Dynegy Midwest Generation, LLC
604 Pierce Boulevard
O'Fallon, IL 62269

DYNEGY

Via Overnight Delivery

April 15, 2013

United States Environmental Protection Agency
Two Potomac Yard
2733 South Crystal Drive
5th Floor, N-5838
Arlington, Virginia 22202-2733

Attn: Mr. Stephen Hoffman

RE: Dynegy Midwest Generation, LLC; Action Plan Regarding Baldwin Energy Complex Dam Assessment Final Report Recommendations

Mr. Hoffman:

This correspondence serves as Dynegy Midwest Generation, LLC's (DMG) formal response to USEPA's March 13, 2013 correspondence requesting an action plan regarding the recommendations in the dam assessment final report for Baldwin Energy Complex. As identified in the attached action plan, DMG, by its agent Dynegy Operating Company, intends to address each of the recommendations in the final report.

The action plan may change based on future developments, including the evaluations identified in the action plan. As a result, DMG will keep the Agency apprised of any material changes or updates to the action plan.

If you have any questions regarding our action plan, please contact Mr. Phil Morris, P.E., a member of my staff, directly at (618) 206-5934.

Sincerely,

Dynegy Midwest Generation, LLC
by its agent Dynegy Operating Company

Rick Diericx
Senior Director
Environmental Compliance
Tel. No. 618-206-5912
e-mail: rick.diericx@dynegy.com

Enclosures

bcc: A. Leskovsek – Houston Legal
R. Short / D. Crone – Baldwin Energy Complex
T. Davis/S. McVety/P. Morris – O'Fallon EC USEPA ICR File
Rick Diericx Reading File – O'Fallon Office

DYNEGY MIDWEST GENERATION, LLC – BALDWIN ENERGY COMPLEX – ACTION PLAN

(APRIL 2013)

USEPA/GZA DAM ASSESSMENT FINAL REPORT RECOMMENDATIONS[1]	ACTION PLAN	TIMELINE
Studies and Analyses (§3.2):		
1. Conduct an analysis of the hydraulic/hydrologic condition of the impoundments to establish the rise in water level that occurs during the 100-yr, 24-hr rain event to confirm that adequate freeboard is maintained and adequate decant and spillway capacity is available. The loading conditions established during the design storm event should be used in the evaluation of the seepage and stability evaluation of the embankments.	In February 2013, DMG completed a hydraulic/hydrologic (H&H) analysis of the bottom ash portion of the primary fly ash pond (PFAP) impoundment. This recently completed H&H analysis will be expanded upon, as additional H&H analysis on the secondary fly ash pond, secondary pond, and final pond are completed. It should be noted that the intermediate pond no longer exists, as the secondary dike was removed in Fall 2011, to allow for the expansion of the secondary pond.	Start date: December 2012 Completion date: Spring 2014
2. Address the deficiencies noted in Section 2.6 and Section 3.1, for the stability and seepage analysis previously conducted for the impoundments2, and establish a complete seepage and stability analysis for each impoundment: • **Section 2.6.2, #2 (pg # 22) for the secondary fly ash pond (SFAP):** Also, the URS analysis, was conducted for the conditions present during normal operating levels rather than during the increased loading that would occur during the 100-yr, 24-hr storm event.	The URS analysis will be reviewed and updated, if necessary, to account for the increased loading that would occur during the 100-yr, 24-hr storm event.	Start date: Spring 2013 Completion date: Summer 2013
• **Section 2.6.2, #5 (pg # 22):** Given the use of overflow sections of the Ash Pond Dike and the Settling Pond Dike to support continuous flow of water, the stability of the materials against erosion or piping should be considered.	Conduct piping/erosion analysis for the settling pond dike. An associated subsurface investigation will consist of advancing two borings along the settling pond dike, to collect representative soil samples for soil characterization. Water levels determined by the H&H analysis will be referenced for the seepage/stability analysis.	Start date: Summer 2013 Completion date: Fall 2013
	With respect to the ash pond dike, the need for a piping/erosion analysis will be based upon the results of the H&H analysis. If the H&H analysis concludes that the hydraulic gradient differential is not significant, then DMG will characterize the ash pond dike as a partition berm and not a perimeter berm. As per our September 2012 phone conference with USEPA/GZA, partition berms are considered to be outside the scope of the assessment and no further analysis will be required. However, if the H&H analysis does indeed conclude that hydraulic gradient differential is significant, then a piping/erosion analysis will be completed on the ash pond dike.	Start date (for the H&H analysis): December 2012 Completion date (for the H&H analysis): Spring 2014 **Note:** If the results of the H&H analysis demonstrate a significant hydraulic gradient differential, DMG will submit to USEPA an updated action plan detailing the schedule for completing the piping/erosion analysis.
• **Section 3.1, # 6 (pg # 22) for the PFAP:** The stability analysis completed does not account for storm event loading conditions. • **Section 3.1, # 7 (pg # 22) for the PFAP:** No stability analysis was provided for the Intermediate Embankment	It should be noted that the November 2011 stability analysis, conducted by URS, did not include a stability analysis of the PFAP impoundment. Referencing the out-of-service, fly ash portion of the primary fly ash pond impoundment, DMG will evaluate options to formally close the out-of-service, fly ash portion of the PFAP impoundment, in accordance with the Illinois EPA formal pond closure protocol – 35 Il. Admin. Code Part 840. As per the September 2012 phone conference with USEPA, DMG understands that surface impoundment formally closed under a state program, such as 35 IAC 840, are outside the assessment scope. In the event closure is not pursued, the recommended analyses would be performed.	Summer 2013 – Start evaluating options to formally close the out-of-service, fly ash portion of the primary fly ash pond impoundment. Fall 2013 – Complete evaluation process Fall 2013: - Make decision whether to formally close the pond or pursue the recommended analyses. - Based on decision, DMG will submit to USEPA an updated action plan, including timeline, to implement the decision.

