

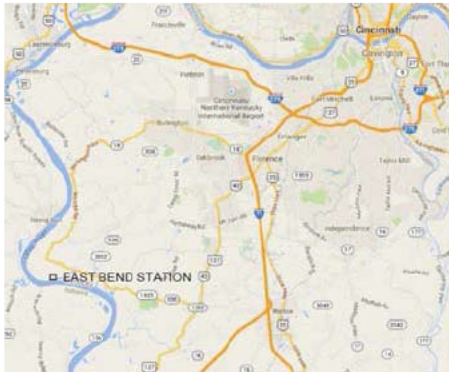
Emergency Action Plan (EAP)

Duke Energy East Bend Station Ash Pond Dam East Emergency FGD Pond West Emergency FGD Pond Coal Conveyor Storm Water Sediment Pond

State and National Inventory of Dams (NID) Nos.
KDEP ID: 1215 (Ash Pond Dam)
Boone County, Kentucky

EBS-EAP-02-0002
Revision Number: 004
April 17, 2017

Operator/Owner Information:
Duke Energy Corporation
550 South Tryon Street
Charlotte, North Carolina 28202



Reviewed:

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Duke Energy East Bend Station

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Duke Energy East Bend Station

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Duke Energy East Bend Station

Professional Engineer Seal

Pursuant to 40 C.F.R. § 257.73 (a)(3)(iv), the undersigned, being a qualified professional engineer, as that term is defined under 40 C.F.R. § 257.53, hereby certifies this work product of Duke Energy Carolinas, LLC, being the written Emergency Action Plan for:

- Ash Pond Dam, which has been determined to be a significant hazard potential CCR surface impoundment,
- East Emergency FGD Pond, which has not been assigned a dam hazard potential CCR surface impoundment,
- West Emergency FGD Pond, which has not been assigned a dam hazard potential CCR surface impoundment,
- Coal Conveyor Storm Water Sediment Pond, which has not been assigned a dam hazard class CCR surface impoundment;

at East Bend Station, meets the requirements of 40 C.F.R. § 257.73 (a)(3) and includes, without limitation, the following information:

- A. The events or circumstances involving the CCR unit that represent a safety emergency, along with a description of the procedures that will be followed to detect a safety emergency in a timely manner;
- B. The responsible persons, their respective responsibilities, and notification procedures in the event of a safety emergency involving the CCR unit;
- C. Contact information of emergency responders;
- D. Map(s) prepared under separate Professional Engineer seal and responsible charge, dated 9/30/2016 delineating the downstream area(s) that would be affected in the event of a CCR unit failure and a physical description of the CCR unit; and
- E. Provisions for an annual face-to-face meeting or exercise between representatives of Duke Energy and the local emergency responders.



[P.E. Signature]

3/24/17

[Date]

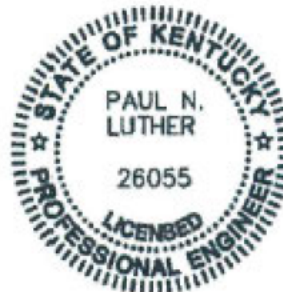


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I. Basic EAP Data

General

The Duke Energy System Owner (SO) manages East Bend Station, Ash, FGD, and Sediment Pond Dams and has overall responsibility for ensuring the dams are operated and maintained in accordance with federal and state regulations. The SO coordinates with the Station/Plant Manager, CCP Operations and Maintenance, and the Regional General Manager on all dam operations. The SO also coordinates with CCP Governance and Operations Support in the maintenance of this Emergency Action Plan. The SO conducts regular and special inspections of the dams to identify any issues or concerns and is responsible for correcting and reporting any deficiencies noted through the use of this Emergency Action Plan. During emergencies that meet the classification categories identified in this plan for Emergency Level 1 or 2, the SO serves as the Technical Advisor/Subject Matter Expert to the Incident Management Team. See Appendix A-2 for specific duties and responsibilities.

Purpose

The purpose of this Emergency Action Plan (EAP) is to prevent or reduce the loss of life or injury and minimize environmental and property damage by implementing procedures to be followed in the event of an emergency associated with the Duke Energy East Bend Station, Ash, FGD, and Sediment Pond Dams. Such emergencies may include, but are not limited to, an unusually large flood or earthquake, a malfunction (hydraulic or structural) of the spillway or discharge structure, malicious human activity such as sabotage, vandalism or terrorism, or failure of the dam. This EAP defines responsibilities and procedures to:

- Identify abnormal conditions that may endanger the dam, including natural, mechanical, or man-made causes, such as terrorist attacks or acts of vandalism or sabotage;
- Initiate remedial actions to prevent or minimize the downstream impacts of a dam failure as a result of any actions as listed above;
- Initiate timely emergency actions to ensure early warning and appropriate notifications to all personnel and facilities that could be affected by an impending or actual failure of the dam; and
- Activate the Incident Management Team to respond to and manage an event to its conclusion.

NOTE 1: The EAP is intended to provide a framework for response to various conditions involving the ash basins and/or cooling ponds, regardless of the cause.

NOTE 2: Although this EAP lists specific basins/impoundments by name or dam ID number, the processes and actions listed in this EAP can be used for events/conditions that occur with other basins/impoundments on site. Examples include, but are not limited to, the following: low-hazard or unrated basins, ash stacks, or storm water ponds.

Potential Impacted Area(s)

Potentially impacted areas were identified by conducting a dam breach and breach inundation analyses for the Ash, FGD, and Sediment Pond Dams.

Dam Description: Ash Pond Dam

Height: 50 feet

Built: 1976

Latitude: N38°54'7.10" Longitude: W84°50'22.44"

National Inventory of Dams No.: N/A

Dam State ID Number: KDEP-1215

Drainage Area: 176 acres

EPA Hazard Classification: Significant

State Hazard Classification: N/A

Dam Operator: Duke Energy

Major Property Owner: Duke Energy

Dam Designer: Sargent & Lundy

Dam Description: East Emergency FGD Pond

Height: 23 feet

Built: 1980

Latitude: N38°54'4.89" Longitude: W84°50'54.81"

National Inventory of Dams No.: N/A

Dam State ID Number: N/A

Drainage Area: 2.5 acres

EPA Hazard Classification: N/A

State Hazard Classification: N/A

Dam Operator: Duke Energy

Major Property Owner: Duke Energy

Dam Designer: Sargent & Lundy

Dam Description: West Emergency FGD Pond

Height: 22 feet

Built: 1980

Latitude: N38°54'5.31" Longitude: W84°51'0.20"

National Inventory of Dams No.: N/A

Dam State ID Number: N/A

Drainage Area: 2.3 acres

EPA Hazard Classification: N/A

State Hazard Classification: N/A

Dam Operator: Duke Energy

Major Property Owner: Duke Energy

Dam Designer: Sargent & Lundy

Dam Description: Coal Conveyor Storm Water Sediment Pond

Height: approx. 6 feet

Built: 1980

Latitude: N38°54'3.33" Longitude: W84°50'48.19"

National Inventory of Dams No.: N/A

Dam State ID Number: N/A

Drainage Area: N/A

EPA Hazard Classification: N/A

State Hazard Classification: N/A

Dam Operator: Duke Energy

Major Property Owner: Duke Energy

Dam Designer: Sargent & Lundy

See design data in *Appendix B*.

Directions to Ash, FGD, and Sediment Pond Dams (See *Vicinity Map*, Appendix B–2 and *Site Map*, Appendix B-3)

Ash Pond Dam

From the intersection of US 42 and SR 338 in Beaverlick go west on SR 338 for 8.5 miles, then turn left into Station entrance. Follow entrance 0.9 miles then turn left just past Station Security. Go 0.3 miles then bear left at “Y”. Pond is on left 200 yards after “Y”.

East Emergency FGD Pond

From the intersection of US 42 and SR 338 in Beaverlick go west on SR 338 for 8.5 miles, then turn left into Station entrance. Follow entrance 0.9 miles then turn left just past Station Security. Go 0.3 miles then bear right at “Y”. Pond is on left 150 yards after “Y”.

West Emergency FGD Pond

From the intersection of US 42 and SR 338 in Beaverlick go west on SR 338 for 8.5 miles, then turn left into Station entrance. Follow entrance 0.9 miles then turn left just past Station Security. Go 0.3 miles then bear right at “Y”. Pond is on right 150 yards after “Y”.

Coal Conveyor Storm Water Sediment Pond

From the intersection of US 42 and SR 338 in Beaverlick go west on SR 338 for 8.5 miles, then turn left into Station entrance. Follow entrance 0.9 miles then turn left just past Station Security. Go 0.3 miles then bear left at “Y”. Pond is on right 450 yards after “Y” just past conveyor.

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II. Incident Command System

Duke Energy power generation operations employs the FEMA model for an Incident Command System (ICS), which is a systematic tool used for the command, control, and coordination of an emergency response. ICS is based upon a changeable, scalable response organization providing a common hierarchy and common terminology; within which people can work together to effectively manage an emergency. Personnel may be drawn from multiple departments within Duke Energy that may or may not routinely work together; however, the ICS is designed to give standard response and operation procedures to reduce the problems and potential for miscommunication during such incidents.

ICS procedures should be pre-established, vetted and approved by station personnel and participating departments. Participating personnel should be well-trained prior to an incident. ICS includes procedures to select and form temporary response management hierarchies to control operations, funds, personnel, facilities, equipment, and communications. Personnel are assigned according to established standards and procedures previously vetted and approved. ICS is a system designed to be used or applied from the time an incident occurs until the requirement for management and operations of an incident no longer exist.

ICS is interdisciplinary and organizationally flexible to meet the following management challenges:

- Meets the needs of a jurisdiction to cope with incidents of any kind or complexity;
- Allows personnel of a wide variety from within Duke Energy to meld rapidly into a common management structure with common terminology;
- Provides logistical and administrative support to operational staff;
- Is cost effective by avoiding duplication of efforts and continuing overhead; and
- Provides a unified, centrally authorized emergency organization.

The ICS structure that Duke Energy Power Generation Operations has adopted can be referenced below, and the associated roles and responsibilities can be found in Appendix A-2.

Incident Command Organization Structure

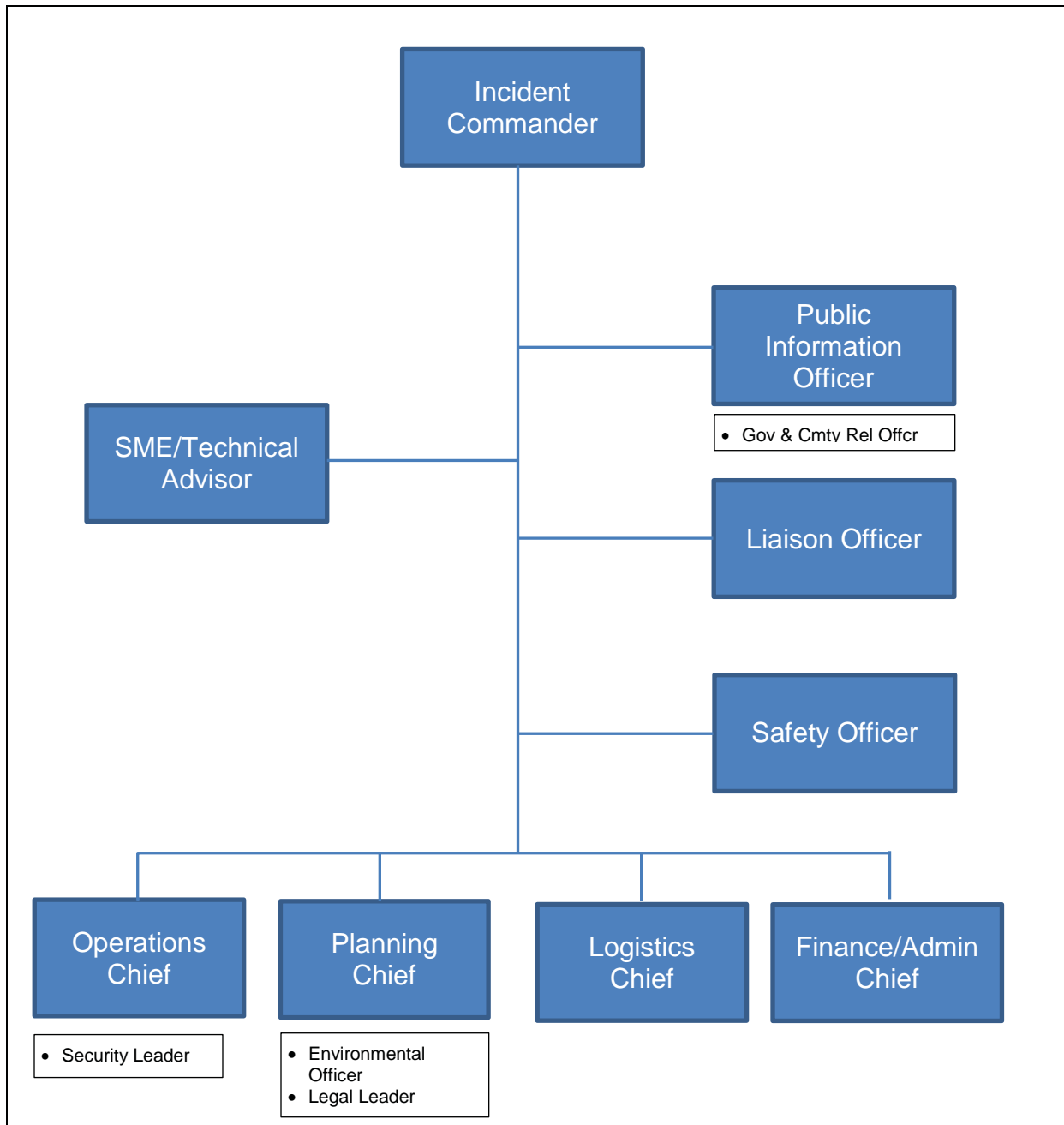


Figure 1

Incident Command Roles / Assignments

Emergency Notification Phone List—Incident Management Team (ICS)

(* P=Primary, A=Alternate)

*	Job Title	Contact Name	Business Phone	Alternate Phone	Email
Incident Commander					
P	Station Manager				
P	GM CCP Regional Ops & Maint				
A	VP CCP Ops & Maintenance				
A	Supt Operations				
A	Supv Operations				
A	Supv Operations				
A	Supv Operations				
A	Supv Operations				
A	Supv Operations				
A	Supv Operations				
A	Supv Operations				
A	Supv Operations				
A	VP CCP Engineering				
A	GM CCP Proj Plng & Initiation				
A	VP CCP Governance & Ops Support				
A	GM CCP Project Management				
A	GM CCP Project Management				
Subject Matter Expert/Technical Advisor					
P	System Owner				
A	CCP Engineer				

*	Job Title	Contact Name	Business Phone	Alternate Phone	Email
A	Mgr CCP Regional Engg				
Operations Chief					
P	Supt Operations				
A	Coord Operations				
Planning Chief					
P	Supt Maintenance				
A	Planner Work Management				
A	Supt Technical				
Logistics Chief					
P	Contract Resource Coordinator				
A	Contract Resource Coordinator				
Finance and Administration Chief					
P	Sr Financial Analyst				
A	Sr Financial Analyst				
A	Dir MW FHO Finance				
Public Information Officer					
P	Sr Communications Cnslt				
A	Sr Communications Cnslt				
Safety Officer					
P	H&S Professional				
A	Mgr EHS Field Support				
Liaison Officer					
P	Duke Community Relations Manager				
A	Govt & Comm Relations Mgr				
Legal Leader					

*	Job Title	Contact Name	Business Phone	Alternate Phone	Email
P	Corporate Legal				
A	Corporate Legal				
Environmental Leader					
P	Site Environmental Coordinator				
A	Lead EHS Professional				
Security Leader					
P	DevelopmentalAssignment Leader				
A	Sr Security Specialist				

NOTE: For CCP related events, initial Incident Command will be managed by site personnel. Once qualified CCP individuals arrive on site, they will take the Incident Commander role for CCP related events.

Table 1

Incident Management Team Activation

The Duke Energy Representative or his/her alternate is responsible for activating the Incident Management Team and will utilize procedures established in this EAP for incident/event activation. The Incident Management Team will be activated for all level 1 and level 2 events and can be activated at level 3. At an Event Level 3 activation, the Incident Commander will determine which team members are needed for response activities, or will decide to place the entire team in a standby status until such time as needed. The Incident Management Team, when activated, will meet in one of the following locations:

Type	Building Name	Physical Address
Primary		
Alternate		

Table 2

Regional Incident Management Team Activation

The Regional Incident Management Team (RIMT) provides support to the stations within their region as necessary in response to an event or incident. The Incident Commander will, based on his/her assessment will contact the FHO or the CCP Regional VP and will request activation of the RIMT based on the following criteria:

- The incident resolution will require multiple operational periods.
- Incident is or may be highly publicized, requiring significant coordination of off-site resources.
- The incident is complex, and is being managed as a unified command with multiple external agencies.
- Management discretion.

Once approval has been given, the RIMT will be activated by notifying personnel for your region as identified in enclosure 1 of FHO Regional Incident Management Team Procedure FHG-PRC-NA-AD-0032.

Aviation Resources

The use of aviation resources to assist in conducting assessments during an emergency is a valuable tool that can be used for all types of emergencies at the site. Aviation resources, e.g., helicopters or drones, should be considered and requested early in the response phase for planning and damage assessment purposes. These resources can be obtained by contacting [REDACTED]

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III. Preparation

Duke Energy's East Bend Station Emergency Action Plan is designed to implement procedures to be followed in the event of an emergency. The steps taken in preparation for an incident/event facilitate the response as well as prevent, moderate, or alleviate the effects of the incident/event. The sections listed below discuss actions taken by East Bend Station in preparing East Bend Station and Duke Energy personnel to respond in emergency situations.

Training and Exercises

All personnel assigned an Incident Command System (ICS) role are required to meet the minimum training requirements established by Duke Energy for emergency response. Personnel assigned to an ICS position will complete initial training and will participate in annual refresher training. It is recommended that personnel take additional training for the positions assigned to enhance their proficiency and effectiveness during emergencies.

East Bend Station will conduct a periodic test of this EAP at least once every twelve months. The periodic test should consist of a tabletop exercise at a minimum, conducted at Duke Energy's East Bend Station. If the East Bend Station incurs an actual level 1 event, then the station is not required to conduct another exercise during that 12 month period. Boone County emergency management agencies will be invited to participate in the annual exercise. A site and EAP orientation should be completed prior to exercise participation by those agencies responding to an actual emergency. The orientation will enhance coordination and response capabilities and can be conducted in conjunction with the tabletop exercise or as a separate event.

As the East Bend Station reaches competency in the conduct of its tabletop exercises, an increase in complexity to a functional and eventually a full scale exercise should be planned and exercised to test and evaluate all phases of the emergency response capabilities, to include the coordination with external local, county, and state agencies. To reach this goal it is recommended that the station conduct a drill at least quarterly (based on a calendar year), exercising different functions within the EAP. The long term goal of the station is to progress and be fully capable of conducting a full-scale exercise on the ash basin or cooling pond/lake EAP within 5 years and on 5 year intervals thereafter.

Annual Face-to-Face Meeting or Exercise

Duke Energy East Bend Station is required in accordance with 40 CFR Part 257.73(a)(3)(i)(E) to hold an annual face-to-face meeting with Boone County emergency responders or ensure their participation in a Duke Energy East Bend Station exercise. To address this requirement, Duke Energy East Bend Station will have a documented annual meeting with Boone County emergency responders. The template in Appendix A-8 must be filled out to provide the necessary documentation of this annual meeting. The following topics at a minimum are to be covered at each annual meeting:

1. Overview of EAP;
2. Discussion on emergency levels and actions taken by all;
3. Station hazards (e.g., potential flooding from cooling ponds or environmental damage from ash ponds);

4. Notification protocols;
5. Training and exercises;
6. Station familiarization; and
7. Contact information updated.

This meeting enhances familiarization, cooperation, and coordination for Boone County emergency responders and is the preferred process for meeting this requirement. However, Duke Energy East Bend Station will invite Boone County to participate in drills along with the annual meeting.

Monitoring

The dams are monitored regularly to identify changes in conditions. Additional monitoring of the dams is required before, during and after natural or man-made events. Personnel have been trained to identify issues through the following process:

- Weekly/Biweekly/Monthly inspections conducted by the System Owner or his/her designee.
- Special inspections after a significant rain or severe weather event, seismic event, or other special event, meeting or exceeding the standard established in the O&M manual.
- Observations by station personnel.
- Technology used to monitor dam levels.

Security



Response during Periods of Darkness

Nighttime response provides its own set of hazards in addition to the emergency situation. Safety of all response personnel is the first concern and every effort should be taken to ensure the safety of all personnel in the area. Areas should be lit or lighting made available as soon as possible to enhance response capabilities. All areas are required to be marked with a permanent identification marker. Maps that layout the basins or dams should be available while operating in the area.

During all periods of operation, the East Bend Station control room monitors instruments associated with the ash basins and cooling ponds. If an instrument change is noted, whether during the period of darkness, or through observation, the control room will advise the Operations Supervisor, who will investigate the situation and report back to the control room what was found.

If it is determined that a problem exists, the Operations Supervisor will activate the EAP to determine the level of response required and implement all notifications and actions as appropriate, which might include activation of the Incident Management Team in addition to contacting the System Owner (or his/her designee).

Response during Weekends and Holidays

To implement an effective emergency response during weekends and holidays, contact information on all personnel required to respond should be current and easily accessible to the person or persons required to make notifications. A test of the contacts should be made to ensure connectivity to all required personnel and contractors. The frequency of these tests is at the discretion of the station manager. Please refer to Appendix A-1 and B-1.

During all periods of operation, the East Bend Station control room monitors instruments associated with the ash basins and cooling ponds. If during the weekend or holiday an instrument change is noted, or if through a routine area check a discrepancy is noted, the control room will advise the Operations Supervisor who will investigate the situation and report back to the control room of what was found. If it is determined that a problem exists, the Operations Supervisor will coordinate with the System Owner/CCP Engineer and activate the EAP to determine the level of response required; and implement all notifications and actions as appropriate, to include activation of the Incident Management Team. The System Owner or his designee will notify the control room of who is on-call during the weekend or holiday and be available to respond upon notification.

Response during Adverse Weather

Adverse weather conditions hamper the ability of the station and personnel to respond effectively during emergencies and should be taken into account in advance preparation steps. Planning and preparation steps should be established for the following conditions:

- Flooding
- Wind
- Ice
- Snow
- Severe Thunderstorms
- Tornados

In situations where adverse weather conditions provide advance warning, East Bend Station will take necessary steps to ensure the safety of all personnel, and implement procedures to secure the station as much as possible, including the pre-staging of personnel and equipment as necessary to ensure an effective response. Additional equipment and materials would include the following:

- Salt
- Sand
- Snow Plows

Based on weather reporting and the issue of weather watches or warnings received from the National Weather Service for severe or adverse weather, the East Bend Station control room will advise the Operations Supervisor, who will activate the Duke Energy East Bend Station Natural Disaster Emergency Response Plan (NDERP) and this EAP, taking all actions in accordance with the NDERP/EAP in preparation for, and actions required at the conclusion of, the severe weather event. The Operations Supervisor should notify and brief personnel in accordance with the NDERP/EAP for the designated emergency level condition established based on the degree of severity of the storm. Once the Incident Commander is notified, a determination will be made to activate the full Incident Management Team.

During severe weather operations, the East Bend Station control room monitors instruments associated with the dams and cooling ponds. If, during severe weather, an instrument change is noted, or if through observation a discrepancy is noted, the control room will advise the Operations Supervisor, who will determine, based on weather conditions and safety, the best opportunity to investigate the situation and report back to the control room of what was found. Once weather conditions permit, an inspection of the area should be conducted immediately. If it is determined that a problem exists, the Operations Supervisor will activate the EAP to determine the level of response required and implement all notifications and actions as appropriate, to include activation of the Incident Management Team.

Stockpiling Materials and Equipment

East Bend Station has determined the minimum equipment and materials necessary to provide an effective initial response to the most severe of the emergencies listed within this EAP. A review of the equipment and materials maintained should be conducted annually to ensure sufficient equipment and materials are on hand. The EAP will be updated to reflect any changes in equipment and materials at the next annual EAP review. The review should also include materials and equipment required to respond during adverse weather conditions. If materials are used during an actual response, it is the responsibility of the System Owner to ensure materials are replenished as soon as possible. Refer to Appendix B-1 for a list of materials maintained on site.

In the event more resources are needed than the minimum maintained on site, East Bend Station has identified and coordinated with commercial vendors to make the equipment or materials available on a 24 hour basis, 7 days a week. Refer to Appendix B-1 for a list of vendors identified to provide additional resources.

Staging Areas

Staging areas will be established for the receipt and transition of personnel, equipment, supplies and materials. The location for the staging area should be established in an area that allows easy access and does not interfere with movement within the incident/event area. The staging area can be on or offsite with a primary and alternate location identified. East Bend Station will utilize the following locations:

Type	Building Name	Physical Address
Primary		
Alternate		

Table 3

The staging area for news personnel should be away from the Incident Command Center and at a location that does not interfere with the movement of emergency response personnel and equipment. This location should be outside of the station.

The below listed locations have been selected as the primary and alternate staging area for the press.

Type	Building Name	Physical Address
Primary		
Alternate		

Table 4

Evacuation Responsibilities

Evacuation planning and implementation for the local community is the responsibility of Boone County emergency management authorities. (Local/County Name) plans will be followed in the event a potential for evacuation exists, or an evacuation of residents is required. Inundation maps in the appendix identify areas at risk of flooding. This helps Boone County in the development of warning and evacuation plans.

The Boone County emergency management authorities will be notified through the EAP call tree to prepare for and activate their evacuation plans if needed. In the event of a dam failure, procedures are also in place to evacuate non-essential personnel, if deemed necessary.

IV. Reporting

Duke Energy CCP Regulatory Affairs must provide to the State Director and/or appropriate Tribal authority (if applicable) notification of the availability of all the required documentation in the Duke Energy operating record or its publicly accessible internet site. All notifications must be made not later than the close of business 30 days from the date the document is posted to the Duke Energy East Bend Station operating record. Notification must be given to the posting of the following required documents:

- Latest version of the EAP with all amendments.
- Documentation recording the annual face-to-face meeting or exercise between representatives of Duke Energy and the local emergency responders. See Appendix A-8.
- Detailing the corrective measures taken to remedy a deficiency or release.
- Documentation recording all activations of the EAP.

V. The EAP Process

This EAP must be implemented once events or circumstances that represent a safety emergency are detected, including conditions identified during periodic structural stability assessments, annual inspections, and inspections by a qualified person. The Duke Energy Representative or his/her alternate is responsible for activation of this EAP.

