

## ATTACHMENT I

### EMERGENCY AND REMEDIAL RESPONSE PLAN (40 CFR 146.94(a))

#### 1. FACILITY INFORMATION

Facility Name: CarbonFrontier

Facility Contact: Randy Hoyle, Chief Carbon Solutions Officer  
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Injection Well Information:

Well Number	County, State	Latitude	Longitude
CI1-64Z-27N	Kern County, CA	35°33'9.4877"N	119°48'26.3702"W
CI2-64Z-35N	Kern County, CA	35°32'32.6713"N	119°47'37.0682"W
CI3-64Z-35N	Kern County, CA	35°32'11.6457"N	119°47'7.5912"W
CI4-64Z-35N	Kern County, CA	35°31'55.4154"N	119°46'51.7864"W
27R-27N	Kern County, CA	35°33'2.4280"N	119°48'28.6103"W
55-26N	Kern County, CA	35°32'43.2520"N	119°47'32.7755"W
64-35N	Kern County, CA	35°31'44.3600"N	119°46'44.9788"W
9-1N	Kern County, CA	35°31'31.6480"N	119°46'37.0154"W
64-27N	Kern County, CA	35°32'38.0979"N	119°47'54.6576"W

#### Version History

File Name	Version	Date	Description of Change
Attachment I – Aera CCS E and R Response Plan.pdf	1	January 19, 2023	Original document
Attachment I – CarbonFrontier E and R Response Plan V2 04182024.pdf	2	April 18, 2024	Revisions made to reorganize and clarify event response actions

This Emergency and Remedial Response Plan (ERRP) describes actions that Aera Energy LLC (Aera) shall take to address movement of the injection fluid or formation fluid in a manner that may endanger an underground source of drinking water (USDW) during the construction, operation, or post-injection site care periods for the proposed CarbonFrontier Carbon Capture and Sequestration (CCS) Project (Project). The Plan is provided to meet the requirements of Title 40 of the Code of Federal Regulation (40 CFR) 146.94, Emergency and Remedial Response.

If Aera obtains evidence that the injected CO<sub>2</sub> stream and/or associated pressure front may cause an endangerment to a USDW, human health and safety, or the environment, Aera will perform the following actions:

1. Cease injection.
2. Take the steps reasonably necessary to identify and characterize a release.

3. Notify the permitting agency [Underground Injection Control (UIC) Program Director and California Air Resources Board (CARB) Executive Officer] of the emergency event within 24 hours (hrs).
4. Implement applicable portions of the approved EERP.

Where the phrase “initiate shutdown plan” is used, the following protocol will be employed: Aera will immediately cease injection in the affected well(s) and other wells that may exacerbate risk of leakage to affected well(s). However, in some circumstances, Aera will, in consultation with the UIC Program Director and CARB Executive Officer, determine whether gradual cessation of injection (using the parameters set forth in Class VI Permit, **Attachment A** – Summary of Operating and Reporting Requirements) is appropriate.

## **2. LOCAL RESOURCES AND INFRASTRUCTURE**

The area surrounding the CarbonFrontier CCS project is primarily oil and gas production and undeveloped acreage on the southwest side of West Side Highway. East of the West Side Highway are agricultural fields and a materials/soil stockpile industrial facility. Resources in the vicinity of the CarbonFrontier CCS Project that may be affected as a result of an emergency event at the project site include the following:

- Oil and gas production infrastructure within the North and South Belridge oilfields, not directly associated with the project;
- Potential USDWs within area of review (AoR);
- A small housing tract on Lost Hills Road, north of Lerdo Hwy and roughly 5 miles southeast of the nearest injection well;
- State highways 33 and 46 and Interstate 5;
- The community of Lost Hills located more than 7 miles northeast of the nearest injection well;
- Public amenities at Blackwells Corner, approximately five miles northwest and Spicer City, approximately 9.5 miles southeast of the nearest injection well.