• **Section 3.1, # 4 (pg # 23) for the SFAP:** The stability analysis for the SFAP is incomplete for portions of the embankments and does not indicate that the embankments meet the generally accepted levels of stability for the sections analyzed.	A seepage/stability analysis will be completed for the northern berm, of the SFAP. An associated subsurface investigation will consist of advancing six borings along the northern dike, to collect representative soil samples for soil characterization. Water levels determined by the H&H analysis will be referenced for the seepage/stability analysis. The existing stability analysis, (conducted by URS in 1995 and 2011), for the southern berm of the SFAP, will be reviewed and revised, if necessary, to account for the storm loading event.	Start date: Summer 2013 Completion date: Fall 2013
• **Section 3.1 # 2 (pg # 23) for the Secondary Pond:** No seepage and/or stability analysis has been performed for the Secondary Dike.	In November 2011, the secondary dike was removed, to facilitate the expansion of the secondary pond. Therefore, this recommendation is not applicable.	N/A
• **Section 3.1, # 6 (pg # 23) for the Intermediate Pond:** No evaluation has been conducted to verify the stability of the overflow section against piping or fines erosion.	With respect to the ash pond dike, the need for a piping/erosion analysis will be based upon the results of the H&H analysis. If the H&H analysis concludes that the hydraulic gradient differential is not significant, then DMG will characterize the ash pond dike as a partition berm and not a perimeter berm. As per our September 2012 phone conference with USEPA/GZA, partition berms are considered to be outside the scope of the assessment and no further analysis will be required. However, if the H&H analysis does indeed conclude that hydraulic gradient differential is significant, then a piping/erosion analysis will be completed on the ash pond dike.	Start date (for the H&H analysis): December 2012 Completion date (for the H&H analysis): Spring 2014 **Note:** If the results of the H&H analysis demonstrate a significant hydraulic gradient differential, DMG will submit to USEPA an updated action plan detailing the schedule for completing the piping/erosion analysis.
Section 3.1 # 5 (pg # 24) for the Final Pond: No evaluation has been conducted to verify the stability of the overflow section against piping or fines erosion.	Conduct piping/erosion analysis for the settling pond dike. An associated subsurface investigation will consist of advancing two borings along the settling pond dike, to collect representative soil samples for soil characterization. Water levels determined by the H&H analysis will be referenced for the seepage/stability analysis.	Start date: Summer 2013 Completion date: Fall 2013
3. Evaluate the potential for piping and fine erosion along the overflow sections of the Ash Pond Dike and Settling Pond Dike.	With respect to the ash pond dike, the need for a piping/erosion analysis will be based upon the results of the H&H analysis. If the H&H analysis concludes that the hydraulic gradient differential is not significant, then DMG will characterize the ash pond dike as a partition berm and not a perimeter berm. As per our September 2012 phone conference with USEPA/GZA, partition berms are considered to be outside the scope of the assessment and no further analysis will be required. However, if the H&H analysis does indeed conclude that hydraulic gradient differential is significant, then a piping/erosion analysis will be completed on the ash pond dike.	Start date (for the H&H analysis): December 2012 Completion date (for the H&H analysis): Spring 2014 **Note:** If the results of the H&H analysis demonstrate a significant hydraulic gradient differential, DMG will submit to USEPA an updated action plan detailing the schedule for completing the piping/erosion analysis.
	Conduct piping/erosion analysis for the settling pond dike. An associated subsurface investigation will consist of advancing two borings along the settling pond dike, to collect representative soil samples for soil characterization. Water levels determined by the H&H analysis will be referenced for the seepage/stability analysis.	Start date: Summer 2013 Completion date: Fall 2013
4. Moist soil conditions were observed along the downstream slope and/or toe of the southern embankment of the SFAP. This condition may indicate the presence of seepage in that area and should be evaluated. We recommend removing all trees on the downstream slope and toe area and evaluation of the moist soil conditions.	DMG prepared/submitted a permit application for General NPDES Permit for Storm Water Discharges from Construction Site Activities and associated stormwater pollution prevention plan (SWPPP).	Start date: December 2012 Completed date: Jan. 2013
	Clear trees, remove root balls, and remove brush growth along downstream and upstream slopes of the SFAP.	Start date: February 2013 Completion date: April 2013
	Evaluate area for evidence of seepage.	Start date: April 2013 Completion date: July 2013
5. Develop an Emergency Action Plan (EAP).	Prepare EAP	Start date: September 2013 Completion date: December 2013

