

**SOUTHERN INDIANA GAS AND ELECTRIC COMPANY
D/B/A
VECTREN ENERGY DELIVERY OF INDIANA, INC.**

CAUSE NO. 45280

FILED
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**INDIANA UTILITY
REGULATORY COMMISSION**

**(PUBLIC) DIRECT TESTIMONY
OF
WAYNE D. GAMES**

VICE PRESIDENT – POWER GENERATION OPERATIONS

**SPONSORING PETITIONER'S EXHIBIT NO. 1,
ATTACHMENTS WDG-1 THROUGH WDG-6**

DIRECT TESTIMONY

OF

WAYNE D. GAMES

VICE PRESIDENT – POWER GENERATION OPERATIONS

1 **Q. Please state your name, employer, and business address.**

2 A. Wayne D. Games, One Vectren Square, Evansville, Indiana 47708.

3 **Q. What position do you hold with Petitioner, Southern Indiana Gas and Electric**
4 **Company d/b/a Vectren Energy Delivery of Indiana, Inc., a CenterPoint Energy**
5 **Company (“Vectren South”) or “the Company”)?**

6 A. I am Vice President – Power Generation Operations.

7 **Q. Please describe your educational background.**

8 A. I received a Bachelor of Arts in Industrial Technology from Ohio Northern University in
9 1980 and a Master of Arts in Management from Antioch University in 2002.

10 **Q. Please describe your professional experience.**

11 A. I have over 28 years of varied experience in the utility industry. I started my career with
12 The Dayton Power & Light Co. in 1991 where I held supervisory, manager, and regional
13 manager titles on the energy delivery side of the business. Upon joining the Company in
14 2000, I served as Director of Construction and Service and Regional Manager in the Ohio
15 service area. In 2003, I moved to Evansville, Indiana and accepted responsibility as
16 Director of Vectren South’s AB Brown generating station (“Brown”). I was promoted to
17 Vice President of Power Supply in April of 2011.

1 **Q. What are your present duties and responsibilities as Vectren South's Vice President**
2 **of Power Generation Operations?**

3 A. I am responsible for the overall budgeting, operation, maintenance, and personnel
4 decisions for the power generation fleet of Vectren South. In addition, I have responsibility
5 for ensuring the demand of Vectren South's customers is met at the lowest reasonable
6 cost through the production and purchase of electric energy, including fuel purchases,
7 necessary to meet the needs of Vectren South's jurisdictional customers. I am responsible
8 for completing these functions while ensuring compliance with the environmental
9 requirements of all applicable regulatory or governmental agencies.

10 **Q. Have you previously testified before this Commission?**

11 A. Yes. I have testified before this Commission in prior FAC proceedings under Cause No.
12 38708, Vectren South's Dense Pack filing in Cause No. 44067, in Cause No. 44446, and
13 Cause No. 44909. I have testified most recently in Vectren South's generation filing,
14 Cause No. 45052.

15 **Q. What relief is Vectren South seeking in this Cause?**

16 A. The Company seeks a certificate of public convenience and necessity ("CPCN") pursuant
17 to IC 8-1-8.4-7 in order to recover federally mandated costs associated with a proposed
18 compliance project associated with the Brown ash pond and the federal Coal Combustion
19 Residual ("CCR") rule. The Company also seeks accounting and ratemaking relief
20 described in the direct testimony of Witnesses David M. Bowler and J. Cas Swiz.

21 **Q. What is the purpose of your testimony in this proceeding?**

22 A. Vectren South is required to close the Brown Ash Pond as a result of the CCR rule. A
23 closure by removal ("CBR Project") that removes material from the Brown pond rather

1 than leaving it in place is the preferred compliance approach considering both cost and
 2 risk. Vectren South has reached agreement with a cement manufacturer (the "Ash
 3 Reuser"), whereby as part of a CBR Project most of the ponded ash can be excavated
 4 and beneficially reused. As a result, a portion of the cost of the CBR Project will be
 5 recovered through payments Vectren South receives for the ponded ash it is able to
 6 provide to the Ash Reuser. My testimony describes the Brown Ash Pond, the evaluation
 7 that took place that led to the selection of the CBR Project, the estimated cost of the CBR
 8 Project, and how that compliance cost compares to other pond closure options. Finally, I
 9 sponsor two confidential agreements: the agreement negotiated with the Ash Reuser to
 10 supply ash and the agreement with a firm to perform the Engineering, Procurement and
 11 Construction Management (EPCM) work on the CBR Project. I also sponsor confidential
 12 summaries of key terms of each agreement and an Excel file which calculates the future
 13 cash flows from the various compliance options.

14 **Q. Are you sponsoring any attachments in this proceeding?**

15 A. Yes. I am sponsoring the following attachments in this proceeding:

- 16 • Confidential Attachment WDG-1: Ash Quality Specifications for Ash Reuser
- 17 • Confidential Attachment WDG-2: CBR Project Agreement with the Ash Reuser
- 18 • Confidential Attachment WDG-3: Ash Reuser Agreement Summary
- 19 • Confidential Attachment WDG-4: EPCM Agreement with AECOM
- 20 • Confidential Attachment WDG-5: Performance Cost Model Component Summary of
 21 Terms
- 22 • Confidential Attachment WDG-6: CBR Project Projected Cash Flow

23

24 **1. Description of the Brown Ash Pond**

25 **Q. Please describe the Brown Ash Pond.**

1 A. The Brown Ash Pond was placed in service in 1979. An earthen dam (lower dam) was
2 constructed across an existing valley to create a pond to hold process water for the plant
3 as well as fly ash, bottom ash and some scrubber by-product. In 2005 another earthen
4 dam (upper dam) was constructed across the middle of the pond on top of the existing
5 ash to increase the storage capacity. This created upper and lower pools that make up
6 the ash pond. The lower pool which is approximately 57 acres holds process water for the
7 coal plant while the upper pool which is approximately 107 acres has continued to collect
8 fly ash and bottom ash since 2005. The total pond size is approximately 164 acres and
9 holds about 5.9 million cubic yards or 6.2 million tons of CCR material which consists
10 primarily of fly ash together with small amounts of bottom ash and scrubber or Flue Gas
11 Desulfurization ("FGD") by-product (calcium sulfite).

12 **Q. Is the Brown Ash Pond still in use?**

13 A. Yes. Since 2009 Vectren South has provided most of its dry fly ash to a manufacturer for
14 beneficial reuse. While Vectren South is not paid for the fly ash, it avoids the cost of
15 disposal. When weather or river levels prevent the transfer of ash to a barge, the fly ash
16 is deposited in the Brown Ash Pond. All bottom ash produced by the Brown plant is
17 deposited in the Brown Ash Pond.

18 **Q. Was infrastructure constructed to enable the delivery of dry ash for beneficial
19 reuse?**

20 A. Yes. To effectuate the shipment of fly ash, Vectren South made modifications to the fly
21 ash systems on its Brown and F.B. Culley ("Culley") units as well as Warrick Unit 4. A
22 large silo was built near the Ohio River at the Brown site and systems were installed to
23 pneumatically convey ash to the silo for storage. Smaller silos were built at Culley and
24 Warrick to temporarily store fly ash to be loaded on trucks and transported to Brown where

1 that ash is then transferred to the larger storage silo until enough has been collected to fill
2 a barge. A tube conveyer and barge loadout system were constructed to transport the ash
3 from the large storage silo to barges on the Ohio River.

4 **Q. Has the shipment of fly ash for reuse benefitted Vectren South and its customers?**

5 A. Yes. In 2007, the Brown ash pond was nearing capacity creating the need to remove ash
6 from the pond and haul it to another location for disposal. The Culley pond is much smaller
7 (approximately 10 acres) and was already at the point where ash had to be periodically
8 removed and hauled to a mine. Vectren South incurred transportation and tipping fees for
9 this disposal. Beneficial reuse of the ash avoided significant costs by extending the life of
10 the Brown and Culley ash ponds, eliminated the expense of excavating ash and
11 transporting to other locations for disposal, and provided a more environmentally friendly
12 solution.

13 **Q. Has Vectren South been able to supply conforming fly ash for reuse?**

14 A. Yes. Vectren South has used a consistent supply of local Indiana coal as well as operating
15 practices and procedures which has resulted in fly ash meeting acceptable specifications.
16 Testing is completed on site. To date, no ash shipment has ever been rejected. As a result,
17 Vectren South has shipped over 1.4 million tons of fly ash for reuse.

18 **2. CCR Regulation and Compliance Options for the Brown Ash Pond**

19 **Q. Briefly describe the CCR regulations.**

20 A. The CCR rule was finalized by the United States Environmental Protection Agency ("EPA")
21 in 2015. The rule was promulgated in the aftermath of a catastrophic dam failure at a large
22 coal ash surface impoundment owned by The Tennessee Valley Authority (TVA) at its
23 Kingston power plant. The rule establishes "triggers" that, if met, require closure of ash
24 ponds or surface impoundments and implementation of corrective action to address the

1 potential release of CCR constituents in groundwater. The rule does allow the continued
2 beneficial reuse of CCR material. Witness Angila M. Retherford provides a more detailed
3 explanation of the CCR rule in her testimony.

4 **Q. Has Vectren South evaluated its options to comply with the CCR rule?**

5 A. Yes. In 2015 Vectren South recognized the need to understand the requirements of the
6 CCR rule and assembled an internal team consisting of Environmental Compliance,
7 Procurement, and Operations employees to interview several engineering firms in the
8 landfill sector to help interpret the rule and explore options for compliance. While Vectren
9 South was internally exploring its options, the Company was approached by an entity
10 interested in the reuse of the ash, which gave the Company another viable option to
11 explore. Vectren South then interviewed multiple experts in this area to help the Company
12 evaluate its options and ultimately visited these candidate firms to better understand their
13 knowledge, experience and capabilities.

14 **Q. What firm did Vectren South select to assist in its evaluation of compliance**
15 **alternatives?**

16 A. The team selected AECOM. AECOM is a multi-national engineering firm that provides
17 design, consulting, construction and management services to a wide range of clients
18 including the utility industry. AECOM has approximately 87,000 employees and is number
19 164 on the 2018 Fortune 500 list.

20 **Q. What initial work did AECOM perform related to CCR Compliance?**

21 A. Because the CCR rule established seismic guidelines related to pond operations, AECOM
22 initially performed work to ensure the dams on the active ponds at Brown and Culley
23 passed structural stability and safety assessments, so the ponds could continue to accept

1 CCR material. AECOM also developed alternative plans for the potential closing of the
2 Brown Ash Pond as well as the inactive west ash pond at Culley ("Culley West Pond").
3 This included the beneficial reuse option and the evaluation of specifications and volume
4 information provided by the party that had first approached Vectren South.

5 **Q. Does the CCR rule require that the Brown ash pond be closed?**

6 A. Yes. As explained in detail in witness Retherford's testimony, the Brown Ash Pond has
7 failed the CCR location restriction which requires ponded ash to be at least five (5) feet
8 above the uppermost groundwater aquifer. In addition, recent groundwater sampling has
9 demonstrated groundwater releases of lithium and molybdenum from the Brown Ash Pond
10 at statistically significant levels. As a result, Vectren South must cease ash disposal by
11 October of 2020 and must commence closure of the Brown Ash Pond within six months
12 of cessation of disposal.

13 **Q. What are some of the challenges associated with closing the Brown Ash Pond?**

14 A. The Brown Ash Pond is an expansive ravine that was blocked off at one end with an
15 earthen dam. Because it is not man-made the pond has an irregular shape and is up to
16 70 feet deep in some areas. The ash material is very fine and has been saturated in water
17 for many years. The pond continues to accept water from higher ground around the edges.
18 Absent dewatering, the material is unstable and any weight or dynamic load placed on the
19 ash material is unsafe.

20 **Q. What options did AECOM present for closing the Brown Ash Pond?**

21 A. While AECOM evaluated a number of subsets of alternatives, all alternatives come from
22 two options. The goal of each option is to stop the continued exposure of ash to water.
23 Groundwater monitoring at Brown has shown statistically significant levels of certain

1 constituents regulated under the rule in groundwater adjacent to the pond (one of the
2 closure triggers under the rule). The options are:

- 3 1. Cap (or Close) in Place ("CIP"). This option requires dewatering of the pond,
4 leaving the CCR material in place, constructing a synthetic membrane cap,
5 installing a system to drain all surface water away from the cap, adding topsoil
6 and establishing a vegetative cover. Thereafter, long-term groundwater
7 monitoring and cap maintenance is required; or
- 8 2. Closure by Removal ("CBR"). This option involves dewatering the pond and
9 removing the CCR material for disposal or beneficial reuse.

10
11 **Q. Please comment generally on the relative cost and risk of these two compliance**
12 **options.**

13 A. Focusing solely on upfront costs, the CIP approach would appear at first to be less
14 expensive than a CBR approach. However, there are multiple reasons to select the CBR
15 compliance option. First, as witness Retherford discusses, CIP is not currently a viable
16 option. The Indiana Department of Environmental Management ("IDEM") has been
17 unwilling to approve use of a CIP approach where significant amounts of ash remain in
18 contact with groundwater. Other states are moving to requiring CBR. If Vectren South
19 must remove ash from the groundwater under a CIP approach, the CIP approach is not a
20 lower upfront cost. Second, CBR removes the requirement for 30 years of groundwater
21 monitoring, mitigates groundwater issues and eliminates the potential future requirement
22 for CCR material to be excavated and placed in a lined landfill because of future
23 regulations and/or more stringent groundwater standards and/or changes in
24 interpretations of existing regulations or standards. Unlike CBR, CIP (even if it were
25 available) poses risk for future groundwater contamination and associated remediation
26 obligation due to CCR material being left in the closed pond.

1 **Q. Are there any advantages to a CBR Project that reuses the CCR material instead of**
2 **placing it in a landfill?**

3 A. Yes. Placing the CCR material in an on-site landfill requires the design and permitting of
4 a new landfill (the current landfill at Brown is nearly out of space and would be insufficient
5 for a CBR project) and the ongoing expense of monitoring and maintaining the landfill in
6 future years. If disposal at an off-site landfill is selected, the compliance costs escalate
7 dramatically. If the majority or all the CCR material can be beneficially reused, the liability
8 associated with the material is removed from the site, greatly increasing certainty and
9 reducing risk to the Company and customers over time.

10 **3. The Brown CBR Project**

11 **Q. Has Vectren South been able to find a partner that can beneficially reuse the fly ash**
12 **excavated from the Brown Pond as part of a CBR Project?**

13 A. Yes. As I previously testified, while the Company was still conducting its internal initial
14 evaluation, Vectren South was approached by a manufacturing company regarding
15 supplying the Brown ponded ash to it for beneficial reuse. The drivers of this opportunity
16 are: (a) Location – the Brown plant is located on the Ohio River where ash can be loaded
17 on barges and shipped at a low cost; (b) Brown Quality -- units have burned a consistent
18 Illinois Basin seam 5 coal since the plant was opened in 1979 and therefore the ash
19 variability is low and meets quality requirements for reuse; (c) Quantity – the Brown Pond
20 contains over 6 million tons of CCR material and can produce enough ash volume to
21 provide the feedstock to the manufacturer as a single source supplier for many years. A
22 single source supplier simplifies the logistics and production processes for the
23 manufacturer.

1 **Q. Is Vectren South the only available option for procuring a long-term supply of**
2 **ponded ash?**

3 A. No. Due to CCR regulations there are several utilities that will be closing their ash ponds,
4 either via CIP or CBR, and will be interested in beneficial reuse opportunities that would
5 allow them to remove ash from their site and reduce future liability. Fortunately, the factors
6 described above have facilitated the ability to negotiate and agree upon the CBR Project
7 with a manufacturer that is willing to pay for the fly ash (the "Ash Reuser").

8 **Q. What work was performed to determine whether the CBR Project including**
9 **beneficial reuse was viable?**

10 A. Before negotiations could begin, Vectren South needed an evaluation of the quality and
11 volume of usable ash material that was in the Brown ash pond. Fly ash, bottom ash and
12 FGD by-product have been placed in the Brown Ash Pond since 1979. Vectren South
13 also needed to understand the cost estimates and risks associated with fly ash excavation.

14 To determine ash quality, Vectren South obtained core borings within the Brown Ash Pond
15 that were evaluated at several depths to gain a representation of the quality of material in
16 various locations throughout the pond. The borings were then analyzed to determine the
17 quality characteristics of the material.

18 With respect to ash volume, AECOM digitally created a 3-D model by using historical U.S.
19 geological surveys to establish the base of the pond and an aerial flyover using LIDAR¹
20 technology to map the contour of the surface. This along with historical coal burn

¹ LIDAR is a surveying method commonly used to make high-resolution maps, with applications in geodesy, geomatics, archaeology, geography, geology, geomorphology, seismology, forestry, atmospheric physics, laser guidance, airborne laser swath mapping (ALSM), and laser altimetry. The technology measures distance to a target by illuminating the target with pulsed laser light and measuring the reflected pulses with a sensor. Differences in laser return times and wavelengths can then be used to make digital 3-D representations.

1 information was used to determine the approximate volume of ash in the pond.

2 **Q. What were the results of the analysis of volume and quality of ash in the Brown**
3 **Pond?**

4 A. The Company determined that there is approximately 6.2 million tons of CCR material,
5 primarily fly ash with some bottom ash and FGD by-product. Both the Ash Reuser and
6 AECOM analyzed the material characteristics and AECOM determined that approximately
7 3.250 million metric tons can be excavated from the pond and should meet all quality
8 specifications. 3-D geo-spatial mapping was used to develop a blending strategy and
9 determine that an additional 1.430 million tons of CCR material had some characteristics
10 that did not meet reuse specifications but could be blended to meet the quality
11 specifications. Approximately 1.250 million tons of material contains a level of FGD by-
12 product that makes meeting quality specifications problematic. The ash quality
13 specifications that must be met are attached as Confidential Attachment WDG-1. This
14 analysis supported the opportunity to supply a significant volume of ash for reuse and
15 achieve compliance with the CCR rule.

16 **Q. Based on this ash evaluation, did AECOM provide Vectren South with a CBR Project**
17 **plan?**

18 A. Yes. AECOM developed a dewatering and excavation plan, created a preliminary design
19 for the conveyor and barge loading systems to transport wet ash from the pond to barges,
20 and worked with suppliers and local contractors to establish a cost estimate for the CBR
21 of the Brown Ash Pond. Throughout this process AECOM employed an open book
22 process by sharing all bid responses and working with Vectren South's project manager
23 and team to review all cost estimates. Together AECOM and Vectren South worked with
24 potential vendors to identify and implement design changes to reduce and finalize the cost

1 estimate.

2 **Q. Did Vectren South compare the CBR Project Plan cost estimate to other compliance**
3 **alternatives?**

4 A. Yes. Apart from the CBR Project evaluation, AECOM also developed compliance plans
5 using both a CIP plan and a non-reuse CBR plan whereby ash was placed in a lined landfill
6 and provided cost estimates for these options. To analyze the risk from a CIP project
7 where Vectren South would later be required to remove the ash, AECOM also evaluated
8 the cost of a CIP project coupled with a later removal option. These plans relied upon the
9 core samples of the ponded CCR material that established the estimate of the volume of
10 ash material in the pond. As discussed further, this analysis supports the CBR Project as
11 the best approach to achieve CCR compliance.

12 **4. CBR Project Agreement**

13 **Q. Have Vectren South and the Ash Reuser entered into an agreement to proceed with**
14 **the CBR Project?**

15 A. Yes. Negotiations resulted in an agreement that supports Vectren South's excavation of
16 the Brown Ash Pond and delivery of the ponded ash to the Ash Reuser. The CBR Project
17 results in closure through removal of the CCR material from the Brown Ash Pond.

18 **Q. Please describe the CBR Project Agreement.**

19 A. The CBR Project Agreement (the "Agreement") is confidential and so I will describe the
20 terms which can be described publicly. Under the Agreement, Vectren South is
21 responsible for supplying acceptable material (ash) and loading the material on a barge
22 at the Brown loading facility on the Ohio River. The Ash Reuser accepts ownership once
23 the material is on the barge. The Ash Reuser is responsible for scheduling barges and

1 transporting material to its manufacturing site. The CBR Project Agreement with the Ash
2 Reuser is attached as Confidential Attachment WDG-2.