The U.S. Environmental Protection Agency (EPA) approved a USDW aquifer exemption for the Tulare Formation (Fm), Etchegoin Fm, Monterey Fm, Temblor Fm, and Tumey Fm in the North Belridge oil field area since they are hydrocarbon-producing aquifers. The original aquifer exemption was issued by EPA Record of Decision on March 14, 1983, and an expansion of the aquifer exemption for the Tulare Fm was approved on June 7, 2019. The shallow alluvium located near former-produced water disposal ponds does not qualify as a USDW within the AoR because total dissolved solids (TDS) levels exceed 10,000 ppm. The Tulare Fm has the potential to be a USDW over a portion of the area within the AoR, outside the aquifer exemption boundary for the Tulare Fm. Additional data will be gathered to determine the status of the Tulare Fm within this specified area.

Resources and infrastructure addressed in this plan are shown in **Figure 1**, attached.

### **3. POTENTIAL RISK SCENARIOS**

The following are events related to the CarbonFrontier CCS Project that could result in a need for an emergency response action:

- Injection well or monitoring well integrity failure: Loss of well integrity due to a leak in the casing, tubing, or packer which leads to a subsurface release or a migration of fluid through vertical channels adjacent to a well;
- Well injection or monitoring equipment failure: A failure of operating equipment such as sensors, gauges, wellheads, CO<sub>2</sub> pipelines, etc., which leads to the loss of monitoring data or a release of CO<sub>2</sub> at the surface;
- Fluid (e.g., formation water) or CO<sub>2</sub> leakage to a potential USDW or land surface;
- Natural disaster with effects that could impact site operations (e.g., earthquake, lightning strike, or grass fire); and,
- Induced seismic event.

Response actions will depend on the severity of the event(s) triggering an emergency response. Emergency conditions were ranked by comparing the risk categories of people, assets, environment, and governance with severity of event and likelihood of occurrence. “Emergency events” are categorized as shown in **Table 1**.

**Table 1: Degrees of Risk for Emergency Events**

Severity	Definition
Minor Emergency	Event poses little to no immediate risk of impact to human health, infrastructure, resources, or governance.
Serious Emergency	Event poses potential significant near-term risk of impact to human health, resources, infrastructure, or governance if conditions worsen or no response actions taken.
Major Emergency	Event poses immediate substantial risk of impact to human health, resources, infrastructure, or governance. Emergency actions involving local authorities (evacuation or isolation of areas) should be initiated.

### **4. EMERGENCY IDENTIFICATION AND RESPONSE ACTIONS**

Steps to identify and characterize the event will be dependent on the specific issue identified, and the severity of the event. Actionable limits located in the Quality Assurance and Surveillance Plan (QASP) will be used to assist in ranking the severity of an event. The potential risk scenarios are detailed below.

## **4.1 Well Integrity Failure**

A well integrity failure occurs when a leak exists in the well's casing, tubing, packer, or a channel adjacent to the wellbore. These failures may pose a risk of subsurface leakage of CO<sub>2</sub> or formation fluid out of the sequestration zone.

### **4.1.1 Potential Impacts**

The potential consequences of an injection well or monitoring well integrity failure are the release of CO<sub>2</sub> or formation fluids outside of the sequestration zone and into a potential USDW in the AoR. If a release were to reach the surface, it may pose risk to on-site personnel in the vicinity.

### **4.1.2 Event Identification and Characterization**

Events will be identified or detected by continuous pressure and flow rate monitoring, mechanical integrity tests, or groundwater analyses as described in **Attachment E – Testing and Monitoring Plan**.

A loss of well integrity may have occurred if the following events happen:

- Automatic shutdown devices are activated due to:
  - Wellhead pressure that exceeds the shutdown pressure specified in the permit.
  - Annulus pressure indicates a loss of external or internal well containment.
- Mechanical integrity test results identify a loss of mechanical integrity.
- CO<sub>2</sub> or fluids from the sequestration zone are detected above the primary confining layer.

Within 24 hours of event detection, steps will be taken to classify the severity of a well integrity failure by the following criteria:

- **Minor Emergency:** A loss of mechanical integrity is identified but no release of CO<sub>2</sub> or formation fluids has occurred.
- **Serious Emergency:** A loss of mechanical integrity is identified, and a release of CO<sub>2</sub> or formation fluids has occurred above the primary confining layer, but below any potential USDWs.
- **Major Emergency:** A loss of mechanical integrity has occurred, and a release of CO<sub>2</sub> or formation fluids has occurred to USDWs.

