 2016 report the IM will discuss three new purchases of mining land in Kemper County, MS., one new land purchase in Lauderdale County, MS., review of documents regarding prior land purchases and developments in the Kemper County lawsuit.

The IM has reviewed updated information about the purchase of new mining land for the Kemper County IGCC Power Plant and Liberty Mine, the status of the Kemper lawsuit and determined the following:

- Mississippi Power Company (MPC) made four new purchases of coal mining land in Kemper and Lauderdale Counties, MS. in the last month totaling 52.88 acres, more or less.
- MPC made three new purchases of coal mining land in Kemper County, MS. in the last month covering 51.88 acres, more or less.
- There was one new purchase by MPC of coal mining land in Lauderdale County, MS. last month of 1.0 acre, more or less.
- The IM is reviewing documents provided by MPC regarding prior purchases of coal mining land and will report on the purchases in the next few months.
- The parties to the Barham versus Mississippi Power Company lawsuit are still waiting for a decision from the Judge regarding 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. The last filing in the case was August 15, 2015.