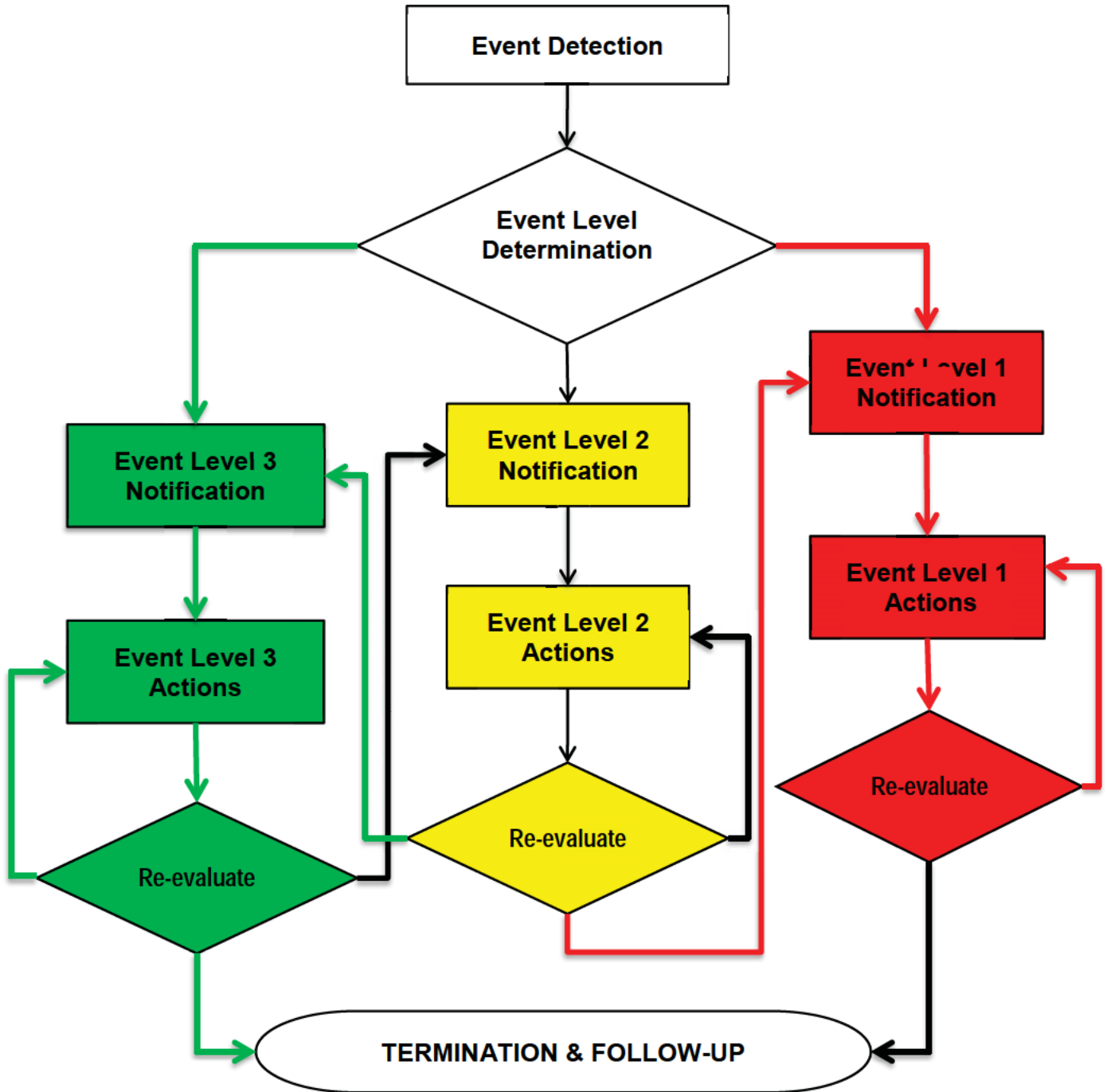
Activation of the EAP can be as simple as identifying an “abnormal event,” Level 3, clearing the problem, completing the Abnormal or Emergency Event Log, and finally closing out the situation. Activation of the EAP could also be extensive to the point of activating the Incident Management Team at a Level 1 or Level 2.

A four-step process is used to negotiate the many issues associated with an event. These steps will assist personnel in completing all actions, reduce the stress level on all personnel, and increase efficiency and timeliness in the response effort. The four steps are as follows:

- **Step 1** – Event Detection and Level Determination: Identify the event and classify the urgency of the action level.
- **Step 2** – Notification: Ensure notification of appropriate personnel and open communications with all appropriate parties.
- **Step 3** – Expected Actions: Respond to the event by following the recommended actions in the Action Data Sheets.
- **Step 4** – Termination and Follow-up: Follow procedures governing the termination of an event and the follow on discussion reviewing all actions.

This EAP also includes information related to potential targets, security procedures and emergency procedures, the disclosure of which would jeopardize public safety and increase the risk of harm to Kentucky citizens and natural resources.

EAP Process Flowchart



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Step 1: Event Detection

This step describes the detection of an abnormal or emergency event and provides information to assist the dam operator in determining the appropriate emergency level for the event.

Abnormal or emergency events may be detected by:

- Observations at or near the dam by Duke Energy personnel, visitors to the dam, or the public.
- Earthquakes felt or reported in the vicinity of the dam.
- Forewarning of conditions that may cause an abnormal event or emergency event at the dam (for example, a severe weather or flash flood forecast).
- Evaluation of instrument data.

The collection of information during this step is important to ensure the correct response action is being initiated. The person receiving the notification of an event should secure as much information as they can from the individual reporting the incident, ensuring not to jeopardize the individual's safety. This information is utilized for determining the type of event and the emergency level classification for the conditions identified from the notification.

The information gained from this step will also determine the requirement for activation of the Incident Management Team (IMT). Activation of the IMT is automatic for all Emergency Level 1 or 2 events and at the discretion of the Incident Commander (IC) for Emergency Level 3 events, which will be based on the type of event being responded to and the chance the Level 3 event could escalate to a Level 2 or Level 1. The IC has the discretion at Emergency Level 3 to place the IMT on standby until such time as they are released.

Emergency Level Determination

Once an abnormal or emergency event is detected or reported, the Duke Energy Representative or his/her alternate is responsible for classifying the event into one of the following three emergency levels:

Emergency Level 1—Urgent! Dam failure is imminent or in progress:

This is an extremely urgent situation when a dam failure is occurring or obviously is about to occur and cannot be prevented. Flash flooding will occur downstream of the dam. This situation is also applicable when flow through the earth spillway is causing downstream flooding of people and roads.

Emergency Level 2—Potential dam failure situation, rapidly developing:

This situation may eventually lead to dam failure and flash flooding downstream, but there is not an immediate threat of dam failure.

This emergency level is also applicable when flow has or is expected to result in flooding of downstream areas, and people near the channel could be endangered. Emergency Management should be on alert to initiate evacuations or road closures if the flooding increases.

Emergency Level 3—Abnormal event, slowly developing:

This situation is not normal but has not yet threatened the operation or structural integrity of the dam, but possibly could if it continues to develop.

The Duke Energy Representative or his/her alternate will utilize the following Action Data Sheet Index as a guide to determine the type and severity of the event, classifying it in one of the emergency levels as indicated by the event. If the event occurring is not identified in the Action Data Sheet Index, the Duke Energy Representative or his/her alternate will contact the Geo-Technical Engineer for guidance and direction to initiate a response action.

Action Data Sheet Index

Event	Situation	Emergency Level*	Action Data Sheet
A. Dam Failure	Imminent or Total Dam Failure from a known or unexpected event.	1	A-1
B. Discharge Pipe Abnormal Condition	Discharge pipe exhibits abnormal condition with no active erosion.	3	B-3
	Visible erosion damage to dam embankment	2	B-2
	Discharge pipe is flowing with advancing erosion that is threatening the embankment stability.	1	B-1
	Discharge pipe flow is uncontrolled and has damaged the embankment.	1	B-1
C. Emergency spillway flow	Reservoir water surface elevation at the emergency spillway is flowing with no active erosion.	3	C-3
	Emergency Spillway flowing with active erosion.	2	C-2
	Spillway flow could result in flooding of people downstream if the reservoir level continues to rise.	2	C-2
	Spillway flowing with advancing erosion that is threatening the control section.	1	C-1
	Spillway flow that is flooding people or properties downstream.	1	C-1
D. Embankment overtopping	Reservoir or river level is rising as a result of heavy rain and/or operational inflows that are less than three feet but greater than one foot below the dam crest.	3	D-3
	Reservoir or river level 1 foot or less than the dam crest.	2	D-2
	Water from the reservoir or the river is flowing over the top of the dam	1	D-1

E. Seepage	New seep in the dam	3	E-3
	New or existing seep with cloudy discharge and greater than 5 gallons per minute.	2	E-2
	Seepage with discharge greater than 10 gallons per minute that is not a controlled seep.	1	E-1
F. Sinkholes	Observation of slope depression in reservoir area or on embankment that may be indicative of a sinkhole.	3	F-3
	Observation of new sinkhole in reservoir area or on embankment.	2	F-2
	Rapidly enlarging sinkhole.	1	F-1
G. Pipes and Culverts	Debris is blocking one or both inlet risers causing the water level to rise	3	G-3
	Noticeable flow that exceeds historic measurement.	3	G-3
	Noticeable change of condition of the pipe with no leak.	3	G-3
	Noticeable structural and or Operations and Maintenance deficiencies in the pipe with flow.	2	G-2
	Discharge pipes located beneath the Dam may have failed or are rapidly deteriorating.	1	G-1
H. Embankment movement	New bulging/surficial sloughing/slippage of the embankment slope. (Does not include historic bulges and sloughs).	3	H-3
	Large incremental movement/slippage of the embankment slope	2	H-2
	Sudden or rapidly proceeding bulges or slides of the embankment slopes.	1	H-1
I. Earthquake	Earthquake felt or magnitude 3.0 or higher reported on or within 50 miles of the dam.	3	I-3
J. Security threat/ Sabotage/ Vandalism	Bomb threat	3	J-3
	Suspicious package	3	J-3
	Suspected intentional damage to the dam or appurtenances with or without impact to the functioning of the dam	3	J-3

- * **Emergency Level 1**: Urgent! Dam failure is imminent or in progress
- * **Emergency Level 2**: Potential dam failure situation, rapidly developing
- * **Emergency Level 3**: Abnormal event, slowly developing
- * N/A: Not Applicable

* N/A: Not Applicable

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Please leave this page and insert the **“Step 2: Notification”** tab previously provided.

Step 2: Notification

Due to the type of events that can occur, notification becomes an important step in initiating response actions. Events that may occur can not only impact East Bend Station but could have an adverse impact on the local community and the environment, thus requiring the incorporation of local, state and or tribal emergency management agencies into the call tree. Each has its own responsibilities in activating their emergency action or response plans to prevent or minimize the loss of life and damage to property or the environment and rely on East Bend Station to provide proper and timely notification.

Once the event has been identified and the emergency level has been determined, whether Emergency Level 1, 2, or 3, notification of agencies, incident command response and company personnel are important to ensure timely response actions are taken to prevent or minimize the loss of life, and damage to property and the environment. Call trees have been developed to notify the appropriate personnel at each emergency level and are to be completed as soon as possible after event identification. If the degree of the emergency is urgent, the person initiating the call tree may utilize additional personnel to assist in making the calls.

Because call trees have been developed for each emergency level, notification must be made for each level. If there is a change in the emergency level, notification must be initiated for that corresponding level. As an example:

An incident was initiated at Emergency Level 2 and all notifications were made. Later it was determined that the situation was deteriorating and the failure of the dam was imminent, classifying it as an Emergency Level 1 Event. This would require the initiation of the Emergency Level 1 Event Notification Call Tree.

All personnel responsible for initiating the call trees in the event of an emergency should become familiar with each of the emergency level notification call trees to minimize any confusion during a real event. The call trees below are used to identify the structure of the notifications based on each emergency level. In Appendix A-1A, A-1B, and A-1C, you will find a more user-friendly version for clarification of the steps and the notification process. East Bend Station will be provided with standalone notification forms to be utilized and completed for each event activation.

To ensure a clear and concise message is delivered, a script has been created for each emergency level and is to be utilized when notifying agencies and company personnel of an event. Personnel should not deviate from this script to prevent the passage of incorrect or misleading information. Personnel should become familiar with, but always use the scripts as identified at the beginning of each call tree. See Appendix A-1A, A-1B, and A-1C.

In addition to utilizing the call trees to initiate emergency response at all levels, the Incident Management Team is activated for all Event Level 1 and Level 2 events. However, it is important to contact the IC regardless of the level of incident that has been identified. **It is the decision of the Duke Energy Representative or his/her alternate or the IC to activate the ICT. Utilize the Incident Command Roles and Assignments document to activate the Incident Management Team.**

URGENT DAM FAILURE NOTIFICATIONS

(Urgent! Dam failure is imminent or in progress.)

In the case of a security or sabotage event, call 911 before initiating the notifications below.

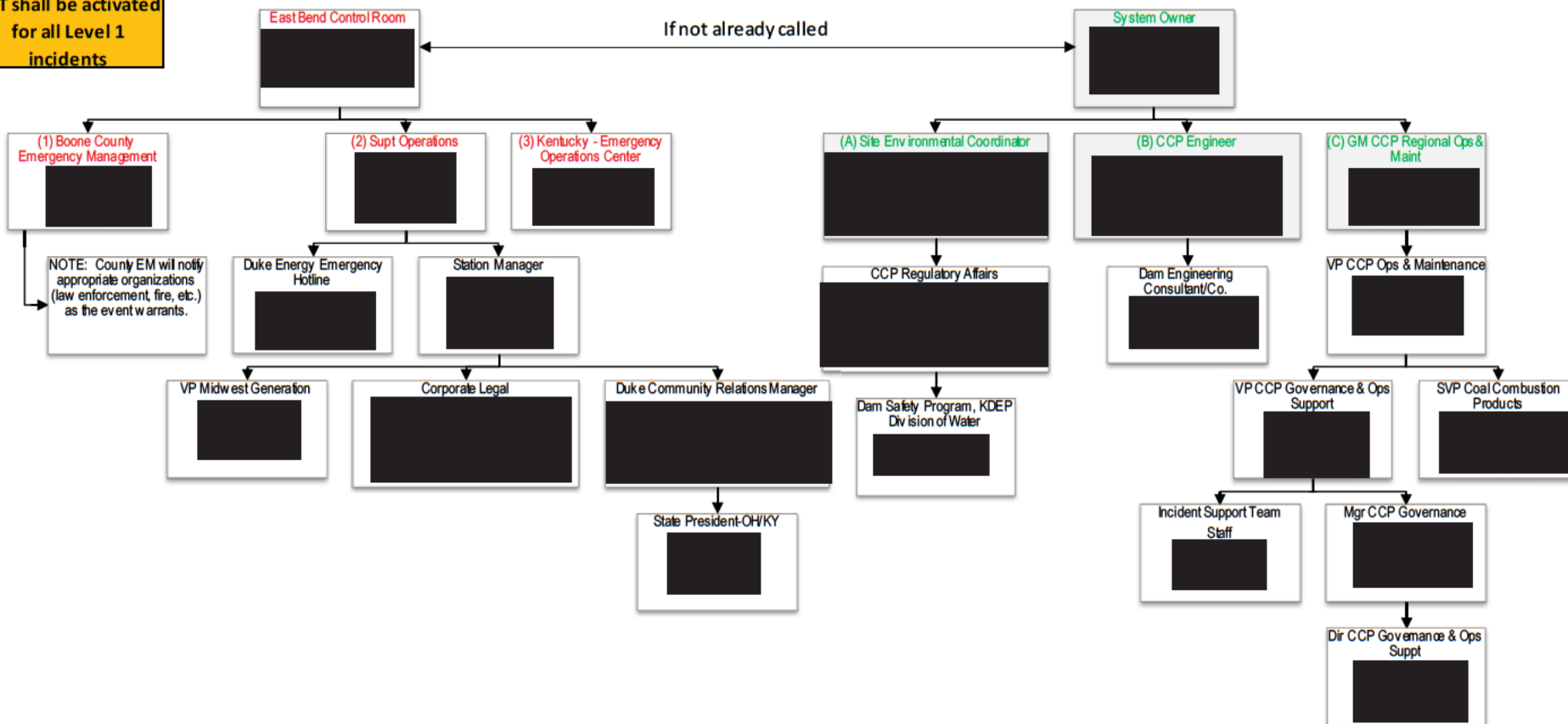
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D**

IMT shall be activated for all Level 1 incidents



See Emergency Contacts List in Appendix A-7 for back-up numbers and additional emergency personnel contact info.

Scripting for Notifications:

(1-3): "This is _____ (name and position). A Level 1 event exists involving a _____ (Describe Situation) of the (Specify Pond Name and/or Type) at the Duke Energy (Plant/Facility name). We will advise when the situation is resolved or if conditions change. I can be contacted at the following number _____. My alternate phone number is _____."

"We DO need offsite assistance and this is what we need _____. Please relay this information to your Emergency Management Director as soon as possible."

OR

"We DO NOT need any offsite assistance at this time; we are just calling to keep you informed. However, please relay this information to your Emergency Management Director as soon as possible." Ask Operator to repeat message back for confirmation.

Note:
 (1-3) denotes call sequence for Control Room/Shift Supv
 (A-C) denotes call sequence for System Owner

(A-C): "This is _____ (name and position). A Level 1 Event exists at _____ the (Plant/facility name) due to _____ (Describe Situation). We are entering EAP Level 1 and we will be using Action Data sheet _____. A plant status call will occur at _____ (time and date). Please notify appropriate staff to join the call for additional information by calling _____"

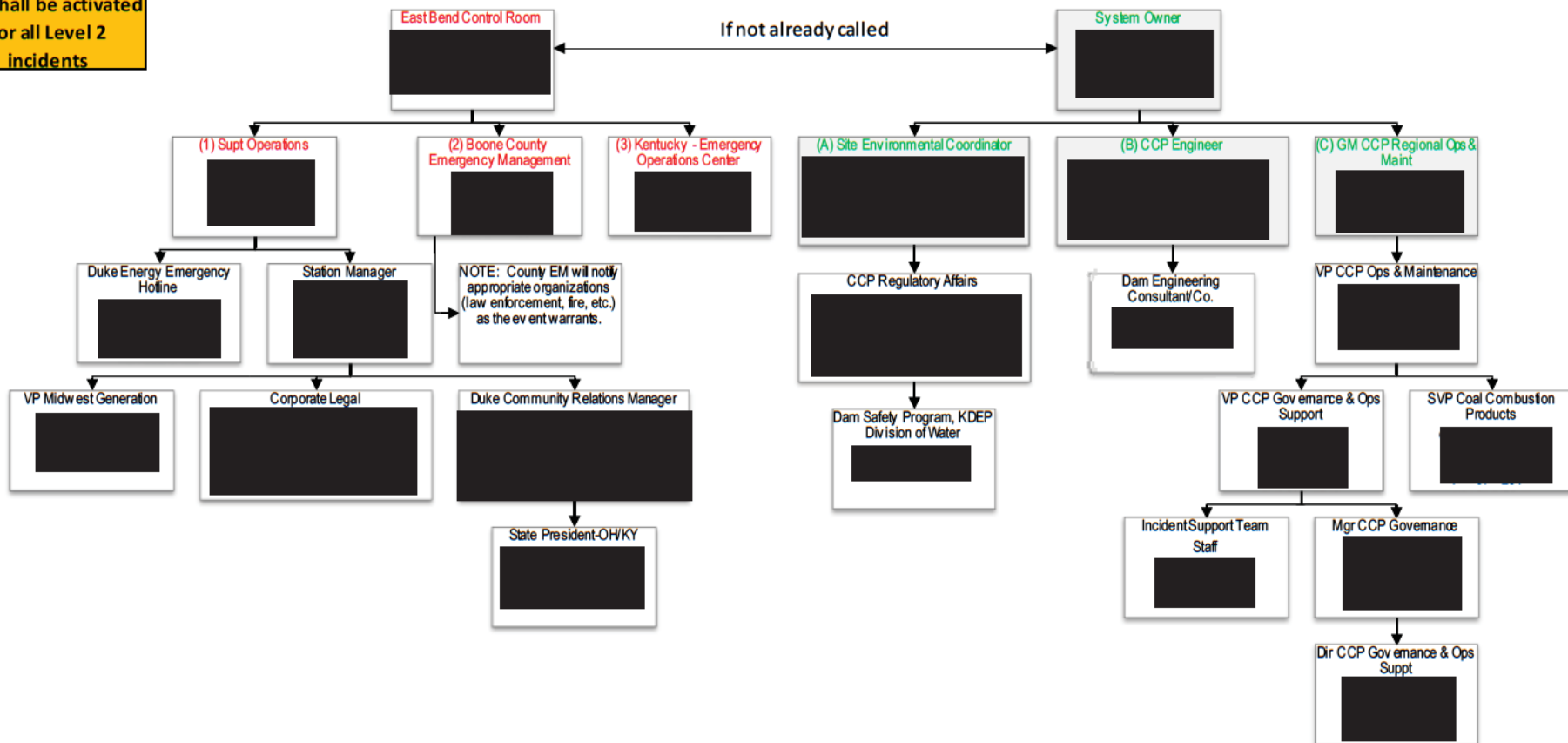
POTENTIAL DAM FAILURE NOTIFICATIONS

(Potential dam failure situation; rapidly deteriorating)

In the case of a security or sabotage event, call 911 before initiating the notifications below.

EMERGENCY LEVEL 2 YELLOW

IMT shall be activated for all Level 2 incidents



See Emergency Contacts List in Appendix A-7 for back-up numbers and additional emergency personnel contact info.

Scripting for Notifications:
 (1-3): "This is _____ (name and position). A Level 2 event exists involving a _____ (Describe Situation) of the (Specify Pond Name and/or Type) at the Duke Energy (Plant/Facility name). We will advise when the situation is resolved or if conditions change. I can be contacted at the following number _____. My alternate phone number is _____."
 "We DO need offsite assistance and this is what we need _____. Please relay this information to your Emergency Management Director as soon as possible."
 OR
 "We DO NOT need any offsite assistance at this time; we are just calling to keep you informed. However, please relay this information to your Emergency Management Director as soon as possible." Ask Operator to repeat message back for confirmation.
 (A-C): "This is _____ (name and position). A Level 2 event exists at (Plant/facility name) due to _____ (Describe Situation). We are entering EAP Level 2 and we will be using Action Data Sheet _____. A plant status call will occur at _____ (time and date). Please notify appropriate staff to join the call for additional information by calling _____"

Note:

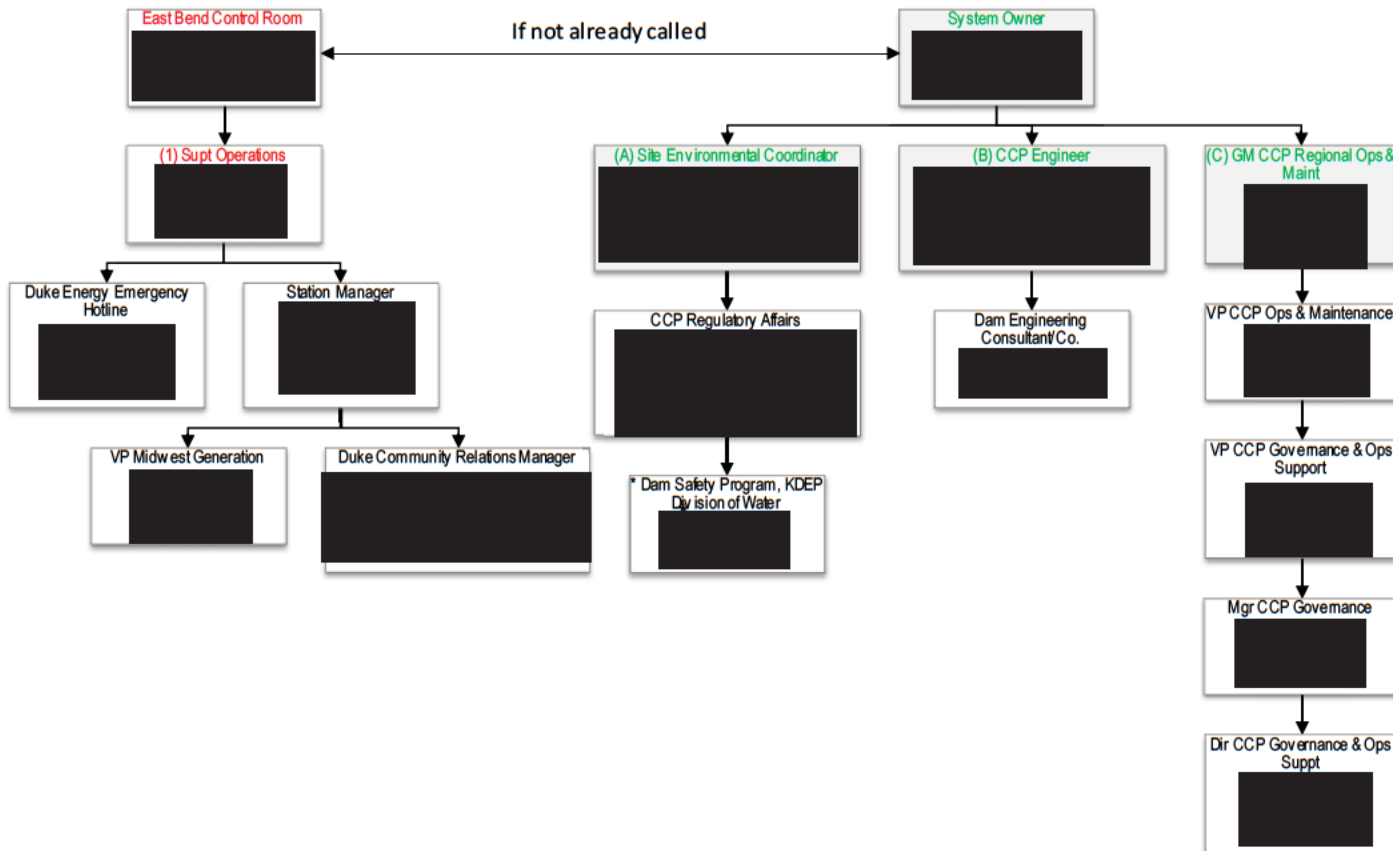
(1-3) denotes call sequence for Control Room/Shift Supv
 (A-C) denotes call sequence for System Owner

ABNORMAL EVENT NOTIFICATIONS

(Abnormal event, slowly developing)

In the case of a security or sabotage event, call 911 before initiating the notifications below.

EMERGENCY LEVEL 3 GREEN



See Emergency Contacts List in Appendix A-7 for back-up numbers and additional emergency personnel contact info.

Scripting for Notifications:

(A-C): "This is _____(name and position). A level 3 event exists at (Plant/facility name) due to _____(Describe situations. We are entering EAP Level 3 and will be using Action Data Sheet _____."

Note:

(A-C) denotes call sequence for System Owner
 (*) Notification during normal business hours is sufficient

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Expected Actions**” tab previously provided.

Step 3: Expected Actions

Emergency remedial actions

Immediate implementation of remedial actions outlined on the following Action Data Sheets may delay, moderate, or prevent the failure of the dam. Several of the listed adverse or abnormal conditions may be apparent at the dam at the same time, requiring implementation of several modes of remedial actions. Close monitoring of the dam must be maintained to confirm the success of any remedial action taken at the dam. Time permitting, any remedial action should be developed through consultation with Duke Energy CCP Engineering and, if warranted, the KDEP, Land Resources. See *Resources Available* (Appendix B–1) for sources of equipment and materials to assist with remedial actions. An assessment process led by Duke Energy CCP Engineering working in collaboration with Station Operations will be performed to determine further resource requirements depending upon the various potential emergency conditions.