3 **Q. Per the CBR Project Agreement, what constitutes acceptable material for reuse?**

4 A. Acceptable material is material that either meets or exceeds the Agreement quality
5 specifications, or non-conforming material that is off-spec but is accepted by the Ash
6 Reuser prior to loading on a barge for shipment. Vectren South is responsible for sampling
7 and testing ash quality in an on-site laboratory. Vectren South will oversee the blending of
8 the ash as necessary to meet specifications. The Ash Reuser has five days to reject any
9 material that does not meet specifications.

10 **Q. What infrastructure investment will the Ash Reuser make to accept Brown Pondered
11 ash material?**

12 A. Given the specified ash volume to be delivered to its plant, the Ash Reuser will need to
13 make a significant investment of several million dollars in infrastructure at its
14 manufacturing facility to off-load and store ash material that has been previously ponded
15 at the Brown Ash Pond. This is a cost to the Ash Reuser; Vectren South is not responsible
16 for these costs.

17 **Q. What infrastructure investment will Vectren South make to move ash from the
18 Brown Pond to barges on the Ohio River?**

19 A. Vectren South will be required to allow the ash to dewater to a moisture content level
20 specified in the agreement. An above ground conveyer system will be required to move
21 the ash approximately one mile to the existing tube conveyer and modifications will be
22 made to the current dry handling barge loading system to allow for handling of the ash
23 material. The estimated costs for infrastructure construction and dry ash handling

1 modifications is \$47 million in 2018 dollars. AECOM has provided the estimate and as the
2 EPCM entity will execute the construction project for that target price to Vectren South, to
3 which the cost of obtaining permits, clearing trees, providing electrical feed, Vectren South
4 overheads, and AFUDC must be added to arrive at the total estimate.

5 **Q. Will the Ash Reuser pay Vectren South for the Brown fly ash it accepts?**

6 A. Yes. The anticipated payment stream is set forth in Confidential Attachment WDG-3,
7 which is a confidential summary of some of the significant terms of the agreement.

8 **Q. Is the Ash Reuser required to take a minimum amount of acceptable ash material?**

9 A. Yes. The agreement sets forth minimum amounts required to be taken each year. These
10 are also set forth in Confidential Attachment WDG-3. This is intended to ensure timely
11 removal of ash material from the Brown Ash Pond.

12 **Q. Will the Ash Reuser provide any financial protection to Vectren in case of a default?**

13 A. Yes. The security provisions are also summarized in Confidential Attachment WDG-3.

14 **Q. How will Vectren South deal with the estimated 1.250 million tons of ponded
15 material that may not be able to be blended to meet the Ash Reuser contract
16 specifications or be accepted by the Ash Reuser?**

17 A. As witness Retherford explains, Vectren South is currently in discussions with IDEM to
18 allow placement of CCR material in the current Brown landfill. If this option is approved
19 and space is available, this will be the Company's first option. If not approved and/or space
20 is no longer available in the current landfill, the excavated CCR material will be placed in
21 an area within the footprint of the pond that is a minimum of 5 feet above the uppermost
22 aquifer, encapsulated and covered with an impermeable cap that prevents water
23 infiltration at the Brown site.

1 **5. EPCM Agreement for CBR Project**

2 **Q. Has Vectren entered into an agreement to excavate ash material and provide a clean**
3 **close of the Brown Ash Pond?**

4 A. Yes. Vectren and AECOM have entered into an EPCM agreement to effectuate the CBR
5 Project. The EPCM agreement with AECOM is attached as Confidential Attachment WDG-
6 4. The EPCM approach allows the contractor to pass actual project cost on to the owner
7 with a predetermined profit margin. Here, a fixed price alternative was not viable given
8 the many uncertainties, including the volume and quality of ponded ash associated with
9 this project and the annual volume of ash accepted by the Ash Reuser; however, AECOM
10 has agreed to certain terms that mitigate project cost risk.

11 **Q. Please explain why AECOM was chosen for the CBR Project.**

12 A. Vectren South originally selected AECOM to perform the CCR compliance evaluation
13 based on its impressive experience and expertise. Based on that initial CCR compliance
14 evaluation work, AECOM had already performed engineering and design work and
15 developed cost estimates for the pond closure options. This work included preparation of
16 dewatering and excavation plans, actual dewatering of portions of the pond to obtain ash
17 samples and completion of price estimates for infrastructure, excavation and ash blending
18 work. Given Vectren South's involvement in AECOM's evaluation and the "open book"
19 process employed by AECOM that had been previously described in my testimony, the
20 Company was comfortable selecting AECOM for the EPCM contract.

21 **Q. Please summarize AECOM's scope of work under the EPCM Agreement.**

22 A. To comply with the CCR regulations and complete a closure by removal of the Brown Ash
23 Pond, there are three major components of the CBR Project: (a) building infrastructure to

1 transport and load ash material to barges on the Ohio River, (b) excavation and blending
2 of the ash to acceptable specifications for reuse and (c) encapsulate non-conforming CCR
3 material with an impermeable cap that meets EPA and IDEM requirements. The following
4 is a summary of the services that AECOM as the EPCM contractor will provide:

- 5 1. Engineering and design
- 6 2. Procurement
- 7 3. Project management and controls
- 8 4. Construction and construction management
- 9 5. Technical support during construction and start-up
- 10 6. Operator training
- 11 7. Proper disposal of non-conforming material

12 **6. Infrastructure to Transport Ash and Excavation and Blending of Ash Material**

13 **Q. Please describe the infrastructure work in more detail.**

14 A. To support the CCR Project, equipment infrastructure will be designed, procured and
15 installed by AECOM to convey excavated conforming material to the barge loading facility.
16 The existing barge loading facility will be converted from its current use as a dry fly ash
17 load-out to handle wet material that had been previously ponded. The infrastructure
18 equipment will be turned over to Vectren South to own, operate, and maintain as AECOM
19 excavates the ash pond by removing the ponded material and loading conforming material
20 into the new conveying system. This will all be done for the price estimate that has been
21 previously described in my testimony.

22 **Q. Please explain AECOM's work related to the excavation and blending operation.**

23 A. AECOM will be responsible for excavation, decanting, drying, and screening, of CCR
24 material in order to meet the specification prior to placing ash material into the hopper and
25 new conveyor system to be conveyed to the barge loadout system. This process includes:

- 1 1. Excavate, dewater, decant, handle, condition, screen, stage, combine and
2 manage the excavated CCR such that it meets the stated specifications prior to
3 being loaded into the Ash Reclaim Hopper.
- 4 2. Loading CCR Materials that achieve the specification ("conforming" or accepted
5 material) into the Ash Reclaim Hopper to meet the material demand rates.
- 6 3. Stockpile, identify/track and manage piled, excavated materials to allow for
7 sampling and analysis to be performed.
- 8 4. If material in a pile is deemed outside of the stated material specification ("non-
9 conforming" material) by sampling and analysis (performed by Vectren South)
10 AECOM will combine material from one or multiple other piles, in coordination with
11 Vectren South, in order to cause the combined pile to meet the specification or be
12 accepted by the Ash Reuser. Combining of piles will be accomplished by loading
13 the Ash Reclaim Hopper at a defined ratio with material from one or more identified
14 piles such that the combined material on any given barge will meet the
15 specification of accepted material on average or be close enough to be accepted
16 by the Ash Reuser.

17 **Q. Does the EPCM Agreement with AECOM include negotiated terms designed to**
18 **reduce Vectren South's risk?**

19 A. Yes. Vectren South and AECOM agreed to a Performance Cost Model with a Target Price
20 that includes sharing in cost savings as well as protections for cost overruns. In this
21 manner the EPCM Agreement is designed to incentivize AECOM as the EPCM contractor
22 to minimize costs.

23 **Q. Has Vectren South used a Performance Cost Model with a Target Price in the past?**

24 A. Yes. Vectren South has used this model several times with success on large power plant
25 projects where scope is difficult to define. AECOM and Vectren South previously used this
26 model for a Brown dam stabilization project and shared the savings when the project came
27 in below the target price.

28 **Q. Please provide an explanation of how the EPCM Agreement terms will shield**
29 **Vectren South from CBR Project cost risk.**

30 A. Vectren South has entered into an EPCM Agreement with AECOM to engineer, procure,
31 manage the construction of the assets and the work necessary to excavate and blend the

1 ponded ash from the Brown ash pond. Vectren South will reimburse AECOM for the cost
2 of the work plus a set EPCM Contractor Fee, subject to the cost parameters agreed upon
3 as part of the Performance Cost Model.

4 From Vectren South's perspective, the Performance Cost Model provides the following
5 benefits:

- 6 • Avoids large contingencies associated with a fixed price.
 - 7 ○ There are enough uncertainties regarding the current ash pond quality and
 - 8 quantity of ash material, efforts required to excavate and blend to the Ash
 - 9 Reuser's acceptance, length of the project due to uncertainties regarding
 - 10 the volume of ash accepted annually and final costs to dispose of non-
 - 11 conforming material that a fixed price would have included large amounts
 - 12 of contingency.
- 13 • The model provides AECOM an incentive to blend as much ash as possible for
- 14 shipment to the Ash Reuser.
 - 15 ○ Maximizes the revenue received from the Ash Reuser
 - 16 ○ Minimizes the amount of non-conforming ash to be encapsulated.
- 17 • The model provides AECOM incentive to find and offer cost reduction
- 18 opportunities that can provide shared savings to Vectren South.
- 19 • The model provides AECOM incentive to control cost so they do not forfeit fees or
- 20 margin.

21 **Q. You have previously provided the cost of the infrastructure under the EPCM**
22 **Agreement. What are the costs for excavation and blending?**

23 A. The components of the Performance Cost Model for the infrastructure and excavation and
24 blending portion of the project build up to a target price and include a cost of work estimate,
25 contractor's fee, and contingency. The details of these components are set forth in a
26 Confidential Summary of Terms, which is included in Confidential Attachment WDG-5.

27 **Q. Please provide a summary of the estimated inflated cost of the project to include**
28 **capital, and operations and maintenance ("O&M") costs.**

29 A. Table 1 provides the estimated total capital and O&M costs. These represent the federally

1 mandated costs totaling \$164,539,000. Vectren South will receive a stream of payments
2 from the Ash Reuser that will allow the Company to recover a portion of that total cost
3 from a source other than customer rates. Refer to Confidential Attachment WDG-6 for the
4 projected cash flow that makes up this estimate.

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Table 1: Estimated Non-Inflated and Inflated Federally Mandated Costs of the Brown CBR for Beneficial Re-use Project Before and After Receiving Payments

100% CbR with Recycling and Infrastructure		Total
O&M	Responsible Party	
O&M - Engineering and CM	AECOM	\$ 10,252,000
O&M - Excavation	AECOM	\$ 47,364,000
O&M - Infrastructure O&M, Barge Loading, Lab Work, Research & Planning	Vectren	\$ 19,150,644
Non-Inflated O&M Costs		\$ 76,767,160
Inflated O&M Costs		\$ 89,835,000
Capital	Responsible Party	
Capital - Engineering and CM	AECOM	\$ 8,037,620
Capital - Procurement	AECOM	\$ 17,109,444
Capital - Infrastructure Construction	AECOM	\$ 21,804,120
Capital - Encapsulate and cap non-conforming material (Performance Reserve)	AECOM	\$ 10,000,000
Capital - Tree Clearance, Permitting, Electrical Feeds, Real-Time Analyzer	Vectren	\$ 6,179,071
A&G Overhead	Vectren	\$ 620,262
AFUDC Debt/Equity	Vectren	\$ 5,799,764
Non-Inflated Capital Costs		\$ 69,550,281
Inflated Cost Capital Costs		\$ 74,704,000
Non-Inflated Total Federally Mandated Costs		\$ 146,317,441
Inflated Total Federally Mandated Costs		\$ 164,539,000

Ash Payments	Responsible Party	
Tons of Ash Shipped		██████████
Ash Payments	Ash Reuser	██████████
Inflated Net Cost		██████████

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Q. Does this cost match the estimate in the AECOM report?

A. No. The AECOM report issued on January 23, 2018 used 2017 dollars and was completed over a year prior to both finalizing the agreement with the Ash Reuser and final contract negotiations between AECOM and Vectren South in March of 2019. The cost estimates in the original evaluation were to inform the Company's decision-making process. Having selected CBR with beneficial reuse as the preferred approach, those estimates have been further refined. There were several process improvement and cost reductions made during this period that reduced the AECOM portion of the work from the estimate in Table 1-1 on page 9 of the AECOM study (Confidential Attachment JDM-1 to Witness Mokotoff's testimony) to the final Target Price agreed to between AECOM and Vectren South. Examples include:

- Vectren accepted responsibility for operation and maintenance of the system once construction was complete and system proven.
- It was determined through excavating some of the ash and setting aside to dry that a building was not required to dry the ash to the acceptable moisture content.
- Through testing it was determined that the Ash Reuser could not accept dry ash that was mixed with the ponded ash eliminating the need for certain equipment.
- The original scope required two foot of soil to be removed from below the ash pond. After consulting with Vectren South's Environmental Department and reviewing the environmental rule it was determined this step may not be necessary to achieve clean closure. Therefore, the cost was removed from the Target Price.
- Bidders questions and concerns were answered, and clarifications were made regarding the construction packages and they were rebid.
- Additional work was done regarding the feasibility to blend ash to meet the Ash Reuser's needs resulting in less projected non-conforming material.
- Through negotiations the AECOM fee was reduced and dollars set aside for contingency within the Target Price were reduced.
- Performance Reserve added to place risk associated with the volume and proper disposal of non-conforming material onto the EPCM contractor.

Q. Have you assumed any escalation rate in your cost estimate?

1 A. Yes. Vectren South has assumed a 2.1% annual escalation rate.

2 **Q. Is there contingency in the cost estimate?**

3 A. Yes. There is a general contingency in the cost estimate of approximately 6.5% of the
4 Target Price. This will be used for unplanned work resulting in change orders associated
5 with engineering, procurement of material and equipment, construction and project
6 management. The contingency amount is in 2018 dollars and subject to change based
7 on inflation indexes.

8 **Q. Do you expect any change orders associated with the project?**

9 A. Vectren South has worked to develop a work scope that should limit change orders. Due
10 to uncertainties regarding the quantity of ash material that will be accepted by the Ash
11 Reuser and future tariffs there is always the risk of change orders. These must be
12 reviewed and approved by Vectren South prior to any final decisions being made. Any
13 future change orders can reduce or increase the final cost of the project.

14 **Q. Is there a shared savings opportunity associated with the infrastructure and
15 excavation and blending work agreed to in the Performance Cost Model.**

16 A. Yes. This is described in Confidential Attachment WDG-5.

17 **Q. Please explain how the Performance Cost Model places risk on the EPCM
18 contractor.**

19 A. While AECOM has an opportunity to benefit from reduced project costs, the Performance
20 Cost Model also provides a cap on cost overruns, thereby mitigating risk of cost overruns.
21 This cap is explained in Confidential Attachment WDG-5.

1 **Q. Table 1 reflects that Vectren South will incur over \$6 million of capital expense for**
2 **permits, tree clearing, electrical feeds, and real time analyzers and over \$6 million**
3 **for Administrative and General (A&G) overheads and Allowance for Funds Used**
4 **During Construction (AFUDC). Please provide further details related to these costs.**

5 A. Vectren South has determined that the Company has the knowledge and experience to
6 take responsibility for obtaining environmental and construction permits, contracting and
7 managing the clearing of a route for the construction of the conveyor system between the
8 ash pond and the current tube conveyor located near the barge loading system, working
9 with vendors to determine spare parts inventory needs, providing electric service
10 necessary to operate equipment, and the purchase and installation of real time analyzing
11 equipment so the operator receives feedback on key ash constituents while loading
12 barges and can make adjustments by providing ash from different locations. AECOM has
13 agreed to assist with acquiring permits if necessary. In addition, as with any capital project,
14 Administrative and General (A&G) Overhead and Allowance for Funds Used During
15 Construction (AFUDC) are included in the estimate. Witness Bowler will address the basis
16 for the A&G overheads and AFUDC accounting in more detail.

17 **Q. Table 1 reflects that Vectren South will incur approximately \$19 million of O&M cost**
18 **associated with research and planning, operation and maintenance of the transfer**
19 **and loading system, collecting and analyzing ash samples and loading barges.**
20 **Please provide further details related to these costs.**

21 A. This O&M estimate includes certain project research and development work to explore all
22 options and develop the final solution for the Brown ash pond. Specifically, Vectren South
23 has devoted significant effort to obtain cost estimates for potential options and
24 development of the final project plan. Costs incurred include consulting services,
25 engineering and design of infrastructure and barge loadout, developing a plan for

1 dewatering the ash pond to collect and analyze ash boring samples to obtain a
2 representation of all ash in the pond, mapping and surveying of the pond and appropriate
3 route to the Ohio River, ash reclaim study, groundwater sampling and testing, creating bid
4 scopes and distributing Request for Proposal (RFP) bid packages, excavating and drying
5 ash, shipping ash to the Ash Reuser for test burns at their facility, environmental tests,
6 legal fees, contract negotiations, internal labor and associated overheads, and electrical
7 service requirements.

8 The approximate \$19 million also includes future work associated with the CBR and
9 recycle solution which Vectren South has the experience to manage and complete without
10 paying an incremental fee to an EPCM contractor. Future work includes:

- 11 • Managing the contracting of the operation and maintenance of the ash transfer
12 system.
- 13 • Collecting ash samples and performing ash analysis. Vectren South has ash
14 sampling equipment and an on-site laboratory that is used by a contract firm to
15 perform ash analysis today.
- 16 • Managing the contractor loading ash on barges. Vectren South contracts with a
17 barge loading company today and has the opportunity to subcontract barge loading
18 through the Ash Reuser who has offered to provide its contract pricing to Vectren
19 South.

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21 **7. Disposal of Non-Conforming Material (Performance Reserve)**

22 **Q. Your summary of the total cost previously included "Performance Reserve." Please**
23 **describe the Performance Reserve.**

24 A. As part of the overall Performance Cost Model discussed above, this is the cost for final
25 disposal of non-conforming material (material that does not meet contractual
26 specifications) at the end of the project. Per the EPCM Agreement these costs are
27 captured in a "Performance Reserve", a definition of which is set forth in Confidential
28 Attachment WDG-5.

1 This reserve sets aside an established dollar amount to be utilized to dispose of ash and
2 other material from the Brown ash pond that does not meet specifications. Disposal will
3 be completed in a manner that complies with IDEM regulations.

4 **Q. Please explain AECOM's work related to the disposal of non-conforming ash**
5 **material.**

6 A. As discussed earlier, material which has been previously ponded that does not meet the
7 Ash Reuser's specifications shall be disposed of in the current Brown landfill or placed
8 within the footprint of the existing pond at a minimum of five feet from the uppermost
9 aquifer, encapsulated and covered with an impermeable cap at the Brown site to prevent
10 water infiltration. The material will be consolidated and capped in place per CCR
11 requirements. Ultimately, this area will be designed, as needed, for the final amount of
12 material Vectren South cannot ship for reuse.

13 **Q. Please describe what occurs with any Performance Reserve cost savings.**

14 A. To the extent the cost to dispose of non-conforming material is under the reserve amount,
15 AECOM retains 100% of such Performance Reserve savings.

16 **Q. Please describe what occurs if the cost to dispose of non-conforming material**
17 **exceeds the established Performance Reserve.**

18 A. If the cost of disposing non-conforming material exceeds the established dollar amount,
19 AECOM will exhaust any unused contingency to complete the work. After that, the cost
20 is shared between Vectren South and AECOM as explained in Confidential Attachment
21 WDG-5.

22 **Q. Please explain how the Performance Reserve portion of the Performance Cost**
23 **Model was determined.**

1 A. Based on the evaluation of the Brown Pond Ash, AECOM is holding a Performance
2 Reserve to dispose of an estimated 1.4 million tons of non-conforming material.

3 The agreement provides AECOM an incentive to maximize the volume of ash blended to
4 acceptable levels to reduce the quantity and therefore the cost for disposing of non-
5 conforming material at the end of the project.

