



FEMA

August 24, 2020

Kathryn Brock
Director, Division of Preparedness and Response
Office of Nuclear Security and Response
U.S. Nuclear Regulatory Commission
Mail Stop T4D22A
Washington, D.C. 20555

RE: Results of the Preliminary Capabilities Assessment (PCA) for the Duane Arnold Energy Center

Dear Ms. Brock:

On August 20, 2020, the Federal Emergency Management Agency (FEMA) completed its Preliminary Capabilities Assessment (PCA) for the State of Iowa, and local communities within the 10-mile Emergency Planning Zone (EPZ) of the Duane Arnold Energy Center following a derecho storm producing widespread damaging high winds and severe storms across the State of Iowa. The assessment included the examination of the local offsite response organizations, to include but not limited to, communication capabilities, Emergency Operations Center functionality, and possibly blocked evacuation routes, in order to assess their continued capability to adequately respond to an incident at the plant.

Based on the PCA performed and our review of available information gathered in discussions with the Offsite Response Organizations (OROs), FEMA concludes that offsite radiological emergency preparedness (EP) remains adequate to provide "Reasonable Assurance" and that appropriate measures can be taken to protect the health and safety of the public in a radiological emergency at the Duane Arnold Energy Center. At this time, FEMA is not initiating actions to conduct a Disaster Initiated Review (DIR) of the nuclear station's 10-mile EPZ.

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Please contact me at 202-704-4242, if you have any questions or require any further assistance on this matter.

Sincerely,

For:

Michael S. Casey, Ph.D.
Director
Technological Hazards Division

Attachment:
RVII Preliminary Capabilities Assessment (PCA)

cc: Deputy Administrator, Resilience
Assistant Administrator, National Preparedness Directorate
Associate Administrator, Office of Response and Recovery
REP Program Branch Chief
Region VII RAC Chair
FEMA National Watch Center



FEMA

August 24, 2020

MEMORANDUM FOR: Michael S. Casey, PhD, Director, Technological Hazards Division
National Preparedness Directorate
U.S. Department of Homeland Security-FEMA

ATTENTION: Craig Fiore, Acting Chief, Radiological Emergency Preparedness
Branch
Technological Hazards Division
U.S. Department of Homeland Security-FEMA

FROM: Thomas Morgan, Chief, Technological Hazards Branch/RAC Chair
National Preparedness Division, FEMA Region VII THOMAS J MORGAN

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Date: 2020.08.24 14:04:00 -05'00'

SUBJECT: Preliminary Capabilities Assessment – Duane Arnold Energy Center

Background:

Beginning at or about 9:00 am CST on August 10, 2020, a derecho (long duration line of intense storms) producing widespread damaging winds and severe storms rolled across much of the state of Iowa. This storm produced winds in excess of 100 mph and resulted in downed powerlines, tree and property damage, debris, and communications outages. The Duane Arnold Energy Center (DAEC) declared a Notice of Unusual Event (NOUE) at 12:58 pm due to loss of offsite power caused by the storm. The event resulted in an automatic SCRAM of the reactor from 82 percent power to zero percent power. Both standby diesel generators were operational. Initial reports indicated damage to the turbine cooling towers and turbine building; the reactor building was intact, with no known safety system compromises. Offsite power was restored and DAEC exited their criteria for an Unusual Event at 4:00 pm August 11, 2020. The plant remained in a shutdown (zero percent power generation) status pending analysis of damages and potential repairs. NextEra Energy Resources announced on August 18, 2020 that, due to the extensive damage to the cooling towers, they will not restart the reactor. The plant had previously been scheduled to permanently cease power generation on October 30, 2020.

DAEC is located in Linn County, IA along the Cedar River near Palo, about 8 miles northwest of Cedar Rapids. The 10-mile EPZ includes Benton and Linn counties in IA. Host counties include Buchanan, Johnson, Marshall, and Scott counties in IA.

FEMA Region VII initiated a Preliminary Capability Assessment (PCA) on August 11, 2020. The Iowa Department of Homeland Security and Emergency Management and the emergency management directors for each of the risk and host counties noted above were involved in the PCA. Daily update calls were held between the FEMA RVII RAC Chair and the NRC Regional State Liaison Officers. Initial information from the PCA checklist was received on August 14, 2020. Although this initial information did not indicate any significant concerns regarding the

ability of state or local agencies to respond to a potential radiological event, Region VII requested additional clarifying information regarding power, communications, evacuation routes, and sirens. Region VII received the additional information on August 20, 2020.

On August 24, 2020, based on the Preliminary Capabilities Assessment (PCA) performed, our review of available information gathered in discussions with State, tribal, and local government agencies, Region VII has concluded that offsite radiological emergency preparedness remains adequate to provide a reasonable assurance determination and that appropriate measures can be taken to protect the health and safety of the public in the event of a radiological emergency at the Duane Arnold Energy Center. At this time, Region VII is not recommending actions to conduct a Disaster Initiated Review of offsite emergency preparedness issues within the Duane Arnold Energy Center 10-mile emergency planning zone.

Assessment:

1. Emergency Response Facilities

Two fire stations in Benton County were damaged, however the fire trucks were moved and are operational and mutual aid partners have been trained to augment EPZ response personnel.

2. Communications

There were initially widespread disruptions to both cellular and landline communications. Emergency radio networks were partially impacted as well. All critical response communications have been restored.

3. Emergency Response Organizations

Although already stressed after several months in the COVID-19 environment, the affected EROs proved their ability to respond to a major storm event impacting a large portion of the state.

4. Public Alert and Notification

There were initially reports of up to four inoperable sirens in the risk counties. It was determined this was a problem with the radio signal, not the sirens, which has been resolved. Buchanan County also experienced some initial limitations due to dropped calls, but that has also been resolved.

5. Access and Functional Needs and Transportation Resources

Some facilities in Linn County were damaged by the storm, residents were moved to alternate facilities.

6. Evacuation Routes

All evacuation routes have been cleared of debris and are available.

7. Accident Assessment

No issues noted.

8. Support Services

No issues noted.

9. Population Shifts

None.

10. Supporting Documentation

All supporting documentation gathered by the Review Team is on file at Region VII.

Conclusions:

Region VII has concluded that offsite radiological emergency preparedness remains adequate to provide a reasonable assurance determination and that appropriate measures can be taken to protect the health and safety of the public in the event of a radiological emergency at the Duane Arnold Energy Center. Region VII is not recommending actions to conduct a Disaster Initiated Review of offsite emergency preparedness issues within the Duane Arnold Energy Center 10-mile emergency planning zone.