Action Data Sheets

Event: DAM FAILURE		Sheet
LEVEL: 1 RED		A-1
Situations:		
<ul style="list-style-type: none"> • Imminent or Total Dam Failure from a known or unexpected event. 		
RECOMMENDED ACTIONS		
<p><u>Duke Energy Station Manager or Designee (Incident Command):</u></p> <p>A. Make sure notifications in the EAP Process Step 2, and the Emergency Level 1 Notifications have been made using the pre-scripted message.</p> <p>B. Make contact with impacted State and County Emergency Management Agencies to notify/clarify the details of the current situation.</p> <p>C. Notify the Operations Superintendent or Designee to initiate evacuation procedures as appropriate in accordance with Enclosure 5 of the FHO EAP.</p> <p>D. Ensure personnel remain a safe distance from the dam.</p> <p>E. Review all inundation maps to identify impacted areas as a result of imminent or total dam failure.</p> <p>F. Initiate and record all information, observations, and actions on the Abnormal or Emergency Event Log provided in Appendix A-3.</p> <p>G. Contact the <u>Duke Energy CCP Engineer(s)</u> to report the latest observations and conditions.</p> <p>H. Conduct a conference call with appropriate staff to provide a situation report on a regular frequency, appropriate for the complexity of the event.</p> <p>I. Consider requesting drone/air support for emergency inspection. If aviation/drone support is needed then contact Duke Aviation Scheduling.</p> <p><u>Duke Energy CCP Engineer(s):</u></p> <p>Review all pertinent information and dictate appropriate actions to the <u>Duke Energy Incident Command</u>. If necessary, contact local Engineering consultants and/or other individuals that may be able to assist in monitoring the situation.</p> <p><u>NCDEO State Dam Safety Agency Staff:</u></p> <p>Provide decision support and technical support to the <u>Duke Energy Incident Command and CCP Engineer(s)</u> as appropriate.</p>		
RE-EVALUATION/DECISION		
Evaluate the situation as events progress, or whenever conditions change. Determine whether:		
<p>A. The event remains at the current Event Level 1 if there is no change in situation.</p> <p>B. The event warrants downgrade and transition if there is no longer an impending threat of dam failure with no additional rainfall occurring yet there is damage to the dam that prevents safe impoundment of water.</p> <p>C. The event may be terminated only when either:</p> <ul style="list-style-type: none"> • The event can be terminated when, in coordination with the Duke Energy CCP Engineer(s), it has been determined that actions taken have stabilized the dam until permanent repairs can be made or a permanent repair has been completed. • The dam has failed and there is no longer a threat to the downstream public. <p>D. Enter Recovery Operations, as needed.</p> <p>Ensure notifications are made for any changes in the Emergency Event Level or for event termination.</p> <p>Based on this determination, follow the appropriate actions below.</p>		
A. EVENT LEVEL 1	B. DOWNGRADE & TRANSITION	C. TERMINATION
Continue recommended actions on this sheet	Go to the event level of the appropriate event type.	Go to Termination and Follow-up (Step 4)

Event: Discharge Pipe Abnormal Condition		Sheet	
LEVEL: 3 GREEN		B-3	
Situations:			
<ul style="list-style-type: none"> • Discharge pipe exhibits abnormal condition with no active erosion. 			
RECOMMENDED ACTIONS			
<u>Duke Energy Station Manager or Designee (Incident Command):</u>			
<p>A. Make sure notifications in the EAP Process Step 2 and the Emergency Level 3 Notifications have been made using the pre-scripted message.</p> <p>B. Conduct constant surveillance for the following conditions:</p> <ul style="list-style-type: none"> • Basin elevation and rate of rising; • Observation of changes in dam embankment slope conditions at spillway outlet; • Is discharge coming from under or around the pipe; • Blockage or obstructions on the crest of the emergency spillway; <p>C. Record all information, observations, and actions on the Abnormal or Emergency Event Log provided in EAP Appendix A-3.</p> <p>D. Contact the <u>Duke Energy CCP Engineer(s)</u> at least daily to report the latest observations and conditions. If conditions change significantly refer to the Re-Evaluation/Decision process below.</p>			
<u>Duke Energy CCP Engineer(s):</u>			
Review all pertinent information and dictate appropriate actions to the <u>Duke Energy Incident Command</u> . If necessary, contact local Engineering consultants and/or other individuals that may be able to assist in monitoring the situation.			
<u>NCDEQ State Dam Safety Agency Staff:</u>			
Provide decision support and technical support to the <u>Duke Energy Incident Command and CCP Engineer(s)</u> as appropriate.			
RE-EVALUATION/DECISION			
Evaluate the situation as events progress, or whenever conditions change. Determine whether:			
<p>A. The event remains at the current Event Level 3 if there is no change in situation.</p> <p>B. The event warrants escalation to Event Level 2 if the following is noted: Discharge pipe spillway flowing with active erosion; visible erosion damage to the dam embankment.</p> <p>C. The event warrants transition if conditions of the event have changed such that use of a different Action Data Sheet are needed.</p> <p>D. The event can be terminated when, in coordination with the Duke Energy CCP Engineer(s), it has been determined that the abnormal condition has been resolved.</p> <p>E. Enter Recovery Operations, as needed.</p> <p>Ensure notifications are made for any changes in the Emergency Event Level or for event termination. Based on this determination, follow the appropriate actions below.</p>			
A. EVENT LEVEL 3	B. ESCALATION	C. TRANSITION	D. TERMINATION
Continue recommended actions on this sheet	Go to Event Level 2 this event	Go to the event level of the appropriate event type.	Go to Termination and Follow-up (Step 4)

Event: Discharge Pipe Abnormal Condition LEVEL: 2 YELLOW	Sheet B-2
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Situations:

- Visible erosion damage to dam embankment.

RECOMMENDED ACTIONS

Duke Energy Station Manager or Designee (Incident Command):

- A. Make sure notifications in the EAP Process Step 2 and the Emergency Level 2 Notifications have been made using the pre-scripted message.
- B. Make contact with impacted State and County Emergency Management Agencies to notify/clarify the details of the current situation.
- C. Conduct constant surveillance of the discharge pipe for the following conditions:
 - Size of eroded area;
 - Estimated discharge and nature of the discharge (clear or cloudy);
 - Is discharge coming from around the pipe exterior or through the pipe
 - Recent weather conditions;
 - Fluctuations in the pool;
- D. Use the temporary siphon, or pumps to drawdown the water level and reduce discharge pipe flow. Caution must be taken to route these discharges away from any active erosion areas.
- E. Record all information, observations, and actions on the Abnormal or Emergency Event Log provided in EAP Appendix A-3.
- F. Contact the Duke Energy CCP Engineer(s) at least daily to report the latest observations and conditions. If conditions change significantly refer to the Re-Evaluation/Decision process below.
- G. Conduct a conference call with appropriate staff to provide a situation report on a regular frequency, appropriate for the complexity of the event.
- H. Consider requesting drone/air support for emergency inspection. If aviation/drone support is needed then contact Duke Aviation Scheduling.

Duke Energy CCP Engineer(s):

Review all pertinent information and dictate appropriate actions to the Duke Energy Incident Command. If necessary, contact local Engineering consultants and/or other individuals that may be able to assist in monitoring the situation.

NCDEO State Dam Safety Agency Staff:

Provide decision support and technical support to the Duke Energy Incident Command and CCP Engineer(s) as appropriate.

RE-EVALUATION/DECISION

Evaluate the situation as events progress, or whenever conditions change. Determine whether:

- A. The event remains at the current Event Level 2 if there is no change in situation, weather forecast predicts significant precipitation will occur within the next 24 hours period, or the condition of the spillway has been compromised as determined by the Duke Energy CCP Engineer(s).
- B. The event warrants escalation to Event Level 1 if the following is noted: inflow is not decreasing and water level still rising, uncontrolled erosion, sediment loss in large quantities, a whirlpool or sudden change in pool level, scarps or cracks, sinkholes, sand boils, mud spouts, or quicksand-like conditions.
- C. The event warrants transition if conditions of the event have changed such that use of a different Action Data Sheet are needed.
- D. The event warrants downgrading if the situation is being managed with no threat of further erosion of conditions.
- E. The event can be terminated when, in coordination with the CCP Engineer(s), it has been determined that actions taken have stabilized the dam until permanent repairs can be made or a permanent repair has been completed.
- F. Enter Recovery Operations, as needed.

Ensure notifications are made for any changes in the Emergency Event Level or for event termination.

Based on this determination, follow the appropriate actions indicated below.

A. EVENT LEVEL 2	B. ESCALATION	C. TRANSITION	D. DOWNGRADE	E. TERMINATION
Continue recommended actions on this sheet	Go to Event Level 1 this event;	Go to the event level of the appropriate event type.	Go to Event Level 3 this event.	Go to Termination and Follow-up

Event: Discharge Pipe Abnormal Condition			Sheet
LEVEL: 1 RED			B-1
Situations:			
<ul style="list-style-type: none"> Discharge pipe is flowing with advancing erosion that is threatening the embankment stability. Discharge pipe flow is uncontrolled and has damaged the embankment. 			
RECOMMENDED ACTIONS			
<u>Duke Energy Station Manager or Designee (Incident Command):</u>			
<p>A. Make sure notifications in the EAP Process Step 2 and the Emergency Level 1 Notifications have been made using the pre-scripted message.</p> <p>B. Make contact with impacted State and County Emergency Management Agencies to notify/clarify the details of the current situation.</p> <p>C. Conduct constant surveillance of the discharge pipe conditions for the following conditions:</p> <ul style="list-style-type: none"> Basin elevation and rate of rising; Observation of changes in dam embankment slope conditions at spillway outlet; Is discharge coming from around the pipe exterior or through the pipe; Blockage or obstructions at the pipe inlet or outlet. <p>D. Record all information, observations, and actions on the Abnormal or Emergency Event Log provided in EAP Appendix A-3.</p> <p>E. Contact the <u>Duke Energy CCP Engineer(s)</u> as necessary to report the latest observations and conditions. If conditions change significantly refer to the Re-Evaluation/Decision process below</p> <p>F. Conduct a conference call with appropriate staff to provide a situation report on a regular frequency, appropriate for the complexity of the event.</p> <p>G. Consider requesting drone/air support for emergency inspection. If aviation/drone support is needed then contact Duke Aviation Scheduling.</p>			
<u>Duke Energy CCP Engineer(s):</u>			
Review all pertinent information and dictate appropriate actions to the <u>Duke Energy Incident Command</u> . If necessary, contact local Engineering consultants and/or other individuals that may be able to assist in monitoring the situation.			
<u>NCDEQ State Dam Safety Agency Staff:</u>			
Provide decision support and technical support to the <u>Duke Energy Incident Command and CCP Engineer(s)</u> as appropriate.			
RE-EVALUATION/DECISION			
Evaluate the situation as events progress, or whenever conditions change. Determine whether:			
<p>A. The event remains at the current Event Level 1 if there is no change in situation.</p> <p>B. The event warrants downgrade to Level 2 after immediate response actions have reduced the incident to Level 2 response actions.</p> <p>C. The event warrants transition if conditions of the event have changed such that use of a different Action Data Sheet are needed.</p> <p>D. The event can be terminated when, in coordination with the Duke Energy CCP Engineer(s), it has been determined that actions taken have stabilized the dam until permanent repairs can be made or a permanent repair has been completed.</p> <p>E. Enter Recovery Operations, as needed.</p> <p>Ensure notifications are made for any changes in the Emergency Event Level or for event termination. Based on this determination, follow the appropriate actions below.</p>			
A. EVENT LEVEL 1	B. DOWNGRADE	C. TRANSITION	D. TERMINATION
Continue recommended actions on this sheet	Go to Event Level 2 this event.	Go to the event level of the appropriate event type.	Go to Termination and Follow-up (Step 4)

Event: Emergency Spillway Flow LEVEL: 3 GREEN	Sheet C-3
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Situations:

- Reservoir water surface elevation at the emergency spillway is flowing with no active erosion.

RECOMMENDED ACTIONS

Duke Energy Station Manager or Designee (Incident Command):

- A. Make sure notifications in the EAP Process Step 2 and the Emergency Level 3 Notifications have been made using the pre-scripted message.
- B. Observe and inspect every part of the dam; this should be done without compromising the safety of anyone performing these tasks.
- C. Monitor water levels and spillway area for erosion twice daily, or as conditions warrant.
- D. Monitor Off-site areas and instrumentation.
- E. Record all information, observations, and actions on the Abnormal or Emergency Event Log provided in EAP Appendix A-3.
- F. Contact the Duke Energy CCP Engineer(s) at least daily to report the latest observations and conditions. If conditions change significantly refer to the Re-Evaluation/Decision process below.
- G. Monitor weather for rain events that could potentially increase reservoir height and flow from the spillway.

Duke Energy CCP Engineer(s):

Review all pertinent information and dictate appropriate actions to the Duke Energy Incident Command. If necessary, contact local Engineering consultants and/or other individuals that may be able to assist in monitoring the situation.

NCDEQ State Dam Safety Agency Staff:

Provide decision support and technical support to the Duke Energy Incident Command and CCP Engineer(s) as appropriate.

RE-EVALUATION/DECISION

Evaluate the situation as events progress, or whenever conditions change. Determine whether:

- A. The event remains at the current Event Level 3 if there is no change in situation.
- B. The event warrants escalation to Level 2 when spillway flows produce active erosion of channel or spillway flow that may result in flooding of people downstream if water continues to rise.
- C. The event warrants transition if conditions of the event have changed such that use of a different Action Data Sheet are needed.
- D. The event can be terminated when, in coordination with the Duke Energy CCP Engineer(s), it has been determined that the abnormal condition has been resolved.
- E. Enter Recovery Operations, as needed.

Ensure notifications are made for any changes in the Emergency Event Level or for event termination.

Based on this determination, follow the appropriate actions below.

A. EVENT LEVEL 3	B. ESCALATION	C. TERMINATION
Continue recommended actions on this sheet	Go to Event Level 2	Go to Termination and Follow-up (Step 4)

Event: EMERGENCY SPILLWAY FLOW LEVEL: 2 YELLOW	Sheet C-2
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Situations:

- Emergency spillway flowing with active erosion.
- Spillway flow could result in flooding of people downstream if the reservoir level continues to rise.

RECOMMENDED ACTIONS

Duke Energy Station Manager or Designee (Incident Command):

- Make sure notifications in the EAP Process Step 2 and the Emergency Level 2 Notifications have been made using the pre-scripted message.
- Make contact with impacted State and County Emergency Management Agencies to notify/clarify the details of the current situation.
- Conduct constant surveillance of the spillway flow conditions and record the following:
 - Basin, lake or Afterbay pool elevation and rate of rising;
 - Observations of changes in slope conditions on the emergency spillway;
 - Blockages or obstructions to flow in the approach channel on the crest of the emergency spillway or in the receiving waters;
 - Weather conditions;
- Record all information, observations, and actions on the Abnormal or Emergency Event Log provided in EAP Appendix A-3.
- Contact the Duke Energy CCP Engineer(s) at least daily to report the latest observations and conditions. If conditions change significantly refer to the Re-Evaluation/Decision process below.
- Conduct a conference call with appropriate staff to provide a situation report on a regular frequency, appropriate for the complexity of the event.
- Consider requesting drone/air support for emergency inspection. If aviation/drone support is needed then contact Duke Aviation Scheduling.

Duke Energy CCP Engineer(s):

Review all pertinent information and dictate appropriate actions to the Duke Energy Incident Command. If necessary, contact local Engineering consultants and/or other individuals that may be able to assist in monitoring the situation.

NCDEQ State Dam Safety Agency Staff:

Provide decision support and technical support to the Duke Energy Incident Command and CCP Engineer(s) as appropriate.

RE-EVALUATION/DECISION

Evaluate conditions at least twice daily, and whenever conditions change significantly. Determine whether:

- A. The event remains at the current Event Level 2 if there is no change in situation, weather forecast predicts significant precipitation will occur within next 24 hour period, or the condition of the spillway has been compromised as determined by the Duke Energy CCP Engineer(s).
- B. The event warrants escalation to Event Level 1 if inflow is not decreasing and water level still rising, flow is threatening to compromise the spillway, or inflow is not decreasing and spillway is blocked.
- C. The event warrants downgrade if inflow has decreased such that water level is no longer rising, weather forecast predicts the precipitation event has passed, and no part of the spillway has been compromised as determined by the Duke Energy CCP Engineer(s).
- D. The event warrants transition if conditions of the event have changed such that use of a different Action Data Sheet are needed.
- E. The event can be terminated when, in coordination with the Duke Energy CCP Engineer(s), it has been determined that actions taken have stabilized the dam until permanent repairs can be made or a permanent repair has been completed.
- F. Enter Recovery Operations, as needed.

Ensure notifications are made for any changes in the Emergency Event Level or for event termination.

Based on this determination, follow the appropriate actions indicated below.

A. EVENT LEVEL 2	B. ESCALATION	C. DOWNGRADE	D. TRANSITION	E. TERMINATION
Continue recommended actions on this sheet	Go to Event Level 1	Go to Event Level 3	Go to the event level of the appropriate event type.	Go to Termination and Follow-up (Step 4)

Event: EMERGENCY SPILLWAY FLOW LEVEL: 1 RED	Sheet C-1
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Situations:

- Spillway flowing with advancing erosion that is threatening the control section.
- Spillway flow that is flooding people or properties downstream.

RECOMMENDED ACTIONS

Duke Energy Station Manager or Designee (Incident Command):

- A. Make sure notifications in the EAP Process Step 2 and the Emergency Level 1 Notifications have been made using the pre-scripted message.
- B. Make contact with impacted State and County Emergency Management Agencies to notify/clarify the details of the current situation.
- C. Conduct constant surveillance of the emergency spillway flow conditions and record the following:
 - Basin, lake or Afterbay pool elevation and rate of rising;
 - Observations of changes in slope conditions on the emergency spillway;
 - Blockages or obstructions on the crest of the emergency spillway;
 - Weather conditions.
- D. Record all information, observations, and actions on the Abnormal or Emergency Event Log provided in EAP Appendix A-3.
- E. Contact the Duke Energy CCP Engineer(s) at least daily to report the latest observations and conditions. If conditions change significantly refer to the Re-Evaluation/Decision process below.
- F. Conduct a conference call with appropriate staff to provide a situation report on a regular frequency, appropriate for the complexity of the event.
- G. Consider requesting drone/air support for emergency inspection. If aviation/drone support is needed then contact Duke Aviation Scheduling.

Duke Energy CCP Engineer(s):

Review all pertinent information and dictate appropriate actions to the Duke Energy Incident Command. If necessary, contact local Engineering consultants and/or other individuals that may be able to assist in monitoring the situation.

NCDEO State Dam Safety Agency Staff:

Provide decision support and technical support to the Duke Energy Incident Command and CCP Engineer(s) as appropriate.

RE-EVALUATION/DECISION

Evaluate the situation as events progress, or whenever conditions change. Determine whether:

- A. The event remains at the current Event Level 1 if there is no change in situation.
- B. The event warrants downgrade if inflow has decreased such that water level is no longer rising, weather forecast predicts the precipitation event has passed, and parts of the spillway that have been compromised have been repaired as determined by the Duke Energy CCP Engineer(s).
- C. The event warrants transition if conditions of the event have changed such that use of a different Action Data Sheet are needed.
- D. The event can be terminated when, in coordination with the Duke Energy CCP Engineer(s), it has been determined that actions taken have stabilized the dam until permanent repairs can be made or a permanent repair has been completed.
- E. Enter Recovery Operations, as needed.

Ensure notifications are made for any changes in the Emergency Event Level or for event termination.

Based on this determination, follow the appropriate actions below.

A. EVENT LEVEL 1	B. DOWNGRADE	C. TRANSITION	D. TERMINATION
Continue recommended actions on this sheet	Go to Event Level 2	Go to the event level of the appropriate event type.	Go to Termination and Follow-up Step 4

Event: EMBANKMENT OVERTOPPING			Sheet
LEVEL: 3 GREEN			D-3
Situations:			
<ul style="list-style-type: none"> • Reservoir or river level is rising as a result of heavy rain and/or operational inflows that are less than three feet but greater than one foot below the dam crest. 			
RECOMMENDED ACTIONS			
<u>Duke Energy Station Manager or Designee (Incident Command):</u>			
<p>A. Make sure notifications in the EAP Process Step 2 and the Emergency Level 3 Notifications have been made using the pre-scripted message.</p> <p>B. Conduct constant surveillance of the spillways flow conditions and record the following:</p> <ul style="list-style-type: none"> • Basin and river elevation and rate of rising; • Estimated outflow at the lake/basin spillway; • Measurements of basin/pond inflows from station operations or outside sources; • Observations of changes in slope conditions on the spillways; • Blockages or obstructions to flow on the spillways; • Weather conditions. Monitor water levels and spillway area for erosion twice daily, or as conditions warrant. <p>C. Record all information, observations, and actions on the Abnormal or Emergency Event Log provided in EAP Appendix A-3.</p> <p>D. Begin staging siphon and/or pumps in case the basin/pond level continues to rise. Consider staging other types of materials (e.g. sand bags, aggregate materials) for use in emergency response.</p> <p>E. If safety permits the following emergency remedial actions should be taken as appropriate:</p> <ul style="list-style-type: none"> • If the water level in the reservoir is no longer rising, place sandbags along the low areas of the top of the dam to control wave action, reduce the likelihood of flow concentration during minor overtopping, and to safely direct more water through the spillway. • Cover the weak areas of the top of the dam and downstream slope with riprap, sandbags, plastic sheets, or other materials to provide erosion resistant protection. <p>F. Contact the <u>Duke Energy CCP Engineer(s)</u> at least daily to report the latest observations and conditions. If conditions change significantly refer to the Re-Evaluation/Decision process below.</p>			
<u>Duke Energy CCP Engineer(s):</u>			
Review all pertinent information and dictate appropriate actions to the <u>Duke Energy Incident Command</u> . If necessary, contact local Engineering consultants and/or other individuals that may be able to assist in monitoring the situation.			
<u>NCDEQ State Dam Safety Agency Staff:</u>			
Provide decision support and technical support to the <u>Duke Energy Incident Command and CCP Engineer(s)</u> as appropriate.			
RE-EVALUATION/DECISION			
Evaluate the situation as events progress, or whenever conditions change. Determine whether:			
<p>A. The event remains at the current Event Level 3 if there is no change in situation.</p> <p>B. The event warrants escalation to Level 2 if water continues to rise to 1 foot or less than the dam crest.</p> <p>C. The event warrants transition if conditions of the event have changed such that use of a different Action Data Sheet are needed.</p> <p>D. The event can be terminated when, in coordination with the Duke Energy CCP Engineer(s), it has been determined that the abnormal condition has been resolved.</p> <p>E. Enter Recovery Operations, as needed.</p>			
Ensure notifications are made for any changes in the Emergency Event Level or for event termination.			
Based on this determination, follow the appropriate actions below.			
A. EVENT LEVEL 3	B. ESCALATION	C. TRANSITION	D. TERMINATION
Continue recommended actions on this sheet.	Go to Event Level 2	Go to the event level of the appropriate event type.	Go to Termination and Follow-up Step 4

Event: EMBANKMENT OVERTOPPING LEVEL: 2 YELLOW	Sheet D-2
Situations:	
<ul style="list-style-type: none"> • Reservoir or river level 1 foot or less than the dam crest. 	
RECOMMENDED ACTIONS	
<p><u>Duke Energy Station Manager or Designee (Incident Command):</u></p> <p>A. Make sure notifications in the EAP Process Step 2 and the Emergency Level 2 Notifications have been made using the pre-scripted message.</p> <p>B. Make contact with impacted State and County Emergency Management Agencies to notify/clarify the details of the current situation.</p> <p>C. Conduct constant surveillance of the spillways flow conditions and record the following:</p> <ul style="list-style-type: none"> • Basin and river elevation and rate of rising; • Estimated outflow at the spillway; • Measurements of basin/ponds inflows from station operations or outside sources; • Observations of changes in slope conditions on the spillways; • Blockages or obstructions to flow on the spillways; • Weather conditions. Monitor water levels and spillway area for erosion twice daily, or as conditions warrant. <p>D. Record all information, observations, and actions on the Abnormal or Emergency Event Log provided in EAP Appendix A-3.</p> <p>E. Ensure siphon, pumps, sand bags, aggregate and other emergency response materials/equipment are staged and ready.</p> <p>F. If safety permits the following emergency remedial actions should be taken as appropriate:</p> <ul style="list-style-type: none"> • If the water level in the reservoir is no longer rising, place sandbags along the low areas of the top of the dam to control wave action, reduce the likelihood of flow concentration during Minor overtopping, and to safely direct more water through the spillway. • Cover the weak areas of the top of the dam and downstream slope with riprap, sandbags, plastic sheets, or other materials to provide erosion resistant protection. • Activate level control device(s) (i.e., gate valves, stop logs, etc.). • Contact environmental to arrange for proper sampling. <p>G. Contact the <u>Duke Energy CCP Engineer(s)</u> at least daily to report the latest observations and conditions. If conditions change significantly refer to the Re-Evaluation/Decision process below.</p> <p>H. Conduct a conference call with appropriate staff to provide a situation report on a regular frequency, appropriate for the complexity of the event.</p> <p>I. Consider requesting drone/air support for emergency inspection. If aviation/drone support is needed then contact Duke Aviation Scheduling.</p> <p><u>Duke Energy CCP Engineer(s):</u> Review all pertinent information and dictate appropriate actions to the <u>Duke Energy Incident Command</u>. If necessary, contact local Engineering consultants and/or other individuals that may be able to assist in monitoring the situation.</p> <p><u>NCDEQ State Dam Safety Agency Staff:</u> Provide decision support and technical support to the <u>Duke Energy Incident Command and CCP Engineer(s)</u> as appropriate.</p> <p>CONTINUED ON NEXT PAGE</p>	

RE-EVALUATION/DECISION				
Evaluate the situation as events progress, or whenever conditions change. Determine whether:				
A. The event remains at the current Event Level 2 if there is no change in situation.				
B. The event warrants escalation to Level 1 this event if water begins to overtop the embankment.				
C. The event warrants transition if conditions of the event have changed such that use of a different Action Data Sheet are needed.				
D. The event warrants downgrade if inflow has decreased such that water level is no longer rising, weather forecast predicts the precipitation event has passed, and no part of the spillway has been compromised as determined by the Duke Energy CCP Engineer(s).				
E. The event can be terminated when, in coordination with the Duke Energy CCP Engineer(s), it has been determined that actions taken have stabilized the dam until permanent repairs can be made or permanent repairs have been completed.				
F. Enter Recovery Operations, as needed.				
Ensure notifications are made for any changes in the Emergency Event Level or for event termination.				
Based on this determination, follow the appropriate actions below.				
A. EVENT LEVEL 2	B. ESCALATION	C. TRANSITION	D. DOWNGRADE	E. TERMINATION
Continue recommended actions on this sheet.	Go to Event Level 1 this event	Go to the event level of the appropriate event type.	Go to Event Level 3	Go to Termination and Follow-up Step 4

Event: EMBANKMENT OVERTOPPING		Sheet	
LEVEL: 1 RED		D-1	
Situations:			
<ul style="list-style-type: none"> • Water from the reservoir or the river is flowing over the top of the dam 			
RECOMMENDED ACTIONS			
<u>Duke Energy Station Manager or Designee (Incident Command):</u>			
<p>A. Make sure notifications on the EAP Process Step 2 and the Emergency Level 1 Notifications have been made using the prescribed message.</p> <p>B. Make contact with impacted State and County Emergency Management Agencies to notify/clarify the details of the current situation.</p> <p>C. The <u>Duke Energy Incident Command</u> should consider lowering the pool level if feasible. If attempts are made to lower the pool level, monitor the upstream side of the embankment for cracks and/or other slope movement. If these conditions are noted during pool lowering, slow the rate of pool lowering. Continuously monitor the impoundment and associated structures for the following conditions:</p> <ul style="list-style-type: none"> • Overtopping of embankment and severe erosion; • Sudden drop in pool level; • Cracks and/or slope movement; • Excessive seepage or piping; and • Blockages in discharge outlet structures. <p>D. <u>Duke Energy Incident Command</u> has made prior arrangement for use of locally available off-site materials and equipment for temporary repairs in case of emergency. See Resources Available (ref. EAP Appendix B-1) for sources of equipment and materials to assist with remedial actions.</p> <p>E. Record all information, observations, and actions on the Abnormal or Emergency Event Log provided in EAP Appendix A-3.</p> <p>F. Contact the <u>Duke Energy CCP Engineer(s)</u> at least daily to report the latest observations and conditions. If conditions change significantly refer to the Re-Evaluation/Decision process below.</p> <p>G. Conduct a conference call with appropriate staff to provide a situation report on a regular frequency, appropriate for the complexity of the event.</p> <p>H. Consider requesting drone/air support for emergency inspection. If aviation/drone support is needed then contact Duke Aviation Scheduling.</p>			
<u>Duke Energy CCP Engineer(s):</u>			
Review all pertinent information and dictate appropriate actions to the <u>Duke Energy Incident Command</u> . If necessary, contact local Engineering consultants and/or other individuals that may be able to assist in monitoring the situation.			
<u>NCDEO State Dam Safety Agency Staff:</u>			
Provide decision support and technical support to the <u>Duke Energy Incident Command and CCP Engineer(s)</u> as appropriate.			
RE-EVALUATION/DECISION			
Evaluate the situation as events progress, or whenever conditions change. Determine whether:			
<p>A. The event remains at the current Event Level 1 if there is no change in situation.</p> <p>B. The event warrants downgrade if inflow has decreased such that water level is decreasing, weather forecast predicts the precipitation event has passed, and damaged parts of the spillway have been repaired as determined by the Duke Energy CCP Engineer(s).</p> <p>C. The event warrants transition if conditions of the event have changed such that use of a different Action Data Sheet are needed.</p> <p>D. The event warrants transition if the overtopping event cannot be controlled and a total dam failure is imminent.</p> <p>E. The event can be terminated when, in coordination with the Duke Energy CCP Engineer(s), it has been determined that actions taken have stabilized the dam until permanent repairs can be made or a permanent repair has been completed.</p> <p>F. Enter Recovery Operations, as needed</p> <p>Ensure notifications are made for any changes in the Emergency Event Level or for event termination.</p> <p>Based on this determination, follow the appropriate actions below.</p>			
A. EVENT LEVEL 1	B. DOWNGRADE	C. TRANSITION	D. TERMINATION
Continue recommended actions on this sheet	Go to Event Level 2 this event	Go to the event level of the appropriate event type.	Go to Termination and Follow-up (Step 4)

Event: SEEPAGE LEVEL: 3 GREEN	Sheet E-1
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Situations:

- New seep in the dam

RECOMMENDED ACTIONS

Duke Energy Station Manager or Designee (Incident Command):

- A. Make sure notifications on the EAP Process Step 2 and the Emergency Level 3 Notifications have been made using the pre-scripted message.
- B. The System Owner should make careful observation and inspection of every part of the dam; this should be done without compromising the safety of anyone performing these tasks.
- C. Monitor water levels and seepage points for cloudy discharge or increased flow rates every two hours.
- D. If conditions permit:
 - If the inflow source of the seepage is within the reservoir, plug the flow with available material – bales, bentonite, or plastic sheeting.
 - Place an inverted filter (layered sand and gravel) over the exit area to hold soil material in place.
 - Activate level control features/equipment (i.e., bottom drain, installed siphon or pumps gate valves, etc.) to provide additional drawdown of the water level. Caution must be taken to not add additional flooding to properties downstream.
- E. Contact the Duke Energy CCP Engineer(s) at least daily to report the latest observations and conditions. If conditions change significantly, refer to the Re-Evaluation/Decision process below.