### **4.1.3 Response Actions**

Response actions to a loss of well integrity event will include the following:

- Initiate shutdown plan.
- Notify Belridge Producing Complex, On Duty Manager of Operations and/or On Duty Supervisor (s), using the Aera Pre-Incident Plan for Emergency Response as applicable.

- Notify the UIC Program Director and CARB Executive Officer within 24 hours of the emergency event per 40 CFR 146.91(c) and CCS Protocol C.6(b)(3), respectively. Notify other appropriate federal, state, and local agencies as necessary.
- Site supervisor or designee will perform an initial assessment of the situation and determine which additional project personnel should be notified.
- Determine the severity of the event, based on the information available, within 24 hours of notification.

If the situation is a Minor Emergency, response actions will include the following:

- Perform necessary repairs in consultation with the CARB Executive Officer and UIC Program Director.
- Confirm internal and external mechanical integrity has been restored according to protocols described in **Attachment E**.
- Restore injection operations in consultation with the UIC Program Director and CARB Executive Officer.

If the situation is a Serious or Major Emergency, response actions will include the following:

- Initiate and staff an incident management team.
- Use appropriate equipment to measure CO<sub>2</sub> levels at ground surface, then isolate and restrict access to the project site, as needed.
- Continuously monitor the affected well(s) until the release is determined to be controlled.
- Perform subsurface investigations (e.g., well logging, fluid sampling) as appropriate to determine the cause and extent of the release.
- Perform remediation to affected freshwater aquifers, if required.
- Perform necessary repairs or plug affected well(s) in consultation with the CARB Executive Officer and UIC Program Director.
- If a well is repaired, perform the following:
  - Confirm internal and external mechanical integrity have been restored according to protocols described in **Attachment E**.
  - Restore injection operations in consultation with the CARB Executive Officer and UIC Program Director.

Required equipment will be selected based on the event-specific evaluations performed and may include, but is not limited to, drilling rig, workover rig, or coiled tubing unit; wireline and logging equipment; slickline; and well control equipment.

## **4.2 Injection Well or Monitoring Equipment Failure**

Failure of a well's injection or monitoring equipment could entail the loss of measurement(s) of wellhead pressure, temperature, and/or annulus pressure and may indicate a potential issue with the injection well. In serious cases, an injection equipment failure may constitute a wellhead release where CO<sub>2</sub> is released at the surface.

### **4.2.1 Potential Impacts**

The potential consequence of an injection or monitoring equipment failure is the potential loss of data and the inability to demonstrate injection or monitoring well mechanical integrity. In severe cases, an injection or monitoring equipment failure may result in the release of CO<sub>2</sub> or formation fluids to the ground surface or atmosphere. In the case of a CO<sub>2</sub> release, effects would be localized and therefore pose the greatest risk to personnel in the immediate vicinity.

### **4.2.2 Event Identification and Characterization**

Events will be identified and/or detected by observing anomalies in monitoring data as described in **Attachment E** and/or by visually inspecting operating equipment. Within 24 hours detecting a well equipment failure, the event will be classified by the following criteria:

- **Minor Emergency:** loss of sensor or monitoring data, but other data sources are sufficient to demonstrate mechanical integrity of wells and confirm wellhead and pipeline pressures.
- **Serious Emergency:** loss of sensor or monitoring data, and other data sources are not sufficient to demonstrate mechanical integrity of wells and confirm wellhead and pipeline pressures.
- **Major Emergency:** A wellhead release with CO<sub>2</sub> or formation fluids released at the surface.

### **4.2.3 Response Actions**

Response actions to an emergency event will include the following:

- Notify Belridge Producing Complex, On Duty Manager of Operations and/or On Duty Supervisor(s), using the Aera Pre-Incident Plan for Emergency Response as applicable.
- Notify the UIC Program Director and CARB Executive Officer within 24 hours of the emergency event per 40 CFR 146.91(c) and CCS Protocol C.6(b)(3), respectively. Notify other appropriate federal, state, and local agencies as required.
- Site supervisor or designee will perform an initial assessment of the situation and determine which additional project personnel should be notified.
- Determine the severity of the event, based on the information available, within 24 hours of notification.

If the situation is a Minor Emergency, perform necessary reset/repair or replacement of equipment.