6 **8. CBR Project Cost Estimate Compared to Other Compliance Options**

7 **Q. How does the estimated cost of the CBR Project compare to the CIP option?**

8 A. I will preface my answer by admonishing that the CIP "option" is really not an option. The
9 cost estimate for CIP assumes that ash would be left in contact with groundwater. As
10 witness Retherford testifies, IDEM has been unwilling to permit such an approach.
11 Assuming CIP is truly an option, the total inflated CBR federally mandated cost is
12 \$164,539,000, compared to a total inflated CIP cost of \$137.5 million. When Vectren
13 South recognizes that a portion of that cost will not be recovered through rates but will
14 instead be recovered through the payments from the Ash Reuser, the CIP "option" cost of
15 \$137.5 million compares very differently to the Total Inflated Net Cost shown on Table 1.
16 It is important to also note that the CIP option has the future risks that were discussed
17 earlier in testimony and further expanded on in witness Retherford' s testimony. Table 2
18 shows a breakout of the estimated capital and O&M for the CIP option. Confidential
19 Attachment WDG-6 has the cash flow that makes up the inflated cost estimate of the CIP
20 option.

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Table 2: Non-Inflated and Inflated Close in Place (CIP) Cost Estimate

Close in Place with Synthetic Cover System	Total
O&M Estimate	
O&M - Pond Closure	\$ 5,400,544
O&M - Pond Post Closure Maintenance	\$ 4,200,000
O&M - Groundwater Monitoring	\$ 2,625,000
O&M - Groundwater Corrective Action	\$ 32,500,000
Non-Inflated O&M Unit Costs	\$ 44,725,544
Capital Estimate	
Capital - Pond Closure	\$ 42,930,000
Capital - Pond Closure Project Management	\$ 1,621,000
Capital - Pond Closure Construction Management	\$ 2,955,000
Electric Feed, Permits, Disposal	\$ 2,034,071
A&G Overhead	\$ 480,930
AFUDC Debt/Equity	\$ 9,500,309
Non-Inflated Total Capital Costs	\$ 59,521,310
Non-Inflated Total Project Costs	\$ 104,246,854
Inflated Total Project Cost	\$ 137,509,000

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Q. How does the estimated cost for the CBR and shipping ash material to the Ash Reuser compare to the CBR and placing all ash material in an on-site lined landfill (“CBR and Landfill option”)?

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A. The inflated cost of \$164.539 million CBR (before the Ash Reuser payment recovery) compares to the inflated cost of over \$325.2 million for the CBR and Landfill option. The CBR and Landfill option has monitoring and maintenance expense that were discussed earlier in my testimony and are further expanded on in witness Retherford’s testimony. Table 3 shows a breakout of the estimated capital and O&M for the CBR and Landfill option. Attachment WDG-6 has the cash flow that makes up the inflated cost of the CBR and Landfill option.

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Table 3: Non-Inflated and Inflated Closure by Removal and Landfill Cost Estimate

Onsite Landfill Disposal	Total
O&M - Power	\$ 1,443,000
O&M - Labor	\$ 26,754,000
O&M - Chemicals	\$ 2,340,000
O&M - Maintenance	\$ 4,680,000
O&M - Groundwater	\$ 3,350,000
Total O&M Unit Costs	\$ 43,917,544
Total O&M Unit Costs (Inflated)	\$ 69,893,985
Capital - Engineering	\$ 2,036,800
Capital - Procurement	\$ 6,600,000
Capital - Landfill Construction	\$ 127,869,000
Capital - Tree Clearance, Permitting, Electrical Feeds	\$ 3,684,071
A&G Overhead	\$ 1,390,858
AFUDC Debt/Equity	\$ 71,215,328
Total Capital Costs	\$ 212,796,057
Total Capital Costs (Inflated)	\$ 255,245,503
Total Project Costs (No inflation)	\$ 256,713,601
Total Project Inflated Cost	\$ 325,139,488
NPV Total Project	\$ 225,526,351

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Q. Did you consider a CBR option with trucking ash to a local landfill or coal mine for disposal?

A. Yes. Given trucking cost and tipping fees, it is cost prohibitive to transport the ash to local landfill or coal mine. There is also risk that regulations could be enacted to increase disposal costs or prevent local landfills or coal mines from accepting CCR by-products.

9. Project Schedule

Q. Please provide a project schedule.

A. Appendix C to Attachment WDG-4 is an estimated infrastructure installation schedule and an estimated Excavation and Clean Close schedule including removal of ash material and the proper disposal of any non-conforming material. It is important to note that the schedule is driven by the annual volume of ash accepted by the Ash Reuser.

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10. Brown Site Compliance

Q. Apart from complying with Federal law, is it beneficial for Vectren South to make the Brown site compliant?

A. Yes. Vectren South will not know until the completion of its next integrated resource plan whether the preferred portfolios will include continued use of coal, or refueling, or perhaps replacement generation at Brown. But the Company does know the Brown site is valuable under multiple scenarios. The site has excellent access to electric transmission, rail and barge deliveries, and has other useful infrastructure. Preserving this site as a potential location for continued or future generation resources is important. On system generation supports local system voltage requirements and avoids grid congestion. It would be difficult to locate new resources at a site that was in a state of non-compliance with federal law. The Brown site has multiple advantages for siting generation and should be considered a useful site to maintain for future generation.

11. Conclusion

Q. Please summarize the benefits of the CBR Project.

A. The Brown pond presents unique closure challenges given its size and irregular footprint. The CBR Project removes a substantial amount of CCR material from the Brown pond. This is the best closure approach because:

1. IDEM has been unwilling to approve a CIP project that permits continued contact of significant amounts of ash with groundwater.
2. A significant quantity of the ash in the Brown Ash Pond is currently exposed to groundwater and statistically significant levels of molybdenum and lithium over the groundwater limits that have been detected at the pond. If a CIP strategy were employed, it would require monitoring and expense associated with treatment of groundwater for several years.

- 1 3. If a CIP strategy were employed, changing regulatory requirements could require
- 2 removal of ash to be placed in a lined landfill to prevent both horizontal and vertical
- 3 groundwater infiltration. Some states are already requiring CBR.
- 4 4. The CBR Project removes the risk of civil lawsuits associated with groundwater
- 5 impacts.
- 6 5. Vectren South has negotiated receipt of payments for conforming or accepted ash
- 7 material which makes the project cost competitive against a CIP.
- 8

9 **Q. Does this conclude your testimony?**

10 **A. Yes, at this time.**

DMS 14877955v3

VERIFICATION

I, Wayne D. Games, affirm under penalties of perjury that the foregoing representations are true and correct to the best of my knowledge, information and belief.



Wayne D. Games

Date: 8/14/2019

ATTACHMENT WDG-1
CONFIDENTIAL

ATTACHMENT WDG-2
CONFIDENTIAL

ATTACHMENT WDG-3
CONFIDENTIAL

Closure by Removal Contract Exhibits

**A.B. Brown Generating Station
Wet Barge Loading Option**

**Prepared for:
Southern Indiana Gas & Electric
Corporation**

**March 21, 2019
Revision D**

ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT AGREEMENT

THIS ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT AGREEMENT (hereinafter referred to as "**Agreement**") is entered into as of the 2nd day of March, 2019, (the "Effective Date") between Southern Indiana Gas & Electric Company, d/b/a Vectren Power Supply, Inc., a corporation organized and existing under the laws of the State of Indiana, whose address is 211 NW Riverside Drive, Evansville, Indiana 47708 ("**Owner**"), and AECOM Technical Services, Inc., a California corporation whose address is 9400 Amberglen Blvd., Austin, TX 78729 ("**EPCM - Contractor**"). Owner and EPCM-Contractor may hereinafter be referred to individually as a "**Party**" and collectively as the "**Parties.**"

WITNESSETH

WHEREAS, Owner desires to have EPCM-Contractor provide engineering, procurement, construction, and construction management services in support of the closure of the Owner's ash pond at the A.B. Brown Generating Station in southwestern Indiana which contains Coal Combustion Residuals and materials in the pond as more particularly described in the Scope of Work, **Exhibit B** ("Project"); and

WHEREAS, EPCM-Contractor is willing and able to provide the requisite services and equipment necessary for the design and construction of the Project ("Work") in accordance with the requirements of this Agreement.

NOW, THEREFORE, in consideration of the recitals, the mutual promises in this Agreement and other good and valuable consideration, the receipt and sufficiency of which the Parties acknowledge, the Parties, intending to be legally bound, stipulate and agree as follows:

1. Contract Documents. The services, equipment, and materials to be provided by EPCM-Contractor are more specifically described in the following Contract Documents, all of which are expressly incorporated into this Agreement, collectively "ABB Ash Pond Closure by Removal Contract Exhibits A-J dated 3-21-19, Wet Barge Loading Option RevD Final".

Exhibit A – Standard Terms and Conditions
Exhibit B – Scope of Work
Exhibit C – Schedule
Exhibit D – EPCM-Contractor's Price, Payment Terms
Exhibit E – Not Used
Exhibit F – Not Used
Exhibit G – Contractor Safety Requirements
Exhibit H – Not Used
Exhibit I – Invoice Form
Exhibit J – Subcontractor Rates

2. Scope of Work. EPCM-Contractor shall provide the Work required for the Project as more fully described in the technical specifications attached hereto as **Exhibit B**. EPCM-Contractor agrees to furnish all labor, equipment, materials, supplies, tools and supervision necessary to complete the Project in accordance with the Contract requirements.

3. Project Schedule. Subject to any adjustment for Excusable Delays, EPCM-Contractor shall achieve the schedule set forth in the Project Schedule, **Exhibit C**.

5. Performance Guarantees. No Performance Guarantees are offered with the Project.
6. Warranty Period. As used in this Agreement, "Warranty Period" shall be the 1-year period following Substantial Completion of the Scope of Work of the Project that is substantially complete. For example, there will be a 1-year Warranty Period for the Capital Infrastructure Upgrades when this portion of the project reaches Substantial Completion. There will be a separate 1-year Warranty Period for the Pond Closure when this portion of the project Scope of Work reaches Substantial Completion.
7. Notices. All notices permitted or required under this Agreement shall be deemed given if hand delivered, sent by certified mail, return receipt requested, sent by Federal Express or another recognized overnight delivery service, or sent by facsimile (with transmission confirmed) and confirmed by first class mail, to the addresses listed below or the subsequent addresses of which the Parties give each other notice:

To Owner:

SOUTHERN INDIANA GAS & ELECTRIC COMPANY d/b/a VECTREN
POWER SUPPLY, INC.
211 NW Riverside Drive
Evansville, Indiana 47708
Attention: Travis Peay

With Copy to:

Vectren Corporation
Attention: Vice President & General Counsel
211 NW Riverside Drive
Evansville, Indiana 47708

To EPCM-Contractor: AECOM Technical Services, Inc.
Attention: Carl Richardson
9400 Amberglen Blvd.
Austin, TX 78729

With a copy to: AECOM Technical Services, Inc.
Attention: Legal Department
9400 Amberglen Blvd.
Austin, TX 78729

Claims-related notices shall be copied to:
AMER-DCSProjectClaimNotices@aecom.com

EXECUTION PAGE TO FOLLOW

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed by their duly authorized representatives as of the date first above written.

**SOUTHERN INDIANA GAS & ELECTRIC
COMPANY d/b/a VECTREN POWER
SUPPLY, INC.**

AECOM TECHNICAL SERVICES, INC.

By: *Lynnae K Wilson*

Name: *LYNNAE K WILSON*

Title: *CHIEF BUSINESS OFFICER*

JAH

By: *Carl F. Richardson*

Name: *Carl F. Richardson*

Title: *Vice President*

SW
PK

EXHIBIT A

STANDARD TERMS AND CONDITIONS

1. DEFINITIONS

The following capitalized words and phrases used in the Agreement shall have the following meanings unless otherwise noted:

“**Affiliates**” shall mean with respect to either Party, any person or entity that directly or indirectly through one or more intermediaries controls, is controlled by, or is under common control with, such Party.

“**Agreement**” or “**Contract**” shall mean the Agreement to which these Standard Terms and Conditions are attached, all Exhibits, Amendments, and Change Orders to the Agreement and all documents incorporated by reference in the Agreement.

“**Amendment**” shall mean a revision to or modification of the Agreement, including cost, which shall be in writing and shall be executed and delivered by Owner and EPCM-Contractor.

“**Business Day**” shall mean every Day other than Saturday, Sunday or a legal holiday recognized by the United States Government.

“**Change in Laws**” shall mean (a) any binding adoption, promulgation, issuance, modification or change in administrative or judicial interpretation of Laws after the Effective Date (excluding any other Laws relating to Taxes or to the organization, existence, good standing, qualification, or licensing of EPCM-Contractor or its Subcontractors in any jurisdiction) or (b) the imposition of any material condition or requirement (except for any conditions or requirements which result from the acts or omissions of EPCM-Contractor or any Subcontractor) not required as of the Effective Date affecting the issuance, renewal or extension of any Government Approval (excluding any Government Approval relating to the organization, existence, good standing, qualification, or licensing of EPCM-Contractor or its Subcontractors in any jurisdiction), and in each case (a) and (b) above, renders a Party unable, as demonstrated by credible evidence, to perform its respective obligations under this Agreement (excluding payment obligations) or materially increases EPCM-Contractor’s cost to perform its obligations.

“**Confidential Information**” shall mean, with respect to any Party, all written, verbal, electronic and other information and documents such Party provides or makes available to the other Party relating in any way to this Agreement which are marked as being “Proprietary” or “Confidential” to such Party at the time of disclosure, or for verbal information reduced to a writing and marked or designated as being “Proprietary” or “Confidential” to a such Party within seven (7) Days after such verbal disclosure. “Confidential Information” shall not include any information that: (a) was already known to the other Party at the time it was disclosed by such Party; (b) was available to the public at the time it was disclosed by such Party; (c) becomes available to the public after being disclosed by such Party through no wrongful act of, or breach of this Agreement by, the other Party; (d) is received by the other Party without restriction as to use or disclosure from a third party; (e) is independently developed by the other Party without benefit of any disclosure of information by such Party; or (f) is required to be disclosed by subpoena or other legal requirement, provided the disclosing Party shall provide the other Party with notice and a reasonable opportunity to prevent disclosure.

“**Day**” shall mean a calendar day, including Saturdays, Sundays, and holidays.

“**Documentation**” shall mean all materials in printed or electronic format that are to be delivered by EPCM-Contractor to Owner under this Agreement, including all design documents, specifications, schedules, drawings, procedures, instructions, and training materials.

“**Environmental Law**” shall mean any and all permits and applicable codes, laws, rules, and regulations relating to actual or potential effect on: human health, safety, or the environment; the disposal of materials; the discharge or release of chemicals, gases, or other substances or materials into the environment; or the presence of such materials, chemicals, gases, or other substances, including but not limited to Coal Combustion Residuals (“CCR”) Regulations and/or Effluent Limitation Guidelines (“ELG”).

“**Equipment**” shall mean all of the equipment, parts, machinery, apparatus, and appliances that EPCM-Contractor is required to furnish under the Agreement. "Equipment" includes those items that EPCM-Contractor furnishes through a Subcontractor.

“**Excusable Delays**” shall mean if EPCM-Contractor’s commencement or performance of the Work is in whole or part delayed, disrupted or suspended for reasons beyond EPCM-Contractor’s control and without EPCM-Contractor’s fault or negligence.

“**Final Completion**” shall be deemed to have occurred upon the satisfaction of all of the following conditions:

1. The performance of the Work shall be one hundred percent (100%) complete in accordance with the terms of this Agreement (including completion of all Punch List items);
2. Substantial Completion shall have been achieved;
3. EPCM-Contractor shall have delivered to Owner all Documentation required pursuant to **Exhibit B** of this Agreement;
4. There shall exist no uncured Event of Default.

“**Force Majeure**” shall mean:

- (a) acts of God, war, riots, blockade, insurrection, rebellion, floods, hurricanes, tornadoes, earthquakes, lightning, fire, and other natural calamities;
- (b) acts or inaction of any Government Authority;
- (c) explosions or fires arising from lightning or other natural causes unrelated to acts or omissions of the Party;
- (d) Change in Law;
- (e) terrorism (foreign and domestic);

- (f) unavoidable accidents or circumstances;
- (g) unusual delay in transportation;
- (h) unavailability of fuel, power, and/or raw materials;
- (i) market-wide, industry-wide, or regional increases in the cost of any Materials, consumable or other elements used in the Work and/or Equipment;
- (j) national or regional labor disputes (including walk-outs, work stoppages or strikes);
- (k) any event that is beyond the reasonable control of a Party and is not reasonably foreseeable;
and
- (l) delays in obtaining goods, materials or services caused by the occurrence of any of the events described in the immediately preceding subparts (a) through (k).

Such acts, events or conditions listed in (a) through (l) above shall only be deemed a Force Majeure to the extent they: (i) are beyond the reasonable control of the Party, (ii) are not the result of the willful misconduct or negligent act or omission of such Party (or any Person over whom that Party has control), (iii) are not an act, event or condition, the risk or consequence of which such Party has expressly assumed under the Agreement, and (iv) cannot be cured, remedied, avoided, offset, or otherwise overcome by the prompt exercise of reasonable diligence by the Party (or any Person over whom that Party has control).

“Good Utility Practice” means those practices, methods, equipment, specifications and standards of safety and performance, as the same may change from time to time, as are commonly used in projects of similar scope and complexity, which in the exercise of reasonable judgment and in light of the facts known at the time of the decision being made are considered good, safe and prudent practices in connection with the operation and maintenance of facilities similar to Owner’s facility with commensurate standards of safety, performance, dependability, efficiency and economy, and as are in accordance with generally accepted standards of professional care, skill, diligence, and competence applicable to operation, maintenance and construction practices of electric utilities in the geographic region where the Site is located.

“Government Authority” shall mean any federal, state, city, county, local, municipal or foreign government, authority or body, including any department, agency, subdivision, court or other tribunal of any of the foregoing.

“Government Approvals” means all permits, licenses, authorizations, consents, decrees, waivers, privileges and approvals from and filings with any Government Authority required for, or material to, the engineering, fabrication or delivery of the Equipment or the performance of the Work in accordance with the Agreement.

“Laws” shall mean all statutes, laws, codes, ordinances, orders, judgments, decrees, injunctions, licenses, rules, permits, approvals, agreements, and regulations, including all applicable codes, standards, rules and regulations of any Government Authority, including the State, in effect as of the Effective Date provided the terms of such order, judgment, permit, license or authorization are disclosed to EPCM-Contractor.

“Material” shall mean all materials, components, hardware, software, systems, Documentation, goods, tools, supplies and other personal property that EPCM-Contractor is required to furnish under the Agreement. "Material" includes all of those items that EPCM-Contractor furnishes through a Subcontractor.

“Mechanical Completion” shall be deemed to have occurred upon the satisfaction of the following conditions:

1. The Work related to the conveyor and barge loading system is complete and the module is ready for startup and commissioning.
2. The mechanical Equipment for the Project has been installed with the required connections, checked for alignment, lubrication and rotation.
3. All electrical systems required for the operation of the Project have been checked and are ready for operation.
4. All electrical continuity and ground fault tests and all mechanical tests and calibrations have been completed.
5. All instrumentation required for the safe and proper operation of the Project has been calibrated in accordance with manufacturers’ standards and guidelines and where possible loop checked; and all control valves have been stroked and all control loops have been tested from the field device to the remote or local controllers.
6. Punch List work need not be completed to achieve Mechanical Completion.

“Outage” shall mean with respect to the generating station contemplated in this Agreement, the period of time when the generating station is off-line and made available by Owner for completion by EPCM-Contractor of the Work.

“Person” or “Persons” means any individual, company, joint venture, corporation, partnership, association, joint stock company, limited liability company, trust, estate, unincorporated organization, Governmental Authority or other entity having legal capacity.

“Prudent Industry Practice” means those practices, methods, equipment, specifications and standards of safety and performance, as the same may change from time to time, as are commonly used in projects of similar scope and complexity, which in the exercise of reasonable judgment and in light of the facts known at the time of the decision being made are considered good, safe and prudent practices in connection with the operation and maintenance of facilities similar to Owner’s facility with commensurate standards of safety, performance, dependability, efficiency and economy, and as are in accordance with generally accepted standards of professional care, skill, diligence, and competence applicable to operation, maintenance and construction practices in the United States.

“Punch List” means a written list prepared by EPCM-Contractor and Owner setting forth non-safety items that should not impact the performance (including availability, output or heat rate, operability, safety or mechanical or electrical integrity) of the Project or compliance with Laws, including permits, and which remain to be performed to complete the Project.

“Schedule” shall mean the schedule of key dates for delivery of the Equipment and performance of the

Work as set forth in **Exhibit C**.

“**Services**” shall mean the performance by EPCM-Contractor of professional services, including engineering and design services. Services shall be performed in accordance with the Standard of Care.