Duke Energy CCP Engineer(s):

Review all pertinent information and dictate appropriate actions to the Duke Energy Incident Command.

NCDEO State Dam Safety Agency Staff:

Provide decision support and technical support to the Duke Energy Incident Command and CCP Engineer(s) as appropriate.

RE-EVALUATION/DECISION

Evaluate the situation as events progress, or whenever conditions change. Determine whether:

- A. The event remains at the current Event Level 3 if there is no change in situation.
- B. The event warrants escalation to Event Level 1 or 2 if discharge becomes cloudy or increased flow rate.
- C. The event warrants transition if conditions of the event have changed such that use of a different Action Data Sheet are needed.
- D. The event can be terminated when, in coordination with the CCP Engineer(s), it has been determined the abnormal condition has been resolved.
- E. Enter Recovery Operations, as needed

Ensure notifications are made for any changes in the Emergency Event Level or for event termination.

Based on this determination, follow the appropriate actions below.

A. EVENT LEVEL 3	B. ESCALATION	C. TRANSITION	D. TERMINATION
Continue recommended actions on this sheet	Go to Level 1 or Level 2 this event.	Go to the event level of the appropriate event type.	Go to Termination and Follow-up (Step 4)

Event: SEEPAGE LEVEL: 2 YELLOW	Sheet E-2
Situations: <ul style="list-style-type: none"> • New or existing seep with cloudy discharge and greater than 5 gallons per minute. 	
RECOMMENDED ACTIONS	
<p><u>Duke Energy Station Manager or Designee (Incident Command):</u></p> <p>A. Make sure notifications in the EAP Process Step 2 and the Emergency Level 2 Notifications have been made using the pre-scripted message.</p> <p>B. Make contact with impacted State and County Emergency Management Agencies to notify/clarify the details of the current situation.</p> <p>C. If a rapid increase in seepage rate or cloudy discharge is noted, begin to look for sinkholes on or near the embankment, and/or a whirlpool (eddy) in the reservoir. Boils at or near the downstream toe may be indications that piping is beginning. Conduct daily surveillance of the seepage and note the following information:</p> <ul style="list-style-type: none"> • Location; • Size of affected area; • Estimated discharge and nature of the discharge (clear or cloudy), • Recent weather conditions; • Fluctuations in the pool level; and • Increase in piezometer levels. <p>D. Record all information, observations, and actions on the Abnormal or Emergency Event Log provided in EAP Appendix A-3.</p> <p>E. If safety permits, emergency remedial actions should be taken as appropriate:</p> <ul style="list-style-type: none"> • If the entrance to the seepage origination point is observed in the reservoir (possible whirlpool) and is accessible, attempt to reduce the flow by plugging the entrance with readily available materials such as hay bales, bentonite, soil or rock fill, or plastic sheeting. • Cover the seepage exit area(s) with several feet of sand/gravel to hold fine-grained embankment or foundation materials in place. Alternatively, construct sandbag or other types of ring dikes around seepage exit areas to retain a pool of water, providing backpressure and reducing the erosive nature of the seepage. • Prevent vehicles and equipment from driving between the seepage exit points and the embankment to avoid potential loss from the collapse of an underground void. <p>F. Contact the <u>Duke Energy CCP Engineer(s)</u> at least daily to report the latest observations and conditions. If conditions change significantly, refer to the Re-Evaluation/Decision process below.</p> <p>G. Conduct a conference call with appropriate staff to provide a situation report on a regular frequency, appropriate for the complexity of the event.</p> <p>H. Consider requesting drone/air support for emergency inspection. If aviation/drone support is needed then contact Duke Aviation Scheduling.</p> <p><u>Duke Energy CCP Engineer(s):</u> Review all pertinent information and dictate appropriate actions to the <u>Duke Energy Incident Command</u>. If necessary, contact local Engineering consultants and/or other individuals that may be able to assist in monitoring the situation.</p> <p><u>NCDEQ State Dam Safety Agency Staff:</u> Provide decision support and technical support to the <u>Duke Energy Incident Command and CCP Engineer(s)</u> as appropriate.</p>	
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RE-EVALUATION/DECISION				
Evaluate conditions at least twice daily, and whenever conditions change significantly. Using the Guidance for Determining the Emergency Level under Step 1 – Event Detection, determine whether:				
A. The event remains at the current Event Level 2 if there is no change in situation.				
B. The event warrants escalation to Event Level 1 if any of the following is noted: uncontrolled seepage, sediment in large quantities, a whirlpool or sudden change in pool level, scarps or cracks, sinkholes, sand boils, mud spouts, or quicksand-like conditions.				
C. The event warrants transition if conditions of the event have changed such that use of a different Action Data Sheet are needed.				
D. The event warrants downgrade if inflow has decreased such that water level is no longer rising, weather forecast predicts the precipitation event has passed, and no part of the spillway has been compromised as determined by Duke Energy CCP Engineer(s).				
E. The event can be terminated when, in coordination with the Duke Energy CCP Engineer(s), it has been determined that actions taken have stabilized the dam until permanent repairs can be made or a permanent repair has been completed.				
F. Enter Recovery Operations, as needed				
Ensure notifications are made for any changes in the Emergency Event Level or for event termination.				
Based on this determination, follow the appropriate actions indicated below.				
A. EVENT LEVEL 2	B. ESCALATION	C. TRANSITION	D. DOWNGRADE	E. TERMINATION
Continue recommended actions on this sheet	Go to Event Level 1 this event	Go to the event level of the appropriate event type.	Go to Event Level 3	Go to Termination and Follow-up (Step 4)

Event: SEEPAGE LEVEL: 1 RED	Sheet E-1
Situations:	
<ul style="list-style-type: none"> • Seepage with discharge greater than 10 gallons per minute that is not a controlled seep. 	
RECOMMENDED ACTIONS	
<p><u>Duke Energy Station Manager or Designee (Incident Command):</u></p> <p>A. Make sure notifications in the EAP Process Step 2 and the Emergency Level 1 Notifications have been made using the pre-scripted message.</p> <p>B. Make contact with impacted State and County Emergency Management Agencies to notify/clarify the details of the current situation.</p> <p>C. If an uncontrolled seepage flow, which causes severe erosion of the dam materials at the point of discharge:</p> <ul style="list-style-type: none"> • Begin to observe the dam for possible cracking and slope failures within or near the area of seepage; • Inspect inside the impoundment to observe for potential creation of a vortex (aka whirlpool or eddy) within pool; • A whirlpool or sudden change in pool level, scarps or cracks, sinkholes or undulations in the ground surface, sand boils, mud spouts, or quicksand-like conditions are all indications of imminent failure due to excessive uncontrolled seepage. <p>D. <u>Duke Energy Incident Command</u> may consider using level control features/equipment (i.e., bottom drain, installed siphon or pumps gate valves, etc.) for lowering the pool level. During draining, monitor the upstream side of the embankment for cracks and/or other slope movement. If these conditions are noted during pool lowering, slow the rate of pool lowering.</p> <p>E. <u>Duke Energy Incident Command</u> has made prior arrangement for use of locally available off-site materials and equipment for temporary repairs in case of emergency. See Resources Available (ref. EAP Appendix B-1) for sources of equipment and materials to assist with remedial actions.</p> <p>F. Record all information, observations, and actions on the Abnormal or Emergency Event Log provided in EAP Appendix A-3.</p> <p>G. Contact the <u>Duke Energy CCP Engineer(s)</u> at least daily to report the latest observations and conditions. If conditions change significantly, refer to the Re-Evaluation/Decision process below.</p> <p>H. Conduct a conference call with appropriate staff to provide a situation report on a regular frequency, appropriate for the complexity of the event.</p> <p>I. Consider requesting drone/air support for emergency inspection. If aviation/drone support is needed then contact Duke Aviation Scheduling.</p> <p><u>Duke Energy CCP Engineer(s):</u></p> <p>Review all pertinent information and dictate appropriate actions to the <u>Duke Energy Incident Command</u>. If necessary, contact local Engineering consultants and/or other individuals that may be able to assist in monitoring the situation.</p> <p><u>NCDEQ State Dam Safety Agency Staff:</u></p> <p>Provide decision support and technical support to the <u>Duke Energy Incident Command and CCP Engineer(s)</u> as appropriate.</p>	
RE-EVALUATION/DECISION	
<p>Evaluate the situation as events progress, or whenever conditions change. Determine whether:</p> <p>A. The event remains at the current Event Level 1 if there is no change in situation.</p> <p>B. The event warrants transition if conditions of the event have changed such that use of a different Action Data Sheet are needed.</p> <p>C. The event warrants downgrade if inflow has decreased such that water level is no longer rising, weather forecast predicts the precipitation event has passed, and no part of the spillway has been compromised as determined by Duke Energy CCP(s).</p> <p>D. The event can be terminated when, in coordination with the Duke Energy CCP Engineer(s), it has been determined that actions taken have stabilized the dam until permanent repairs can be made or a permanent repair has been completed.</p>	
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E. Enter Recovery Operations, as needed Ensure notifications are made for any changes in the Emergency Event Level or for event termination. Based on this determination, follow the appropriate actions below.			
A. EVENT LEVEL 1	B. TRANSITION	C. DOWNGRADE	D. TERMINATION
Continue recommended actions on this sheet	Go to the event level of the appropriate event type.	Go to Event Level 2 or 3 this event	Go to Termination and Follow-up (Step 4)

Event: SINKHOLES LEVEL: 3 GREEN	Sheet F-3
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Situations:

- Observation of slope depression in reservoir area or on embankment that may be indicative of a sinkhole.

RECOMMENDED ACTIONS

Duke Energy Station Manager or Designee (Incident Command):

- A. Make sure notifications in the EAP Process Step 2 and the Emergency Level 3 Notifications have been made using the pre-scripted message.
- B. Shallow undulations or depressions in the reservoir area or embankment slope could be evidence of a developing sinkhole. A small diameter shallow hole containing collapsed materials may also represent early signs of a developing sinkhole. If a shallow undulation/depression or shallow hole is observed, note the following information:
 - Location;
 - Size and depth of affected area; and
 - Photograph the area.
- C. Report the identified area to the Duke Energy CCP Engineering Group, including photographs.
- D. If safety permits safety measures should be taken as appropriate:
 - Isolate the area using appropriate barricades and flagging, to prevent personnel, vehicles and equipment from driving in or around the area.
 - Communicate finding to appropriate Station personnel that may be affected by the potential sinkhole.
- E. Record all information, observations, and actions on the Abnormal or Emergency Event Log provided in EAP Appendix A-3.
- F. Contact the Duke Energy CCP Engineer(s) at least daily to report the latest observations and conditions. If conditions change significantly, refer to the Re-Evaluation/Decision process below.

Duke Energy CCP Engineer(s):

The Duke Energy CCP Engineering Group or a qualified representative should visually inspect the suspected area within 24 hours of notification.

NCDEQ State Dam Safety Agency Staff:

The Duke Energy CCP Engineering Group will coordinate with DEQ Department of Dam Safety Agency Staff for decision and technical support to the Duke Energy Incident Command and Technical Representatives as appropriate.

RE-EVALUATION/DECISION

Evaluate conditions at least twice daily, and whenever conditions change significantly. Using the Guidance for Determining the Emergency Level under Step 1 – Event Detection, determine whether:

- A. The event remains at the current Event Level 3 if there is no change in situation or formal determinate by the Duke Energy CCP Engineering Group.
- B. The event warrants escalation to Event Level 2 if any of the following is noted: evidence of seepage and sediment in the vicinity or downstream of the suspected area, observed whirlpool or eddy within the reservoir.
- C. The event warrants transition if conditions of the event have changed such that use of a different Action Data Sheet are needed.
- D. The event can be terminated when, in coordination with the Duke Energy CCP Engineer(s), it has been determined the abnormal condition has been resolved.
- E. Enter Recovery Operations, as needed

Ensure notifications are made for any changes in the Emergency Event Level or for event termination.

Based on this determination, follow the appropriate actions below.

A. EVENT LEVEL 3	B. ESCALATION	C. TRANSITION	D. TERMINATION
Continue recommended actions on this sheet	Go to Event Level 1 or Level 2 this event	Go to the event level of the appropriate event type.	Go to Termination and Follow-up (Step 4)

Event: SINKHOLES LEVEL: 2 YELLOW	Sheet F-2
Situations: <ul style="list-style-type: none">• Observation of new sinkhole in reservoir area or on embankment.	
RECOMMENDED ACTIONS	
<p><u>Duke Energy Station Manager or Designee (Incident Command):</u></p> <p>A. Make sure notifications in the EAP Process Step 2 and the Emergency Level 2 Notifications have been made using the pre-scripted message.</p> <p>B. Make contact with impacted State and County Emergency Management Agencies to notify/clarify the details of the current situation.</p> <p>C. Sinkholes that develop on the embankment could be signs that piping has begun, and may be followed by a whirlpool in the lake surface and then a rapid and complete failure of the dam. The first indication of a sinkhole will be a shallow undulation in the ground surface or a small diameter, shallow hole containing collapsed materials. If a small undulation or shallow sinkhole is observed, note the following information:</p> <ul style="list-style-type: none">• Location;• Size and depth of affected area;• Estimated flow of seepage discharge (if any); and• Color of discharge (if any). <p>D. Record all information, observations, and actions on the Abnormal or Emergency Event Log provided in EAP Appendix A-3.</p> <p>E. If safety permits, emergency remedial actions should be taken as appropriate:</p> <ul style="list-style-type: none">• If the entrance to the seepage origination point is observed in the reservoir (possible whirlpool) and is accessible, attempt to reduce the flow by plugging the entrance with readily available materials such as hay bales, bentonite, soil or rock fill, or plastic sheeting.• Cover the seepage exit area(s) with several feet of sand/gravel to hold fine-grained embankment or foundation materials in place. Alternatively, construct sandbag or other types of ring dikes around seepage exit areas to retain a pool of water, providing backpressure and reducing the erosive nature of the seepage.• Prevent vehicles and equipment from driving between the seepage exit points and the embankment to avoid potential loss from the collapse of an underground void. <p>F. Contact the <u>Duke Energy CCP Engineer(s)</u> at least daily to report the latest observations and conditions. If conditions change significantly, refer to the Re-Evaluation/Decision process below.</p> <p>G. Conduct a conference call with appropriate staff to provide a situation report on a regular frequency, appropriate for the complexity of the event.</p> <p>H. Consider requesting drone/air support for emergency inspection. If aviation/drone support is needed then contact Duke Aviation Scheduling.</p> <p><u>Duke Energy CCP Engineer(s):</u> Review all pertinent information and dictate appropriate actions to the <u>Duke Energy Incident Command</u>. If necessary, contact local Engineering consultants and/or other individuals that may be able to assist in monitoring the situation.</p> <p><u>NCDEQ State Dam Safety Agency Staff:</u> Provide Decision support and technical support to the <u>Duke Energy Incident Command and CCP Engineer(s)</u> as appropriate.</p> <p style="text-align: center;">CONTINUED ON NEXT PAGE</p>	

RE-EVALUATION/DECISION				
Evaluate conditions at least twice daily, and whenever conditions change significantly. Using the Guidance for Determining the Emergency Level under Step 1 – Event Detection, determine whether:				
A. The event remains at the current Event Level 2 if conditions have not changed.				
B. The event warrants escalation to Event Level 1 if the sinkholes are rapidly increasing in size, whirlpool or sudden change in pool level occurs, scarps or cracks are noted, muddy seepage is associated with the sinkhole, or sand boils, mud spouts, or quicksand-like conditions are noted near the toe of the embankment.				
C. The event warrants downgrade to Event Level 3 if water levels in the lake/basin are lowered below bottom level of sinkhole.				
D. The event warrants transition if conditions of the event have changed such that use of a different Action Data Sheet are needed.				
E. The event can be terminated when, in coordination with the Duke Energy CCP Engineer(s), it has been determined that actions taken have stabilized the dam until permanent repairs can be made or a permanent repair has been completed				
.Enter Recovery Operations, as needed Ensure notifications are made for any changes in the Emergency Event Level or for event termination.				
Based on this determination, follow the appropriate actions indicated below. <i>(Continued on next page)</i>				
A. EVENT LEVEL 2	B. ESCALATION	C. DOWNGRADE	D. TRANSITION	E. TERMINATION
Continue recommended actions on this sheet	Go to Event Level 1 this event	Go to Event Level 3	Go to the event level of the appropriate event type.	Go to Termination and Follow-up (Step 4)

Event: SINKHOLES LEVEL: 1 RED	Sheet F-1
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Situations:

- Rapidly enlarging sinkhole.

RECOMMENDED ACTIONS

Duke Energy Station Manager or Designee (Incident Command):

- A. Make sure notifications in the EAP Process Step 2 and the Emergency Level 1 Notifications have been made using the pre-scripted message.
- B. Make contact with impacted State and County Emergency Management Agencies to notify/clarify the details of the current situation.
- C. If the sinkhole is rapidly enlarging in size or multiple sinkholes are appearing on embankment:
 - Observe the holes for loss of material;
 - If seepage is apparent, immediately inspect inside the impoundment for observations of a vortex (aka whirlpool or eddy) within pool.
 - A whirlpool or sudden change in pool level, scarps or cracks, sinkholes or undulations in the ground surface, sand boils, mud spouts, or quicksand-like conditions are all indications of **imminent failure** due to excessive uncontrolled seepage and/or piping.
- D. Duke Energy Incident Command may consider lowering the pool. During draining, monitor the upstream side of the embankment for cracks and/or other slope movement. If these conditions are noted during pool lowering, slow the rate of pool lowering.
- E. Duke Energy Incident Command has made prior arrangement for use of locally available off-site materials and equipment for temporary repairs in case of emergency. See Resources Available (ref. EAP Appendix B-1) for sources of equipment and materials to assist with remedial actions.
- F. Record all information, observations, and actions on the Abnormal or Emergency Event Log provided in EAP Appendix A-3.
- G. Contact the Duke Energy CCP Engineer(s) at least daily to report the latest observations and conditions. If conditions change significantly, refer to the Re-Evaluation/Decision process below.
- H. Conduct a conference call with appropriate staff to provide a situation report on a regular frequency, appropriate for the complexity of the event.
- I. Consider requesting drone/air support for emergency inspection. If aviation/drone support is needed then contact Duke Aviation Scheduling.

Duke Energy CCP Engineer(s):

Review all pertinent information and dictate appropriate actions to the Duke Energy Incident Command. If necessary, contact local Engineering consultants and/or other individuals that may be able to assist in monitoring the situation.

NCDEQ State Dam Safety Agency Staff:

Provide decision support and technical support to the Duke Energy Incident Command and CCP Engineer(s) as appropriate.

RE-EVALUATION/DECISION

Evaluate the situation as events progress, or whenever conditions change. Determine whether:

- A. The event remains at the current Event Level 1 if there is no change in situation.
- B. The event warrants transition if conditions of the event have changed such that use of a different Action Data Sheet are needed.
- C. The event can be terminated when, in coordination with the Duke Energy CCP Engineer(s), it has been determined that actions taken have stabilized the dam until permanent repairs can be made or a permanent repair has been completed.
- D. Enter Recovery Operations, as needed

Ensure notifications are made for any changes in the Emergency Event Level or for event termination.

Based on this determination, follow the appropriate actions below.

A. EVENT LEVEL 1	B. TRANSITION	C. TERMINATION
Continue recommended actions on this sheet	Go to the event level of the appropriate event type.	Go to Termination and Follow-up (Step 4)

Event: PIPES AND CULVERTS LEVEL: 3 GREEN	Sheet G-3
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Situations:

- Debris is blocking one or both inlet risers causing the water level to rise.
- Noticeable flow that exceeds historic measurement.
- Noticeable change of condition of the pipe with no leak.

RECOMMENDED ACTIONS

Duke Plant Manager or Designee (Incident Command):

- A. Make sure notifications in the EAP Process Step 2 and the Emergency Level 3 Notifications have been made using the pre-scripted message.
- B. If a noticeable flow that exceeds previously identified drips or leaks:
 - Begin to observe the dam for possible cracking;
 - Inspect inside the impoundment to observe for potential creation of a vortex (aka whirlpool or eddy) within pool.
 - A whirlpool or sudden change in pool level, scarps or cracks, sinkholes or undulations in the ground surface, sand boils, mud spouts, or quicksand-like conditions are all indications of **imminent failure** due to excessive uncontrolled seepage.
- C. Duke Incident Command may consider level control features/equipment (i.e., bottom drain, installed siphon, pumps or gate valves, etc.) for lowering the pool level. During draining, monitor the upstream side of the embankment for cracks and/or other slope movement. If these conditions are noted during pool lowering, slow the rate of pool lowering.
- D. Duke Incident Command has made prior arrangement for use of locally available off-site materials and equipment for temporary repairs in case of emergency. See Resources Available (ref. EAP Appendix B-1) for sources of equipment and materials to assist with remedial actions.
- E. Record all information, observations, and actions on the Abnormal or Emergency Event Log provided in EAP Appendix A-3.
- F. Contact the Duke Dam Engineer(s) at least daily to report the latest observations and conditions. If conditions change significantly, refer to the Re-Evaluation/Decision process below.

Duke Dam Engineer(s):

Review all pertinent information and dictate appropriate actions to the Duke Incident Command. If necessary, contact local emergency contractors and/or other individuals that may be able to assist in monitoring the situation.

(NC DEQ) Dam Safety Agency Staff:

Provide decision support and technical support to the Duke Incident Command and CCP Engineer(s) as appropriate.

RE-EVALUATION/DECISION

Evaluate the situation as events progress, or whenever conditions change. Determine whether:

- A. The event remains at the current Event Level 3 if there is no change in situation.
- B. Go to Level 2 if flow begins to increase or the change of condition of the pipe begins to deteriorate
- C. The event warrants transition if conditions of the event have changed such that use of a different Action Data Sheet are needed.
- D. The event can be terminated when, in coordination with the CCP Engineer(s), it has been determined the abnormal condition has been resolved.
- E. Enter Recovery Operations, as needed

Ensure notifications are made for any changes in the Emergency Event Level or for event termination.

Based on this determination, follow the appropriate actions below.

A) EVENT LEVEL 1	B) ESCALATION	C) TRANSITION	D) TERMINATION
Continue recommended actions on this sheet	Go to Event Level 2 this event	Go to the event level of the appropriate event type.	Go to Termination and Follow-up (Step 4)

Event: PIPES AND CULVERTS LEVEL: 2 YELLOW	Sheet G-2
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Situations:

- Noticeable structural and or Operations and Maintenance deficiencies in the pipe with flow.

RECOMMENDED ACTIONS

Duke Plant Manager or Designee (Incident Command):

- A. Make sure notifications in the EAP Process Step 2 and the Emergency Level 2 Notifications have been made using the pre-scripted message.
- B. Make contact with impacted State and County Emergency Management Agencies to notify/clarify the details of the current situation.
- C. If a noticeable flow is observed, which causes moderate erosion of the dam materials at the point of discharge, begin to observe the dam for possible cracking and slope failures within or near the area where the discharge pipe has failed. Also, inspect inside the impoundment to observe for potential creation of a vortex (aka whirlpool or eddy) within pool. A whirlpool or sudden change in pool level, scarps or cracks, sinkholes or undulations in the ground surface, sand boils, mud spouts, or quicksand-like conditions are all indications of **imminent failure** due to excessive uncontrolled seepage.
- D. Duke Incident Command may consider level control features/equipment (i.e., bottom drain, installed siphon, pumps or gate valves, etc.) for lowering the pool level. During draining, monitor the upstream side of the embankment for cracks and/or other slope movement. If these conditions are noted during pool lowering, slow the rate of pool lowering.
- E. Duke Incident Command has made prior arrangement for use of locally available off-site materials and equipment for temporary repairs in case of emergency. See Resources Available (ref. EAP Appendix B-1) for sources of equipment and materials to assist with remedial actions.
- F. Record all information, observations, and actions on the Abnormal or Emergency Event Log provided in EAP Appendix A-3.
- G. Contact the Duke Dam Engineer(s) at least daily to report the latest observations and conditions. If conditions change significantly, refer to the Re-Evaluation/Decision process below.
- H. Conduct a conference call with appropriate staff to provide a situation report on a regular frequency, appropriate for the complexity of the event.
- I. Consider requesting drone/air support for emergency inspection. If aviation/drone support is needed then contact Duke Aviation Scheduling.

Duke Dam Engineer(s):

Review all pertinent information and dictate appropriate actions to the Duke Incident Command. If necessary, contact local emergency contractors and/or other individuals that may be able to assist in monitoring the situation.

(NCDEO) Dam Safety Agency Staff:

Provide decision support and technical support to the Duke Incident Command and CCP Engineer(s) as appropriate.

RE-EVALUATION/DECISION

Evaluate the situation as events progress, or whenever conditions change. Determine whether:

- A. The event remains at the current Event Level 2 if there is no change in situation. The event warrants escalation Level 1 if noticeable cracking and slope failure is noticed. The event warrants transition if conditions of the event have changed such that use of a different Action Data Sheet are needed.
- B. The event can be terminated when, in coordination with the Duke Energy CCP Engineer(s), it has been determined that actions taken have stabilized the dam until permanent repairs can be made or a permanent repair has been completed.

Enter Recovery Operations, as needed

Ensure notifications are made for any changes in the Emergency Event Level or for event termination.

Based on this determination, follow the appropriate actions below.