If the situation is a Serious Emergency, perform the following:

- Initiate shutdown plan, in consultation with the UIC Program Director and CARB Executive Officer.
- Identify the location, nature, and extent of the failure; reset/repair, or replace sensor/monitoring devices; and/or confirm internal and external well integrity prior to restarting injection (upon approval of the UIC Program Director and CARB Executive Officer).
- If a loss of mechanical integrity is determined, use response actions described in **Section 4.1.3**.

If the situation is a Major Emergency, perform the following:

- Initiate and staff an incident management team.
- Use appropriate equipment to measure CO<sub>2</sub> levels at ground surface, then isolate and restrict access to the project site, as needed.
- Perform surface investigations of wellheads, valves, and pipelines, as appropriate, to determine the cause and extent of the release.
- Perform necessary repairs in consultation with the CARB Executive Officer and UIC Program Director.
- Restore injection operations in consultation with the CARB Executive Officer and UIC Program Director.

Required equipment will be selected based on the event-specific evaluations performed and may include nonspecialized equipment for monitor/sensor repair or replacement at the surface, at the wellhead, or in the well.

### **4.3 Potential Fluid (Brine) or CO<sub>2</sub> Leakage to Potential USDW**

Potential CO<sub>2</sub> or formation fluid leakage to a potential freshwater aquifer, land surface, or atmosphere may be the result from a loss in well mechanical integrity, a major injection or monitoring well equipment failure, or a large seismic event. Fluid leakage may have occurred if elevated concentrations of indicator parameters are detected through logging and fluid sampling above the primary confining layer or by soil and vadose zone geochemical monitoring. Vegetation surveys, atmospheric leak monitoring, and visual inspections may also be used to detect leaks to the ground surface or atmosphere.

#### **4.3.1 Potential Impacts**

The potential consequence of CO<sub>2</sub> or formation fluid leakage to a potential freshwater aquifer, land surface or atmosphere include impacts to water quality and risks to the health and safety of personnel in the immediate vicinity of the leak.

#### **4.3.2 Event Identification and Characterization**

Events will be identified and/or detected by comprehensive monitoring detailed in **Attachment E**. “Emergency events” are categorized as shown in **Table 1**.

- **Minor Emergency:** evidence that fluid or CO<sub>2</sub> has potentially leaked from the sequestration zone into the overlying, oil-bearing, saline aquifers; no immediate risk to human health, resources, or infrastructure.
- **Serious Emergency:** evidence that fluid or CO<sub>2</sub> has potentially migrated from the sequestration zone into a potential USDW but poses no immediate risk to human health, resources, or infrastructure.
- **Major Emergency:** evidence that fluid or CO<sub>2</sub> has potentially migrated from the injection zone into a potential USDW and poses immediate risk to human health, resources, or infrastructure.

#### 4.3.3 Response Actions

Response actions to an emergency event will include the following:

- Initiate shutdown plan.
- Notify Belridge Producing Complex, On Duty Manager of Operations and/or On Duty Supervisor(s), using the Aera Pre-Incident Plan for Emergency Response as applicable.
- Notify the UIC Program Director and CARB Executive Officer within 24 hours of the emergency event per 40 CFR 146.91(c) and CCS Protocol C.6(b)(3), respectively. Notify other appropriate federal, state, and local agencies as required.
- Site supervisor or designee will perform an initial assessment of the situation and determine which additional project personnel should be notified.
- Determine the severity of the event, based on the information available, within 24 hours of notification.

If the situation is a Minor Emergency, perform the following:

- Determine the severity of the event, based on the information available, within 24 hours of notification.
- Perform subsurface investigations (e.g., well logging, geophysical surveys, fluid sampling) as appropriate, to determine the cause and extent of the release.
  - If a legacy well is found to be the source of the fluid leakage, perform corrective action in consultation with the UIC Program Director and CARB Executive Officer.
  - If an injection or monitoring well is found to be the source of the fluid leakage, plug well or perform necessary repairs in consultation with the CARB Executive Officer and UIC Program Director.
- Confirm internal and external mechanical integrity of affected well(s) has been restored according to protocols described in **Attachment E**.
- Restore injection operations in consultation with the CARB Executive Officer and UIC Program Director.