“**Site**” shall mean the physical location at which EPCM-Contractor shall deliver the Equipment and perform the Work.

“**Standard of Care**” shall mean the standard of care for all Services performed or furnished by EPCM-Contractor under this Agreement and will be the care and skill ordinarily used by members of the engineering and design professions who are practicing under similar conditions at the same time and in the same locality.

“**State**” shall mean the State of Indiana, including all of its administrative, taxing, contracting, regulatory and other agencies, authorities and offices.

“**Subcontractor**” shall mean a Person who has a direct or indirect contract with EPCM-Contractor or another Subcontractor of any tier to perform any of the Work or to furnish any Material to EPCM-Contractor, at the Site or elsewhere.

“**Substantial Completion**” shall be deemed to have occurred upon the satisfaction of the following conditions:

1. Mechanical Completion has been achieved;
2. EPCM-Contractor has completed all of the Work required under this Agreement, excluding any remaining items set forth in the Punch List; and
3. The Equipment has been turned over to Owner for Operation.

“**Taxes**” shall mean all present and future license, documentation, recording and registration fees, all taxes (including income, gross receipts, unincorporated business income, payroll, use, personal property (tangible and intangible), real estate, excise and stamp taxes), levies, imports, duties, assessments, fees, charges and withholdings of any nature whatsoever, and all penalties, fines, additions to tax, and interest imposed by any Government Authority. Taxes shall also include Sales and Use Taxes and all present and future customs, duties or levies or other import or export fees, including but not limited to any charges imposed by North American Free Trade Association (NAFTA).

“**Work**” shall mean all labor, Services, Material, Equipment, tools, vehicles, transportation, storage, design, engineering, procurement, testing, training, construction and other things and actions necessary to design and construct the Project in accordance with this Agreement. "Work" includes all work EPCM-Contractor performs through a Subcontractor.

2. GENERAL PROVISIONS

- 2.1 Independent EPCM-Contractor. EPCM-Contractor shall perform and execute the

provisions of the Agreement. EPCM-Contractor is an independent contractor and all of its agents and employees shall be subject solely to the control, supervision, and authority of EPCM-Contractor. Owner and EPCM-Contractor disclaim any intention to create a partnership or joint venture. No payroll taxes of any kind shall be withheld from payments to EPCM-Contractor nor paid by Owner on behalf of EPCM-Contractor or any of its employees. As an independent contractor, EPCM-Contractor shall and hereby agrees to protect, indemnify, defend, and hold Owner and its affiliated companies, officers, directors, agents, and employees harmless from any and all claims for wage, employment and other employee-related taxes, including, without limitation, Social Security taxes, penalties, interest, attorney's fees and costs, which may be made or assessed against Owner, arising out of EPCM-Contractor's failure to pay all taxes, fees or contributions which are EPCM-Contractor's responsibility under the Contract, including, without limitation, taxes or contributions for unemployment insurance, pensions, benefits or annuities now or hereinafter imposed by any federal, state or local agency which are measured by wages, salaries or other remunerations paid or due persons employed in the performance of the Work. Owner is authorized to deduct all sums for claims to be paid for taxes and governmental charges which are EPCM-Contractor's responsibility from such amounts as may be or become due and owing to EPCM-Contractor hereunder.

2.2 Subcontracting. EPCM-Contractor will enter into subcontracts with Subcontractors for construction services, material, equipment and associated services. Except to the limited extent otherwise agreed by Owner, Subcontractors shall be selected by competitive bidding for any portion of the Work for an aggregate price in excess of \$50,000. EPCM-Contractor shall obtain bids and proposals from potential Subcontractors and allow Owner the opportunity to review and comment on Subcontractor bids and proposals. The process used by EPCM-Contractor to obtain bids and proposals shall include providing Owner with (1) project specifications, (2) a bidders' list, (3) a bid tabulation, and (4) a purchase order for Owner's review and comment. Owner's approval is necessary for the acceptance of bids and proposals from Subcontractors and the terms and conditions of subcontracts for any portion of the Work for an aggregate price in excess of \$50,000. Such approvals shall not be unreasonably withheld, conditioned or delayed and shall be provided within ten (10) working days of delivery of request by EPCM-Contractor. If Owner's response to EPCM-Contractor's request for approval is not granted within the time specified in this Section, EPCM-Contractor shall proceed with the applicable procurement without delay. EPCM-Contractor shall have the right to have any portion of the Work performed by Subcontractors, including Persons related to or affiliated with EPCM-Contractor. The rates for EPCM-Contractor's primary Subcontractor shall be those set forth in **Exhibit J**. No contractual relationship shall exist between Owner and any Subcontractor with respect to the Work. EPCM-Contractor shall be fully responsible for all acts, omissions, failures and faults of all Subcontractors as fully as if they were the acts, omissions, failures and faults of EPCM-Contractor. Owner shall have the right to remove any person from the Site who in Owner's reasonable opinion is incompetent, careless, not qualified to perform the Work, or guilty of improper conduct.

2.3 Interpretation.

2.3.1 Headings. The titles and headings in the Agreement are inserted for convenience only and shall not be used for the purposes of construing or interpreting the Agreement.

2.3.2 Plural/Singular. Words importing the singular also include the plural and vice versa.

2.3.3 References. References to natural persons include Persons. References to "Articles" and "Sections" are references to Articles and Sections of these Standard Terms and Conditions. References to "Exhibits" are references to the Exhibits attached to the Agreement.

2.3.4 Without Limitation. The words "include" and "including" are not words of limitation and shall be deemed to be followed by the words "without limitation."

2.3.5 Industry Meanings. Words and abbreviations not defined in the Agreement which have well-known technical or design, engineering or construction industry meanings in the United States are used in the Agreement in accordance with those recognized meanings.

2.4 Inclusion; Order of Precedence. The Agreement, these Standard Terms and Conditions and the other Exhibits shall be considered complementary. However, in the event of irreconcilable conflict between the Agreement and the Exhibits, the Agreement shall govern and the conflicting provisions shall be interpreted so as to accord with the provisions of the Agreement. In the event of a conflict between Exhibits, the Exhibit that addresses the issue with more specificity shall prevail over an Exhibit more general in nature. Notwithstanding the foregoing, conflicts regarding purely technical matters shall be governed by **Exhibit B**. An Amendment or Change Order shall control that part of the Agreement which it supersedes.

3. EPCM-CONTRACTOR'S RESPONSIBILITIES

3.1 Performance of the Work. EPCM-Contractor shall diligently, duly and properly perform and complete the Work and its other obligations in accordance with the Agreement, and shall provide and pay for all items and services necessary for the proper execution and completion of the Work as described in **Exhibit B**. EPCM-Contractor shall perform and provide all Work not specifically delineated in the Agreement to the extent necessary to complete the Work in accordance with Prudent Industry Practices in a safe, competent, workmanlike and environmentally responsible manner. EPCM-Contractor shall be solely responsible for all means, methods, techniques, sequences, procedures, safety and quality assurance, and quality control programs in connection with EPCM-Contractor's performance of the Work. Subject to any adjustment for Excusable Delays, EPCM-Contractor shall achieve completion of the Work in accordance with the Project Schedule set forth in **Exhibit C**. Notwithstanding the foregoing, the performance by EPCM-Contractor of the Work required hereunder shall not constitute an assumption by EPCM-Contractor of the obligations of Owner or its other contractors. EPCM-Contractor shall not control or have charge of, and shall not be responsible for, construction means, methods, techniques, sequences, procedures of construction, health or safety programs, or precautions connected with the work performed by Owner or its other contractors. The EPCM- Contractor acknowledges it has visited, visually inspected and is generally familiar with the Site, and its apparent physical condition relevant to the obligations of the EPCM-Contractor pursuant to the Contract; that the EPCM-Contractor is generally familiar with local and other conditions which may be material to the EPCM-Contractor's performance of its obligations under this Contract such as transportation; seasons and climate; soil types, access; availability; disposal, handling and storage of materials and equipment; and availability and quality of labor. The design of the Work provided by EPCM-Contractor will be consistent with generally accepted engineering practices and the known conditions on May 1, 2018. In the event of the discovery of underground or concealed conditions of an unusual and not reasonably foreseeable nature, differing materially from those normally encountered and generally recognized as inherent in the Work in the area where the Work is to be performed, and which materially affect the cost or time for performance of the Work, EPCM-Contractor shall promptly provide Owner with notice of the conditions and, if possible, before conditions are disturbed. A Change Order shall be issued to equitably adjust the price and time for performance for such concealed or unknown conditions.

3.2 Professional Standards. EPCM-Contractor shall perform and complete the Work and its other obligations under the Agreement in accordance with all Laws, the Agreement and Prudent Industry Practices. The standard of care for all Services performed or furnished by EPCM-Contractor under this

Agreement will be the care and skill ordinarily used by members of the profession who are practicing under similar conditions at the same time and in the same locality (the "Standard of Care"). EXCEPT AS SPECIFIED HEREIN AND ARTICLE 12, EPCM-CONTRACTOR MAKES NO WARRANTIES, EXPRESS OR IMPLIED, IN CONNECTION WITH THE SERVICES PROVIDED UNDER THIS AGREEMENT. ALL OTHER WARRANTIES OF THE SERVICES ARE EXPRESSLY DISCLAIMED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

3.3 EPCM-Contractor's Project Manager. "EPCM-Contractor's Project Manager" means EPCM-Contractor's designated authorized representative actively engaged in the supervision of the Work and in all matters relating to this Agreement, who shall have authority to act on behalf of and bind EPCM-Contractor on matters pertaining to the Work, including giving instructions and making changes in the Work. EPCM-Contractor's Project Manager shall act as EPCM-Contractor's liaison with Owner and shall have the authority (a) to administer the Agreement on behalf of EPCM-Contractor, and (b) to perform the responsibilities of EPCM-Contractor under the Agreement.

3.4 Compliance with Laws. Unless specifically exempted, EPCM-Contractor shall comply, and shall cause Subcontractors to comply, with all applicable Laws relating to the Work. EPCM-Contractor shall verify that the Equipment, as designed, constructed and installed, complies, and when operated is capable of complying, with all Laws. EPCM-Contractor shall give Owner prompt written notice when it becomes aware of any Change in Laws which may affect the Agreement, the Work or the Project Schedule. In the event of such Change in Laws, the Contract Sum, Project Schedule, and the contract requirements shall be equitably adjusted by a mutually agreeable Change Order.

3.5 Taxes. If EPCM-Contractor is required by applicable law or regulation to pay or collect any Sales or Use Taxes on the Materials or Equipment or construction, then such tax shall be paid either directly by Owner or shall be paid by EPCM-Contractor as a reimbursable cost.

3.6 Permits and Approvals. EPCM-Contractor shall be responsible for obtaining any professional licenses or business registrations required for the performance of the Work. Owner shall be responsible for obtaining any permits, licenses or approvals required for the performance of the Work and operation of the Owner's facility except as otherwise agreed in writing by Parties. Notwithstanding the foregoing, EPCM-Contractor shall provide relevant technical information and/or assistance to Owner necessary to obtain the required permits, licenses or approvals. EPCM-Contractor shall be reimbursed for costs incurred in providing such permitting assistance to the Owner.

3.7. Owner's Site Policies. EPCM-Contractor shall comply with all applicable provisions of Owner's policies and procedures applicable to the Site provided to EPCM-Contractor including those pertaining to site security, industrial safety, environmental directives and hazardous materials.

3.8. Safety and Environmental

3.8.1. EPCM-Contractor shall initiate, maintain, supervise and take all necessary and reasonable safety precautions with respect to the Work so to provide its employees, Subcontractors and all others that might be affected by the Work with an environment free from recognized hazards that might cause injury or death. EPCM-Contractor shall take all reasonable protection to prevent damage, injury or loss to (a) all personnel performing any portion of the Work and all other persons who may be affected thereby, (b) Owner's facilities and all materials and Equipment to be incorporated therein, whether in storage on or off the Site, under the care, custody or control of EPCM-Contractor or any Subcontractors or anyone for whose acts any of them may be liable, and (c) other property at the Site. EPCM-Contractor

agrees to adequately inform, train and set expectations of safety compliance for EPCM-Contractor's employees and Subcontractors. EPCM-Contractor shall comply with all safety measures, safety programs and policies described in the Contractor Safety Requirements attached hereto as **Exhibit G**, and with all applicable laws, ordinances, rules, regulations, and orders of any government agency or public authority for the safety of persons or property, including OSHA rules, affecting the Work. EPCM- Contractor shall attend all safety meetings and shall coordinate its activities with those of Owner and other contractors to ensure that it maintains a safe working environment. EPCM-CONTRACTOR ACKNOWLEDGES THAT THE OBLIGATION TO ENSURE A SAFE WORKING ENVIRONMENT FOR ITS EMPLOYEES IS THAT OF EPCM-CONTRACTOR. EPCM-Contractor shall be responsible for all costs incurred (including fines, penalties, damages and reasonable attorney fees) by Owner relating to a failure or alleged failure of EPCM-Contractor to adhere to the safety requirements of the Contract. Notwithstanding the foregoing, the performance by EPCM-Contractor of the Work shall not constitute an assumption by EPCM-Contractor of the obligations of Owner or its other contractors. EPCM-Contractor shall not control or have charge of, and shall not be responsible for, construction means, methods, techniques, sequences, procedures of construction, health or safety programs, or precautions connected with the work performed by Owner or its other contractors. Owner's contractors include, but are not limited to, any third-party beneficial user (including any subcontractor of any third-party beneficial user) of the Coal Combustion Residuals ("CCR") having a contract with Owner, its parent, and/or its Affiliates. EPCM-Contractor shall provide Owner its safety plan, which shall comply with the requirements of this Section 3.8.1.

3.8.2. All persons engaged by EPCM-Contractor for performance of the Work shall have the requisite skills for the tasks assigned and Contractor shall enforce discipline and good order among EPCM-Contractor's employees and Subcontractors. Owner in its sole discretion may require that specific individual(s) working for the EPCM- Contractor or Subcontractors be immediately removed from the Site due to unsafe activities, inadequate quality, disruption, discrimination, harassment or any other reason as determined by Owner as detrimental to the safety and quality of the Work. Owner in its sole discretion may stop any part of the Work due to unsafe activities or Work of inadequate quality until corrective actions have been taken. Owner's failure to stop any part of the Work shall not relieve EPCM-Contractor of its responsibility under this Section.

3.8.3. No alcoholic beverages, illegal drugs, or unsafe practices will be allowed on the Site. Only prescription drug uses with a doctor's authorization to perform construction activities will be allowed on the job site. The use, possession, sale, transfer, purchase or being under the influence of alcohol, drugs or any other illegal or unlawful substance by EPCM-Contractor's or Subcontractor's employees at any time at the Site is prohibited. EPCM-Contractor shall dismiss anyone participating in any of the above from the Site for the duration of the Work.

3.8.4. Subject to Section 14.1, EPCM-Contractor shall at all times shall keep the Site free from accumulation of construction waste materials or rubbish caused by its operations. After the completion of the Work, EPCM-Contractor shall remove all construction waste materials and rubbish caused by its operations from and about the Site, as well as its tools, construction equipment, machinery and surplus materials.

3.8.5. EPCM-Contractor shall be responsible for any loss or expense incurred by Owner arising from injury or death to persons or damage to property in any way incident to or in connection with the placement, storage, spill, discharge or release on or about the Site of any materials, wastes or substances that are presently regulated as "hazardous" or "toxic" materials, wastes or substances by any applicable governmental authority (herein collectively referred to as "Hazardous Substances") brought onto or about the Site by EPCM-Contractor or its Subcontractors in connection with the performance of the Work. If the EPCM-Contractor encounters a Hazardous Substances that was not brought to the Site by EPCM-Contractor

or its Subcontractors, the EPCM-Contractor shall, upon recognizing the condition, immediately stop Work in the affected area and report the condition to the Owner. Hazardous Substances include any and all "hazardous substances," "hazardous waste," "waste," or "pollutant or contaminant" as any such terms may be defined in any Environmental Law, or the regulations promulgated thereunder, or case law interpreting the same, or any other pollutant or substance that is regulated under any Environmental Law or that may be the subject of liability for costs of response or remediation under any Environmental Law.

3.8.6. Provided EPCM-Contractor is paid in accordance with the terms of this Contract: (i) Work shall be turned over to the Owner free from all laborer's, materialmen's and mechanic's liens upon the results or products of the Work or upon the Site arising out of the services, labor and materials furnished by EPCM-Contractor or any Subcontractors under this Contract; and (ii) EPCM-Contractor shall indemnify, defend and hold harmless Owner from future claims, actions and liens arising from unpaid labor, materials, equipment, claims and other expenses.

4. OWNER RESPONSIBILITIES

4.1 Owner shall perform the responsibilities set forth in this Article 4 at its own expense and at those reasonable times as may be required by EPCM-Contractor for the successful completion of the Work in accordance with the Schedule.

4.2 Owner's Representative. "Owner's Project Manager" means Owner's designated authorized representative actively engaged in the management of the Work and in all matters relating to this Agreement, who shall have authority to act on behalf of Owner on matters pertaining to the Work, including giving instructions and making changes in the Work. Owner shall designate, in writing, Owner's Project Manager with whom EPCM-Contractor may consult at all reasonable times and whose instructions, requests and decisions shall be binding upon Owner as to all matters pertaining to the Agreement and the performance of the Parties under the Agreement. Owner shall provide written notification to EPCM-Contractor if Owner replaces Owner's Project Manager.

4.3 Access. Owner shall provide access to all areas of the Site that are reasonably necessary for the Delivery of the Equipment, construction of the Project, and the performance of the Work. Owner shall be responsible for delineation and acquisition of any temporary and permanent Right-of-Way (ROW) and utility easements for the Project and for any ROW surveys. Owner warrants that it has obtained, or shall obtain, any easements and/or ROW necessary for EPCM-Contractor to complete the Work in a timely manner and to allow construction of the Project to proceed unimpeded. In addition, Owner and its other contractors shall endeavor to perform its work in such a manner as to avoid interference with activities of EPCM-Contractor; and to the extent complete avoidance is not reasonably possible, to minimize such interference.

4.4 Permits. Owner shall be responsible for obtaining any permits, licenses or approvals required for the performance of the Work and operation of the Owner's facility except as otherwise agreed in writing by Parties.

4.5 Owner-Furnished Information. To the extent available and applicable to performance of the Work, unless otherwise obtained by EPCM-Contractor for the purposes of the Work, Owner shall provide the following information to EPCM-Contractor:

4.5.1 All criteria as to Owner's requirements for the Project, including design objectives and constraints, space, capacity and conforming material specifications, flexibility and

expandability, and furnish copies of all standards which EPCM-Contractor will be required to include in the drawings and specifications. Detailed design will be based on the parameters as stated in **Exhibit B**.

4.5.2 All available information pertinent to the Project including previous reports and any other data relative to design or construction of the Project, including any estimates of existing in-place ponded material.

4.5.3 Provide EPCM-Contractor prompt written notice of any observed deficiency in Work;

4.5.4 Provide EPCM-Contractor with reasonable promptness with respect to required approvals and decisions;

4.5.5 Environmental assessments, audits, investigations and impact statements, and other relevant environmental or cultural studies as to the Project, Site, existing in-place ponded material, and adjacent areas;

4.5.6 Field surveys depicting boundaries, easements, existing in-place ponded material, and rights-of-way;

4.5.7 Property descriptions;

4.5.8 Zoning, deed and other land use restrictions;

4.5.9 Data prepared by or services of others, including without limitation explorations and tests of subsurface conditions at or contiguous to the Site, drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site, existing in-place ponded material, or hydrographic surveys;

4.5.10 Copies of any and all permits, licenses, or approvals required for the performance of the Work and operation of Owner's facility.

4.6 EPCM-Contractor Reliance. EPCM-Contractor may reasonably rely upon the accuracy and completeness of any Owner-Furnished Information in accordance with the Standard of Care.

5. SCHEDULE

5.1 Performance Schedule. Subject to any adjustment for Excusable Delays, EPCM-Contractor shall perform its obligations as required by this Agreement in accordance with the Project Schedule set forth in **Exhibit C**, as modified from time to time in accordance with Article 5.2. Project Schedule shall be supplied by EPCM-Contractor to Owner in Primavera 8.