A) EVENT LEVEL 1	B) ESCALATION	C) TRANSITION	D) TERMINATION
Continue recommended actions on this sheet	Go to Event Level 1 this event	Go to the event level of the appropriate event type.	Go to Termination and Follow-up (Step 4)

Event: PIPES AND CULVERTS		Sheet	
LEVEL: 1 RED		G-1	
Situations:			
<ul style="list-style-type: none"> • Discharge pipes located beneath the Dam may have failed or are rapidly deteriorating. 			
RECOMMENDED ACTIONS			
<u>Duke Plant Manager or Designee (Incident Command):</u>			
<p>A. Make sure notifications in the EAP Process Step 2 and the Emergency Level 1 Notifications have been made using the pre-scripted message.</p> <p>B. Make contact with impacted State and County Emergency Management Agencies to notify/clarify the details of the current situation.</p> <p>C. If an uncontrolled flow, which causes severe erosion of the dam materials at the point of discharge, begin to observe the dam for possible cracking and slope failures within or near the area where the discharge pipe has failed. Also, inspect inside the impoundment to observe for potential creation of a vortex (aka whirlpool or eddy) within pool. A whirlpool or sudden change in pool level, scarps or cracks, sinkholes or undulations in the ground surface, sand boils, mud spouts, or quicksand-like conditions are all indications of imminent failure due to excessive uncontrolled seepage..</p> <p>D. <u>Duke Incident Command</u> may consider using level control features/equipment (i.e., bottom drain, installed siphon, pumps or gate valves, etc.) for lowering the pool level. During draining, monitor the upstream side of the embankment for cracks and/or other slope movement. If these conditions are noted during pool lowering, slow the rate of pool lowering.</p> <p>E. <u>Duke Incident Command</u> has made prior arrangement for use of locally available off-site materials and equipment for temporary repairs in case of emergency. See Resources Available (ref. EAP Appendix B-1) for sources of equipment and materials to assist with remedial actions.</p> <p>F. Record all information, observations, and actions on the Abnormal or Emergency Event Log provided in EAP Appendix A-3.</p> <p>G. Contact the <u>Duke Dam Engineer(s)</u> at least daily to report the latest observations and conditions. If conditions change significantly, refer to the Re-Evaluation/Decision process below.</p> <p>H. Conduct a conference call with appropriate staff to provide a situation report on a regular frequency, appropriate for the complexity of the event.</p> <p>I. Consider requesting drone/air support for emergency inspection. If aviation/drone support is needed then contact Duke Aviation Scheduling.</p>			
<u>Duke Dam Engineer(s):</u>			
Review all pertinent information and dictate appropriate actions to the <u>Duke Incident Command</u> . If necessary, contact local emergency contractors and/or other individuals that may be able to assist in monitoring the situation.			
<u>(NCDEQ) Dam Safety Agency Staff:</u>			
Provide decision support and technical support to the <u>Duke Incident Command and CCP Engineer(s)</u> as appropriate.			
RE-EVALUATION/DECISION			
Evaluate the situation as events progress, or whenever conditions change. Determine whether:			
<p>A. The event remains at the current Event Level 1 if there is no change in situation.</p> <p>B. The event warrants transition if conditions of the event have changed such that use of a different Action Data Sheet are needed.</p> <p>C. The event warrants downgrade if actions taken have resulted in control of the event and to the appropriate event for response.</p> <p>D. The event can be terminated when, in coordination with the Duke Energy CCP Engineer(s), it has been determined that actions taken have stabilized the dam until permanent repairs can be made or a permanent repair has been completed.</p> <p>E. Enter Recovery Operations, as needed</p> <p>Ensure notifications are made for any changes in the Emergency Event Level or for event termination.</p> <p>Based on this determination, follow the appropriate actions below.</p>			
A) EVENT LEVEL 1	B) TRANSITION	C) DOWNGRADE	D) TERMINATION
Continue recommended actions on this sheet	Go to the event level of the appropriate event type.	Go to Event Level 2 or 3	Go to Termination and Follow-up (Step 4)

Event: EMBANKMENT MOVEMENT			Sheet
LEVEL: 3 GREEN			H-3
Situations:			
<ul style="list-style-type: none"> • New bulging/surficial sloughing/slippage of the embankment slope. (Does not include historic bulges and sloughs). 			
RECOMMENDED ACTIONS			
<p><u>Duke Energy Station Manager or Designee (Incident Command):</u></p> <p>A. Make sure notifications in the EAP Process Step 2 and the Emergency Level 3 Notifications have been made using the pre-scripted message.</p> <p>B. The System Owner should make careful observation and inspection of every part of the dam; this should be done without compromising the safety of anyone performing these tasks. Monitor water levels and development of new cracks or movement twice daily, or as conditions warrant.</p> <p>C. If conditions permit:</p> <ul style="list-style-type: none"> • Activate level control features/equipment (i.e., bottom drain, installed siphon or pumps gate valves, etc.) to provide additional drawdown of the water level. Caution must be taken to not add additional flooding to properties downstream. • Stabilize slides on the downstream slope by weighting the toe area below the slide with additional soil, rock or gravel. <p>D. Monitor Off-site areas “and instrumentation.”</p> <p>E. Record all information, observations, and actions on the Abnormal or Emergency Event Log provided in EAP Appendix A-3.</p> <p>F. Contact the <u>Duke Energy CCP Engineer(s)</u> at least twice daily to report the latest observations and conditions. If conditions change significantly, refer to the Re-Evaluation/Decision process below.</p> <p><u>Duke Energy CCP Engineer(s):</u></p> <p>Review all pertinent information and dictate appropriate actions to the <u>Duke Energy Incident Command</u>. If necessary, contact local Engineering consultants and/or other individuals that may be able to assist in monitoring the situation.</p> <p><u>NCDEO State Dam Safety Agency Staff:</u></p> <p>Provide decision support and technical support to the <u>Duke Energy Incident Command and CCP Engineer(s)</u> as appropriate.</p>			
RE-EVALUATION/DECISION			
<p>Evaluate conditions at least twice daily, and whenever conditions change significantly Determine whether:</p> <p>A. The event remains at the current Event Level 3 if cracks have not been repaired or seepage is not controlled.</p> <p>B. The event warrants escalation if the integrity of the dam appears to be threatened by sudden or rapidly proceeding slides.</p> <p>C. The event warrants transition if conditions of the event have changed such that use of a different Action Data Sheet are needed.</p> <p>D. The event can be terminated when, in coordination with the CCP Engineer(s), it has been determined the abnormal condition has been resolved.</p> <p>E. Enter Recovery Operations, as needed</p> <p>Ensure notifications are made for any changes in the Emergency Event Level or for event termination. Based on this determination, follow the appropriate actions indicated below.</p>			
A. EVENT LEVEL 2	B. ESCALATION	C. TRANSITION	D. TERMINATION
Continue recommended actions on this sheet	Go to Event Level 2 this event	Go to the event level of the appropriate event type.	Go to Termination and Follow-up (Step 4)

Event: EMBANKMENT MOVEMENT			Sheet	
LEVEL: 2 YELLOW			H-2	
Situations:				
<ul style="list-style-type: none"> • Large incremental movement/slippage of the embankment slope 				
RECOMMENDED ACTIONS				
<u>Duke Energy Station Manager or Designee (Incident Command):</u>				
A. Make sure notifications on the EAP Process Step 2 and the Emergency Level 2 Notifications have been made using the pre-scripted message.				
B. Make contact with impacted State and County Emergency Management Agencies to notify/clarify the details of the current situation.				
C. The System Owner should make careful observation and inspection of every part of the dam; this should be done without compromising the safety of anyone performing these tasks. Monitor water levels and development of new cracks or movement twice daily.				
D. If conditions permit:				
<ul style="list-style-type: none"> • Activate level control features/equipment (i.e., bottom drain, installed siphon or pumps gate valves, etc.) to provide additional drawdown of the lake/basin level. Caution must be taken to not add additional flooding to properties downstream. • Stabilize slides on the downstream slope by weighting the toe area below the slide with additional soil, rock or gravel. 				
E. Monitor Off-site areas and instrumentation.				
F. Record all information, observations, and actions on the Abnormal or Emergency Event Log provided in EAP Appendix A-3.				
G. Contact the <u>Duke Energy CCP Engineer(s)</u> at least twice daily to report the latest observations and conditions. If conditions change significantly, refer to the Re-Evaluation/Decision process below.				
H. Conduct a conference call with appropriate staff to provide a situation report on a regular frequency, appropriate for the complexity of the event.				
I. Consider requesting drone/air support for emergency inspection. If aviation/drone support is needed then contact Duke Aviation Scheduling.				
<u>Duke Energy CCP Engineer(s):</u>				
Review all pertinent information and dictate appropriate actions to the <u>Duke Energy Incident Command</u> . If necessary, contact local Engineering consultants and/or other individuals that may be able to assist in monitoring the situation.				
<u>NCDEQ State Dam Safety Agency Staff:</u>				
Provide decision support and technical support to the <u>Duke Energy Incident Command and CCP Engineer(s)</u> as appropriate.				
RE-EVALUATION/DECISION				
Evaluate conditions at least twice daily, and whenever conditions change significantly. Determine whether:				
A. The event remains at the current Event Level 2 if cracks have not been repaired or seepage is not controlled.				
B. The event warrants escalation if the integrity of the dam appears to be threatened by sudden or rapidly proceeding slides.				
C. The event warrants transition if conditions of the event have changed such that use of a different Action Data Sheet are needed.				
D. The event warrants downgrade to Event Level 3 if sufficient repairs are made and the dam appears stable as determined by Duke Energy CCP Engineer(s). All contacts on Emergency Level 2 Notifications shall be notified of termination of Level 2.				
E. The event can be terminated when, in coordination with the Duke Energy CCP Engineer(s), it has been determined that actions taken have stabilized the dam until permanent repairs can be made or a permanent repair has been completed.				
F. Enter Recovery Operations, as needed				
Ensure notifications are made for any changes in the Emergency Event Level or for event termination.				
Based on this determination, follow the appropriate actions indicated below.				
A. EVENT LEVEL 2	B. ESCALATION	C. TRANSITION	D. DOWNGRADE	E. TERMINATION
Continue recommended actions on this sheet	Go to Event Level 1 this event	Go to the event level of the appropriate event type.	Go to Event Level 3	Go to Termination and Follow-up (Step 4)

Event: EMBANKMENT MOVEMENT			Sheet
LEVEL: 1 RED			H-1
Situations:			
<ul style="list-style-type: none"> • Sudden or rapidly proceeding bulges or slides of the embankment slopes. 			
RECOMMENDED ACTIONS			
<p><u>Duke Energy Station Manager or Designee (Incident Command):</u></p> <p>A. Make sure notifications on the EAP Process Step 2 and the Emergency Level 1 Notifications have been made using the pre-scripted message.</p> <p>B. Make contact with impacted State and County Emergency Management Agencies to notify/clarify the details of the current situation.</p> <p>C. Recommend to the Incident Commander “Immediate Evacuation” of the area downstream of the dam.</p> <p>D. Stay a safe distance from the dam.</p> <p>E. Record all information, observations, and actions on the Abnormal or Emergency Event Log provided in EAP Appendix A-3.</p> <p>F. Conduct a conference call with appropriate staff to provide a situation report on a regular frequency, appropriate for the complexity of the event.</p> <p>G. Consider requesting drone/air support for emergency inspection. If aviation/drone support is needed then contact Duke Aviation Scheduling.</p> <p><u>Duke Energy CCP Engineer(s):</u> Provide decision support and technical support as appropriate. Advise Duke Energy leadership of dangerous conditions at the dam.</p> <p><u>NCDEO State Dam Safety Agency Staff:</u> Provide decision support and technical support to the <u>Duke Energy Incident Command and CCP Engineer(s)</u> as appropriate.</p>			
RE-EVALUATION/DECISION			
Evaluate conditions at least twice daily, and whenever conditions change significantly Determine whether:			
<p>A. The event remains at the current level if the integrity of the dam appears to be threatened by sudden or rapidly proceeding slides.</p> <p>B. The event warrants transition if conditions of the event have changed such that use of a different Action Data Sheet are needed.</p> <p>C. The event warrants downgrade to level 2 if there is no longer an immediate impending threat of dam failure and water levels in the lake is lowered below bottom level of embankment fill yet there is damage to the dam that prevents downgrade to level 3</p> <p>D. The event can be terminated when, in coordination with the Duke Energy CCP Engineer(s), it has been determined that actions taken have stabilized the dam until permanent repairs can be made or a permanent repair has been completed.</p> <p>E. Enter Recovery Operations, as needed</p> <p>Ensure notifications are made for any changes in the Emergency Event Level or for event termination. Based on this determination, follow the appropriate actions indicated below.</p>			
A. EVENT LEVEL 1	B. TRANSITION	C. DOWNGRADE	D. TERMINATION
Continue recommended actions on this sheet	Go to the event level of the appropriate event type.	Go to Event Level 2 this event	Go to Termination and Follow-up (Step 4)

Event: EARTHQUAKE LEVEL: 3 GREEN	Sheet I-3
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Situations:

- Earthquake felt or magnitude 3.0 or higher reported on or within 50 miles of the dam.

RECOMMENDED ACTIONS

Duke Energy Station Manager or Designee (Incident Command):

- A. Make sure notifications on the EAP Process Step 2 and the Emergency Level 2 Notifications have been made using the pre-scripted message.
- B. If an earthquake is felt or magnitude 3.0 or higher is reported within 50 miles of the dam, inspect all parts of the dam for the following conditions without compromising safety:
 - Sudden change in pool level;
 - Increase in piezometer levels;
 - Change in seepage flow rate or turbidity;
 - Scarps or cracks, settlement, sink holes, or undulations in the ground surface;
 - Lateral spreading, mud flows, sand boils, mud spouts, or quicksand-like conditions; and
 - Displacement or deformation of appurtenant structures including concrete cracking or broken structural connections or members.
- C. If there is visible damage to the dam or appurtenances as a result of a seismic event, but the impoundment is not compromised, document the type of damage that occurred and monitor the dam for additional damage that may develop over time. The damage could correspond to other Events described in this emergency action plan (i.e. embankment seepage, cracking, movement, etc.), and the corresponding recommended actions should be reviewed for guidance with regard to the recommended course of action that closely monitors the situation, potential problems and dangers, and temporary corrective action that must be taken to help avoid dam failure and minimize damage downstream.
- D. If safety permits, additional emergency remedial actions should be taken as appropriate:
 - Perform a field survey to determine if there has been any settlement and movement of the dam embankment, spillway, and low-level outlet works.
 - Drain the reservoir, if required.
- E. Record all information, observations, and actions on the Abnormal or Emergency Event Log provided in EAP Appendix A-3.
- F. Contact the Duke Energy CCP Engineer(s) at least daily to report the latest observations and conditions. If conditions change significantly, refer to the Re-Evaluation/Decision process below

Duke Energy CCP Engineer(s):

Review all pertinent information and dictate appropriate actions to the Duke Energy Incident Command. If necessary, contact local Engineering consultants and/or other individuals that may be able to assist in monitoring the situation.

NCDEQ State Dam Safety Agency Staff:

Provide decision support and technical support to the Duke Energy Incident Command and CCP Engineer(s) as appropriate.

RE-EVALUATION/DECISION

Evaluate conditions at least twice daily, and whenever conditions change significantly. Determine whether:

- A. The event remains at the current Event Level 3 until all residual aftershocks have ceased and a final inspection completed.
- B. The event warrants transition if conditions of the event have changed such that use of a different Action Data Sheet are needed.
- C. The event can be terminated when, in coordination with the CCP Engineer(s), it has been determined the abnormal condition has been resolved. Enter Recovery Operations, as needed

Ensure notifications are made for any changes in the Emergency Event Level or for event termination.

Based on this determination, follow the appropriate actions indicated below.

A. EVENT LEVEL 2	B. TRANSITION	C. TERMINATION
Continue recommended actions on this sheet	Go to the event level of the appropriate event type.	Go to Termination and Follow-up (Step 4)

Event: SECURITY THREAT/SABOTAGE/VANDALISM		Sheet
LEVEL: 3 GREEN		J-3
Situations: <ul style="list-style-type: none"> • Bomb threat • Suspicious package • Suspected intentional damage to the dam or appurtenances with or without impact to the functioning of the dam 		
RECOMMENDED ACTIONS		
<p><u>Duke Energy Station Manager or Designee (Incident Command):</u></p> <p>A. Notify the Control Room of any bomb threat or suspicious.</p> <p>B. Assist the Control Room with completing the bomb threat checklist.</p> <p>C. Notify the Control Room of any suspected sabotage or vandalism.</p> <p>D. Ensure you and other employees/contractors are in a safe location.</p> <p>E. Follow all instructions from the Control Room.</p> <p>F. Coordinate with the Control Room to make sure notifications on the EAP Process Step 2 and the Emergency Level 3 Notifications have been made using the pre-scripted message.</p>		
RE-EVALUATION/DECISION		
Evaluate conditions. Determine whether: <ul style="list-style-type: none"> A. The event remains at the current Event Level 3 if the situation has not changed. B. The event warrants transition if conditions of the event have changed such that use of a different Action Data Sheet are needed. C. The event can be terminated when, in coordination with the CCP Engineer(s), it has been determined the abnormal condition has been resolved. D. Enter Recovery Operations, as needed Ensure notifications are made for any changes in the Emergency Event Level or for event termination. Based on this determination, follow the appropriate actions indicated below.		
A. EVENT LEVEL 3	B. TRANSITION	C. TERMINATION
Continue recommended actions on this sheet.	Go to the event level of the appropriate event type.	Go to Termination and Follow-up (Step 4)

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Please leave this page and insert the **“Step 4:
Termination”** tab previously provided.

Step 4: Termination and Follow-up

When the EAP has been activated and an emergency level has been declared, all EAP actions must be completed and an assessment and evaluation of all steps taken before declaring the emergency over. Once all actions are completed, the EAP operations will be terminated and follow-up procedures completed.

Demobilization

Throughout the activation, personnel, equipment and supplies will be needed and acquired to support the response effort. However, as resources and personnel are no longer needed, actions should be taken to release unneeded resources and people to prevent waste and allow operations to return to normal. It is most important that, prior to event termination, all personnel and resources are accounted for. Documentation completed at closeout should include the following:

- Total man hours consumed
- Equipment used for response effort
- Materials used for response effort
- Accommodations and Food
- Safety Report
- External resources needed for the response

Each Section Chief should ensure all functions have been completed with all the necessary documentation and that everything has been reported to the Incident Commander. The Operations Section Chief should account for all documentation prior to event termination.

Termination responsibilities

1. The Incident Commander is responsible for terminating EAP operations (in consultation with the Unified Command, if applicable) and relaying this decision to FHO/CCP Senior Management.
2. Prior to termination of an Emergency Level 1 or Emergency Level 2 event, Duke Energy CCP Engineering, and if the State Dam Safety Official deems it necessary, will inspect the dam to ensure that any repairs made has mitigated the emergency and/or the dam is in a safe condition until permanent repairs can be made. If it is determined that these conditions have been met, the Incident Commander, or Unified Command, can terminate the event, or downgrade the EAP activation level.
3. Each person that made notifications during the event will notify the same group of contacts they previously notified that the event has been terminated. Notifications will be made based on the highest emergency event level reached during the event.
4. The System Owner shall ensure that the *Contact Log, Appendix A-1* (A,B, or C, as applicable); *Abnormal or Emergency Event Log, Appendix A-3*, and the *Dam Safety Emergency Situation Report* (Appendix A-4) are completed for all emergency levels to document the emergency event and all actions that were taken.

- a. The System Owner shall forward a copy of these forms to CCP Emergency Preparedness via email to: ccpemergencyprep@duke-energy.com.
 - b. CCP Emergency Preparedness shall ensure a copy is placed in the station operating record and shall distribute copies of the completed report to Duke Energy Station Operations and the CCP System Owner.
5. CCP Regulatory Affairs must submit to the State Director, and/or appropriate Tribal authority, a copy of the Dam Safety Emergency Situation Report if requested, when such information is not otherwise available on the Duke Energy publicly accessible internet site (CFR 40 Part 257.105d). A copy of the Dam Safety Emergency Situation Report must be posted to the Duke Energy publicly accessible internet site within 30 days of placing the document in the station operating record.

Follow-up

At the conclusion of all events, the Incident Commander should conduct a “Hot Wash” as soon after the event as possible (preferably before the team leaves the Incident Command Post). The object of the “Hot Wash” is to bring all personnel who worked within the event together to discuss all facets of the response effort. Information should be gathered to document what went well and areas for improvement with the response effort.

During this process, time should be taken to discuss the EAP. Questions to be asked should include: “Were there any issues encountered with the EAP? Did the procedures work as they were expected?” Participants should provide recommendations for EAP improvement.

CCP Emergency Preparedness and the site System Owner should coordinate to conduct an “After Action Review” consisting of a team that includes System Owners, Station Managers, CCP Engineers, Safety, Environmental, and CCP Governance and Operations Support. Personnel will review all comments received from the Hot Wash, as well as any new items for discussion, and decide on the action to be taken on each item.

VI. Maintenance—EAP Review and Revision

EAP annual review

The Duke Energy CCP Governance and Operations Support will coordinate with the System Owner to conduct an annual review of the EAP. The EAP annual review will include the following:

- Verify all contacts in the Emergency Event Level 1, 2, and 3 notification charts in the EAP.
- Verify contact information for all external local, county, and state emergency responders listed and update information on the point of contact for each. Request the contact provide the date and revision number of the copy being maintained.
- Complete a review of the Action Data Sheet Index and Action Data Sheets and update as necessary.
- Verify locally available resources, contractor's phone numbers, addresses, and services are current.
- Verify and update materials and supplies maintained on site.
- Verify and update equipment maintained on site.
- Verify and update materials and supplies available off site.
- Verify and update equipment available off site.

Revisions

Duke Energy is responsible for revising the EAP annually or whenever there is a change in conditions that would substantially affect processes, procedures and change in personnel. Duke Energy maintains the electronic master document. When revisions occur, Duke Energy will revise the EAP and provide an electronic revised copy to all the EAP document holders. Hard copies of the revised EAP will be printed and distributed to the document holders. The document holders are responsible for replacing the outdated copy of the respective document(s) whenever revisions are received.

VII. Record of Holders of Control Copies of this EAP

Copy Number	Organization	Person Receiving Copy
A-1	Duke Energy [REDACTED]	Station Manager [REDACTED]
A-2	Duke Energy [REDACTED]	Site EHS Professional [REDACTED]
A-3	Duke Energy [REDACTED]	Operations Superintendent/ Manager [REDACTED]
A-4	Duke Energy [REDACTED]	Control Room Staff
A-5	Duke Energy [REDACTED]	CCP System Owner [REDACTED]
A-6 (Notification only via email)	Duke Energy [REDACTED]	CCP Engineer [REDACTED]
A-7 (Notification only via email)	Duke Energy [REDACTED]	CCP Regional Manager [REDACTED]
B-1	Dam Safety Program, KDEP, Land Quality Section Central Office [REDACTED]	[REDACTED]
B-2	KDEP, Land Quality Section Reg. Office [REDACTED]	[REDACTED]
B-3	Boone County Emergency Management [REDACTED]	[REDACTED]
B-4	Boone County Sheriff Department [REDACTED]	[REDACTED]
B-5	Belleview/McVille Fire Department [REDACTED]	[REDACTED]

VIII. Record of Revisions and Updates Made to EAP

Revision Number	Date	Revisions made	By whom
1	9/15/2015	Updated contacts, Incident Command Assignments, Record of Holders, Appendix A-7, Resources. Removed Concurrence page and signatures from front cover (these can be found in the 2014 EAP).	Karen Simms
2	2/2/2016	Major Re-write to include new EAP template including new CCP Call Trees, additional Action Data Sheets for level 3 events, updated contact lists, elimination of redundant information, added guidance for responses after hours and during inclement weather, revised Appendices A-1A, B, C (contact tracking lists), inserted new Appendix A-9 (Record of Annual Meeting with Local Emergency Responders).	Michelle Austin
3	5/16/2016	Updated names and contact information listed in EAP, Updated Call Trees and Call Logs with Duke Energy State President contact information and IMT activation language.	Michelle Austin
4	4/17/2017	Review and update of: Action Data Sheets, onsite and offsite materials & resources, IMT lists, Call Tree and Call Logs, added page for Professional Engineer to seal EAP. For a detailed list of revisions, please see the Revision Tracker on SharePoint.	George Tolbert

IX. Concurrences

By my signature, I acknowledge that I, or my representative, have reviewed this plan and concur with the tasks and responsibilities assigned herein for my organization and me.

1.  _____ CCP _____ 2-22-17
Signature Organization Date

Jake Keegan, Duke Energy Station System Owner, East Bend Station

2.  _____ FHD _____ 2-22-17
Signature Organization Date

Gary Cook, Duke Energy Station Manager, East Bend Station

3.  _____ CCPOEM _____ 2/24/17
Signature Organization Date

Tim Theimann, Duke Energy CCP Regional General Manager, Midwest

X. Appendices—Forms, Glossary, Maps, and Supporting Data

Appendix A

- A-1A Contact Log – Emergency Level 1
- A-1B Contact Log – Emergency Level 2
- A-1C Contact Log – Emergency Level 3
- A-2 Detailed Roles and Responsibilities for ICS
- A-3 Abnormal or Emergency Event Log
- A-4 Dam Emergency Situation Report Form
- A-5 ICS Forms
- A-6 Glossary of Terms
- A-7 Emergency Contacts List
- A-8 EAP Annual Review Verification Statement
- A-9 Record of Annual Meeting with Local Emergency Responders

Appendix B

- B-1 Resources Available
- B-2 Vicinity Map
- B-3 Site Map
- B-4 Inundation/Downstream Hazards Map and Associated Panels
- B-5 Residents/Businesses/Highways at Risk
- B-6 Plan View of Dams
- B-7 Profile of Principal Spillway
- B-8 Reservoir Elevation-Area-Volume and Spillway Capacity Data
- B-9 State and National Inventory of Dams (NID) Data

Appendix C

- C-1 EAP Review and Follow-up Documentation

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tab previously provided.

APPENDIX A

Appendix A–1A

Contact Log - Emergency Level 1

Use this script for notifications to 1-3:

"This is _____ (name and position). A **Level 1 Event** exists involving a _____ (Describe Situation) of the (Specify the Dam Name and Type) at the Duke Energy (Plant/Facility name). We will advise when the situation is resolved or if conditions change. I can be contacted at the following number _____. My alternate phone number is _____.

We **DO** need offsite assistance and this is what we need _____. Please relay this information to your Emergency Management Director as soon as possible."

OR

We **DO NOT** need any offsite assistance at this time, we are just calling to keep you informed. However, please relay this information to your Emergency Management Director as soon as possible." Ask Operator to repeat message back for confirmation.

Use this script for notifications to A-C:

"This is _____ (name and position). A **Level 1 Event** exists at _____ the (Plant/facility name) due to _____ (Describe Situation). We are entering EAP Level 1 and we will be using Action Data sheet _____. A plant status call will occur at _____ (time and date). Please notify appropriate staff to join the call for additional information by calling _____

NOTE: See Emergency Contacts in Appendix A of the EAP for contact information for back-ups to the person shown below and other emergency personnel. Numbers () denotes call sequence.

The IMT shall be activated for all Level 1 incidents."

The grayed area represents the initiator of their respective call tree. Except for the Shift Supervisor/System Owner, each individual is responsible for calling the next person below them. If that person does not answer then they must call the next person on the list.

LEVEL 1 NOTIFICATIONS

In Case of a terrorist attack or other security or sabotage event, call 911 before initiating the notifications below.

Call Date and Time	Emergency Contact	Comments	Name of Person Contacted Call Notes (e.g., "left message", "Spoke with", "no answer", etc.)	Name of Caller
Caller: East Bend Control Room				
	System Owner [Redacted]			
	(1) Boone County Emergency Management [Redacted]			
	(2) Supt Operations [Redacted]			
	(3) Kentucky - Emergency Operations Center [Redacted]			
Caller: Supt Operations				
	Station Manager [Redacted]			
	Duke Energy Emergency Hotline [Redacted]			

LEVEL 1 NOTIFICATIONS

In Case of a terrorist attack or other security or sabotage event, call 911 before initiating the notifications below.

Call Date and Time	Emergency Contact	Comments	Name of Person Contacted Call Notes (e.g., "left message", "Spoke with", "no answer", etc.)	Name of Caller
Caller: Station Manager				
	Corporate Legal [REDACTED]			
	Corporate Legal [REDACTED]			
	Duke Community Relations Manager [REDACTED]			
	Govt & Comm Relations Mgr [REDACTED]			
	VP Midwest Generation [REDACTED]			
Caller: Duke Community Relations Manager				
	State President-OH/KY [REDACTED]			

LEVEL 1 NOTIFICATIONS

In Case of a terrorist attack or other security or sabotage event, call 911 before initiating the notifications below.

Call Date and Time	Emergency Contact	Comments	Name of Person Contacted Call Notes (e.g., "left message", "Spoke with", "no answer", etc.)	Name of Caller
Caller: System Owner				
	East Bend Control Room [Redacted]			
	(A) Site Environmental Coordinator [Redacted]			
	(A) Lead EHS Professional [Redacted]			
	(B) CCP Engineer [Redacted]			
	(B) Mgr CCP Regional Engg [Redacted]			
	(C) GM CCP Regional Ops & Maint [Redacted]			
Caller: Site Environmental Coordinator				
	CCP Regulatory Affairs [Redacted]			

LEVEL 1 NOTIFICATIONS

In Case of a terrorist attack or other security or sabotage event, call 911 before initiating the notifications below.

Call Date and Time	Emergency Contact	Comments	Name of Person Contacted Call Notes (e.g., "left message", "Spoke with", "no answer", etc.)	Name of Caller
	CCP Regulatory Affairs [REDACTED]			
Caller: CCP Regulatory Affairs				
	Dam Safety Program, KDEP Division of Water [REDACTED]			
Caller: CCP Engineer				
	Dam Engineering Consultant/Co. [REDACTED]			
Caller: GM CCP Regional Ops & Maint				
	VP CCP Ops & Maintenance [REDACTED]			
Caller: VP CCP Ops & Maintenance				
	VP CCP Governance & Ops Support [REDACTED]			
	SVP Coal Combustion Products [REDACTED]			
Caller: VP CCP Governance & Ops Support				

LEVEL 1 NOTIFICATIONS

In Case of a terrorist attack or other security or sabotage event, call 911 before initiating the notifications below.

Call Date and Time	Emergency Contact	Comments	Name of Person Contacted Call Notes (e.g., "left message", "Spoke with", "no answer", etc.)	Name of Caller
	Incident Support Team [Redacted]			
	Mgr CCP Governance [Redacted]			
Caller: Mgr CCP Governance				
	Dir CCP Governance & Ops Suppt [Redacted]			

Appendix A–1B

Contact Log - Emergency Level 2

Use this script for notifications to 1-3:

"This is _____ (name and position). A **Level 2 event** exists involving a _____ (Describe Situation) of the (Specify Dam Name and Type) at the Duke Energy (Plant/Facility name). We will advise when the situation is resolved or if conditions change. I can be contacted at the following number _____. My alternate phone number is _____.

We **DO** need offsite assistance and this is what we need _____. Please relay this information to your Emergency Management Director as soon as possible."

OR

We **DO NOT** need any offsite assistance at this time, we are just calling to keep you informed. However, please relay this information to your Emergency Management Director as soon as possible."Ask Operator to repeat message back for confirmation.Ask Operator to repeat message back for confirmation.