Recurrent Operation & Maintenance Recommendations (§3.3):		
1.Increased mowing of the grasses on the embankments to facilitate assessments and reduce the risk of burrowing animals.	As an ongoing maintenance item, mow a minimum of twice each year, each Spring and Fall.	Start date: Late Spring 2013 Completion date: Ongoing maintenance
2. Repair the potholes present in the gravel crest access roads. Grade the road to provide better drainage and reduce future potholing.	As an ongoing maintenance item, backfill potholes and re-grade the roads periodically.	Start date: Summer 2013 Completion date: Ongoing maintenance
3. Clear trees and other deep rooted vegetation from the slopes and crests of the embankments.	SFAP and Final Pond: Clear trees, remove root balls, and remove brush growth along downstream and upstream slopes of both the SFAP and final pond.	Start date: February 2013 Completion date: April 2013
	Bottom ash portion of the primary fly ash pond impoundment (PFAP northern decant): DMG cleared, regraded, and installed rip rap, for erosion control.	Start date: November 2012 Completed date: December 2012.
	Fly ash portion of the primary fly ash pond impoundment: DMG will evaluate options to formally close the out-of-service, fly ash portion of the PFAP impoundment, in accordance with the Illinois EPA formal pond closure protocol – 35 Il. Admin. Code Part 840. As per the September 2012 phone conference with USEPA, DMG understands that surface impoundment formally closed under a state program, such as 35 IAC 840, are outside the assessment scope. In the event closure is not pursued, the recommended analyses would be performed.	Summer 2013 – Start evaluating options to formally close the out-of-service, fly ash portion of the primary fly ash pond impoundment. Fall 2013 – Complete evaluation process Fall 2013: - Make decision whether to formally close the pond or pursue the recommended analyses. - Based on decision, DMG will submit to USEPA an updated action plan, including timeline, to implement the decision.
Repair Recommendations (§3.4):		
1.Repair the discharge pipe and the embankment erosion near the discharge pipe from PFAP's northern decant. Protect the embankment with riprap or other erosion control features.	DMG replaced and extended the discharge pipe from the PFAP northern decant to the secondary pond. DMG regraded and Installed rip rap for erosion control, along the PFAP northern decant.	Start date: November 2011 Completed date: December 2012
2. Remove the concrete located on the downstream slope of the Ash Pond Dike. Repair any erosion observed beneath the concrete and replace with fill engineered to provide a stable embankment that is not susceptible to erosion or piping.	With respect the need for ash pond dike repairs will be based upon the results of the H&H analysis. If the H&H analysis concludes that the hydraulic gradient differential is not significant, then DMG will characterize the ash pond dike as a partition berm and not a perimeter berm. As per our September 2012 phone conference with USEPA/GZA, partition berms are considered to be outside the scope of the assessment and no further analysis will be required. However, if the H&H analysis does indeed conclude that hydraulic gradient differential is significant, then repairs will be implemented.	Start date (for the H&H analysis): December 2012 Completion date (for the H&H analysis): Spring 2014 **Note:** If the results of the H&H analysis demonstrate a significant hydraulic gradient differential, DMG will submit to USEPA an updated action plan detailing the schedule for repairs.
3. Pending the results of the hydraulic/hydrologic analysis, modify the design or operation of the impoundments to provide adequate capacity.	If determined to be necessary, based upon the results of the H&H analysis, modify the design or operation of the impoundments to provide adequate capacity.	Start date (for the H&H analysis): December 2012 Completion date (for the H&H analysis): Spring 2014 **Note:** Based upon the results of the H&H analysis, DMG will submit to USEPA an updated action plan detailing the need for design/operation modifications and the associated timeline.
	Referencing the out-of-service, fly ash portion of the primary fly ash pond impoundment, DMG will evaluate options to formally close the out-of-service, fly ash portion of the PFAP impoundment, in accordance with the Illinois EPA formal pond closure protocol – 35 Il. Admin. Code Part 840. As per the September 2012 phone conference with USEPA, DMG understands that surface impoundment formally closed under a state program, such as 35 IAC 840, are outside the assessment scope. In	Summer 2013 – Start evaluating options to formally close the out-of-service, fly ash portion of the primary fly ash pond impoundment. Fall 2013 – Complete evaluation process