5.2 Schedule Update. The Schedule set forth in **Exhibit C** will be updated as appropriate based on modifications mutually agreed upon by Owner and EPCM-Contractor. EPCM-Contractor is not responsible for schedule impacts due to delays in Owner review of submittals when Owner's approval of the submittal is required, delays in obtaining site access, delays in obtaining relevant permits, Owner changes in

design criteria, or other factors beyond the reasonable control of EPCM-Contractor, including, but not limited to, any delays caused by the acts and/or inaction of Owner's other contractors. In the event of such delays, the Contract Sum and Project Schedule shall be equitably adjusted by a mutually agreeable Change Order. Owner's review of submittals is limited to 10 business days, unless mutually agreed upon in writing between EPCM-Contractor and Owner, or unless the Owner has requested additional information from the EPCM-Contractor. Otherwise, EPCM-Contractor will assume Owner has approved submittal with no comments.

5.3 Schedule Guarantee. EPCM-Contractor shall impose mutually agreeable schedule guarantees and liquidated damages upon its Subcontractors.

5.4 Schedule Delays. If EPCM-Contractor's commencement or performance of the Work is in whole or part delayed, disrupted or suspended for reasons beyond EPCM-Contractor's control and without EPCM-Contractor's fault or negligence ("Excusable Delays"), EPCM-Contractor's sole remedy shall be an equitable adjustment of the time for performance of the Work unless such delay was caused by Owner or its other contractors in which case EPCM-Contractor shall be entitled to a Change Order equitably adjusting EPCM-Contractor's compensation and Schedule. Owner may, in its sole discretion and in lieu of granting an extension of time, require EPCM-Contractor to regain the Work Schedule, and Owner shall compensate EPCM-Contractor for any required additional charges; provided, however, that no adjustment shall be made for any delay other than an Excusable Delay or to the extent that performance would have otherwise been delayed by any other cause, including the fault or negligence of EPCM-Contractor.

6. COMPENSATION AND PAYMENT

6.1 Compensation Amount. In exchange for its performance of the Work and as full compensation for the Services performed and the Materials and Equipment furnished, EPCM-Contractor shall be paid for the performance of the Work in accordance with the terms of this Agreement including **Exhibit D**.

6.2 Intentionally omitted.

6.3 Invoicing. EPCM-Contractor shall submit invoices monthly in accordance with the provisions set forth in **Exhibit D**. EPCM-Contractor shall submit conditional partial lien waivers for itself and for each of its Subcontractors and affidavits of Subcontractors' payments as backup with each monthly invoice. As a condition of payment of the Final Invoice, EPCM-Contractor shall submit conditional final lien waivers for itself and for each of its Subcontractors and final affidavit of Subcontractors' payment satisfying Owner that all bills for labor, material, equipment, claims and other expenses for the Work which Owner might be sued or for which a lien might be filed, have been fully satisfied or will be satisfied from the proceeds of such final payment. Each Application For Payment submitted by EPCM-Contractor must be accompanied by the following, all in form and substance satisfactory to Owner: (i) a duly executed or acknowledged Contractor's certification stating that: (a) all Subcontractors have been paid amounts properly due under their respective subcontracts and identifying all major Subcontractors with whom Contractor has entered into subcontracts; (b) the applicable Work has been performed in accordance with and complies with the Agreement; (c) it has reviewed all expenses contained in the invoice and such information is true, correct and complete; and (d) no Liens or Claims have been filed or commenced in connection with the Work; (ii) a copy of all invoices, with Sales Taxes and contractor excise taxes paid by EPCM-Contractor indicated on such invoices, payroll reports, and other reasonable evidence as required by Owner to demonstrate that Contractor incurred the actual time and expense; and (iii) such other information,

documents, and materials as reasonably required by Owner or the Agreement.

6.4 Payments. Except as otherwise provided herein, Owner shall pay all Invoices within thirty (30) Days of receipt for all Work completed by EPCM-Contractor and accepted by Owner. Owner may, however, withhold payment: (1) if Owner has not received satisfactory assurance that all claims for labor and material incurred in connection with the Work have been satisfied; (2) if all defective Work has not been remedied; or (3) if there has been any other material failure to perform in accordance with this Contract; provided, however, that the amount of payments withheld shall not exceed the reasonably estimated amount of the matter in dispute. All invoices shall include completed and executed lien waivers as specified in Section 6.3. No payment shall be deemed Final Acceptance of the Work by Owner nor shall it be construed as a waiver by Owner of any of its rights under this Contract. In no event shall this provision for the retention of payment constitute an agreement by Owner that any liens may be created against the property of Owner or its parent or affiliates. Until further notice from EPCM-Contractor, all payments shall be made by wire transfer of funds to the following account:

Account: AECOM Technical Services, Inc.
Bank: Bank of America
Account No: 5800937020
ABA Routing No: 026009593
Swift Code: BOFAUS3N

6.5 Disputes. Should Owner in good faith dispute any portion of an Invoice, Owner shall notify EPCM-Contractor of the dispute in writing within fifteen (15) days of receipt of the Invoice setting forth in detail the reason(s) for the dispute. Owner shall promptly pay the undisputed portion of the Invoice. Upon resolution of the dispute, Owner shall immediately pay the remaining portion of the Invoice. Owner shall pay an additional charge of six percent (6%) per annum, or the maximum percentage allowed by law, whichever is the lesser, for any past due undisputed amount.

6.6 Final Payment Invoice. Upon Final Completion of all Work, EPCM-Contractor shall submit to Owner a Final Invoice, which shall set forth all remaining amounts due to it pursuant to the Agreement. The Final Invoice shall include waivers and releases satisfactory to Owner of any Liens, including waivers and releases from Subcontractors and major equipment and material suppliers; provided that such waivers and releases are conditioned upon EPCM-Contractor's receiving payment pursuant to the Final Invoice. Owner shall pay the Final Invoice within thirty (30) Days of receipt.

6.7 GAAP and Right to Audit. EPCM-Contractor shall maintain cost, accounting and other records, in accordance with GAAP, supporting all invoices provided to Owner under this Agreement. For a period of three (3) years after Final Completion, Owner shall have the right, during normal working hours, to inspect, reproduce and audit such records of EPCM-Contractor by authorized representatives of its own or any third party contract compliance-auditing firm selected by Owner. The records to be maintained and retained by EPCM-Contractor must provide sufficient detail to evidence the propriety of all such chargeable costs and compliance with the Agreement and applicable laws. EPCM-Contractor shall cause all of its Subcontractors to adhere to and comply with the requirements set forth above.

6.8 Notice to Proceed; Right to Suspend Performance.

6.8.1. These payment procedures are material provisions of the Agreement. If Owner fails to remit undisputed amounts in accordance with the payment terms set forth herein, EPCM-Contractor may,

upon thirty (30) days written notice to the Owner, suspend performance of its obligations under the Agreement without incurring any liability to Owner. EPCM-Contractor shall not, however, suspend performance if Owner's failure to remit payment to EPCM-Contractor is due to a genuine dispute between the Parties relating to this Agreement. In the event of a proper suspension of the EPCM-Contractor's performance, EPCM-Contractor shall be entitled to an equitable adjustment in its compensation and schedule for performance.

6.8.2. Owner may issue EPCM-Contractor one or more Limited Notice(s) to Proceed with the Services designated in the Limited Notice to Proceed any time after the Effective Date. To allow EPCM-Contractor to meet the Project Schedule, Owner will issue a Final Notice to Proceed with all remaining items of Work no later than November 8, 2018.

6.8.3. Owner may, by written notice to EPCM-Contractor, suspend at any time the performance of all or any portion of the Work. During the period of suspension, EPCM-Contractor shall use its commercially reasonable efforts to minimize costs associated with suspension, and shall not be liable for any claims, demands, losses, damages, costs or other expenses claimed by Owner's other contractors in connection with or as a result of such suspension. Upon receipt of any such notice, EPCM-Contractor shall, unless the notice requires otherwise: (a) Immediately discontinue the Work on the date and to the extent specified in the notice; (b) Place no further orders or subcontracts with respect to suspended Work other than to the extent required in the notice; (c) Promptly make every reasonable effort to obtain suspension upon terms satisfactory to Owner of all orders, subcontracts, rental agreements and the like to the extent they relate to performance of the Work suspended; and (d) Promptly make every reasonable effort upon terms satisfactory to Owner to protect or maintain the Work.

As full compensation for such suspension, EPCM-Contractor shall be reimbursed for the following costs, to the extent reasonable and if such costs directly result from the suspension of the Work: (a) A standby charge based upon the period of suspension of the Work, which standby charge shall be sufficient to reimburse EPCM-Contractor for its actual costs of keeping its organization committed to the Work in a standby status; (b) The actual costs associated with protecting and securing the Work and with demobilization and remobilization of EPCM-Contractor's resources; and (c) The actual costs of compliance with this Section 6.8.3.

All costs to be reimbursed must be submitted within thirty (30) days following termination of the suspension. Any such costs shall be documented and evidenced by all supporting documentation reasonably requested by Owner and shall be subject to the audit rights of Owner as set forth in this Contract.

Upon receipt of notice to resume suspended Work, EPCM-Contractor shall promptly resume performance of the suspended Work to the extent required in the notice. EPCM-Contractor shall present a revised Project Schedule in writing within ten (10) calendar days after receipt of the notice to resume the Work and EPCM-Contractor shall be entitled to an extension of the Project Schedule for delay of the Project Schedule caused by the suspension. No compensation or extension of time shall be granted if the suspension results from EPCM-Contractor's noncompliance with the requirements of this Contract or from any cause other than Owner's suspension notice.

7. CHANGE ORDERS; BACKCHARGES

7.1 Change Order Procedures. Except for minor modifications of the Work not involving extra cost and not inconsistent with the general purposes of the Work, or except in emergency endangering life or

property, all changes shall be authorized by a written Change Order, as defined herein, signed by Owner's representative and no claim for additional compensation or time extension shall be allowed unless the changes in the Work were so ordered in writing. Without invalidating the Agreement, Owner may order changes in the Work consisting of additions, deletions or other revisions ("Change"). If EPCM-Contractor believes that due to a request from the Owner or other changed circumstances a Change is required, it shall submit a written change proposal to the Owner setting forth the basis for its entitlement to an equitable adjustment in the cost and Project Schedule ("Change Proposal"). Change proposal shall describe, in detail, all of the following that are applicable and necessary: (a) the proposed Change, (b) any adjustment of or amendment to the total agreed amount and payment schedule, (c) any adjustment to key milestones or interim milestones, and (d) any effect on EPCM-Contractor's ability to comply with its obligations under this Agreement. Within fifteen (15) business days of the receipt of EPCM-Contractor's Change Proposal, Owner shall notify EPCM-Contractor as to whether Owner wishes to proceed with the Change, the Parties shall enter a mutually agreeable written order authorizing the Change and any adjustment in the basis of compensation and/or the schedule of performance (the "Change Order"). Disputes regarding Change Orders under this paragraph shall be resolved on a case-by-case basis at the Project level. If the dispute cannot be resolved at the Project level, such dispute shall be submitted to the executive level. If such dispute cannot be resolved at the executive level, it shall be resolved in accordance with Article 15 of this Contract. EPCM-Contractor shall not be required to proceed with Changes absent a mutually agreed Change Order. EPCM-Contractor agrees to continue to prosecute the Work notwithstanding the fact that there may be unapproved and unresolved Change Orders, other than the Work that is the subject of the unapproved Change Order. The provisions of Article 8 shall govern any Change Order relating to a Force Majeure event.

7.2 The Contract Sum has been calculated based on current prices for Material, Equipment, and Work as of the Effective Date of this Agreement. In the event of delay, price increase, or shortage to an item of Work, including but not limited to, Material, Equipment, and/or labor occurring during the performance of this Agreement through no fault of the EPCM-Contractor, the Contract Sum and Project Schedule shall be equitably adjusted by a mutually agreeable Change Order. As used herein:

- (i) A price increase of an item of Material or Equipment shall mean any increase in price incurred by EPCM-Contractor after the Effective Date of this Agreement. Such price increases shall be documented through quotes, invoices, or receipts.
- (ii) A price increase of an item of Work shall mean any increase in price incurred by EPCM-Contractor after the Effective Date of this Agreement. Such price increases shall be determined as set forth in Section 16 (Inflation Model) of Exhibit D to this Agreement.

Where the delivery of an item of Work, including but not limited to, Material, Equipment, or labor, is delayed, through no fault of the EPCM-Contractor, as result of the shortage or unavailability of an item of Material, Equipment, or labor, the EPCM-Contractor shall not be liable for any additional costs or damages associated with such delay(s).

7.3 The Contract Sum has also been calculated based on the current estimated quantity of Coal Combustion Residuals and other materials in the pond (collectively referred to hereinafter as the "Ponded Material Estimate") to be managed at the Site as of the Effective Date of this Agreement. In the event the actual quantity of Ponded Material required to be managed differs from the Ponded Material Estimate, the Contract Sum, Project Schedule, and the contract requirements shall be equitably adjusted by a mutually agreeable Change Order.

8. FORCE MAJEURE

8.1 Remedy. An extension of the Project Schedule shall be granted to EPCM-Contractor to the extent the performance of the Work is actually and necessarily delayed by an event of Force Majeure. In addition, EPCM Contractor shall be equitably compensated for time expended, expenses incurred, and any other cost impacts as a result of any single Force Majeure event or a series of Force Majeure events. Any extension of time and additional compensation due to EPCM-Contractor shall be recorded in a mutually agreeable Change Order.

8.2 Cure. EPCM-Contractor shall work diligently to cure, remove or otherwise correct, and to minimize and contain all costs and expenses and delays in the performance of the Work attendant to or arising from, each Force Majeure event.

8.3 Notice. If EPCM-Contractor claims there is a Force Majeure event, EPCM-Contractor shall notify Owner of the nature and cause of the event in writing within ten (10) Days after EPCM-Contractor became aware, or should have become aware with the exercise of reasonable diligence, of the event.

8.4 Termination Due to Force Majeure. If an event of Force Majeure delays EPCM-Contractor's performance of the Work for an aggregate amount of time greater than ninety (90) Days, then EPCM-Contractor or Owner shall have the right to terminate this Agreement without penalty and Owner shall be obligated to make payment to EPCM-Contractor for all Work performed up to the date of termination along with all reasonable termination expenses.

9. INSURANCE and RISK OF LOSS

9.1 EPCM-Contractor shall obtain, at its own expense, from reliable insurance carriers satisfactory to the Owner and authorized to do business in the state where the Work is to be performed, and be rated no less than A-VII by A.M. Best or equivalent, the following applicable insurance policies indicated below, with limits not less than those specified:

9.1.1. Worker's Compensation insurance complying with the law of the state(s) in which any work under this Agreement is to be performed, whether or not required by such laws to maintain such insurance, and Employer's Liability Insurance with limits of \$1,000,000. No waivers of workers compensation insurance by independent contractors will be accepted.

9.1.2. Commercial General Liability insurance with a combined single limit for bodily and personal injury and property damage of \$1,000,000 each occurrence and general products liability aggregate of \$2,000,000 each, covering all obligations or operations to be performed under this Agreement. Policy shall include two years completed operations coverage, no modifications that reduce the standard coverage provided under a commercial liability form, and delete railroad exclusions from contractual section or definition section of insured contract.

9.1.3. Commercial Automobile Liability insurance with a combined single limit for bodily injury and property damage of \$1,000,000 each occurrence to include coverage for all owned, non-owned, and hired vehicles.

9.1.4. Contractor's Pollution Liability insurance with limits of \$5,000,000 each claim, to provide coverage for pollution claims arising out of the Work. This policy shall protect against the actual or alleged liability and costs arising from the sudden and accidental release of pollutants or hazardous materials arising from the EPCM-Contractor's or Subcontractors' work. Coverage may be written on an occurrence or claims-made basis. Any deductible or self-insured retention shall be the sole responsibility of the EPCM-Contractor or subcontractor.

9.1.5. Commercial Umbrella Liability/Excess Liability insurance providing coverage in excess of the limits specified above (except Workers Compensation) with limits of not less than \$10,000,000 per claim/occurrence.

9.1.6. Professional Liability Insurance with limits of no less than \$5 million per claim/ \$5 million aggregate, for claims that arise from the errors, omissions or acts of the EPCM-Contractor or any entity for which the EPCM-Contractor is legally responsible.

9.2 Builder's All Risk Insurance shall be procured by the Owner. It shall be written on a builder's risk "all risk" or equivalent policy form in the amount of the total value of the entire project on a replacement cost basis and shall include, but not be limited to, coverage for fire, explosion, flood, windstorm, and earth movement and any physical loss or damage to existing property of Owner arising from or in connection with the Work. Such insurance shall be maintained, unless provided elsewhere, until final completion of the performance tests and acceptance by Owner. This insurance shall name the Owner, the EPCM-Contractor and the Subcontractors and Sub-subcontractors in the project as named insureds and shall waive subrogation rights against all such parties.

The builders risk insurance should include coverage for installation, commissioning, testing and start up, demolition and increased cost of construction, debris removal and off-site storage of property.

Owner shall provide a 30 day notice to the EPCM-Contractor in the event of cancellation of this policy. Contemporaneously with the Notice to Proceed, Owner shall furnish a certificate of insurance evidencing such builder's risk coverage is in effect.

Unless required otherwise by Owner and acknowledged by EPCM-Contractor in writing prior to the issuance of the Final Notice to Proceed claims under the Builder's Risk insurance provided are subject to a deductible amount of Five Hundred Thousand Dollars (\$500,000.00) per occurrence.

If a claim results from any construction activity, the responsible EPCM-Contractor or Subcontractors shall be responsible for the deductible amount, as stated above. All Builder's Risk losses will be adjusted with and payable to the Owner or their designee for the benefit of all parties as their interests may appear. EPCM-Contractor and Subcontractors may elect to provide a separate Builder's Risk policy to cover all or part of the deductible. Said separate policy shall be endorsed to add Owner and all subcontractors as additional insureds, as their interest may appear, and to waive the carrier's right of recovery under subrogation against Owner and all subcontractors whose interests are insured under such policy.

9.3 General Insurance Provisions

9.3.1 Any and all deductibles/self-insured retentions in the above-described insurance policies shall be assumed by, for the account of, and at the sole risk of the EPCM-Contractor. Limits may be met in combination of both primary and umbrella/excess policies.

9.3.2 Any insurance on a “claims made” basis shall provide at least a two year extended reporting period if coverage is cancelled or non-renewed following termination of the agreement.

9.3.3 The “explosion,” “collapse,” and “underground” exclusions shall be removed from the Commercial General Liability insurance coverage.

9.3.4 Cancellation of policies providing coverage herein, as it affects the interest of the Owner, shall be effective only after written notice is received by the Owner thirty (30) days in advance of any such cancellation, except if such cancellation is due to failure to pay premiums in which case 10 days’ prior written notice of cancellation is given to said Owner.

9.3.5 Upon execution of the Agreement the EPCM-Contractor shall deliver to the Owner certificates in a form satisfactory evidencing the existence of insurance as provided for above and, except with regard to Worker’s Compensation, Employers’ Liability and Professional Liability insurance, naming the Owner as an additional insured; and shall also provide primary coverage without right of contribution by any insurance carried by the Owner. EPCM-Contractor will resubmit updated certificates prior to the expiration date of any required insurance.

9.3.6 All of the above-described insurance policies, where allowed by law, except for Professional Liability Insurance, shall contain provisions that the insurance carriers will have no right of recovery or subrogation against said Owner or any of its subsidiaries or affiliated companies and EPCM-Contractor hereby waive its right of recovery against the Owner.

9.3.7 Irrespective of the requirements as to insurance to be carried, the insolvency, bankruptcy or failure of any such insurance carrier providing insurance, or failure of any such insurance carrier to pay claims occurring, shall not be held to waive any of the provisions hereof.

9.3.8 Further, compliance by the Contractor with the insurance requirements set forth herein shall not relieve the Contractor from liability for amounts in excess of the limits of insurance.

9.3.9 Required Insurance for Major Subcontractors (e.g., contract value in excess of \$1,000,000). In the event EPCM-Contractor delegates performance of its obligations hereunder to a Subcontractor, after obtaining prior written review and comment from the Owner, EPCM-Contractor acknowledges and agrees that the insurance requirements in this section also apply to any Subcontractor complying with all terms and conditions hereof including, without limitation, unless otherwise agreed upon in writing between EPCM-Contractor and Owner.

