CLOSURE PLAN FOR EXISTING CCR SURFACE IMPOUNDMENT
40 CFR 257.102(b)
REV 0 – 07/22/2016

SITE INFORMATION

Site Name / Address	Wood River Power Station / #1 Chesson Lane, Alton, IL 62002
Owner Name / Address	Dynegy Midwest Generation, LLC / 1500 Eastport Plaza Drive, Collinsville, IL 62234
CCR Unit and Reason for Closure	West Ash Pond 1 - Last removal of CCR for the purpose of beneficial use of CCR
Closure Method and Final Cover Type	Close In-Place - Clayey Soil Cover with Vegetation

CLOSURE PLAN DESCRIPTION

(b)(1)(i) – Narrative description of how the CCR unit will be closed in accordance with this section.	West Ash Pond 1 will be dewatered, as necessary, to facilitate closure by leaving CCR in place. The CCR in West Ash Pond 1 will be shaped and graded. A portion of the existing perimeter berm between West Ash Pond 1 and West Pond 3 will be lowered and the excess soils will be used as final cover material. An existing transmission tower is located on the dike between the West Ash Ponds 1 and 2W. The transmission tower will remain in place and the area surrounding this transmission tower will be closed in place with the final cover system. The final cover will be sloped to promote drainage and stormwater runoff will drain through a series of drainage channels on the cover system and through culvert pipes to the existing (non-CCR) West Pond 3. In accordance with 257.102(b)(3), this initial written closure plan will be amended to provide additional details after the final engineering design for the grading and cover system is completed, if the final design would substantially affect this written closure plan. This initial closure plan reflects the information available to date.
(b)(1)(iii) – If closure of the CCR unit will be accomplished by leaving CCR in place, a description of the final cover system and methods and procedures used to install the final cover.	The soils for the final cover system will be placed directly on top of the graded CCR material to achieve final grades and will include (from bottom up): 1) 18" of compacted earthen material with a permeability of less than or equal to the permeability of the natural subsoils present at the site or no greater than $1x10^{-5}$ cm/sec, whichever is less; 2) 6" of soil capable of sustaining native plant growth; and 3) planted native grasses. Emplaced CCR material will be regraded as fill and supplemented with borrow soils as necessary to achieve design grades. Earthen material will be placed, graded, and compacted to meet the thickness as discussed above for the cover system. Organic earthen material will be placed on top of the 18-inches of compacted soils to create a 6" soil layer capable of sustaining native plant growth. The final cover surface will be seeded and vegetated. The final cover will have a minimum slope of 2% and will be graded to convey stormwater runoff to drainage channels then to existing (non-CCR) West Pond 3.

(b)(1)(iii) – How the final cover system will achieve the performance standards in 257.102(d).

(d)(1)(i) Control, minimize or eliminate, to the maximum extent feasible, post-closure infiltration of liquids into the waste and releases of CCR, leachate, or contaminated run-off to the ground or surface waters or to the atmosphere.	The permeability of the final cover will be equal to or less than the permeability of the natural subsoils present below the CCR material or permeability no greater than $1x10^{-5}$ cm/sec, whichever is less. The estimated permeability of the subsoils below the CCR material is $1x10^{-6}$ cm/sec. Therefore, the permeability of the final cover system will not be greater than $1x10^{-6}$ cm/sec. The final cover system will be graded with a minimum 2% slope.
(d)(1)(ii) – Preclude the probability of future impoundment of water, sediment, or slurry.	The final cover will be installed with a minimum 2% slope. Drainage channels will be installed with a minimum 0.5% slope.
(d)(1)(iii) – Include measures that provide for major slope stability to prevent the sloughing or movement of the final cover system during the closure and post-closure care period.	The final cover will have a minimum 2% slope and drainage channels will have minimum 0.5% slope. Drainage channels will be lined with turf reinforced mats where required to reduce the potential for erosion. Preliminary geotechnical analysis determined the final slope of the berms and cover will meet the