	the event closure is not pursued, the recommended analyses would be performed.	Fall 2013: - Make decision whether to formally close the pond or pursue the recommended analyses. - Based on decision, DMG will submit to USEPA an updated action plan, including timeline, to implement the decision.
4. Pending the results of the complete seepage and stability analysis for each impoundment, modify the design or operation of the impoundments to provide conditions that result in embankments that meet the generally accepted factors of safety.	If determined to be necessary, based upon the seepage/stability analysis, modify the design or operation of the impoundments to provide conditions that result in embankments that meet the generally accepted factors of safety.	Dependent upon the completion and results of the seepage/stability analysis. Please refer to the previous studies and analyses section of this action plan, for a detailed discussion of the associated timelines.
	Referencing the out-of-service, fly ash portion of the primary fly ash pond impoundment, DMG will evaluate options to formally close the out-of-service, fly ash portion of the PFAP impoundment, in accordance with the Illinois EPA formal pond closure protocol – 35 Il. Admin. Code Part 840. As per the September 2012 phone conference with USEPA, DMG understands that surface impoundment formally closed under a state program, such as 35 IAC 840, are outside the assessment scope. In the event closure is not pursued, the recommended analyses would be performed.	Summer 2013 – Start evaluating options to formally close the out-of-service, fly ash portion of the primary fly ash pond impoundment. Fall 2013 – Complete evaluation process Fall 2013: - Make decision whether to formally close the pond or pursue the recommended analyses. - Based on decision, DMG will submit to USEPA an updated action plan, including timeline, to implement the decision.

[1] Numbering of Recommendations reflects the recommendations as numbered in sections 3.2, 3.3 and 3.4 of the dam assessment final report. Also, Section 2.6 and Section 3.1 are further referenced in Section 3.2 recommendation discussion.

[2] Deficiencies in Section 2.6 and Section 3.1 that are not addressed in this section of the Action Plan (or the final report) are addressed elsewhere in the Action Plan