Use this script for notifications to A-C:

" This is _____ (name and position). A Level 2 event exists at (Plant/facility name) due to _____ (Describe Situation). We are entering EAP Level 2 and we will be using Action Data Sheet _____. A plant status call will occur at _____ (time and date). Please notify appropriate staff to join the call for additional information by calling _____

NOTE: See Emergency Contacts in Appendix A of the EAP for contact information for back-ups to the person shown below and other emergency personnel. Numbers () denotes call sequence.

"The IMT shall be activated for all Level 2 incidents."

The grayed area represents the initiator of their respective call tree. Except for the Shift Supervisor/System Owner, each individual is responsible for calling the next person below them. If that person does not answer then they must call the next person on the list.

LEVEL 2 NOTIFICATIONS				
<i>In the case of a security or sabotage event, call 911 before initiating the notifications below.</i>				
Call Date and Time	Emergency Contact	Comments	Name of Person Contacted Call Notes (e.g., "left message", "Spoke with", "no answer", etc.)	Name of Caller
Caller: East Bend Control Room				
	System Owner [REDACTED]			
	(1) Supt Operations [REDACTED]			
	(2) Boone County Emergency Management [REDACTED]			
	(3) Kentucky - Emergency Operations Center [REDACTED]			
Caller: Supt Operations				
	Station Manager [REDACTED]			
	Duke Energy Emergency Hotline [REDACTED]			

LEVEL 2 NOTIFICATIONS
In the case of a security or sabotage event, call 911 before initiating the notifications below.

Call Date and Time	Emergency Contact	Comments	Name of Person Contacted Call Notes (e.g., "left message", "Spoke with", "no answer", etc.)	Name of Caller
Caller: Station Manager				
	Corporate Legal [Redacted]			
	Corporate Legal [Redacted]			
	Duke Community Relations Manager [Redacted]			
	Govt & Comm Relations Mgr [Redacted]			
	VP Midwest Generation [Redacted]			
Caller: Duke Community Relations Manager				
	State President-OH/KY [Redacted]			

LEVEL 2 NOTIFICATIONS

In the case of a security or sabotage event, call 911 before initiating the notifications below.

Call Date and Time	Emergency Contact	Comments	Name of Person Contacted Call Notes (e.g., "left message", "Spoke with", "no answer", etc.)	Name of Caller
Caller: System Owner				
	East Bend Control Room [Redacted]			
	(A) Site Environmental Coordinator [Redacted]			
	(A) Lead EHS Professional [Redacted]			
	(B) CCP Engineer [Redacted]			
	(B) Mgr CCP Regional Engg [Redacted]			
	(C) GM CCP Regional Ops & Maint [Redacted]			
Caller: Site Environmental Coordinator				
	CCP Regulatory Affairs [Redacted]			

LEVEL 2 NOTIFICATIONS
In the case of a security or sabotage event, call 911 before initiating the notifications below.

Call Date and Time	Emergency Contact	Comments	Name of Person Contacted Call Notes (e.g., "left message", "Spoke with", "no answer", etc.)	Name of Caller
	CCP Regulatory Affairs [Redacted]			
Caller: CCP Regulatory Affairs				
	Dam Safety Program, KDEP Division of Water [Redacted]			
Caller: CCP Engineer				
	Dam Engineering Consultant/Co. [Redacted]			
Caller: GM CCP Regional Ops & Maint				
	VP CCP Ops & Maintenance [Redacted]			
Caller: VP CCP Ops & Maintenance				
	VP CCP Governance & Ops Support [Redacted]			
	SVP Coal Combustion Products [Redacted]			

LEVEL 2 NOTIFICATIONS				
<i>In the case of a security or sabotage event, call 911 before initiating the notifications below.</i>				
Call Date and Time	Emergency Contact	Comments	Name of Person Contacted Call Notes (e.g., "left message", "Spoke with", "no answer", etc.)	Name of Caller
Caller: VP CCP Governance & Ops Support				
	Incident Support Team [REDACTED]			
	Mgr CCP Governance [REDACTED]			
Caller: Mgr CCP Governance				
	Dir CCP Governance & Ops Suppt [REDACTED]			

Appendix A–1C

Contact Log – Emergency Level 3

INFORMATIONAL MESSAGE ONLY

Use this script for notifications:

"This is _____ (name and position). A _____ (notification condition) exists at _____ (Plant/facility name) due to _____ (Describe Situation). We are entering EAP Level 3 and we will be using Action Data sheet _____.

NOTE: See Emergency Contacts in Appendix A of the EAP for contact information for back-ups to the person shown below and other emergency personnel.

The grayed area represents the initiator of their respective call tree. Except for the Shift Supervisor/System Owner, each individual is responsible for calling the next person below them. If that person does not answer then they must call the next person on the list.

LEVEL 3 NOTIFICATIONS				
<i>In the case of a security or sabotage event, call 911 before initiating the notifications below.</i>				
Call Date and Time	Emergency Contact	Comments	Name of Person Contacted Call Notes (e.g., "left message", "Spoke with", "no answer", etc.)	Name of Caller
Caller: East Bend Control Room				
	System Owner <div style="background-color: black; width: 100px; height: 20px; margin-top: 5px;"></div>			
	(1) Supt Operations <div style="background-color: black; width: 100px; height: 20px; margin-top: 5px;"></div>			
Caller: Supt Operations				
	Station Manager <div style="background-color: black; width: 100px; height: 20px; margin-top: 5px;"></div>			

LEVEL 3 NOTIFICATIONS				
<i>In the case of a security or sabotage event, call 911 before initiating the notifications below.</i>				
Call Date and Time	Emergency Contact	Comments	Name of Person Contacted Call Notes (e.g., "left message", "Spoke with", "no answer", etc.)	Name of Caller
	Duke Energy Emergency Hotline [REDACTED]			
Caller: Station Manager				
	Duke Community Relations Manager [REDACTED]			
	Govt & Comm Relations Mgr [REDACTED]			
	VP Midwest Generation [REDACTED]			
Caller: System Owner				
	East Bend Control Room [REDACTED]			
	(A) Site Environmental Coordinator [REDACTED]			

LEVEL 3 NOTIFICATIONS
In the case of a security or sabotage event, call 911 before initiating the notifications below.

Call Date and Time	Emergency Contact	Comments	Name of Person Contacted Call Notes (e.g., "left message", "Spoke with", "no answer", etc.)	Name of Caller
	(A) Lead EHS Professional [Redacted]			
	(B) CCP Engineer [Redacted]			
	(B) Mgr CCP Regional Engg [Redacted]			
	(C) GM CCP Regional Ops & Maint [Redacted]			
Caller: Site Environmental Coordinator				
	CCP Regulatory Affairs [Redacted]			
	CCP Regulatory Affairs [Redacted]			
Caller: CCP Regulatory Affairs				
	Dam Safety Program, KDEP Division of Water [Redacted]			

LEVEL 3 NOTIFICATIONS				
<i>In the case of a security or sabotage event, call 911 before initiating the notifications below.</i>				
Call Date and Time	Emergency Contact	Comments	Name of Person Contacted Call Notes (e.g., "left message", "Spoke with", "no answer", etc.)	Name of Caller
Caller: CCP Engineer				
	Dam Engineering Consultant/Co. [REDACTED]			
Caller: GM CCP Regional Ops & Maint				
	VP CCP Ops & Maintenance [REDACTED]			
Caller: VP CCP Ops & Maintenance				
	VP CCP Governance & Ops Support [REDACTED]			
Caller: VP CCP Governance & Ops Support				
	Mgr CCP Governance [REDACTED]			
Caller: Mgr CCP Governance				
	Dir CCP Governance & Ops Suppt [REDACTED]			

Appendix A–2

Detailed Roles and Responsibilities for ICS

Incident Commander

Responsibilities:

The Incident Commander (IC) is responsible for all incident activities, including the development of strategies and tactics and the ordering and the release of resources. The IC has overall authority and responsibility for conducting incident operations and is responsible for the management of all incident operations at the incident site.

- Determine the nature and magnitude of the incident.
- Determine if “Accounting of all Station Personnel” is required.
- Determine if “Station Evacuation” is required.
- Establish and manage incident objectives.
- Ensure incident safety.
- Determine station personnel health threats.
- Determine the public health threats: local residents, boaters, train, school, etc...
- Determine if there are any injuries or casualties.
- Determine if there is any danger in extracting individuals.
- Determine the environmental impacts.
- Determine the need to secure and isolate the area.
- Determine the regulatory involvement.
- Establish overarching goals.
- Develop and issue assignments, plans, procedures, and protocols.
- Provide clear tactical direction to on-going response efforts.
- Establish specific, measureable objectives for various activities.
- Gather information and prioritize.
- Consider and request aviation resources early in the response phase for planning and damage assessment purposes.
- Manage efforts to attain defined strategic objectives.
- Document results to measure performance and facilitate corrective actions.
- Manage response through meetings, briefings, and conversations; communicate meeting times in advance and describe expectations for the meeting.
- Establish an ICS organizational structure.
- Ensure the ICS structure is adequate to protect the safety of the responders and citizens, to control the spread of damage, and to protect the environment.
- Appoint an IC Deputy or deputies, if the incident warrants.
- A deputy must be as qualified as the Incident Commander and can be from the same agency or other agencies.
- Establish an Incident Command Post.
- Be visible in the Incident Command Post; provide focused direction and encouragement.
- Determine if emergency services needs to be called to assist with the incident.
- Determine if the Person/-(State/County) Authority needs to assist with warning boaters and lake residents.

- Approve requests for additional equipment, personnel, and services, as appropriate.
- As emergency services arrive, update the “Organization Assignment List (ICS Form – 203)” to help account for personnel involved and who they are assigned too.
- Examine key financial issues and monitor cost.
- Brief the Level 2 PGO Mgmt. Team, if activated.
- Provide information services to internal and external stakeholders; keep the corporate office apprised of the situation and status of ongoing response.

Safety Officer

Responsibilities:

The SO is a member of the Command Staff, which includes the Public Information Officer (PIO) and Liaison Officer (LNO). The SO carries out staff functions needed to support the Incident Commander (IC). The Command Staff carries out responsibilities for key activities not specifically identified in the General Staff functional elements.

The SO monitors incident operations and advises the IC on all matters relating the operational safety, including the health and safety of emergency responder personnel. The ultimate responsibility for the same conduct of incident management operations rests with the IC and supervisors at all levels of incident management. The SO is, in turn, responsible to the IC for the set of systems and procedures necessary to ensure ongoing assessment of hazardous environments, coordination of multiagency safety efforts, and implementation of measures to promote emergency responder safety, as well as the general safety of incident operations. The SO has emergency authority to stop and/or prevent unsafe acts during incident operations.

- Ensure incident safety.
- Monitor and assess safety hazards or unsafe situations and for developing measures for ensuring personnel safety.
- Appoint assistants, if the incident warrants.
- Assess hazardous and unsafe situations.
- Develop measures to assure responder safety.
- Assign personnel to monitor responders.
- Evaluate safety of station personnel.
- Oversee the accounting of station personnel. Utilize all forms of communication to locate missing personnel.
- Evaluate public health and safety threats
- Evaluate risk to area boaters. Notify and evacuate boaters, if they are in area of concern.
- Notify and provide instructions to Contractors.
- Ensure personnel in the work zones are wearing proper PPE.
- Review and distribute copies of the MSDS to response personnel.
- Prepare the Site Safety and Health Plan.
- Ensure Job Hazard Analysis are completed and shared with personnel involved in the incident response.
- Ensure participation in “Pre-Job Briefs” with personnel involved in the incident response, prior to the initiation of on-site activities and at the beginning of each shift.

- Assign qualified assistants to monitor and evaluate safety and health concerns, perform field audits, prevent unsafe conditions, and analyze special/unique hazards.
- Investigate any accidents or personnel injuries; prepare accident reports.
- Maintain awareness of active and developing situations; exercise emergency authority to stop or prevent unsafe acts.
- Participate in planning meetings to identify health and safety concerns inherent to the strategic work plan.

Public Information Officer

Responsibilities:

The Public Information Officer (PIO) is a member of the Command Staff, which includes the Safety Officer and Liaison Officer. The PIO carries out staff functions needed to support the Incident Commander (IC). The Command Staff carries out responsibilities for key activities not specifically identified in the General Staff functional elements.

The PIO is responsible for interfacing with the public and the media and for coordinating messaging with external-facing staff who communicate with elected officials about incident-related information requirements. The Governmental Community Relations Officer (GCRO) is responsible for interfacing with elected officials about incident-related information requirements and will coordinate messaging with the PIO. The PIO develops accurate and complete information on the incident's cause, size, and current situation; resources committed; and other matters of general interest for both internal and external consumption. The PIO and GCRO will monitor public information and public and external stakeholder response to the incident. Only one incident PIO and GRO should be designated. Assistants may be assigned from other agencies or departments involved. The IC must approve the release of all incident-related information.

- Works with corporate Communications Management to evaluate the need to open/activate the Joint Information Center and/or media centers to coordinate and disseminate messages to internal and external stakeholders.
- Coordinates the development and release of information about the incident to the public, news media, Duke Energy leadership and corporate staff with external-facing responsibilities, including district managers, the CCC/CSC, Regulatory Affairs, Government Relations, Investor Relations and others who will share information with appropriate external agencies and organizations.
- Develop and disseminate information about the issue to internal stakeholders and employees through the Portal and other communications tools as appropriate.
- All information should be reviewed and approved for accuracy by the IC prior to release.
- Works with Corporate Communications to schedule, organize, and facilitate (moderate) media briefings.
- Schedule, organize, and facilitate (moderate) elected official briefings. *Not the PIO, but the GCRO.*
- Assist in preparing fact sheets, Q&A documents, brochures, etc. on the company and basic coal ash release response methodology.
- Ensure that social media is being monitored for information released as it pertains to the incident.

- Ensure that an incident website is launched to effectively communicate incident details with the general public, government agencies, politicians, news media, local officials, company shareholders, as needed.
- Support general public and stakeholder knowledge through community forums and “town Hall” meetings. *The GRO will be responsible for organizing and presenting these types of meeting.*
- Work with Corporate Communications to keep the general public and stakeholders informed through external websites, periodic situation status reports and other methods as needed.

Operations Section Chief

Responsibilities:

The Operations Section Chief is responsible to the Incident Commander for the direct management of all incident-related operational activities. The Operations Section Chief will develop and manage the Operations Section to accomplish the incident objectives set by the Incident Commander. The Operations Section Chief is normally the person with the greatest technical and tactical expertise in dealing with the problem at hand. The Operations Section Chief may have one or more Deputies assigned. The assignment of Deputies, from other agencies, may be advantageous in the case of multijurisdictional incidents.

Span of Control:

The Operations function is where the tactical fieldwork is done and the most incident resources are assigned. Often the most hazardous activities are carried out here. The following supervisory levels can be added to help manage span of control:

- Divisions – Divisions are used to divide an incident geographically. Example: East Division & West Division
- Groups – Groups are used to describe functional areas of operation. Example: Emergency Services Group, Law Enforcement Group, etc...
- Branches – Branches are used when the number of Divisions or Groups exceeds the span of control and can be either geographical or functional. Example: Law Enforcement Branch oversees the Perimeter Control Group & Investigation Group.

Operations Section Chief Responsibilities:

- Directs and coordinates all incident tactical operations.
- Establishes tactical objectives for each operational period.
- Consider and request aviation resources early in the response phase for planning and damage assessment purposes.
- Participate in the development (and manage the execution) of prioritized strategies outlined in the Incident Action Plan (IAP).
- Attend the Tactics Meeting and Planning Meeting; assess the current Incident Action Plan against work progress and established objectives and provide recommendations for the development of both short-term and long-term plans.

- Provide over the Operations Briefing(s); distribute copies of the IAP and review assignments, tactical plans, and strategic objectives.
- Maintain close coordination with Branch Directors, Division Managers, and Group Supervisors, plus contractor representatives, to ensure work is proceeding as planned.
- Oversee and manage operational tasks relating to the incident.
- Recommend the release/demobilization of personnel and equipment, as they are no longer needed in support of the response.

Logistics Section Chief

Responsibilities:

The Logistics Section Chief (LSC) is a member of the General Staff. The LSC carries out staff functions needed to support the Incident Commander (IC). The LSC is responsible for providing facilities, services, and material in support of the incident. The LSC is responsible to:

- Oversee the provision of facilities, services, and materials to all organizational components involved in the response.
- Outline protocols to facilitate the ordering, procurement, receiving, and delivery of response equipment and supplies.
- Identify (and outfit) potential locations for the Incident Command Post (ICP), staging area(s), interim waste storage areas, rehabilitation centers, equipment decontamination stations, and other such areas as needed.
- Address food, lodging, communications, medical, transportation, supply, and security issue relating to daily work plans.
- Participate in Tactics Meeting; advise on current service and support capabilities and estimate future resource demands and service/support requirements for planned and expected operations.
- Attend the Planning Meeting; verify support for the tactical plan and confirm the availability of required resources, ensuring they will arrive in time to support the response during the next operational period.
- Assist with the development of service and support elements of the Incident Action Plan (IAP).
- Coordinate the release of non-tactical resources, in conformance with the Demobilization Plan, at the termination of the response.

The Logistic Section is responsible for the following support areas:

- **IT&T** – Responsible for developing plans for the effective use of incident computers and communications equipment and facilities, installing and testing of equipment, distribution of equipment to incident personnel, and maintenance/repair of equipment.

- **Facilities** – Responsible for the layout and activation of incident facilities including the traffic, parking, security and lighting plans for the for the Base, Camp, and Incident Command Posts. The basic functions or activities include layout, implementation and demobilization of facilities including security and general maintenance services.
- **Meals and Lodging** – Responsible for acquiring and assigning Hotels/Lodging, transporting personnel, and providing meals to personnel.
- **Fleet and Equipment** – Responsible for acquiring, assigning, maintaining and repairing vehicles and equipment for the incident.
- **Supply Chain** – Responsible for ordering equipment, and supplies; receiving and storing all supplies for the incident; maintaining an inventory of supplies; and servicing nonexpendable supplies and equipment.
- **Medical** – Responsible for the development of the Medical Plan, obtaining medical aid and transportation for the injured and ill, and preparation of reports and records.

Planning Section Chief

Responsibilities:

The major activities of the Planning Section may include:

- Coordinate response planning and collection, evaluation, dissemination, and use of incident-related information.
- Consider and request aviation resources early in the response phase for planning and damage assessment purposes.
- Facilitate the respective daily meetings and briefings.
- Institute an Operational Periods Planning Cycle and outline a daily meetings schedule
- Preparing and documenting Incident Action Plans.
- Prepare overall strategic and tactical objectives for use in the planning process.
- Conducting long-range and/or contingency planning.
- Developing plans for demobilization.
- Maintaining incident documentation.
- Tracking resources assigned to the incident.
- Collect all electronic and physical documentation from staff involved with emergency response.

The Planning Section consists of a Planning Chief and can be further staffed with additional units, if needed. Additional units may include:

- **Resource Unit** – Conducts all check-in activities and maintains the status of all incident resources. The Resources Unit plays a significant role in preparing the written Incident Action Plan (IAP).
- **Situation Unit** – Collects and analyzes information on the current situation, prepares situation displays and situation summaries, and develops maps and projections.
- **Documentation Unit** – Provides duplication services, including the written IAP. Maintains and archives all incident-related documentation.
- **Demobilization Unit** – Assists in ensuring that resources are released from the incident in an orderly, safe, and cost-effective manner.

- Technical Specialists – Specialists in their respective field, such as Duke Energy CCPI Engineering.

Subject Matter Expert (SME)/Technical Advisor

Responsibilities:

The System Owner serves as the SME/Technical Advisor to the Incident Commander and Operations during emergencies.

- Conducts special dam inspections to determine the nature and magnitude of the event.
- Classifies the event and establishes the Emergency Event Level of response.
- Briefs the Incident Commander of the nature, magnitude and corresponding notification level of the event.
- Initiates and coordinates recommended actions within the appropriate Action Data Sheets.
- Determines equipment and material needs for the repair of the dam.
- Coordinates with the Incident Management Team on strategy, equipment and personnel to initiate repairs.
- Coordinates with the Duke Energy CCP Engineering on all remedies to the dam.
- Monitors dam repair.
- Coordinates with the Safety Officer to establish safe zones around the dam.
- Provides constant updates of repairs to the Incident Commander and Operations.
- Consults with State Dam Representative on nature and magnitude of the event.
- Consults with the State Dam Representative on strategy and course of action to remedy the damage.
- Completes Abnormal or Emergency Event Log and the Dam Emergency Situation Report.

Liaison Officer

Responsibilities:

The Liaison Officer is a member of the Command Staff, which includes the Safety Officer and Public Information Officer. The Liaison Officer carries out staff functions needed to support the Incident Commander. The Command Staff carries out responsibilities for key activities not specifically identified in the General Staff functional elements.

The Liaison Officer is the point-of-contact for representatives of other governmental agencies, non-governmental organizations, and/or private entities. Representatives from assisting or cooperating agencies and organizations coordinate through the Liaison Leader. Agency and/or organizational representatives assigned to an incident must have the authority to speak for their parent agencies and/or organizations on all matters, following appropriate consultations with their agency leadership. Assistants and personnel from other agencies or organizations (public or private) involved in incident management activities may be assigned to the Liaison Officer to facilitate coordination.

- Serve as the point-of-contact for assisting and cooperating government agencies and stakeholders.
- Provide agency representatives and stakeholders with information and updates on incident status and response operations; solicit input and recommendations.
- Meet with (and profile the needs of) political and environmental stakeholders, in a measure to gain information on possible concerns and perceptions.
- Designate location for a staging area.
- Approve requests for additional equipment, personnel, and services, as appropriate.
- Establish and maintain liaison with other agencies participating in the incident.
- Update the Organization Assignment List to help account for personnel involved and to whom they are assigned as emergency services arrive.
- Provide agency representatives with adequate work space, equipment and supplies, including access to telephones, fax machines, computers, printers, as appropriate.
- Designate entrance and exit routes for responders.
- Distribute copies of the “Incident Action Plan” (IAP) to agency representatives and interested stakeholders.

Finance / Admin Section Chief

Responsibilities:

The Finance/Admin Section Chief (FAC) provides support to incident operations and advises the IC on all matters relating to cost accounting, time recording, contract administration, incident funding and claims. The FAC is responsible to the IC for the set of systems and procedures necessary to ensure ongoing management of financial and cost analysis aspects of the incident.

The Finance Chief is responsible for:

- Contract negotiation and monitoring.
- Cost tracking.
- Handling claims.
- Manage the financial and cost analysis aspect of the incident.
- Establish charge codes.
- Timekeeping.
- Compensation for injury or damage to property.
- Development of a financial and administrative operating plan to address; 1) cost accounting, 2) time recording, 3) contract administration, 4) incident funding, and 5) claims.
- Participate in the daily Command & General Staffs Meeting; update attendees on the financial status.
- Provide input in all planning sessions involving current and future costs.

- Attend the daily Operations Briefing(s); 1) review the contractor performance issues, 2) equipment status, 3) personnel time recording, 4) claims issues and other related items.
- Utilizes the General Message Form to communicate information related to cost, time recording, contract administration and claims to Incident Leaders.

Environmental Officer

Responsibilities:

The Environmental Officer (EO) is responsible for environmental matters associated with the response, including strategic assessment, modeling, surveillance, and environmental monitoring and permitting. The Environmental Officer prepares environmental data for the IC. Technical Specialists typically assigned to the Environmental Leader includes the Scientific Support, Sampling, Response Technologies, Resources at Risk, Environmental Cleanup, and Disposal Technical Specialists. The Environmental Officer is responsible for the following duties:

- Obtain a briefing and special instructions from the Planning Section Chief (PSC).
- Participate in Planning Section meetings.
- Identify sensitive areas and recommend response priorities.
- Following consultation with natural resource trustees, provide input on wildlife protection strategies (e.g., preemptive capture, hazing, and/or capture and treatment).
- Determine the extent, fate, and effects of environmental contamination.
- Acquire, distribute, and provide analysis of weather forecasts.
- Monitor the environmental consequences of response actions.
- Develop cleanup and assessment plans. Identify the need for, and prepare any special advisories or orders.
- Identify the need for, and obtain, permits, consultations, and other authorizations including Environmental Protection Act (EPA) provisions.
- Provide notification to KDEP as well as other agencies as needed, example such as National Response Center.
- Following consultation with the Federal On-Scene Coordinator (FOSC)'s, identifies and develop plans for protection of affected natural resources.
- Evaluate the opportunities to use various response technologies.
- Develop disposal plans
- Develop a plan for collecting, transporting, and analyzing samples.
- Maintain Unit/Activity Log.
- Investigate any accidents or personnel injuries; prepare accident reports.
- Maintain awareness of active and developing situations; exercise emergency authority to stop or prevent unsafe acts.
- Participate in planning meetings to identify health and safety concerns inherent to the strategic work plan.

Governmental and Community Relations Officer

Responsibilities:

The Governmental Community Relations Officer (GCRO) position has overall responsibility for Duke Energy's (DE) governmental coordination program working with public officials and other identified key leaders before, during and after emergency response efforts. The GCRO will facilitate communication between DE and the local governments providing timely updates. The GCRO will direct resources assigned to their team for the purpose of governmental coordination including EOC representatives, Back up GCL and Administrative Support. The Governmental Community Relations Officer (GCRO) will be headquartered at or near the Incident Command Center working with the Public Information Officer who has overall communication responsibility for the Incident. The GCRO is responsible for:

- Collaborating with local government and key leaders to:
 - Facilitate the coordination of event response by providing on-going updates before, during and after the emergency response.
 - Educate on proper event response and remediation actions.
 - Assist in the resolution of local governmental issues and concerns related to emergency response efforts.
- Collaborating with Duke Energy Public Affairs to communicate with State Level Elected Officials
- Providing direction to a team of Back-up GCRO's who are the main contact positions for communications with public officials, Emergency Management personnel and other identified key leaders before, during and after the emergency response efforts.
- Interacting with the Incident Commander, Liaison Officer, Public Information Officer, Region VP, Public Affairs VP, Director of Environmental and Energy Affairs to gain knowledge of response priorities and efforts.
- Participating in Incident Commander and Public Information Officer meetings and conference calls to:
 - Gain knowledge of response activities, priorities and efforts.
 - Provide update on activities/potential issues in your area of responsibility

Key Interface Points:

- Public Officials, Emergency Management personnel, other key leaders
- Incident Commander
- Liaison Officer
- Public Information Officer
- Manager, Public Affairs
- Regional VP
- Back-up GCRO

Security Leader

Responsibilities:

The Security Leader (SL) has overall responsibility for the security of the station and reports to the Operations Section Chief. The SL is responsible for:

- Establishing primary and alternate controlled access to the site.
- Conducting a security assessment of the site to identify potential gaps in security.
- Assign personnel at required locations to manage access to the station and hazardous areas.
- Provide assistance to the Safety Officer in securing access to areas identified as hazardous or restricted to personnel.
- Coordinating with Logistics, Planning and Operations on the management of personnel and equipment at the staging areas.
- Coordinate with external law enforcement as necessary to prevent or deter additional activity or incidents.
- Participate in incident and operations briefings.
- Coordinate with Enterprise Protective Services on all received threats (verified/unverified)
- Maintain Unit/Activity Log.

Appendix A–3 Abnormal or Emergency Event Log

(to be completed during emergency and for all emergency levels)

Dam name: Duke Energy East Bend Station; Ash, FGD, and Sediment Pond Dams
County: _____

When and how was the event detected?