9.4 Risk of Loss. In the event of loss or damage to the Project not covered by the Builder’s Risk policy resulting from the negligence or breach of the terms of this Agreement by EPCM-Contractor, the cost of the repair and/or replacement of such loss or damage shall be the responsibility of the EPCM-Contractor. The risk of loss or damages to EPCM-Contractor’s own property used for performance of any of its obligations under this Contract remains with the EPCM-Contractor.

10. LIMITATION OF LIABILITY.

IN NO EVENT SHALL EPCM-CONTRACTOR OR OWNER BE LIABLE FOR ANY CONSEQUENTIAL, SPECIAL, INCIDENTAL OR INDIRECT DAMAGES, INCLUDING WITHOUT LIMITATION (I) DAMAGES SUFFERED BY OWNER (OR ANYONE CLAIMING BY AND THROUGH OWNER) AS A RESULT OF THE LOSS OF THE USE OF ITS PRODUCTION FACILITIES, (II) DAMAGES SUFFERED BY CUSTOMERS OF OWNER FOR SERVICE INTERRUPTIONS, (III) LOST PROFIT OR OTHER LOST OPPORTUNITY COSTS; OR (IV) COST OF CAPITAL, WHETHER SUCH LIABILITY IS BASED IN CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHERWISE.

THE TOTAL CUMULATIVE LIABILITY OF EPCM-CONTRACTOR TO OWNER (OR ANYONE CLAIMING BY AND THROUGH OWNER) UNDER THIS CONTRACT, FOR DAMAGES OF ANY NATURE SUSTAINED AS A RESULT OF ANY ACT OR OMISSION BY EPCM-CONTRACTOR (OR ANYONE FOR WHOM EPCM-CONTRACTOR MAY BE RESPONSIBLE) INCLUDING BUT NOT LIMITED TO ANY CLAIM FOR BREACH OF CONTRACT, NEGLIGENCE, WARRANTY, TORT, STRICT LIABILITY, INDEMNITY OR OTHERWISE, SHALL NOT EXCEED FIVE MILLION DOLLARS. PAYMENTS MADE BY EPCM-CONTRACTOR OR COSTS INCURRED BY EPCM-CONTRACTOR WITH RESPECT TO ANY OBLIGATIONS LIMITED UNDER THIS AGREEMENT SHALL ERODE THE LIABILITY CAP, INCLUDING, WITHOUT LIMITATION, ANY COSTS, EXPENSES, AND DAMAGES INCURRED IN CONNECTION WITH ALL WARRANTIES. THE LIABILITY LIMITATION SHALL NOT APPLY TO: (A) EPCM-CONTRACTOR'S INDEMNIFICATION OBLIGATIONS FOR THIRD PARTY CLAIMS FOR PERSONAL INJURY, INCLUDING WITHOUT LIMITATION DEATH, AND PROPERTY DAMAGE (OTHER THAN TO THE WORK ITSELF) UNDER ARTICLE 11 HEREIN; OR (B) ANY LOSS OR DAMAGE ARISING OUT OF OR CONNECTED WITH EPCM-CONTRACTOR'S FRAUD, BAD FAITH, GROSS NEGLIGENCE, OR WILLFUL MISCONDUCT; (C) EQUIPMENT MANUFACTURER'S WARRANTIES.

11. INDEMNIFICATION

11.1 EPCM-Contractor Indemnity. EPCM-Contractor shall indemnify, save and hold harmless the Owner, its officers, agents, employees, parent, divisions, subsidiaries and affiliate companies (collectively the "Indemnitees"), from every kind and character of damages, liabilities, losses, expenses, demands, claims, causes of action and costs (including reasonable attorney's fees) of any and every nature whatsoever (including without limitation, claims for pollution and environmental damage) asserted against the Indemnitees by third parties, to the extent caused by the negligent acts or omissions of EPCM-Contractor, Subcontractors, or those for which it is legally responsible. EPCM-Contractor shall not be required to indemnify the Indemnitees to the extent of the Indemnitees' own negligence or wrongdoing. To the fullest extent allowed by law, Contractor further agrees to indemnify, defend, save and hold harmless the Indemnitees from and against any claim by any employee of EPCM-Contractor or Subcontractor based on the failure of the Indemnitees to provide a safe place to work or correct an unsafe condition at a work location. EPCM-Contractor shall further indemnify, defend, save and hold harmless the Indemnitees from and against any claim, suit or proceeding alleging that any design, material, article, apparatus, device, equipment or process, or any part thereof, supplied by EPCM-Contractor for the Work, or for use in the Work, or in combination with products manufactured or supplied by others for use in the Work, constitutes an infringement of any patent, trademark, copyright, trade secret or any other proprietary right of a third party, unless the design, material, article, apparatus, device, equipment or process was furnished or specified by Owner.

11.2 Owner Indemnity. Owner shall indemnify, save and hold harmless EPCM-Contractor, its officers and employees (collectively the "EPCM-Contractor Indemnitees"), from every kind and character of damages, liabilities, losses, expenses, demands, claims, causes of action and costs (including reasonable attorney's fees) of any and every nature whatsoever (including without limitation, claims for pollution and environmental damage) asserted against the EPCM-Contractor Indemnitees by third parties, to the extent caused by the negligent acts or omissions of Owner, Owner's other contractor(s), or those for which it is legally responsible. Owner shall not be required to indemnify the EPCM-Contractor Indemnitees to the extent of the EPCM-Contractor Indemnitees' own negligence or wrongdoing.

12. WARRANTY

12.1 Equipment Warranty. EPCM-Contractor shall obtain for Owner a warranty from all major Equipment Manufacturers for a period not less than the Warranty Period warranting that the Equipment will be free from errors and defects in material and workmanship and shall conform to requirements of the Agreement. No other warranties, express or implied, will be extended to Owner for Equipment by EPCM-Contractor or its Subcontractors, including any warranty of merchantability or fitness for use. Failure of Owner to properly operate or maintain the Equipment and failure of the Owner to use the Equipment for its intended purpose will void these warranties. Equipment Warranties will not apply to normal wear and tear, or improper storage, installation, operation or maintenance. If within the Warranty Period Owner identifies any breach of the foregoing Equipment Warranty, Owner shall immediately notify EPCM-Contractor of such breach and EPCM-Contractor's sole warranty obligation for Equipment covered by an Equipment Manufacturer's Warranty shall be to assist Owner in administering the Equipment Manufacturer's warranty obligation to correct, repair or replace non-conforming Equipment subject to the terms of the warranty provided by the applicable Manufacturer.

12.2 Design Warranty. EPCM-Contractor hereby warrants to Owner that the Services will conform to the Standard of Care and the requirements of this Contract. If within the Warranty Period, Owner identifies any breach of the foregoing warranty, Owner shall immediately notify EPCM-Contractor of such breach and EPCM-Contractor shall re-perform such non-conforming Services at its own cost and expense. In addition, and subject to the Warranty Limit of Liability set forth in Section 12.8, EPCM-Contractor shall be liable and responsible for the costs and expenses incurred in connection with the (i) removal, reinstallation or replacement of equipment, materials, facilities or structures required to remedy the nonconformity; and (2) correction of physical damage to other parts of Work resulting from the nonconformity. If EPCM-Contractor fails to timely replace any such defective Work, Owner may cause such defective Work to be replaced by another and the direct and indirect expense thereof shall be the responsibility of EPCM-Contractor; provided, however, that EPCM-Contractor's liability for such direct and indirect expenses shall be subject to the Warranty Limit of Liability. Owner shall be entitled to deduct this expense and the resulting damages from amounts otherwise due EPCM-Contractor. For purposes of this Section 12.2, indirect expenses do not include consequential damages, including but not limited to loss of profits or revenue, cost of capital, loss of use or equipment or facilities, cost of purchased or replacement power, or claims of customers due to loss of service.

12.3 Warranty of Non-Professional Services. Subject to Article 12.1, EPCM-Contractor hereby warrants to Owner that the Work (excluding all Services) will be free from defects in materials and workmanship and will conform to the requirements of this Contract. If within the Warranty Period, Owner identifies any breach of the foregoing warranty, Owner shall immediately notify EPCM-Contractor of such breach and EPCM-Contractor shall correct such defects in materials and workmanship at its own cost and expense within a time reasonably acceptable to Owner. In addition, and subject to the Warranty Limit of

Liability set forth in Section 12.8, EPCM-Contractor shall be liable and responsible for the costs and expenses incurred in connection with the (i) removal, reinstallation or replacement of equipment, materials, facilities or structures required to remedy the nonconformity; and (2) correction of physical damage to other parts of Work resulting from the nonconformity. If EPCM-Contractor fails to timely replace any such defective Work, Owner may cause such defective Work to be replaced by another and the direct and indirect expense thereof shall be the responsibility of EPCM-Contractor. Owner shall be entitled to deduct this expense from amounts otherwise due Contractor. For purposes of this Section 12.3, indirect expenses do not include consequential damages, including but not limited to loss of profits or revenue, cost of capital, loss of use of equipment or facilities, cost of purchased or replacement power, claims of customers due to loss of service.

12.4 Reasonable Access. In connection with EPCM-Contractor's administration of warranties, Owner shall provide EPCM-Contractor's representatives reasonable access to the Site, consistent with Owner's policies and procedures in effect from time to time, for the purpose of observing the operation of the Equipment during times on which Owner and EPCM-Contractor agree. EPCM-Contractor acknowledges that warranty work, at the request of Owner, must be coordinated with the ongoing operations of the Equipment and the Site to assure, among other things, that Owner will be able to fulfill its obligations with respect to the Site.

12.6 Limitation of Warranties. THE WARRANTIES SET FORTH IN THIS SECTION 12 ARE EXCLUSIVE AND NO OTHER WARRANTIES OF ANY KIND, WHETHER STATUTORY, EXPRESS, OR IMPLIED (INCLUDING ALL WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE) SHALL APPLY. THE REMEDY BY EPCM-CONTRACTOR OF WARRANTY DEFECTS AND NON-CONFORMITIES IN THE MANNER AND DURING THE WARRANTY PERIOD PROVIDED FOR IN THIS SECTION 12 SHALL CONSTITUTE COMPLETE FULFILLMENT OF, AND OWNER'S EXCLUSIVE REMEDY FOR, ALL THE LIABILITIES OR RESPONSIBILITIES OF CONTRACTOR TO OWNER FOR NON-CONFORMING OR DEFECTIVE WORK, WHETHER THE CLAIMS OF OWNER ARE BASED IN CONTRACT, TORT, STRICT LIABILITY, DELAY, WARRANTY, INDEMNITY, ERROR AND OMISSION, OR OTHERWISE.

12.7 Warranty Conditions.

(A) The Warranties and remedies set forth in this Section 12 shall not be applicable to the extent that noncompliance with a Warranty is the result of Owner's failure to operate and/or maintain any Equipment and Work provided by EPCM-Contractor in accordance with recommendations by EPCM-Contractor furnished pursuant to this Agreement and, in the absence thereof, follow generally accepted industry practices for similar types of facilities.

(B) The Warranties and remedies set forth in this Section 12 shall not be applicable to the extent that noncompliance with a Warranty is the result of Owner's failure to follow recommendations by EPCM-Contractor furnished pursuant to this Agreement and, in the absence thereof, follow industry practices for similar types of facilities in the receipt, handling, storage, protection, and installation of the Work.

(C) Owner shall not subject the Work to accident, alteration, abuse, or misuse.

(D) If and to the extent that Owner is required to provide facilities and personnel as part of the scope of Work under this Agreement, then at the request of EPCM-Contractor, Owner shall furnish, to the extent reasonably available, such operations and maintenance personnel and its physical facilities to assist

EPCM-Contractor in any repairs, modifications, or replacements pursuant to its Warranty obligations.

(E) Owner shall afford EPCM-Contractor the opportunity to comment on technical and operating matters directly or indirectly associated with the performance of the Work.

(F) Owner shall make available maintenance and operational records for the Work for EPCM-Contractor's reasonable review.

(G) EPCM-Contractor does not warrant the Work or any repaired or replaced parts thereof against normal wear and tear.

(H) Owner acknowledges and agrees that EPCM-Contractor has no responsibility for, and does not warrant, the design, workmanship, material, quality or performance of any work furnished by Owner or its other contractors.

12.8 Warranty Limitation of Liability. EPCM-Contractor's total liability under Sections 12.2 and 12.3 for all costs, expenses (including, without limitation, expenses incurred by EPCM-Contractor in performance of remedial work pursuant to Sections 12.2 and 12.3) and damages resulting from non-conforming and/or defective Work, shall be subject to a sub-limit of liability in the amount of \$500,000. The liability sub-limitation shall not apply to: (a) EPCM-Contractor's indemnification obligations for third party claims under Article 11 herein; (b) any loss or damage arising out of or connected with EPCM-Contractor's fraud, bad faith, gross negligence, or willful misconduct; and (c) EPCM-Contractor's Equipment Warranty obligations pursuant to Section 12.1.

13. CONFIDENTIAL INFORMATION; TRADEMARKS; PUBLICITY.

13.1. Confidential Information. Each of the Parties may have a proprietary interest in information that it furnishes pursuant to the Agreement. Except as expressly provided in this Agreement, the Parties shall keep in confidence and shall not disclose any Confidential Information of the other Party without the prior written permission of the disclosing Party or use any Confidential Information for other than the purposes for which it is supplied,. Each Party may disclose any Confidential Information to its consultants, attorneys and representatives and to other Persons, as may be necessary to perform its obligations under the Agreement; provided that those other Persons agree to maintain the Confidential Information in accordance with this Article. Each Party shall maintain the confidentiality for five (5) years after the date of Final Completion. If a Party is required by a subpoena of a Government Authority or by Law to disclose the other Party's Confidential Information, it shall give the other Party prompt written notice. EPCM-Contractor shall provide Owner with Confidential Information and such other proprietary information related to the Work requested by any state or federal regulatory agency having jurisdiction over the Owner; provided, however, Owner shall use commercially reasonable efforts to obtain trade secret or other protective treatment or order from the agency to prevent public disclosure of the proprietary information.

14. HAZARDOUS MATERIALS

14.1 Liability for Hazardous Materials. Owner expressly agrees that EPCM-Contractor assumes no liability or responsibility whatsoever for the presence, creation, existence, handling, removal, disposal, or remediation of any toxic, hazardous, radioactive, infectious or other dangerous substances, or Hazardous

Substances (collectively referred to herein as “Hazardous Materials”) existing at the project site at the time that EPCM-Contractor commences services at said site (“Pre-existing Conditions”). Owner agrees to indemnify, hold harmless and defend EPCM-Contractor from and against any and all liabilities, demands, claims, penalties, fines, damages, and suits, as well as the costs and expenses incident thereto (including the costs of defense, settlement and reasonable attorneys’ fees), resulting from or in connection with the Pre-existing Conditions and any remediation activities associated with the Pre-existing Conditions, with the exception of any claims or losses arising directly from EPCM-Contractor’s negligence of willful misconduct. EPCM-Contractor shall not accept title to or sign manifests for any Hazardous Materials encountered in connection with this Agreement and under no circumstances will Contractor assume ownership or legal liability for any Hazardous Materials at the project site under CERCLA or any other laws pertaining to hazardous materials and wastes. In the event that EPCM-Contractor encounters any Hazardous Materials at the site that impacts its ability to perform the Work, EPCM-Contractor shall be entitled to a Change Order adjusting the cost and/or schedule of performance.

14.2 Environmental Indemnity and Responsibility.

(A) Owner shall indemnify, defend and hold harmless EPCM-Contractor, its officers, directors, employees and Affiliates from and against any and all claims (including without limitation, all penalties, attorney’s fees, fines, and administrative or civil sanctions arising out of or related to any of such claims), losses, suits, actions, legal or administrative proceedings, judgments, damages (including, without limitation, incidental, consequential, indirect, special, punitive, and exemplary damages), penalties, liabilities, demands, costs and expenses (including reasonable attorney’s fees) of any kind or nature whatsoever (collectively “Losses”) for or suffered as a result of, or arising out of, or in connection with, this Agreement and/or the performance of the Work and relating to the regulation and/or protection of the environment, including, without limitation, Losses incurred in connection with characterization, handling, transportation, storage, removal, remediation, disturbance or disposal of Hazardous Materials, whether above or below ground and not brought to the Site by EPCM-Contractor without the Owner’s approval. Owner shall at all times retain exclusive control over and final approval of and shall be solely responsible for evaluation, implementation and all other decisions relating to Environmental Laws, rules and regulations and the characterization, removal, remediation, transportation, disturbance or disposal of Hazardous Materials, whether above or below ground.

Owner shall indemnify, defend, and hold harmless EPCM-Contractor, its Subcontractors, officers, directors, employees and Affiliates (“EPCM-Contractor Indemnitees”) from and against any fines or penalties imposed or levied by any Governmental Authority or regulatory authority against EPCM-Contractor Indemnitees under Environmental Law, and any claims or causes of action asserted against EPCM-Contractor Indemnitees by third parties under Environmental Law, for or relating to performance of the Work by EPCM-Contractor Indemnitees, with the exception of any such fines, penalties, claims, or causes of action arising directly from EPCM-Contractor Indemnitee’s negligence or willful misconduct.

14.3 Subsurface Conditions Indemnification. Notwithstanding anything to the contrary elsewhere in this Agreement, Owner shall indemnify EPCM-Contractor against any and all claims, demands, actions, causes of action, damages, losses or expenses, liens, suits, or other proceedings by whomever made, including claims for bodily injury, death and/or physical property loss or damage (including reasonable attorney’s fees and costs of investigation) resulting from or attributable to subsurface conditions or damage to subsurface structures, whether owned by Owner or any third party, the presence or location of which were not adequately marked and revealed to by Owner in writing prior to the commencement of EPCM-Contractor’s performance under this Agreement.

15. DISPUTE RESOLUTION

15.1 Resolution by the Parties. The Parties shall attempt to resolve any claims, disputes and other controversies arising out of or relating to this Agreement (collectively, "Disputes) promptly by negotiation between executives who have authority to settle the Dispute and who are at a higher level of management than the persons with direct responsibility for administration of this Agreement. A Party may give the other Party written notice of a Dispute which has not been resolved in the normal course of business. Such notice shall include: (a) a statement of that Party's position and a summary of arguments supporting such position, and (b) the name and title of the executive who will be representing that Party and of any other person who will accompany the executive. Within fifteen (15) Days after delivery of the notice, the receiving Party shall respond with (a) a statement of that Party's position and a summary of arguments supporting such position, and (b) the name and title of the executive who will represent that Party and of any other person who will accompany the executive. Within thirty (30) Days after delivery of the initial notice, the executives of both Parties shall meet at a mutually acceptable time and place, and thereafter as often as they reasonably deem necessary, to attempt to resolve the Dispute. All negotiations pursuant to this clause are to be deemed confidential and shall be treated as compromise and settlement negotiations for purposes of applicable rules of evidence. If the executives are unable to resolve the dispute within thirty (30) Days of the initial notice, either party may initiate litigation to resolve the dispute unless the Parties have agreed to mediate or arbitrate the dispute prior to or in lieu of litigation.

15.2 Work Continuation. Except to the extent otherwise provided in this Contract, at all times during the course of any dispute, the EPCM-Contractor shall continue with the Work unaffected by the dispute in a diligent manner, and the Owner shall continue to make payments for undisputed Work and perform its other obligations in accordance with the provisions of this Contract.

16. MISCELLANEOUS PROVISIONS.

16.1 Governing Laws and Venue. This Agreement shall be governed by and construed in accordance with the laws of the state where the Project is located, without reference to that state's conflict of laws principles. The Parties agree and consent that any action at law, suit in equity or other judicial proceeding brought for the enforcement of this Contract or arising from any provision thereof shall be instituted only in the courts located in the state where the Work is to be performed

16.2 Entire Agreement. This Agreement represents the entire agreement between Owner and EPCM-Contractor with respect to the subject matter, and supersedes all prior negotiations, binding documents, representations and agreements, whether written or oral. This Agreement may be amended or modified only by an Amendment.

16.3 Successors and Assigns. Neither Party may assign, convey or transfer all or any part of the Agreement, without the other Party's prior written consent. This Agreement shall be binding on, and inure to the benefit of, the Parties and their successors and permitted assigns.