If the situation is a Serious or Major Emergency, perform the following:

- Initiate and staff an incident management team.
- Use appropriate equipment to measure CO<sub>2</sub> levels at ground surface, then isolate and restrict access to the project site as needed.
- Continuously monitor the affected area(s) until the release is determined to be controlled.
- Perform subsurface investigations (e.g., well logging, geophysical surveys, fluid sampling) as appropriate, to determine the cause and extent of the release.
  - If a legacy well is found to be the source of the fluid leakage, perform corrective action in consultation with the UIC Program Director and CARB Executive Officer.
  - If an injection or monitoring well is found to be the source of the fluid leakage, use response actions described in **Section 4.1.3**.
- Perform remediation to affected freshwater aquifers, if required.
- Restore injection operations in consultation with the CARB Executive Officer and UIC Program Director.

Required equipment will be selected based on the event-specific evaluations performed and may include but is not limited to specialized equipment listed in **Section 4.1.3**, and additional nonspecialized equipment for groundwater/air sampling.

#### **4.4 Natural Disaster**

Natural events that could potentially occur at the project site include earthquakes, lightning strikes, and wildfires. For naturally caused earthquakes, only major emergency event response actions are considered, defined by the operating thresholds described for Induced Seismic Events in **Section 4.5**.

##### **4.4.1 Potential Impacts**

Natural disasters occurring at the ground surface, such as lightning strikes and wildfires, have the potential to cause damage to aboveground facilities and operating equipment, resulting in a release of CO<sub>2</sub> to the ground surface or atmosphere. A natural seismic event may cause a loss of well integrity, damage to aboveground equipment, or fluid leakage above the confining zone and into potential USDWs. Natural disasters and any resulting impacts could pose risk to on-site personnel in the vicinity.

##### **4.4.2 Event Identification and Characterization**

Events will be identified and/or detected by visual and automatic shutoff valves and alarms. “Emergency events” are categorized as shown in **Table 1**.

- **Minor Emergency:** Small, contained event with little to no risk or interruption in operations.
- **Serious Emergency:** Fire or weather damage requiring operational shut down and/or causing significant damage to injection or monitoring equipment.

- **Major Emergency:** Fire, weather damage, or earthquake causing leakage of CO<sub>2</sub> or formation fluids to a potential USDW.

#### 4.4.3 Response Actions

Response actions to an emergency event will include the following:

- Notify Belridge Producing Complex, On Duty Manager of Operations and/or On Duty Supervisor(s), using the Aera Pre-Incident Plan for Emergency Response as applicable.
- Notify the UIC Program Director and CARB Executive Officer within 24 hours of the emergency event per 40 CFR 146.91(c) and CCS Protocol C.6(b)(3), respectively. Notify other appropriate federal, state, and local agencies as required.
- Site supervisor or designee will perform an initial assessment of the situation and determine which additional project personnel should be notified.
- Determine the severity of the event, based on the information available, within 24 hours of notification.

If the situation is a Minor Emergency, perform the following:

- Coordinate with Belridge Producing Complex, On Duty Manager of Operations and/or On Duty Supervisor(s), using the Aera Pre-Incident Plan for Emergency Response as applicable.
- Perform necessary reset/repair or replacement of equipment, as needed.

If the situation is a Serious Emergency, perform the following:

- Initiate shutdown plan in consultation with the UIC Program Director and CARB Executive Officer.
- Perform necessary surface or subsurface investigations to identify the location, nature, and extent of the failure.
- If a well integrity failure is determined, use response actions described in **Section 4.1.3**; if a failure of injection or monitoring equipment is determined, use response actions described in **Section 4.2.3**.
- Perform necessary repairs.
- Restore injection operations in consultation with the UIC Program Director and CARB Executive Officer.

If the situation is a Major Emergency, perform the following:

- Initiate shutdown plan, in consultation with the UIC Program Director and CARB Executive Director.
- Initiate and staff an incident management team.

- Use appropriate equipment to measure CO<sub>2</sub> levels at ground surface, then isolate and restrict access to the project site, as needed.
- Continuously monitor the affected area(s) until the release is determined to be controlled.
- Perform necessary surface or subsurface investigations (e.g., inspections, well testing, geophysical surveys) to identify the location, nature, and extent of the failure(s).
  - If a well integrity failure is determined, use response actions described in **Section 4.1.3**.
  - If a failure of injection or monitoring equipment is determined, use response actions described in **Section 4.2.3**.
  - If a leak of CO<sub>2</sub> or formation fluid leakage to a potential freshwater aquifer, land surface, or atmosphere is identified, follow response actions in **Section 4.3.3**.
- Perform remediation to affected freshwater aquifers, if required.
- Restore injection operations in consultation with the CARB Executive Officer and UIC Program Director.