Weather conditions: _____

General description of the emergency situation:

Emergency level determination: _____ Made by: _____

Date	Time	Action / Event Progression	Taken by

Report prepared by: _____ Date: _____

Appendix A–4 Dam Emergency Situation Report

(to be completed following the termination of the emergency)

Dam name: Duke Energy East Bend Station; Ash, FGD, and Sediment Pond Dams

State Dam ID No.: _____

Dam location: _____
 (City) *(County)* *(Stream/River)*

Date: _____

Time: _____

Weather conditions: _____

General description of emergency situation:

Area(s) of dam affected:

Extent of dam damage: _____

Possible cause(s): _____

Effect on dam’s operation: _____

Initial reservoir elevation: _____ Time: _____

Maximum reservoir elevation: _____ Time: _____

Final reservoir elevation: _____ Time: _____

Description of area flooded downstream/damages/injuries/loss of life: _____

Other data and comments:

Observer’s name and telephone number: _____

Report prepared by: _____ Date: _____

Appendix A–5 ICS Forms and Descriptions

The ICS Forms are designed to include the essential data elements for the ICS process they address. The **use of these standardized ICS Forms is encouraged to promote consistency in the management and** documentation of incidents, and to facilitate effective use of mutual aid. In many cases, additional pages can be added to the existing ICS Forms when needed, and several forms are set up with this specific provision. The Station EAP Program Coordinator will place copies of these forms in an ICS / Emergency Jump Bag and annually review the ICS Forms link for updates. If updates are made to the ICS Forms, then the Station EAP Program Coordinator will replace the old forms in the ICS / Emergency Jump Bag. The link below will redirect to FEMA’s ICS Forms Booklet containing all the forms:

http://www.fema.gov/media-library-data/20130726-1922-25045-7047/ics_forms_12_7_10.pdf

The following forms should be placed in the ICS / Emergency Jump Bag, at a minimum:

Communications Form

ICS-213

Incident Command Forms

ICS-201

ICS-202

ICS-207

ICS-209

ICS-213

Liaison Forms

ICS-203

ICS-204

ICS-205

ICS-205A

ICS-211

ICS-213

ICS-213RR

ICS-214

Planning Forms

ICS-201

ICS-209

ICS-213

ICS-230

ICS-231

ICS-233

Logistics Forms

ICS-211E

ICS-211P

ICS-213

Finance/Admin Form

ICS-213

Safety Forms

ICS-206

ICS-208

ICS-213

ICS-215A

ICS Forms and Descriptions

The following table provides a list of ICS forms, the title, a brief description of each form and who typically completes the form. By clicking on the underlined ICS form #, it will take you to an editable and printable version of the form.

ICS Form #	Title	Description	Typically Prepared by
Form 201	Incident Briefing	Provides the Incident Command/Unified Command and General Staffs with basic information regarding the incident situation and the resources allocated to the incident. This form also serves as a permanent record of the initial response to the incident.	Incident Commander
Form 202	Incident Objectives	Describes the basic strategy and objectives for use during each operational period.	Planning Section
Form 203	Organization Assignment List	Provides information on the response organization and personnel staffing.	Planning Section (Resources Unit)
Form 204	Assignment List	Used to inform personnel of assignments. After Incident Command/Unified Command approves the objectives, staff members receive the assignment information contained in this form.	Planning Section (Resources Unit) & Operations
Form 205	Incident Radio Communications Plan	Provides, in one location, information on the assignments for all communications equipment for each operational period. The plan is a summary of information. Information from the Incident Communications Plan on frequency assignments can be placed on the appropriate Assignment form (ICS Form 204).	Logistics Section (Communications Unit)
Form 205A	Communications List	Records methods of contact for incident personnel. While the Incident Radio Communications Plan (ICS 205) is used to provide information on all radio frequencies down to the Division/Group level, the ICS 205A indicates all methods of contact for personnel assigned to the incident (radio frequencies, phone numbers, pager numbers, etc.), and functions as an incident directory.	Logistics Section (Communications Unit)
Form 206	Medical Plan	Provides information on incident medical aid stations, transportation services, hospitals, and medical emergency	Logistics Section (Medical Unit)

ICS Form #	Title	Description	Typically Prepared by
		procedures.	
Form 207	Incident Organization Chart	Provides a visual wall chart depicting the ICS organization position assignments for the incident. The ICS 207 is used to indicate what ICS organizational elements are currently activated and the names of personnel staffing each element. An actual organization will be event-specific. The size of the organization is dependent on the specifics and magnitude of the incident and is scalable and flexible. Personnel responsible for managing organizational positions are listed in each box as appropriate.	Planning Section (Resources Unit)
Form 208	Safety message/Plan	The Safety Message/Plan (ICS 208) expands on the Safety Message and Site Safety Plan.	Incident Commander (Safety Officer)
Form 209	Incident Status Summary	Summarizes incident information for staff members and external parties, and provides information to the Public Information Officer for preparation of media releases.	Planning Section
Form 210	Resource Status Change	Used by the Incident Communications Center Manager to record status change information received on resources assigned to the incident. This information could be transmitted with a General Message (ICS 213). The form could also be used by Operations as a worksheet to track entry, etc.	Logistics Section (Communications Unit)
Form 211	Incident Check-In List	Used to check in personnel and equipment arriving at or departing from the incident. Check-in/out consists of reporting specific information that is recorded on the form.	Planning Section (Resources Unit)
Form 213	General Message	Used by: - Incident dispatchers to record incoming messages that cannot be orally transmitted to the intended recipients. - EOC and other incident personnel to transmit messages via radio or telephone to the addressee. - Incident personnel to send any	Logistics Section (Communications Unit)

ICS Form #	Title	Description	Typically Prepared by
		message or notification that requires hard-copy delivery to other incident personnel.	
Form 213 RR	Resources Request	Used by all incident personnel to request resources.	One in Each Notebook, as it is used in various positions
Form 214	Activity Log	Provides a record of unit activities. Unit Logs can provide a basic reference from which to extract information for inclusion in any after-action report.	Personnel in various ICS positions as needed or as appropriate
Form 215	Operational Planning Worksheet	Documents decisions made concerning resource needs for the next operational period. The Planning Section uses this Worksheet to complete Assignment Lists, and the Logistics Section uses it for ordering resources for the incident. This form may be used as a source document for updating resource information on other ICS forms such as the ICS 209.	Operations Section
Form 215A	Incident Action Plan Safety Analysis	Communicates to the Operations and Planning Section Chiefs safety and health issues identified by the Safety Officer.	Incident Commander (Safety Officer)
Form 218	Support Vehicle/Equipment Inventory	Provides an inventory of all transportation and support vehicles and equipment assigned to the incident. The information is used by the Ground Support Unit to maintain a record of the types and locations of vehicles and equipment on the incident. The Resources Unit uses the information to initiate and maintain status/resource information	Logistics Section (Ground Support Unit)
Form 219-2	Crew/Team Card	Also known as “T-Cards,” these are used by the Resources Unit to record status and location information on resources, transportation, and support vehicles and personnel. These cards provide a visual display of the status and location of resources assigned to the incident.	Planning Section (Resources Unit)
Form 219-3	Engine Card		
Form 219-5	Personnel Card		
Form 219-7	Equipment Card		
Form 219-8	Misc. Equipment/Task Force Card		

ICS Form #	Title	Description	Typically Prepared by
Form 219-10	Generic Card		
Form 221	Demobilization Check-Out	Ensures that resources checking out of the incident have completed all appropriate incident business, and provides the Planning Section information on resources released from the incident. Demobilization is a planned process and this form assists with that planning.	Planning Section (Demobilization Unit)
Form 225	Incident Personnel Performance Rating	Gives supervisors the opportunity to evaluate subordinates on incident assignments. THIS RATING IS TO BE USED ONLY FOR DETERMINING AN INDIVIDUAL'S PERFORMANCE ON AN INCIDENT/EVENT.	Supervisor for each subordinate. Planning Section collects the completed form.

Appendix A–6 Glossary of Terms

Abnormal Event	A situation that is not normal but has not yet threatened the operation or structural integrity of the dam; however, it possibly could if the situation continues to develop.
Abutment	That part of the valley side against which the dam is constructed. The left and right abutments of dams are defined with the observer looking downstream from the dam.
Acre-foot	A unit of volumetric measure that would cover 1 acre to a depth of 1 foot. One acre-foot is equal to 43,560 cubic feet or 325,850 gallons.
Berm	A nearly horizontal step (bench) in the upstream or downstream sloping face of the dam.
Boil	A disruption of the soil surface due to water discharging from below the surface. Eroded soil may be deposited in the form of a ring (miniature volcano) around the disruption.
Breach	An opening through the dam that allows draining of the reservoir. A controlled breach is an intentionally constructed opening. An uncontrolled breach is an unintended failure of the dam.
Conduit	A closed channel (round pipe or rectangular box) that conveys water through, around, or under the dam.
Control section	A usually level segment in the profile of an open channel spillway above which water in the reservoir effluents through the spillway.
Cross section	A slice through the dam showing elevation vertically and direction of natural water flow horizontally from left to right. Also, a slice through a spillway showing elevation vertically and left and right sides of the spillway looking downstream.
Dam	An artificial barrier generally constructed across a watercourse for the purpose of impounding or diverting water.
Dam failure	The uncontrolled release of a dam's impounded water.
Dam Operator	The person(s) or unit(s) of government with responsibility for the operation and maintenance of dam.
Downstream Hazards Map	A map showing the geographic area downstream of a dam that should be evacuated if it is threatened to be flooded by a breach of the dam or other large effluent.
Drain, toe or foundation, or blanket	A water collection system of sand and gravel and typically pipes along the downstream portion of the dam to collect seepage and convey it to a safe outlet.
Drainage area (watershed)	The geographic area on which rainfall flows into the dam.

Drawdown The lowering or releasing of the water level in a reservoir over time or the volume lowered or released over a particular period of time.

Duke Energy Representative

Any Duke Energy employee working within the scope of his/her duties and responsibilities. For this EAP the following are recognized as Duke Energy Representatives; the Station/Plant Manager, Operations Superintendent, Control Room Operator, System Owner, Regional General Manager, the CCP Engineer and others as necessary operating within the scope of the EAP.

Emergency A condition that develops unexpectedly, endangers the structural integrity of the dam and/or downstream human life and property, and requires immediate action.

Emergency Action Plan (EAP)

A formal document identifying potential emergency conditions that may occur at the dam and specifying preplanned actions to minimize potential failure of the dam or minimize failure consequences including loss of life, property damage, and environmental impacts.

Emergency Jump Bag A specially prepared emergency kit focused on ICS responsibilities. The kit includes detailed folders with the applicable ICS forms and responsibilities that fall under each different leader assigned by the IC. It also includes named vests so that personnel onsite have no confusion about who is the leader on the various functions.

Filter The layers of sand and gravel in a drain that allow seepage through an embankment to effluent into the drain without eroding the embankment soil.

Freeboard Vertical distance between a stated water level in the reservoir and the top of dam.

Gate, slide or sluice, or regulating An operable, watertight valve to manage the effluent of water from the dam.

CCP Engineer An engineer concerned with the engineering behavior of earth materials; evaluates stability of natural slopes and, man-made soil deposits; asses' risks posed by site conditions; design earthworks and structure foundations; and monitor site conditions, earthwork and foundation construction.

Groin The area along the intersection of the face of a dam and the abutment.

Hazard classification A system that categorizes dams (high, significant, or low) according to the degree of their potential to create adverse incremental

consequences to include, loss of life; property damage; or environmental impacts of a failure or improper operation of a dam.

Height, dam The vertical distance between the lowest point along the top of the dam and the lowest point at the downstream toe, which usually occurs in the bed of the outlet channel.

Hydrograph, Inflow or Outflow, or breach A graphical representation of either the flow rate or flow depth at a specific point above or below the dam over time for a specific flood occurrence.

Incident Commander The highest predetermined official available at the scene of an emergency situation.

Instrumentation An arrangement of devices installed into or near dams that provide measurements to evaluate the structural behavior and other performance parameters of the dam and appurtenant structures.

Inundation area or map The geographic area downstream of the dam that would be flooded by a breach of the dam or other large effluent.

Notification To immediately inform appropriate individuals, organizations, or agencies about a potentially emergency situation so they can initiate appropriate actions.

Outlet works (principal spillway) An appurtenant structure that provides for controlled passage of normal water flows through the dam

Piping The progressive destruction of an embankment or embankment foundation by internal erosion of the soil by seepage flows.

Probable Maximum Precipitation (PMP) or (Flood (PMF))	The theoretically greatest precipitation or resulting flood that is meteorologically feasible for a given duration over a specific drainage area at a particular geographical location.
Reservoir	The body of water impounded or potentially impounded by the dam.
Riprap	A layer of large rock, precast blocks, bags of cement, or other suitable material, generally placed on an embankment or along a watercourse as protection against wave action, erosion, or scour.
Risk	A measure of the likelihood and severity of an adverse consequence.
Seepage	The natural movement of water through the embankment, foundation, or abutments of the dam.
Slide	The movement of a mass of earth down a slope on the embankment or abutment of the dam.
Spillway (auxiliary or emergency)	The appurtenant structure that provides the controlled conveyance of excess water through, over, or around the dam.
Spillway capacity	The maximum effluent the spillway can safely convey with the reservoir at the maximum design elevation.
Spillway crest	The lowest level at which reservoir water can flow into the spillway.
Tailwater	The body of water immediately downstream of the embankment at a specific point in time.
Toe of dam	The junction of the upstream or downstream face of an embankment with the ground surface.
Top of dam (crest of dam)	The elevation of the uppermost surface of an embankment which can safely impound water behind the dam.

Appendix A-7 Emergency Contacts List

1. Emergency Notification Phone List—Internal Resources

Agency/Organization	Principle Contact	Address	Office Telephone Number	Alternate Telephone Number
CCP Engineer				
CCP Regulatory Affairs				
CCP Regulatory Affairs				
Contract Resource Coordinator				
Contract Resource Coordinator				
Coord Operations				
Corporate Legal				
Corporate Legal				
Developmental Assignment Leader				
Dir CCP Governance & Ops Suppt				
Dir MW FHO Finance				
Duke Aviation Services				
Duke Community Relations Manager				
Duke Energy Emergency Hotline				
East Bend Control Room				
GM CCP Proj Plng & Initiation				

Agency/Organization	Principle Contact	Address	Office Telephone Number	Alternate Telephone Number
GM CCP Project Management				
GM CCP Project Management				
GM CCP Regional Ops & Maint				
Govt & Comm Relations Mgr				
H&S Professional				
Incident Support Team				
Lead EHS Professional				
Mgr CCP Governance				
Mgr CCP Regional Engg				
Mgr EHS Field Support				
Planner Work Management				
Site Environmental Coordinator				
Sr Communications Cnslt				
Sr Communications Cnslt				
Sr Financial Analyst				
Sr Financial Analyst				
Sr Security Specialist				
State President-OH/KY				

Agency/Organization	Principle Contact	Address	Office Telephone Number	Alternate Telephone Number
Station Manager				
Supt Maintenance				
Supt Operations				
Supt Technical				
Supv Operations				
Supv Operations				
Supv Operations				
Supv Operations				
Supv Operations				
Supv Operations				
Supv Operations				
SVP Coal Combustion Products				
System Owner				
VP CCP Engineering				
VP CCP Governance & Ops Support				
VP CCP Ops & Maintenance				
VP Midwest Generation				

2. Emergency Notification Phone List—External Resources

Agency/Organization	Principle Contact	Address	Office Telephone Number	Alternate Telephone Number
Bellevue McVile Fire Department				
Boone County Emergency Management				
Boone County Emergency Management				
Boone County Sheriff				
Dam Engineering Consultant/Co.				
Dam Safety Program, KDEP Division of Water				
KDEP Environmental Response Branch				
Kentucky - Emergency Operations Center				
Kentucky Department of Highways - District 6				
Kentucky State Police				
National Weather Service				

Appendix A-8 Record of Annual Meeting with Local Emergency Responders

Location: Duke Energy – East Bend Station
6293 Beaver Road
Union, KY 41091

Date: _____

In accordance with 40 CFR §257.73(a)(3)(E), the annual meeting between Duke Energy – East Bend Station representatives and emergency responders from Boone County was held.

This document will serve as an official record of the meeting and shall be signed by all attendees.

Meeting Summary / Topics Discussed
Annual Face-to-Face Meetings are completed for each Duke Energy Coal and
Combustion Products site every calendar year per the EPA Final CCR Ruling, and all
documentation is maintained in an official records repository.

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APPENDIX B

Appendix B–1 Resources Available

In the event of an emergency, the following resources will be maintained on the property or available for use within a reasonable amount of time, typically within 24 hours of event notification. The list will be reviewed annually by the Station EAP Program Coordinator to ensure they are available either at the station or from a local rental or supply company. The CCP Operations and Maintenance team can supply any or all of this equipment to any station within 24 hours of notification.

Equipment:

- Excavator
- Front End Loader Or Backhoe
- Dump Truck
- Bulldozer or Skid Steer With Blade Attachment

Support Equipment:

- Sandbags
- Gas Powered Light Kit
- Diesel Driven 6" Pump With 50' of Suction & 300' Discharge Hose
- Oil Booms
- Turbidity Curtains
- Turbidity Curtain Anchors
- Personal Protective Equipment (PPE) will be consistent with Duke Energy standards and in accordance with the task to be performed.

Materials:

- Rip Rap (class 1)
- Washed Stone (No. 57 or 67)
- Sand
- Filter Fabric

Appendix B-1 (cont'd)

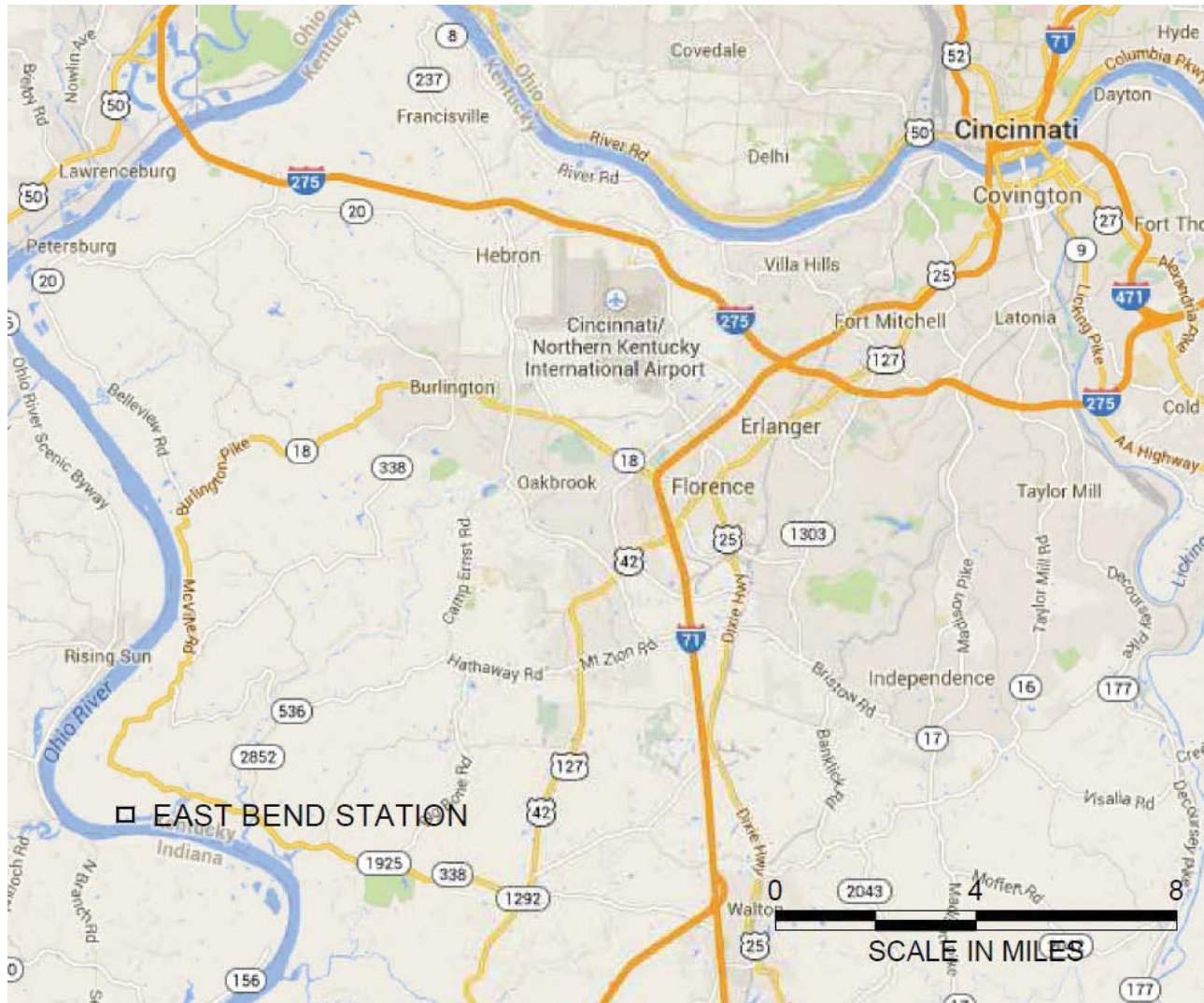
Duke Energy has contracts with the following companies to provide materials, supplies, equipment and services within an appropriate response time. The Station EAP Program Coordinator will review these contracts annually to ensure these companies can provide the materials, supplies, equipment and services required.

Locally available resources include:

Heavy equipment service and rental	Sand and gravel supply	Ready-mix concrete supply
Pumps	Diving contractor	Sand bags

Environmental Support		
Agency/Vendor	Pri/Alt Phone	Role / Responsibility

Appendix B-2 Vicinity Map



Appendix B-3 Site Map



Appendix B–4
Inundation/Downstream Hazards Map

THIS IS A REFERENCE PAGE.

Due to the large size of the inundation maps, they are located in the locations outlined below:

HARD COPY: The East Bend Inundation Map can be found at the back of this book under the “**Inundation Maps**” tab.

ELECTRONIC COPY: The East Bend Inundation Map can be found in Fusion here:

Ash Pond:



FGD Ponds:



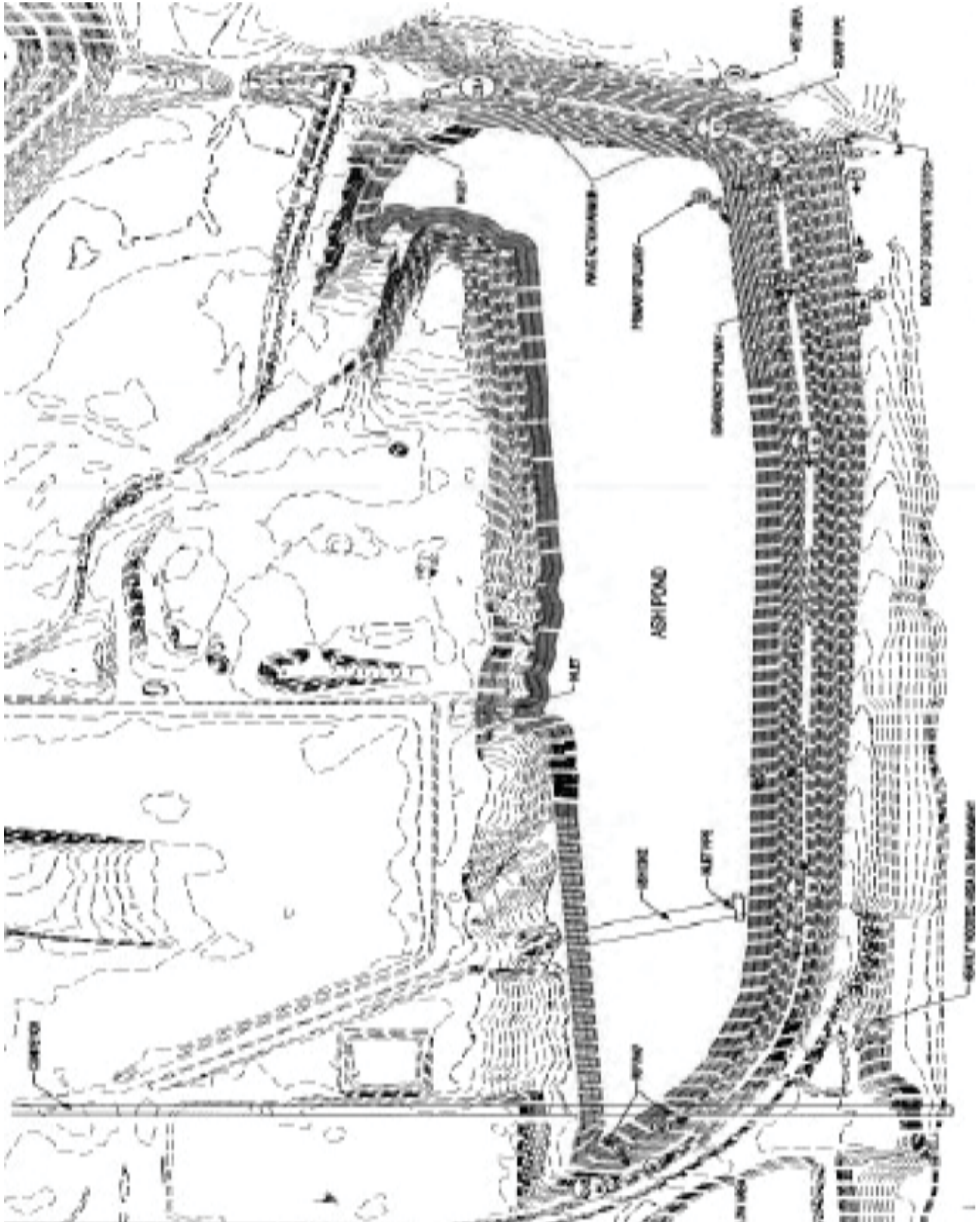
Appendix B-5

Residents/Businesses/Highways at Risk

Local Emergency Managements Services is responsible for the notification of residents and businesses that may be at risk, as well as clearing highways, in the inundation zones if the dam(s) has an Emergency Level 1 incident.