16.4 Parent Company Guarantee. Notwithstanding any provision in this Agreement or otherwise to the contrary, if Owner falls below investment grade status (as determined by Standard and Poor's or Moody's) at any time during the term of this Agreement, EPCM-Contractor may request from Owner, and Owner shall promptly provide EPCM-Contractor with, a Parent Company Guarantee from Owner's ultimate parent company guaranteeing Owner's due and proper performance of Owner's obligations under this

Agreement. If EPCM-Contractor falls below investment grade status (as determined by Standard and Poor's or Moody's) at any time during the term of this Agreement, Owner may request from EPCM-Contractor, and EPCM-Contractor shall promptly provide Owner with, a Parent Company Guarantee from EPCM-Contractor's ultimate parent company of EPCM-Contractor guaranteeing EPCM-Contractor's due and proper performance of EPCM-Contractor's obligations under this Agreement.

16.5 Contractual Relationship. Nothing in the Agreement shall be construed as creating a contractual relationship of any kind between any Persons other than Owner and EPCM- Contractor.

16.6 Rights Cumulative. Except as otherwise expressly provided or limited in the Agreement, including but not limited to the liability limitations set forth in Sections 5.3, 10, 12.6 and 12.8, (a) the rights and remedies of Owner or EPCM-Contractor as set forth in the Agreement shall be cumulative with and in addition to, and not in limitation of, any other rights or remedies available at law or in equity, and (b) any specific right or remedy conferred upon or reserved to Owner or EPCM- Contractor in any provision of the Agreement shall not preclude the concurrent or consecutive exercise of a right or remedy for which any other provision of the Agreement provides.

16.7 No Waiver. No course of dealing or failure of Owner or EPCM-Contractor to enforce strictly any term, right or condition of the Agreement shall be construed as a waiver of that term, right or condition. No express waiver of any term, right or condition of the Agreement shall operate as a waiver of any other term, right or condition.

16.8 Survival. All sections of the Agreement providing for limitation of or protection against liability of either Party shall survive the termination, cancellation, or expiration of the Agreement.

16.9 No Third Party Beneficiaries. The provisions of the Agreement are intended for the sole and exclusive benefit of Owner and EPCM-Contractor, and not for the benefit of any third party.

16.10 Severability. Should any of the provision(s) of this Agreement be declared invalid or be determined by any court to be illegal or invalid, the validity of the remaining parts, terms or provisions shall not be affected thereby, and said illegal or invalid part, term or provision shall be deemed not to be a part of this Agreement

16.11 Joint Effort. The preparation of the Agreement has been a joint effort of the Parties and the resulting document shall not be construed more severely against one of the Parties than against the other.

16.12 Counterparts. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

16.13 Attorneys' Fees. In the event that any Party is required to enforce the terms or conditions of this Agreement in court or arbitration, the prevailing party shall recover all costs and expenses incurred in or arising from such action, including reasonable attorney's fees.

16.14 Subcontracts. To the extent EPCM- Contractor subcontracts any portion of the Work, EPCM-Contractor shall ensure that all Subcontractors are bound by the terms of this Contract in a writing executed by EPCM-Contractor and Subcontractor. Owner shall be an intended third party beneficiary of any Subcontractor agreements and such Subcontractor agreements shall be fully assignable to Owner without Subcontractor's approval upon EPCM-Contractor's default under the Contract. Any delegation of the Work through subcontracting shall not relieve EPCM-Contractor of its responsibilities under this

Contract nor result in extra cost or liability to Owner.

16.15 Ownership of Data and Documents. All reports, data, drawings, calculations, estimates, specifications and other documents (collectively, “Documents”) prepared by EPCM-Contractor pursuant to this Contract are deemed to be instruments of service and EPCM-Contractor shall retain the ownership and property interests therein, including but not limited to any intellectual property rights, copyrights and/or patents. Notwithstanding the preceding sentence, upon Owner’s payment in full for all Services performed under this Contract, EPCM-Contractor shall grant Owner a limited, irrevocable, royalty-free license to use the Documents in connection with Owner’s occupancy of the Project, conditioned on Owner’s express understanding that its alteration of the Documents without the involvement of the EPCM-Contractor is at Owner’s sole risk and without liability or legal exposure to EPCM-Contractor or anyone working by or through EPCM-Contractor, including Subcontractors of any tier.

16.16 Waiver of Jury Trial. Each Party to the extent permitted by law, knowingly, voluntarily and intentionally waives its right to a trial by jury in any action or other legal proceeding arising out of or relating to this Contract, and the transaction it contemplates, whether sounding in contract, tort or otherwise.

17. TERMINATION

17.1. Termination for Cause. If EPCM-Contractor shall fail at any time to provide the necessary skilled labor, or materials, tools and Equipment for the prompt and quality performance of the Work, or shall materially breach this Contract in whole or in part, or shall fail to use diligence in the performance hereof, or shall materially fail to perform this Contract in the manner herein provided, or shall fail to pay Subcontractors, suppliers or employees, or shall become insolvent, make an assignment for the benefit of creditors, file a voluntary bankruptcy petition, acquiesce to any involuntary bankruptcy petition, or be adjudicated bankrupt, Owner shall notify EPCM-Contractor in writing of such failure. If EPCM-Contractor fails to cure, or to commence and diligently pursue to completion the cure of, such failure within ten (10) days after receipt of the notice from Owner, then the Owner may, at its election, terminate this Contract by delivering written notice. Unless otherwise stated in the notice of termination, upon receipt of notice of termination for default, EPCM-Contractor shall immediately discontinue the Work on the date and to the extent specified in the notice, assign such subcontracts and supplier agreements selected by the Owner on the date and to the extent specified in the notice and deliver to Owner all Documents, drawings, reports, plans, specifications, data, summaries or other material, information, or products whether completed or in progress of the Work. Thereafter, Owner may through itself or others complete the Work on such terms and conditions as Owner deems appropriate. In the event Owner exercises its rights under this paragraph, it shall not be liable to EPCM-Contractor to pay for any Work not performed by EPCM-Contractor and Owner may deduct the costs of completing the Work, including all charges, expenses, costs, damages, and reasonable overhead, incurred as a result of the EPCM-Contractor’s material failure to perform, from any money due or to become due to EPCM-Contractor under this Contract. If after delivery of notice of termination it is determined for any reason that EPCM-Contractor was not in default, EPCM-Contractor’s sole and exclusive remedy shall be the same as if Owner had terminated the Contract for convenience pursuant to Subsection 17.2. No election by Owner to exercise its rights under this paragraph shall be construed as a waiver of any other rights or remedies of Owner for any breach of this Contract.

17.2. Termination for Convenience. At the sole discretion and convenience of the Owner, this Contract may be terminated by Owner without cause at any time, subject to written notice. Upon receipt of notice of termination for convenience, EPCM-Contractor shall discontinue all Work in accordance with and to the extent specified in the notice and shall take commercially reasonable measures to minimize the cost of

such termination. EPCM-Contractor agrees that upon such termination for convenience, EPCM-Contractor's sole remedy shall be payment of full value for all Work properly performed in accordance with the pricing set forth in **Exhibit D**, plus reasonable payment, including reasonable profit thereon, for Work in progress, and reasonable amounts for unavoidable termination costs of unperformed Work, costs of all Materials, and Equipment delivered to the Site and not otherwise paid for by Owner, provided EPCM-Contractor shall, if directed by Owner, deliver to Owner all materials, documents, and other products of completed Work or Work in progress for which Owner has made payment. Use of such materials, documents, and other products of completed Work or Work in progress is at Owner's sole risk without liability or legal exposure to EPCM-Contractor or anyone working by or through EPCM-Contractor, including Subcontractors of any tier.

17.3. Termination for Cause by EPCM-Contractor. EPCM-Contractor may terminate the Contract upon written notice (a) if the Work is suspended for an aggregate period of ninety (90) days through no act or fault of the EPCM-Contractor or its Subcontractors, or, (b) because Owner has not made payment on a proper and undisputed invoice within the time stated in the Contract; provided Owner fails to cure, or to commence and diligently pursue to completion the cure, of such suspension or failure of payment within ten (10) days after receipt of the notice from EPCM-Contractor. Upon such termination, EPCM-Contractor's shall be entitled, as a sole remedy, to payment of full value for all Work properly performed in accordance with the pricing set forth in **Exhibit D**, plus reasonable payment, including reasonable profit thereon, for Work in progress, and reasonable amounts for unavoidable termination costs of unperformed Work, provided EPCM-Contractor shall, if directed by Owner, deliver to Owner all materials, documents, and other products of completed Work or Work in progress for which Owner has made payment.

17.4 Termination for Convenience by EPCM-Contractor.

(a) So long no event has occurred that, with notice or the passage of time, would cause the EPCM-Contractor to be in default under this Contract, EPCM-Contractor may terminate this Contract without cause at any time upon ninety (90) days' notice to Owner accompanied by the payment due under this Section (the "**Termination for Convenience Sum**").

(b) If the sum of the Cost Overrun Fee Adjustment and the Performance Reserve Overrun Fee Adjustment (as defined in Sections 9.1 and 11.1 of Exhibit D of this Agreement, collectively, the "**Overrun Adjustments**") through the date of termination are greater than fifty percent (50%) of the Base EPCM-Contractor's Fee through the date of termination, the Termination for Convenience Sum shall be 100% of the Base EPCM-Contractor's Fee less the Overrun Adjustments through the date of termination.

(c) Otherwise, the Termination for Convenience Sum shall be fifty percent (50%) of the Base EPCM-Contractor's Fee through the date of termination.

(d) The payment of the Termination for Convenience Sum shall be Owner's sole and exclusive remedy for the termination for convenience.

18. REPRESENTATIONS, WARRANTIES AND COVENANTS

Representations and Warranties. Each Party makes the following representations and warranties to the other Party, which representations and warranties survive the execution and delivery of this Agreement:

18.1 Organization and Good Standing. Such party is, as set forth in the preamble to this Agreement, a corporation or a similar Person organized, existing and in good standing under the laws of the state of its formation and authorized to conduct business in each state in which authorization may be required to perform its obligations under this Agreement.

18.2 Power and Authority. Such Party has the power and authority to enter into and perform this Agreement and is not prohibited from entering into this Agreement or discharging and performing all covenants and obligations on its part to be performed under and pursuant to this Agreement.

18.3 Authorization. Such Party has taken all action required by Applicable Law and its governing documents in order to approve, execute and deliver this Agreement.

18.4 No Violation. The execution and delivery of this Agreement by such Party, the performance by such Party of its obligations hereunder and the consummation by such party of the transactions contemplated herein do not and will not: (i) contravene any Applicable Law in effect at the Effective Date or any Order in effect at the Effective Date of any Governmental Body or Arbitrator having jurisdiction over such party or its Property; (ii) result in a breach or violation of any of the terms and provisions of, or constitute a default under, any indenture, mortgage, deed of trust or other agreement in effect at the Effective Date and to which such Party is a party or by which it or its Property is bound; or (iii) result in the creation or imposition of any Lien upon the Property of the other Party, other than Liens arising from the contractual rights of the Parties contained in this Agreement.

18.5 Approvals and Consents. No approval, consent or authorization of any Governmental Body or other Person is required for the execution and delivery by such Party of this Agreement or the performance by such Party of its obligations hereunder, except such approvals, consents or authorizations that have been given or obtained by such Party and are in full force and effect.

18.6 Binding Effect. This Agreement has been executed and delivered by such Party. Assuming that the other Party has all the requisite power and authority, and has taken all necessary action to execute and deliver this Agreement, this Agreement is the legal, valid and binding obligation of such Party enforceable in accordance with its terms, except as limited by laws of general applicability limiting the enforcement of creditor's rights (e.g., bankruptcy, insolvency, moratorium) or by the exercise of judicial discretion in accordance with general principles of equity.

END OF DOCUMENT



A.B. Brown Closure-by-Removal Project

Wet Barge Loading Option

Scope of Work

Vectren Power Supply, Inc.

A.B. Brown Generating Station

CCR Compliance Program

A.B. Brown Closure-by-Removal Project

Wet Barge Loading Option

SCOPE OF WORK

EXHIBIT B

AECOM

9400 Amberglen Blvd

Austin, TX 78729

Revision: D

Status: Final



A.B. Brown Closure-by-Removal Project
Wet Barge Loading Option
Schedule

Vectren Power Supply, Inc.

A.B. Brown Generating Station

**CCR Compliance Program
A.B. Brown Closure-by-Removal Project
Wet Barge Loading Option**

SCHEDULE

EXHIBIT C

AECOM
9400 Amberglenn Blvd
Austin, TX 78729

Revision: D

Status: Final



SCHEDULE

1.1 MILESTONE DATES

A. Capital Infrastructure Upgrades

1.	Award Prime Contract	October 31, 2018
2.	Complete Engineering	November 30, 2019
3.	Subcontractor Mobilization	January 31, 2020
4.	Deliver Barge-Loading Equipment	January 31, 2020
5.	Deliver New Pipe Conveyor	June 30, 2020
6.	Complete Barge-Loading Equipment Installation	December 31, 2020
7.	Complete New Pipe Conveyor Installation	December 31, 2020
8.	Mechanical Completion	January 31, 2021
9.	Substantial Completion	March 31, 2021
10.	Final Completion	April 30, 2021

B. Pond Closure Construction

1.	Complete Engineering	April 30, 2020
2.	Subcontractor Mobilization	June 30, 2020
3.	Annual Measurement Milestone until Completion	January Each Year
4.	Substantial Completion	3 months after excavation complete
5.	Final Completion	9 months after excavation complete

Further detail is provided in two Level 2 Schedules located on the following pages of this exhibit.



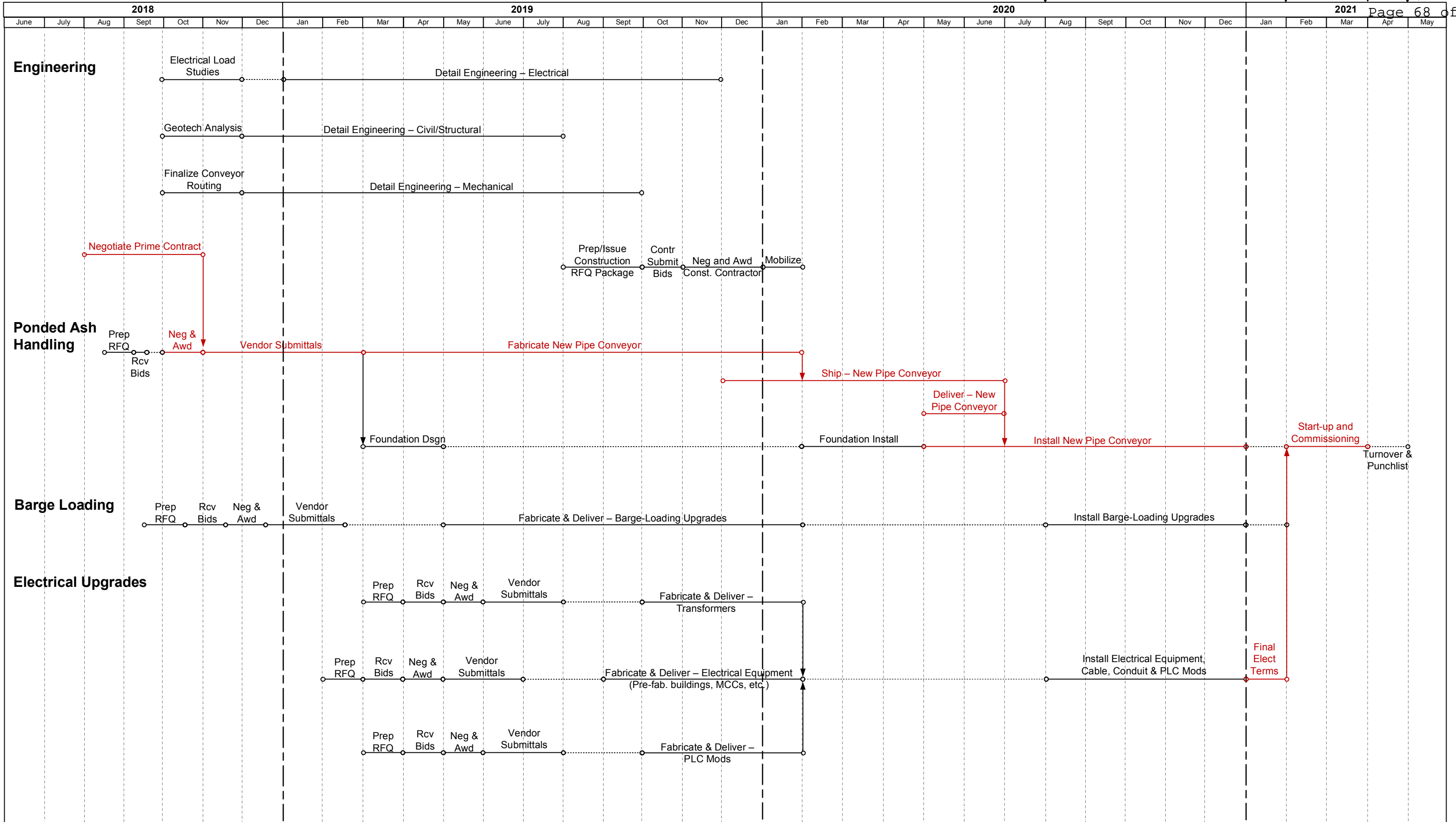
1.1 PROJECT INFORMATION

A. Project Identification: Vectren A.B. Brown Closure-by-Removal

1. Project Location: A.B. Brown Generating Station, Mt. Vernon, Indiana.

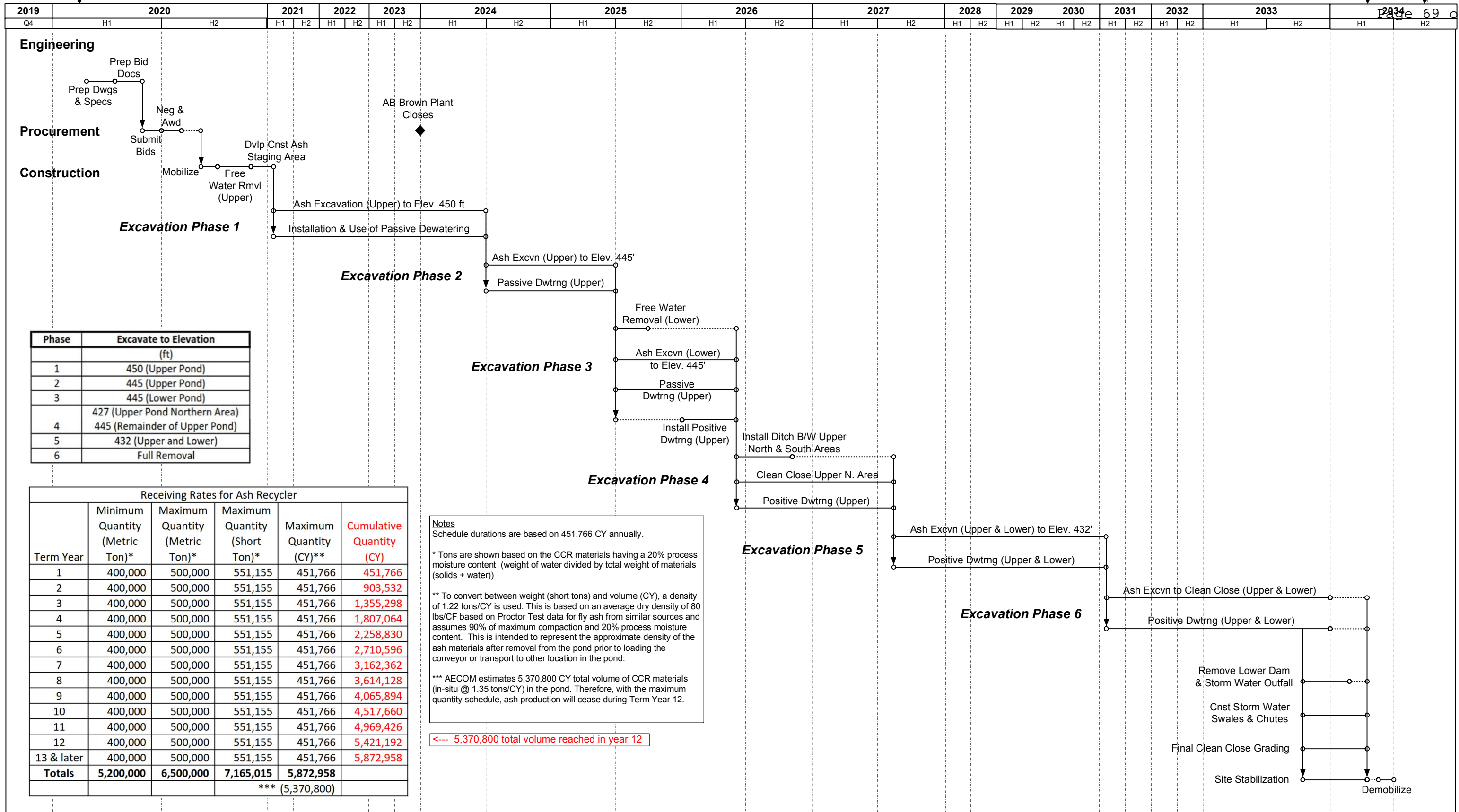
B. Owner: Vectren Power Supply; P.O. Box 209, Evansville, Indiana 47702.