CLOSURE PLAN DESCRIPTION	
	stability requirements to prevent sloughing or movement of the final cover system.
(d)(1)(iv) – Minimize the need for further maintenance of the CCR unit.	The final cover will be vegetated to minimize erosion and maintenance.
(d)(1)(v) – Be completed in the shortest amount of time consistent with recognized and generally accepted good engineering practices.	Closure is estimated to be completed no later than five years after commencing closure activities.
(d)(2)(i) – Free liquids must be eliminated by removing liquid wastes or solidifying the remaining wastes and waste residue.	The unit will be dewatered sufficiently, as necessary, to remove the free liquids to provide a stable base for the construction of the final cover system.
(d)(2)(ii) – Remaining wastes must be stabilized sufficiently to support the final cover system.	Dewatering as necessary and regrading of existing in-place CCR will sufficiently stabilize the waste such that the final cover will be supported.
(d)(3) – A final cover system must be installed to minimize infiltration and erosion, and at minimum, meets the requirements of (d)(3)(i).	The final cover will consist of a minimum 18" earthen material layer with permeability equal to or less than the permeability of the natural subsoils or no greater than $1x10^{-5}$ cm/sec, whichever is less. The estimated permeability of the subsoils below the CCR material is $1x10^{-6}$ cm/sec. Therefore, the permeability of the final cover system will be not greater than $1x10^{-6}$ cm/sec. Erosion will be minimized with a soil layer of no less than 6" of earthen material capable of sustaining native plant growth. The final cover surface will be seeded and vegetated.
(d)(3)(i) – The design of the final cover system must be included in the written closure plan.	When the design of the final cover system is completed, the written closure plan will be amended if the final design would substantially change this written closure plan. The design of the final cover system meets the requirements of §(d)(3)(i)(A)–(D) as described below.
(d)(3)(i)(A) – The permeability of the final cover system must be less than or equal to the permeability of any bottom liner system or natural subsoils present, or a permeability no greater than $1x10^{-5}$cm/sec, whichever is less.	The permeability of the final cover will be equal to or less than the permeability of the natural subsoils or no greater than $1x10^{-5}$ cm/sec, whichever is less. The estimated permeability of the subsoils below the CCR material is $1x10^{-6}$ cm/sec. Therefore, the permeability of the final cover system will be not greater than $1x10^{-6}$ cm/sec. This will be verified during construction per the construction quality assurance plan.
(d)(3)(i)(B) – The infiltration of liquids through the closed CCR unit must be minimized by the use of an infiltration layer than contains a minimum of 18 inches of earthen material.	The final cover will include a minimum 18" of compacted earthen material with a permeability equal to or less than the permeability of the natural subsoils or no greater than $1x10^{-5}$ cm/sec, whichever is less. The estimated permeability of the subsoils below the CCR material is $1x10^{-6}$ cm/sec. Therefore, the permeability of the final cover system will be not greater than $1x10^{-6}$ cm/sec.
(d)(3)(i)(C) – The erosion of the final cover system must be minimized by the use of an erosion layer that contains a minimum of six inches of earthen material that is capable of sustaining native plant growth.	The final cover will include a minimum 6" of an earthen erosion layer that is capable of sustaining native plant growth. The final cover will be seeded and vegetated.
(d)(3)(i)(D) – The disruption of the integrity of the final cover system must be minimized through a design that accommodates settling and subsidence.	The final cover will be installed with a minimum 2% slope and will incorporate calculated settlement as well as differential settling and subsidence.

INVENTORY AND AREA ESTIMATES	
(b)(1)(iv) – Estimate of the maximum inventory of CCR ever on-site over the active life of the CCR unit	1,127,000 cubic yards
(b)(1)(v) – Estimate of the largest area of the CCR unit ever requiring a final cover	22 acres

CLOSURE SCHEDULE	
(b)(1)(vi) – Schedule for completing all activities necessary to satisfy the closure criteria in this section, including an estimate of the year in which all closure activities for the CCR unit will be completed. The schedule should provide sufficient information to describe the sequential steps that will be taken to close the CCR unit, including major milestones and the estimated timeframes to complete each step or phase of CCR unit closure.	
The milestone and the associated timeframes are initial estimates. Some of the activities associated with the milestones will overlap. Amendments to the milestones and timeframes will be made as more information becomes available.	
Written Closure Plan	July 22, 2016
Notification of Intent to Close Placed in Operating Record	July 22, 2016
Agency coordination and permit acquisition • Coordinating with state agencies for compliance • Acquiring state permits	 Year 1 – 5 (estimated) Year 1 (estimated)
Mobilization	Year 1 (estimated)
Dewater and stabilize CCR • Complete dewatering, as necessary • Complete stabilization of CCR	 Year 2 (estimated) Year 2 (estimated)
Grading • Grading of CCR material in pond to facilitate surface water drainage	Year 2 - 5 (estimated)
Installation of final cover	Year 2 - 5 (estimated)
Estimate of Year in which all closure activities will be completed	Year 5
Certification by qualified professional engineer appended to this plan.	

Certification Statement 40 CFR § 257.102(b)(4) – Initial Written Closure Plan for a CCR Surface Impoundment

CCR Unit: Dynegy Midwest Generation, LLC; Wood River Power Station; Wood River West Ash Pond 1

I, Doug Cauble, being a Registered Professional Engineer in good standing in the State of Illinois, do hereby certify, to the best of my knowledge, information, and belief, that the information contained in this certification has been prepared in accordance with the accepted practice of engineering. I certify, for the above referenced CCR Unit, that the information contained in the initial written closure plan, dated July 22, 2016, meets the requirements of 40 CFR § 257.102.

DOUGLAS. F. CAUBLE

Printed Name

JULY 22, 2016

Date

Certification Statement 40 CFR § 257.102(d)(3)(iii) – Design of the Final Cover System for a CCR Surface Impoundment

CCR Unit: Dynegy Midwest Generation, LLC; Wood River Power Station; Wood River West Ash Pond 1

I, Doug Cauble, being a Registered Professional Engineer in good standing in the State of Illinois, do hereby certify, to the best of my knowledge, information, and belief, that the information contained in this certification has been prepared in accordance with the accepted practice of engineering. I certify, for the above referenced CCR Unit, that the design of the final cover system as included in the initial written closure plan, dated July 22, 2016, meets the requirements of 40 CFR § 257.102.

Douglas F. Cauble

Printed Name

July 22, 2016

Date