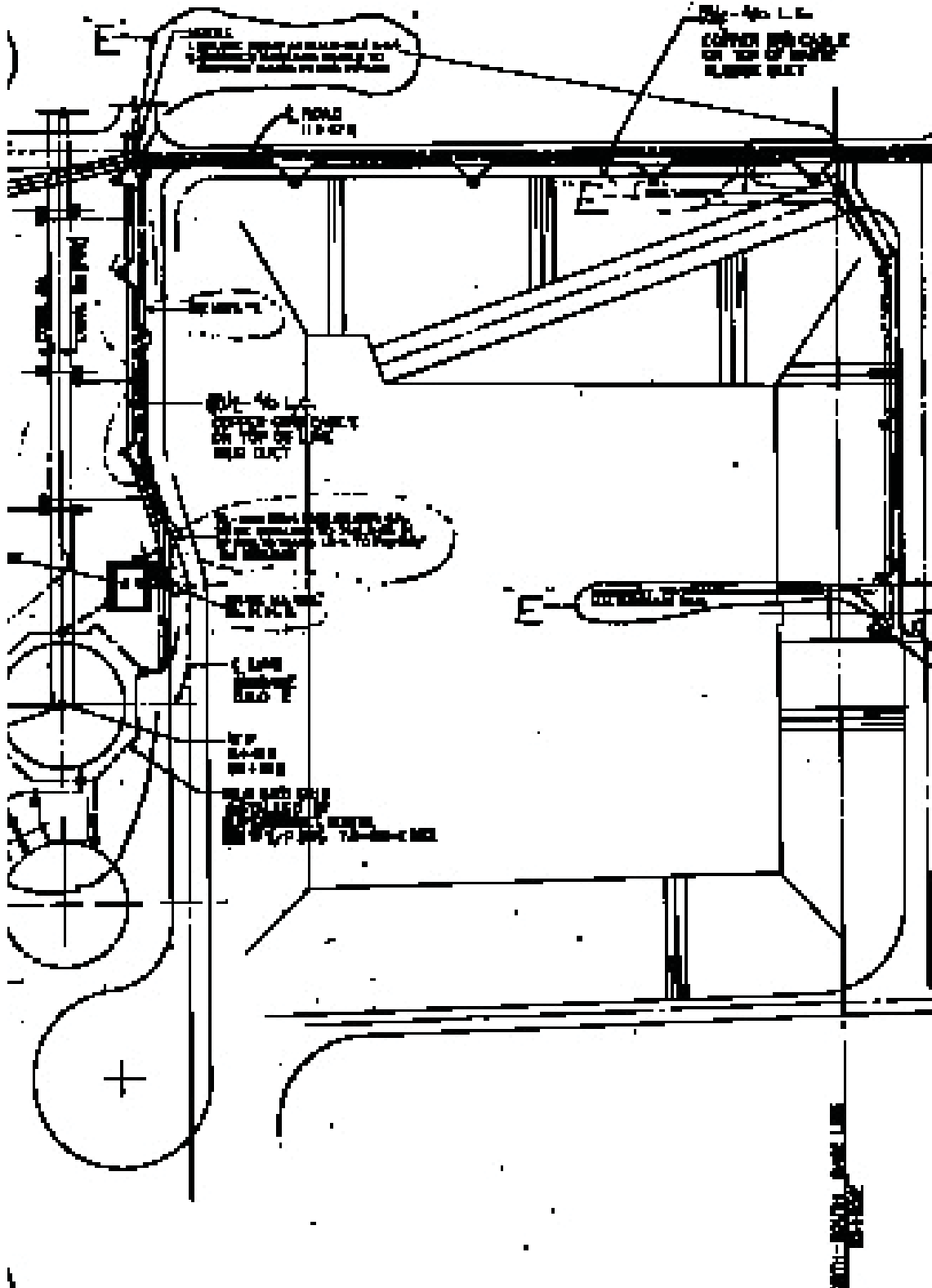
Appendix B-6 Plan View of Dam(s)

Duke Energy East Bend Station, Ash Pond Dam



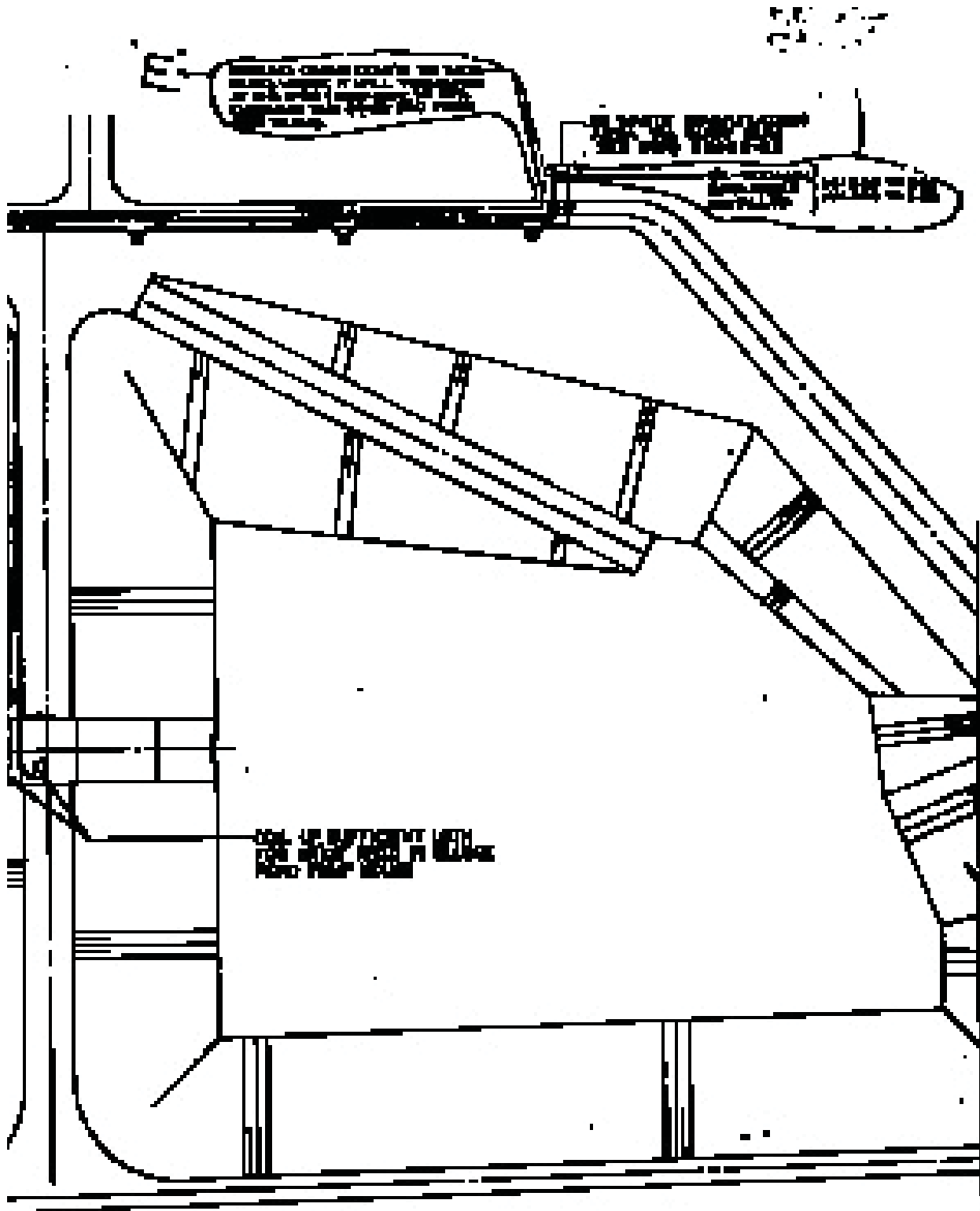
Appendix B-6 (continued) Plan View of Dam(s)

Duke Energy East Bend Station, East Emergency FGD Pond



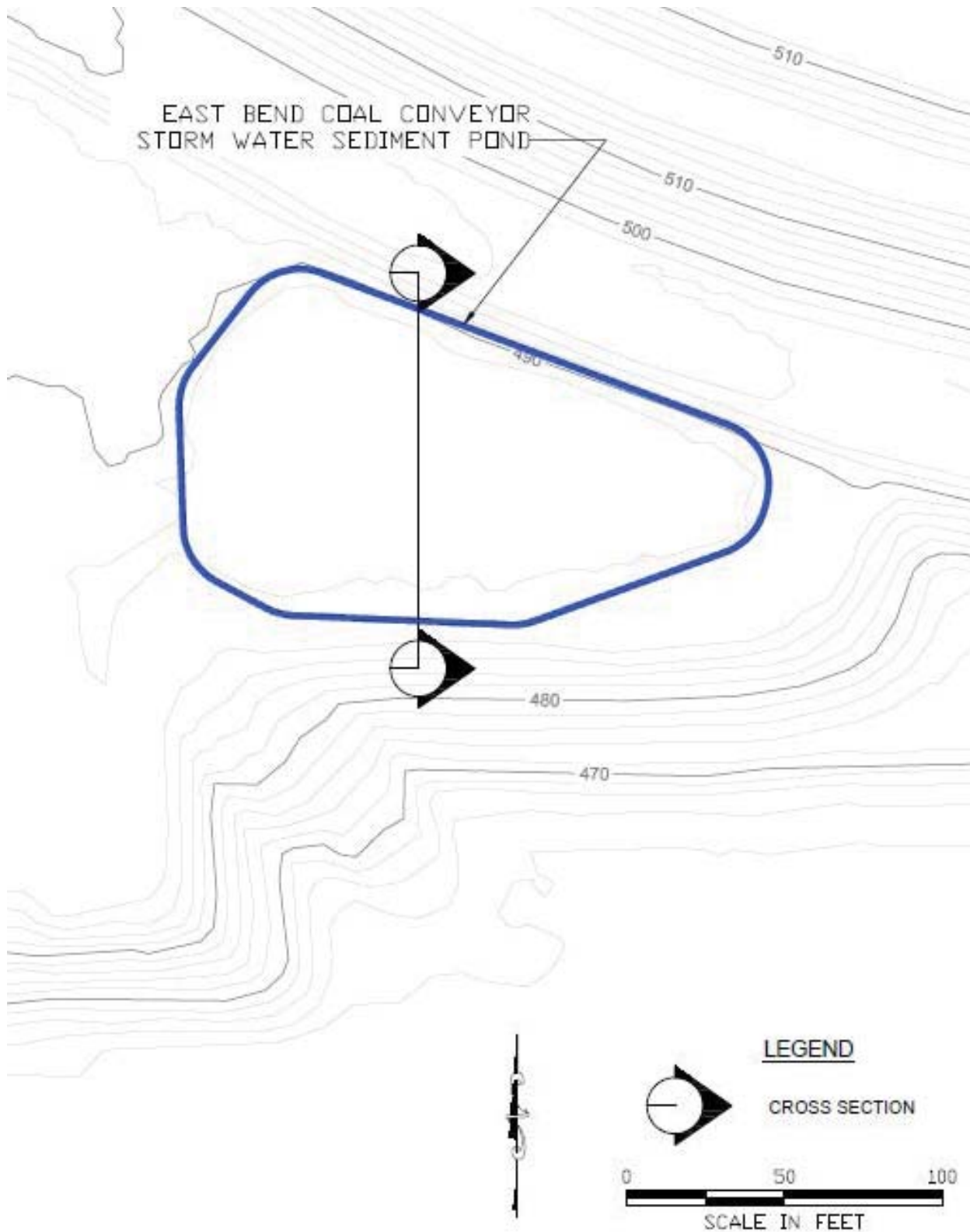
Appendix B-6 (continued) Plan View of Dam(s)

Duke Energy East Bend Station, West Emergency FGD Pond



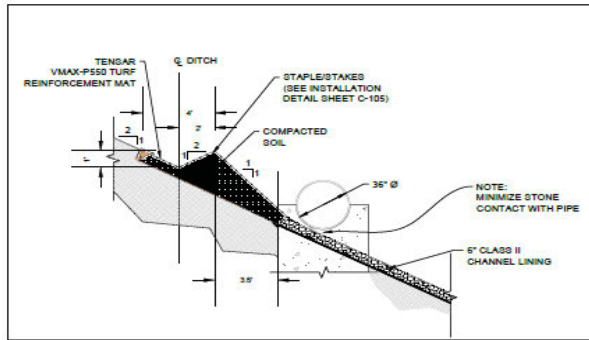
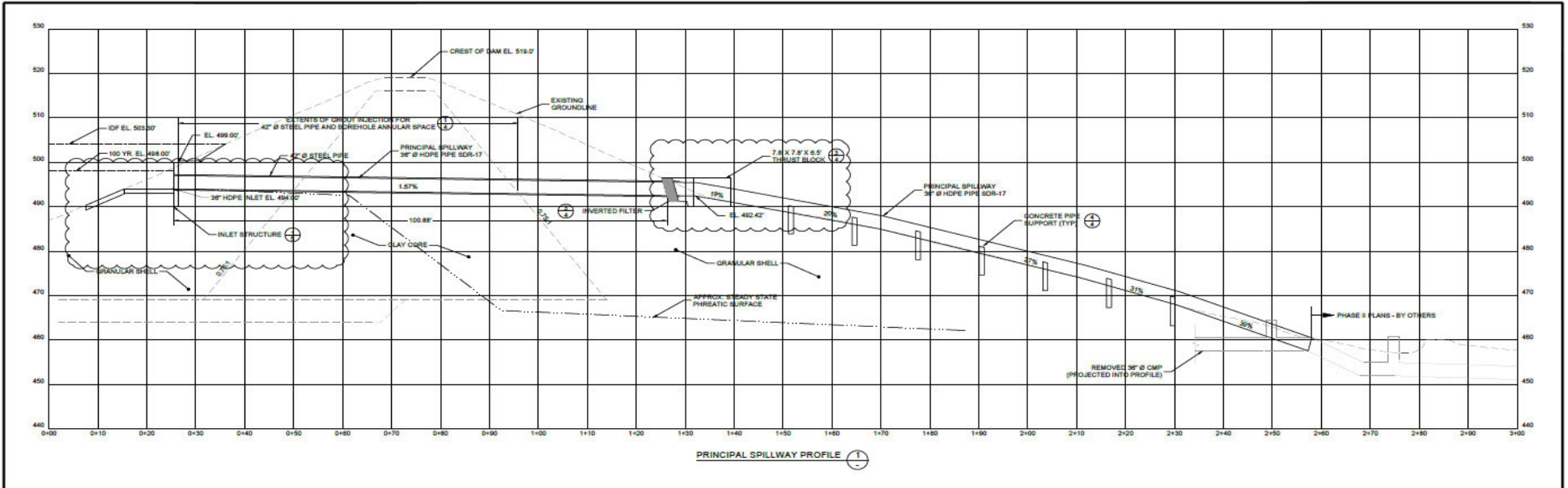
Appendix B-6 (continued) Plan View of Dam(s)

Duke Energy East Bend Station, Coal Conveyor Storm Water Sediment Pond



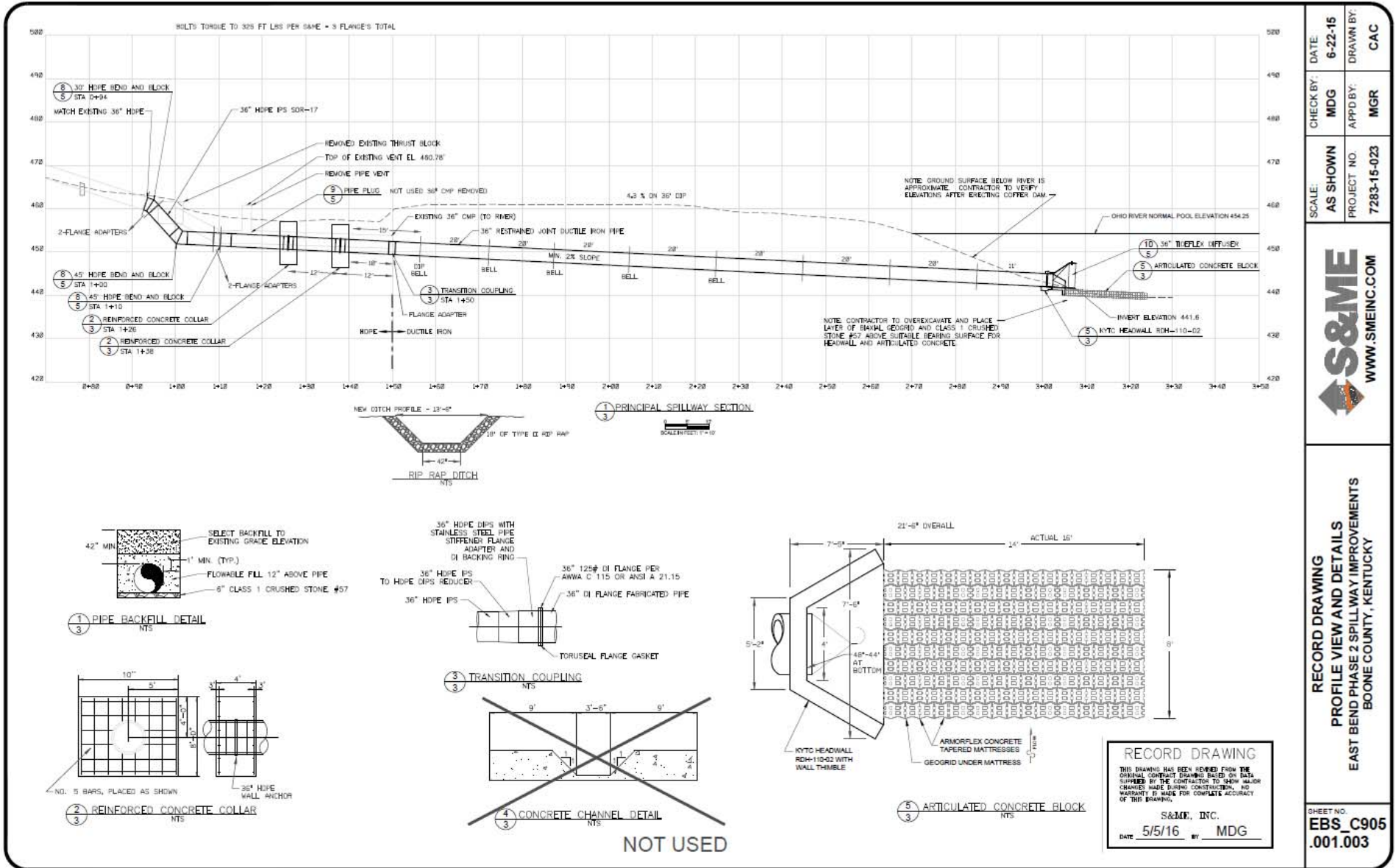
Appendix B-7 Profile of Principal Spillway

Duke Energy East Bend Station, Ash Pond Dam



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Appendix B-7 (continued) Profile of Principal Spillway Duke Energy East Bend Station, Ash Pond Dam



CHECK BY:	DATE:
MDG	6-22-15
AS SHOWN	DRAWN BY:
PROJECT NO.:	CAC
7283-15-023	MGR

S&ME
 WWW.SMEINC.COM

RECORD DRAWING
PROFILE VIEW AND DETAILS
EAST BEND PHASE 2 SPILLWAY IMPROVEMENTS
BOONE COUNTY, KENTUCKY

RECORD DRAWING

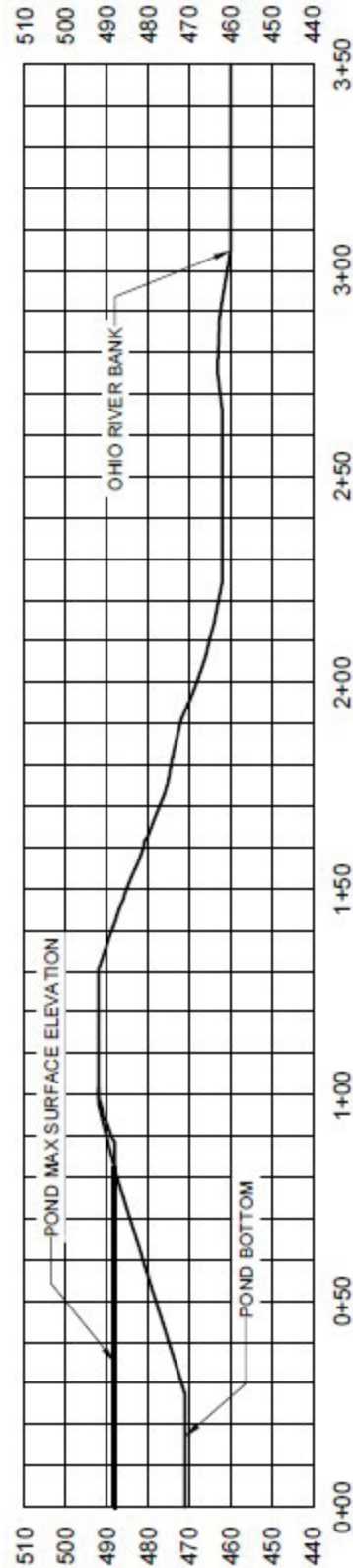
THIS DRAWING HAS BEEN REVISED FROM THE ORIGINAL CONTRACT DRAWING BASED ON DATA SUPPLIED BY THE CONTRACTOR TO SHOW MAJOR CHANGES MADE DURING CONSTRUCTION. NO WARRANTY IS MADE FOR COMPLETE ACCURACY OF THIS DRAWING.

S&ME, INC.
 DATE 5/5/16 BY MDG

SHEET NO.
EBS_C905
.001.003

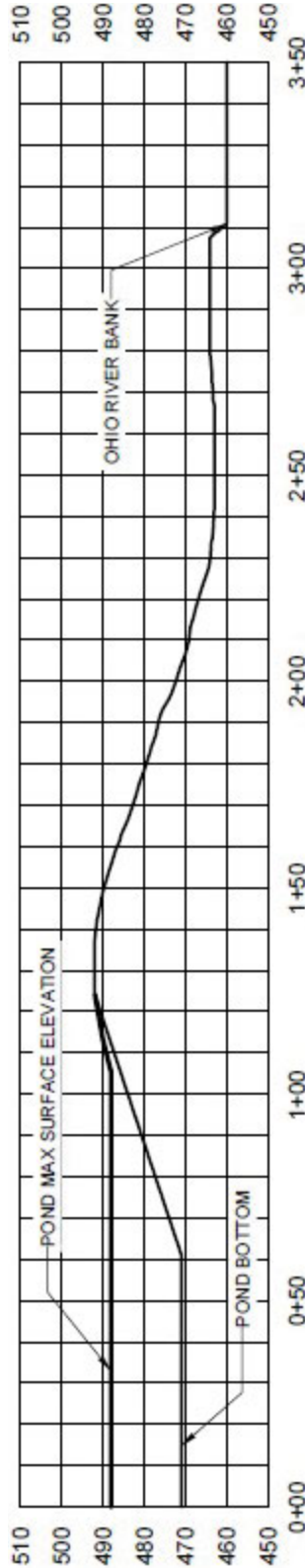
Appendix B-7 (continued) Profile of Principal Spillway

Duke Energy East Bend Station, East Emergency FGD Pond



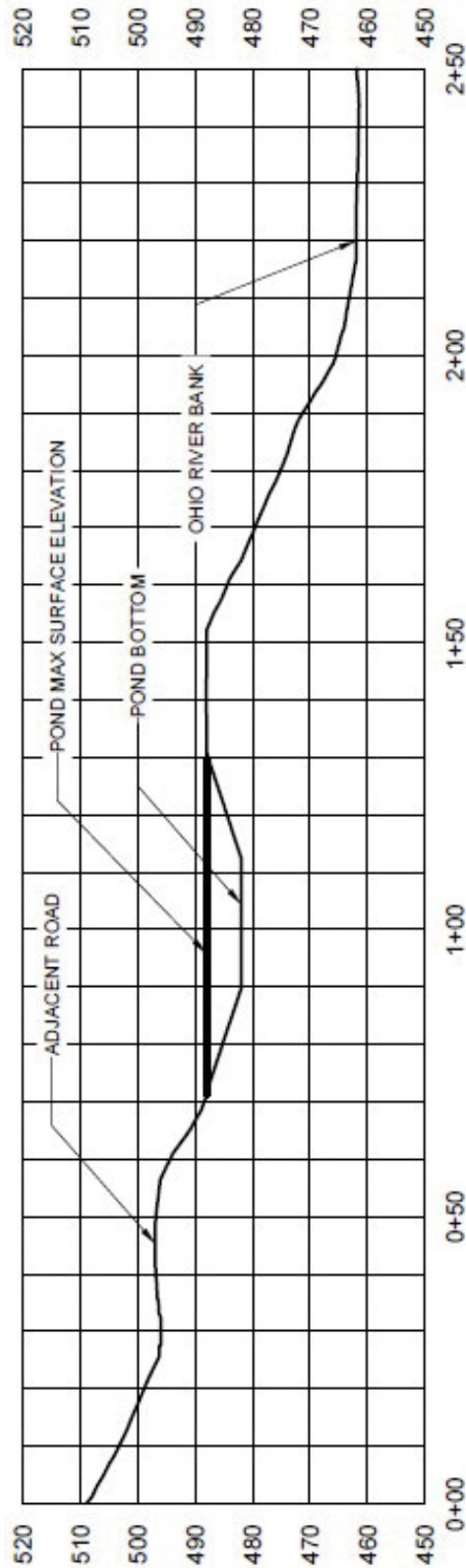
Appendix B-7 (continued) Profile of Principal Spillway

Duke Energy East Bend Station, West Emergency FGD Pond



Appendix B-7 (continued) Profile of Principal Spillway

Duke Energy East Bend Station, Coal Conveyor Storm Water Sediment Pond



Appendix B–8 Reservoir Elevation-Area-Volume and Spillway Capacity Data

Duke Energy East Bend Station

Dam	Elevation	Reservoir Surface acres	Reservoir Storage acre-ft.	Spillway Effluent ft³/s
Ash Pond	490	53.4	602.4	101
Ash Pond	520		1,843.7	
East FGD Pond		2.5	50	N/A
West FGD Pond		2.3	47	N/A

Appendix B–9 State and National Inventory of Dams (NID) Data

Duke Energy East Bend Station, Ash Pond Dam

Dam name: Ash Pond Dam	Design: Saregent & Lundy
State: Kentucky	Constructed by: N/A
NID ID: N/A	Program authority: Dam Safety
State Dam ID: KDEP 1215	Watershed name: Ohio River
Longitude: W84° 50' 22.44"	O&M insp. resp.: Jake Keegan, Duke Energy
Latitude: N38° 54' 7.10"	O&M insp. current?: Yes
County: Boone	Population at risk: N/A
Stream: Ohio River	Dam height: 50 feet
Nearest town: Rabbit Hash	Dam length: 4,200 feet
Distance to nearest town: 3.9 miles	Dam volume: N/A
Operator: Duke Energy	Design hazard potential: N/A
Year constructed: Mid-1970's	Current hazard potential: Significant
Max. effluent: 101 cfs	Hazard potential class year: N/A
Max. storage: 1,843.7 acre-ft	Sediment storage: 602.4 acre-ft
Normal storage: 602.4 acre-ft	Flood storage: N/A
Surface area: 53.4 acres	Surcharge storage: N/A
Drainage area: 176 acres	Other storage: N/A
Inspection frequency: Monthly	Principal effluent spillway: 28 inch pipe
State regulated?: Yes	Principal effluent spillway length: 450 feet
State reg. agency: KDEP Division of Water	Emergency spillway type: Broad Crested Weir
Funding: Duke Energy	Emergency spillway width: 12 feet bottom

Appendix B–9 State and National Inventory of Dams (NID) Data

Duke Energy East Bend Station, East Emergency FGD Pond

Dam name: East Emergency FGD Pond	Design: Saregent & Lundy
State: Kentucky	Constructed by: N/A
NID ID: N/A	Program authority: Dam Safety
State Dam ID: N/A	Watershed name: Ohio River
Longitude: W84° 50' 54.81"	O&M insp. resp.: Jake Keegan, Duke Energy
Latitude: N38° 54' 5.31"	O&M insp. current?: Yes
County: Boone	Population at risk: N/A
Stream: Ohio River	Dam height: 23 feet
Nearest town: Rabbit Hash	Dam length: 1,780 feet
Distance to nearest town: 3.9 miles	Dam volume: 50 acre-ft
Operator: Duke Energy	Design hazard potential: N/A
Year constructed: 1980	Current hazard potential: Not Rated
Max. effluent: 1,000 gpm	Hazard potential class year: N/A
Max. storage: N/A	Sediment storage: N/A
Normal storage: 50 acre-ft	Flood storage: N/A
Surface area: 2.5 acres	Surcharge storage: N/A
Drainage area: N/A	Other storage: N/A
Inspection frequency: Monthly	Principal effluent spillway: 1,000 gpm pump
State regulated?: Yes	Principal effluent spillway length: N/A
State reg. agency: KDEP Division of Water	Emergency spillway type: None
Funding: Duke Energy	Emergency spillway width: N/A

Appendix B–9 State and National Inventory of Dams (NID) Data

Duke Energy East Bend Station, West Emergency FGD Pond

Dam name: West Emergency FGD Pond	Design: Saregent & Lundy
State: Kentucky	Constructed by: N/A
NID ID: N/A	Program authority: Dam Safety
State Dam ID: N/A	Watershed name: Ohio River
Longitude: W84° 51' 0.20"	O&M insp. resp.: Jake Keegan, Duke Energy
Latitude: N38° 54' 5.31"	O&M insp. current?: Yes
County: Boone	Population at risk: N/A
Stream: Ohio River	Dam height: 22 feet
Nearest town: Rabbit Hash	Dam length: 1,800 feet
Distance to nearest town: 3.9 miles	Dam volume: 47 acre-ft
Operator: Duke Energy	Design hazard potential: N/A
Year constructed: 1980	Current hazard potential: Not Rated
Max. effluent: 1,000 gpm	Hazard potential class year: N/A
Max. storage: N/A	Sediment storage: N/A
Normal storage: 47 acre-ft	Flood storage: N/A
Surface area: 2.3 acres	Surcharge storage: N/A
Drainage area: N/A	Other storage: N/A
Inspection frequency: Monthly	Principal effluent spillway: 1,000 gpm pump
State regulated?: Yes	Principal effluent spillway length: N/A
State reg. agency: KDEP Division of Water	Emergency spillway type: None
Funding: Duke Energy	Emergency spillway width: N/A

Appendix B–9 State and National Inventory of Dams (NID) Data

Duke Energy East Bend Station, Coal Conveyor Storm Water Sediment Pond

Dam name: Coal Conveyor Storm Water Sediment Pond	Design: Saregent & Lundy
State: Kentucky	Constructed by: N/A
NID ID: N/A	Program authority: Dam Safety
State Dam ID: N/A	Watershed name: Ohio River
Longitude: W84° 50' 48.19"	O&M insp. resp.: Jake Keegan, Duke Energy
Latitude: N38° 54' 3.33"	O&M insp. current?: Yes
County: Boone	Population at risk: N/A
Stream: Ohio River	Dam height: 6 feet
Nearest town: Rabbit Hash	Dam length: 220 feet
Distance to nearest town: 3.9 miles	Dam volume: N/A
Operator: Duke Energy	Design hazard potential: N/A
Year constructed: 1980	Current hazard potential: Significant
Max. effluent: N/A	Hazard potential class year: N/A
Max. storage: N/A	Sediment storage: 602.4 acre-ft
Normal storage: N/A	Flood storage: N/A
Surface area: N/A	Surcharge storage: N/A
Drainage area: N/A	Other storage: N/A
Inspection frequency: Monthly	Principal effluent spillway: Temporary pumps
State regulated?: No	Principal effluent spillway length: N/A
State reg. agency: KDEP Division of Water	Emergency spillway type: None
Funding: Duke Energy	Emergency spillway width: N/A

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APPENDIX C

Appendix C–1 EAP Review and Follow-up Documentation

(This page intentionally blank for inclusion of documentation from the review and follow-up associated with the termination of an event requiring implementation of this EAP.)