C. EPCM-Contractor: AECOM Technical Services, Inc., 9400 Amberglen Boulevard, Austin, Texas 78729



	Vectren CCR – Ash Recycle Capital Upgrades Wet Barge Loading, Level 2 Schedule	REVISION Rev 6	DRAWN EE	<h1>PRELIMINARY</h1>	LEGEND AECOM Activity Float Critical Path
		DATE 24-Sept-2018	CHECKED JH		

Project Kick-off



Phase	Excavate to Elevation (ft)
1	450 (Upper Pond)
2	445 (Upper Pond)
3	445 (Lower Pond)
4	427 (Upper Pond Northern Area) 445 (Remainder of Upper Pond)
5	432 (Upper and Lower)
6	Full Removal

Term Year	Minimum Quantity (Metric Ton)*	Maximum Quantity (Metric Ton)*	Maximum Quantity (Short Ton)*	Maximum Quantity (CY)**	Cumulative Quantity (CY)
1	400,000	500,000	551,155	451,766	451,766
2	400,000	500,000	551,155	451,766	903,532
3	400,000	500,000	551,155	451,766	1,355,298
4	400,000	500,000	551,155	451,766	1,807,064
5	400,000	500,000	551,155	451,766	2,258,830
6	400,000	500,000	551,155	451,766	2,710,596
7	400,000	500,000	551,155	451,766	3,162,362
8	400,000	500,000	551,155	451,766	3,614,128
9	400,000	500,000	551,155	451,766	4,065,894
10	400,000	500,000	551,155	451,766	4,517,660
11	400,000	500,000	551,155	451,766	4,969,426
12	400,000	500,000	551,155	451,766	5,421,192
13 & later	400,000	500,000	551,155	451,766	5,872,958
Totals	5,200,000	6,500,000	7,165,015	5,872,958	

*** (5,370,800)

Notes
 Schedule durations are based on 451,766 CY annually.
 * Tons are shown based on the CCR materials having a 20% process moisture content (weight of water divided by total weight of materials (solids + water))
 ** To convert between weight (short tons) and volume (CY), a density of 1.22 tons/CY is used. This is based on an average dry density of 80 lbs/CF based on Proctor Test data for fly ash from similar sources and assumes 90% of maximum compaction and 20% process moisture content. This is intended to represent the approximate density of the ash materials after removal from the pond prior to loading the conveyor or transport to other location in the pond.
 *** AECOM estimates 5,370,800 CY total volume of CCR materials (in-situ @ 1.35 tons/CY) in the pond. Therefore, with the maximum quantity schedule, ash production will cease during Term Year 12.

<--- 5,370,800 total volume reached in year 12

2019	2020		2021		2022		2023		2024		2025		2026		2027		2028		2029		2030		2031		2032		2033		2034	
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Vectren CCR – AB Brown Closure-by-Removal
 Level 2 Schedule

REVISION	REV 3	DRAWN	EE
DATE	07-Aug-2018	CHECKED	JH

PRELIMINARY

LEGEND	AECOM Activity	○——○
	Float	○-----○



A.B. Brown Closure-by-Removal Project
Wet Barge Loading Option
Contractor Safety Requirements

Vectren Power Supply, Inc.

A.B. Brown Generating Station

CCR Compliance Program
A.B. Brown Closure-by-Removal Project
Wet Barge Loading Option

CONTRACTOR SAFETY REQUIREMENTS

EXHIBIT G

AECOM
9400 Amberglen Blvd
Austin, TX 78729

Revision: D

Status: Final

**CONTRACTOR DRUG AND ALCOHOL TESTING PROGRAM
FOR
VECTREN CORPORATION**

Purpose:

The purpose of this policy is to document and communicate the manner in which the Vectren drug and alcohol testing program will be administered for all Contractors working at Vectren facilities and/or Vectren controlled work sites.

General Requirements:

In accordance with Vectren's Contracting Requirements:

All contractors performing work regulated by the Department of Transportation with mandated drug and alcohol testing, or for the Power Supply division shall comply with the guidance set forth in the DOT Safety Regulations. Failure to comply with the program may result in removal from the project.

In addition to Contractor specific Drug Testing Programs and under the direction of Vectren Corporate Safety, Contractors will administer and manage the Vectren "Substance Abuse Program for Contractors" when performing work at Vectren facilities and/or Vectren controlled work sites. Vectren contract project managers will be responsible for contractor compliance with this policy.

Communication Requirement:

Contract employees performing work at Vectren must be prepared to produce proof of a negative drug and alcohol screen within the last 12 months and / or proof of participation in a random substance abuse testing program during the past 12 months.

- All contract employees working in Power Supply must possess a drug card designating "Available" status
- The testing for the substance abuse program must be conducted by an approved Substance Abuse and Mental Health Service Administration (SAMHSA) laboratory

Exceptions:

This policy applies to all contractors performing work for Vectren, as well as any contractor or subcontractor performing work at a Vectren facility or Vectren controlled work site; exceptions are made for short-term service or delivery contractors whose activities pose no significant safety or security risk to Vectren employees, contract employees, Vectren facilities or the public. Exceptions will only be granted by the Vectren Director of Corporate Safety.

Potential Exception Examples:

- FedEx, UPS, or similar type services
 - Material delivery from suppliers such as concrete, steel, and materials where the contractor has no control over who will deliver the material
- Note:** The contractor is still responsible for the delivery person's safety. The contractor must ensure PPE is worn in areas that require this type of protection and ensure delivery drivers stay within assigned areas.
- Engineering personnel performing consulting work and not involved in "at risk" job functions are not required to submit to this policy; such personnel may include but are not limited to the following:
 - Confined space entrance
 - Working at heights requiring appropriate fall protection equipment
 - Working on or near exposed energized parts
 - Working from scaffolding
 - Entering excavation sites
 - Working on equipment that falls under the requirements of Hold Cards and/or Lockout/Tagout
 - Design of, or decision making with critical path equipment
 - Sales personnel escorted by a contractor to visually verify system part replacements (such as packing), but not performing "at risk" job functions
 - Advising field personnel such as Bailey, Westinghouse, GE, or L&N not performing "at risk" job functions or do not have control of the plant system, where their actions could harm, disrupt service, or damage Vectren equipment
 - Off-Site Contractor Management visiting the job site, but not involved in "at risk" job functions
 - Trainers not involved in "at risk" job functions
 - IT Personnel advising, but do not have control of the system where their actions could harm, disrupt service, or damage Vectren equipment
 - Safety and Environmental Auditors not involved in "at risk" job functions

Methods for Obtaining a Drug Card for Power Supply:

If the contract employee does not have a drug card, the controlling contractor for this employee must complete one of the following options:

1. Contact Hi Tech Investigative at 812-477-1400 to arrange an appointment for testing. Provide a copy of the Testing Notification Form received from Hi Tech Investigative to the Vectren contractor's contact. Provide test results or a copy of the drug card once the results are obtained. Inform Hi Tech Investigative or the testing site that a drug card with picture ID is required.
2. Contact St. Mary's Comp Center at 812-485-6900 to arrange an appointment for testing. Provide a copy of the Testing Notification Form from St. Mary's to the Vectren contractor's contact. Provide test results or a copy of the drug card once the results are obtained. Inform St. Mary's or the testing site that a drug card with picture ID is required.

For contractor employees required to report to work on Vectren jobsites without a drug card, the Contracting Company will determine the appropriate action based upon the following protocol(s):

1. If a contract employee is being assigned to work for Vectren within 3 days of the request, the Contracting Company will require the employee report to the testing center so that a Point of Collection Test (POCT) and lab confirmation test can be conducted. A (donor) Chain of Custody Form will be provided. The contract employee will provide this documentation to the Contracting Company substance abuse representative and the Vectren Project Manager, upon request. Once confirmation is received from the lab, a drug card will be issued. The Contractor will be responsible for providing a copy of the card to the Vectren Project Manager within one week of card issuance.
2. If a contractor employee's work assignment at Vectren is more than 3 days from the date of notification, the contractor employee will contact the testing center for normal DOT drug testing.

Applicable to Work Performed at a Power Plant when a Testing Site is Unavailable (Off Hours):

If Vectren and Testing Services were not able to arrange an appointment for the drug and alcohol screening, the following exception will be granted by Vectren:

1. For emergency work, any contract employee not in possession of a current drug card or a program drug card may start work without a Point of Collection Test (POCT). The contract employee will be permitted to finish the assigned shift, but must have a POCT test with a negative result before the next scheduled shift begins. A completed Testing Notification Form must be sent with the contractor employee(s) to the testing site.
 - a. If testing arrangements between Vectren and Testing Services can be arranged with 24 hours / 7 days per week availability, this exception is null and void.

If a contract employee's job duties span only one day at Vectren, drug and alcohol testing is nonetheless required as previously outlined. The results will be sent to Vectren's Project Manager and the controlling contractor's substance abuse representative.

Short Notification for Additional Labor from the Union Hall:

It is the intent of the Substance Abuse Program for Contractors to require all contract employees to be in possession of a drug card prior to reporting for duty. Situations that dictate additional labor with no more than a three (3) day notice to the controlling contractor will result in acceptance of a Point of Collection Test (POCT) demonstrating negative results and allow access to the contract employee; there must be a confirmation test conducted and a drug card issued to this employee.

Drug Card Management (Power Supply):

The Controlling Contractor must arrange a card management program with the collection agency. The drug cards must display the employee's picture, name with a computer generated identification number.

The contractor must provide a copy of all drug cards to the Vectren Project Manager prior to allowing employees under their supervision to work at Vectren. All contractor employees must be prepared to present a valid driver's license or Government issued ID card upon request by Vectren.

Random Drug Testing:

Any maintenance or construction work on a Vectren jobsite may utilize random on-site drug testing. The random testing will include a minimum of 15% of the contractor work population, including subcontractors as well as onsite contractor management personnel in the test pool. Random testing is defined as unannounced testing in which all workers in the test pool have an equal chance of being selected each time testing is completed; random testing will include only those workers onsite the day of testing.

Any drug test performed will use a SAMHSA certified lab. Collection and processing of samples will be completed per DOT protocols, with specimens forwarded to the certified lab. DOT standard threshold test values defined for the appropriate test will apply.

Any contract employee producing a positive test result will be removed from the Vectren job site immediately; removal will require escort to Vectren security by a member of their management team. If the confirmation test is positive, the contractor employee will not be allowed access to any Vectren facilities or Vectren controlled work sites for a minimum of six months.

Failure to provide a sufficient sample to complete a urine test or refusing to provide a sample will be considered a “refusal to test” and will result in the same consequences as producing a positive test result.

Alcohol Testing:

Alcohol testing is completed randomly, in the event of post-accident/near-miss incidents, and under reasonable suspicion situations. Alcohol tests shall be performed using the breath or blood to determine a BAC (blood alcohol content). When possible, a breathalyzer type instrument conforming to DOT standards should be used. Random testing will include a minimum of 10% of the contractor work population, including subcontractors as well as onsite contractor management personnel in the test pool.

Failure to provide a sufficient breath sample to complete a breath test or refusing to provide a blood sample will be considered a “refusal to test” and will result in the same consequences as producing a positive test result.

All alcohol tests resulting in a confirmed test BAC level of .040 or higher will be considered positive and the contractor employee will not be allowed access to any Vectren facilities or Vectren controlled work sites for a minimum of six months..

All alcohol test results with a confirmation test BAC level of .020 through .039, will require notification to the contractor; the contractor will manage their employee at the discretion of their individual company policy. If the contract employee produces a test result within the designated range, the contract employee will be removed from the jobsite by security for a minimum of eight hours.

This policy does not take the place of the Contractor's defined drug testing program. Contractors must report the number of tests performed as well as the number of confirmed positives to Vectren while their contract is in effect with Vectren.

Summary of Required Actions:

The Controlling Contractor must:

- Follow the VECTREN Contractor Substance Abuse Program for Contractors
- Obtain a valid drug card from a testing center for contractor employees working in Power Supply that do not possess a valid card
- Conduct post-accident / near-miss incident drug and alcohol testing
- Conduct reasonable suspicion drug and alcohol testing
- Notify the Vectren Project Manager of any post-accident, serious near-miss, reasonable suspicion incidents, substance abuse testing as well as any positive test results
- Send electronic information regarding a banned contract employee to Vectren Corporate Safety on the day of the incident with the name as well as any other pertinent information for any employee banned from the job site

For any questions regarding the Contractor Substance Abuse Program, contact Vectren Corporate Safety.

Chapter 3 - Corporate Safety Administration & Accountability

3.6 Near Miss Reporting

Issued: 9/1/08

Reissued: 2/24/10, 7/1/12, 4/27/15

Policy

The Near Miss program is designed to enable everyone to be proactivity in the timely reporting of a near miss incident in the workplace. Reporting of a near miss incident will not involve discipline action or negative consequences. The key for success of this program is timely reporting of all incidents.

Near Miss Definition

A near miss is defined as an incident that, but for chance, could have resulted in injury to an employee, damage to property, business interruption or economic loss to the Company. The intent of this program is to build and encourage the safety culture by reporting of near miss incidents, with positive reinforcement and without the fear of retribution.

- Personal injury, property damage, business interruption or economic loss to the Company or a member of the public that has occurred would not be Near Miss Incidents.
- Safety violations and unsafe practices that are not reported in accordance with these guidelines are not Near Miss incidents.

Procedure for Reporting Near Misses work schedule) to Corporate Safety. Some key items to explore:

- a) Date
- b) Department / Division
- c) Explanation of Near Miss (what, where, when, how)
- d) Contributing Factors
- e) Related Information (weather, time, pictures)
- f) Potential Solutions
- 7) Corporate Safety will log and track all Near Miss incidents.
- 8) All Near Miss incidents will be shared and reviewed by the appropriate Joint Safety Committees.

A Near Miss is a second chance that we often do not get. We must continue to take steps to increase awareness, reduce complacency and ensure everyone's eyes and minds continue to remain on task. Our culture has to be of sharing the critical information to help protect and save all from future incidents.

A.B. Brown Project Safety Plan

The following Project Safety Plan information is required to be turned in a minimum 14 days to the Vectren Safety Consultant and reviewed before the project starts. Fill out a Job Safety Plan for each individual project. A number of projects maybe combined on the same form if they are related to each other. Projects that are in different areas, must have a separate Job Safety Plan filled out. The hazards are, but not limited to Fall Protection, Hot Work, Confined Space, Person Protection Equipment, Lockout/ tagout, Lift Plan, Excavation/Trenching&Shoring, Barricades, Scaffolding, Hazcom, Walking & Working Surfaces, Mobile and Aerial Equipment. Power Hand Tool, Flamables and Combustible Safety and Work Zone Safety. If any digging is to be done, 811 must be called and documented on the safety plan before work started.

Contractor:	Vectren Project Manager(s)
Project Name:	Project Location:
Date:	Subcontractors to be Utilized:
Brief Description of Project:	
Maximum Estimated Manpower:	Trades to be Utilized:

Job Specific Safety Plan

Project Sequence:	Hazards Anticipated in each step:	Steps to address each Hazard:

Permits Required:
Personal Protective Equipment Required:
Training Requirements
Day of week and time safety meeting to be held:

A.B. Brown Project Safety Plan

Contractor Safety Rep: _____
Contractor Project Manager: _____
Contractor Superintendent: _____
Contractor Gen. Foreman/Foreman(s): _____
Review By: (Sign & Date)



Corrective Action Request

CAR #: _____

Issued to: _____		Date Issued: _____	
Type of Corrective Action: <input type="checkbox"/> Internal		<input type="checkbox"/> Supplier	<input type="checkbox"/> 3rd Party
Found During: <input type="checkbox"/> Internal Audit		<input type="checkbox"/> Operation	<input type="checkbox"/> Inspection
		<input type="checkbox"/> Customer	<input type="checkbox"/> Other
Initiator:		Implementation Due Date:	
Reported to:		(Estimate the cost of this condition)	
		Estimated Cost:	
1) Nonconformity, Defect or Undesirable Condition: (Describe the problem)			
2) Short Term Corrective Action Taken: (Describe action taken to immediately stop condition)			
Respondent Signature:		Date Complete:	

3) Root Cause:

(Describe cause of problem after thorough investigation - ask "why" issued occurred several times)

4) Preventive Action Plan to Avoid Reoccurrence:

(Describe long-term action plan to avoid reoccurrence, considering other potentially affected processes)

Respondent
Signature:

Date
Complete:

5) Implement Preventive Action:

(Describe how the action plan was properly executed to avoid reoccurrence)

Respondent
Signature:

Date
Complete:

6) Validate Effectiveness:

(Describe evidence reviewed to confirm Preventive Action effectiveness)

Respondent
Signature:

Date
Complete:



A.B. Brown Closure-by-Removal Project
Wet Barge Loading Option
Invoice Form

Vectren Power Supply, Inc.

A.B. Brown Generating Station

CCR Compliance Program
A.B. Brown Closure-by-Removal Project
Wet Barge Loading Option

INVOICE FORM

EXHIBIT I

AECOM
9400 Amberglen Blvd
Austin, TX 78729

Revision: D

Status: Final

Check Payment to:
AECOM Technical Services, Inc.
An AECOM Company
1178 Payscale Circle
Chicago, IL 60674

ACH Payment to:
AECOM Technical Services, Inc.
An AECOM Company
Bank of America
Account Number 5800937020
ABA Number 071000039

Wire Transfer Payment to:
AECOM Technical Services, Inc.
AN AECOM Company
Bank of America
New York, NY 10001
Account Number 5800937020
ABA Number 026009593
SWIFT CODE BOFAUS3N



Amber Oaks, 9400 Amberglen Boulevard, Austin, TX 78729-1100
Tel: +1 (512) 454 4797 Fax: +1 (512) 454 8807

ATTN : Accounts Payable
Vectren Corporation
PO Box 209
Vectren EN DLY IN 35-0793669
Evansville, IN 47702

Invoice Date: 01-JAN-XX
Invoice Number: XXXXXXXX
Agreement Number: XXX
Agreement Description: Vectren CCR Compliance
Payment Term: 30 NET

Please reference Invoice Number and Project Number with Remittance

Project Number : 60442676
Bill Through Date : 01-JAN-XX - 31-JAN-XX

Project Name: A.B. Brown Closure-by-Removal

<u>Description</u>	<u>Task</u>	<u>Hours</u>	<u>Cost Rate</u>	<u>Billed Amt</u>
Engineering Labor				xx.xx
Construction Management Labor				xx.xx
Total Labor				xx.xx
Engineering/CM ODCs				xx.xx
Construction Subcontract				xx.xx
Total ODCs				xx.xx
Project Total :				xx.xx

Invoice Summaries

Total Current Amount :	xx.xx
Fee %	xx.xx
Total Invoice Amount :	xx.xx

Billing Summaries

<u>Billing Summary</u>	<u>Current</u>	<u>Prior</u>	<u>Total</u>	<u>Limit</u>	<u>Remain</u>
Billings	00.00	00.00	00.00	00.00	xxx,xxx.xx
Billing Total :	00.00	00.00	00.00		

Outstanding Invoices

<u>Invoice Number</u>	<u>Invoice Date</u>	<u>Invoice Balance</u>
XXXXXXXX	01-JAN-XX	00.00
Outstanding Total :		00.00



A.B. Brown Closure-by-Removal Project
Wet Barge Loading Option
Subcontractor Rates

Vectren Power Supply, Inc.

A.B. Brown Generating Station

CCR Compliance Program
A.B. Brown Closure-by-Removal Project
Wet Barge Loading Option

SUBCONTRACTOR RATES

EXHIBIT J

AECOM
9400 Amberglen Blvd
Austin, TX 78729

Revision: D

Status: TBD – Pending Subcontractor Selections

ATTACHMENT WDG-5
CONFIDENTIAL

ATTACHMENT WDG-6
CONFIDENTIAL