Required equipment will be selected based on the event-specific evaluations performed and may include nonspecialized equipment for repair or replacement of damaged equipment at the surface and at the wellhead.

## **4.5 Induced Seismic Event**

Induced seismic events are earthquakes caused by pressure changes associated with injection operations. The fault stability analysis and appropriate operating conditions as described in **Sections 2.3 and 7.1 of the Application Narrative** demonstrate that the proposed operating parameters are not predicted to cause a seismic event; however, response actions to an event of this type are considered here. Natural earthquakes may be difficult to distinguish from induced seismic events without subsequent investigation; therefore, response actions described here will apply to any earthquake with an epicenter within a 10 mi radius of an injection well.

### **4.5.1 Potential Impacts**

A small-scale induced seismic event, with magnitude (M)  $\leq$  M 2.5, is unlikely to cause damage to project infrastructure or pose immediate risk to personnel in the vicinity. A large event with strong ground shaking, though unlikely to occur, has the potential to lead to well integrity failure(s), well injection or monitoring equipment failure(s), or fluid leakage to potential freshwater aquifers, the ground surface, or atmosphere. A large seismic event could also pose risk to on-site personnel in the vicinity.

### **4.5.2 Event Identification and Characterization**

Aera will conduct periodic monitoring and analysis of the Southern California Earthquake Data Center (SCEDC) reporting data of earthquakes with moment magnitude  $> 1$ , local reporting of felt events, local observations, and reports of damage caused by seismic activity within the AoR

**(Attachment E).** Continuous microseismic monitoring will also be performed as described in **Attachment E**. Severity of an induced seismic event will be categorized by the following criteria:

- **Minor:** Operating State GREEN (seismic events with  $\leq$  M1.5, or seismic events  $>$  M1.5 and  $\leq$  M2.5 with no felt report or local observation)
- **Serious:** Operating State YELLOW (seismic events  $>$  M1.5 and  $\leq$  M2.5 with felt report or local observation, or seismic events  $>$  M2.5 and no felt report or local observation)
- **Major:** Operating State RED (seismic event  $>$  M2.5 with local observation or felt report or damage report)

#### **4.5.3 Response Actions**

Aera will use the Seismic Response System structure presented in **Table 2** to assign an operating state based on data obtained from the SCEDC catalog and microseismic monitoring and follow the corresponding response actions.

Required equipment will be selected based on the event-specific evaluations performed and may include nonspecialized equipment for repairs or replacement at the surface, at the wellhead and in the well.

**Table 2: Seismic Response System for Seismic Events > M1.0 with an Epicenter within a 10.0-Mi. Radius of an Injection Well**

Operating Level	Threshold Conditions	Response Actions
Green	Seismic events with magnitude $\leq$ M1.5 or Seismic events > M1.5 and $\leq$ M2.5 with no felt report or local observation	<ol style="list-style-type: none"> <li>1. Continue normal operation within permitted levels.</li> <li>2. Closely monitor SCEDC data for 30 days.</li> <li>3. Evaluate continuous microseismic monitoring data to identify potentially correlated events; consult with the UIC Program Director and CARB Executive Officer on next steps.</li> </ol>
Yellow	Seismic events > M1.5 and $\leq$ M2.5 with felt report or local observation or Seismic event > M2.5 and no felt report or local observation	<ol style="list-style-type: none"> <li>1. Evaluate impacts to the project and notify the UIC Program Director and CARB Executive Officer within 24 hours of the incident.</li> <li>2. Evaluate site conditions:                     <ol style="list-style-type: none"> <li>a. If a loss of mechanical integrity is known or suspected, follow response actions described in <b>Section 4.1.3</b>.</li> <li>b. If a well injection or monitoring equipment failures is known or suspected, follow response actions described in <b>Section 4.2.3</b>.</li> <li>c. If a potential brine or CO<sub>2</sub> release to a USDW is known or suspected, follow response actions described in <b>Section 4.3.3</b>.</li> </ol> </li> <li>3. Following evaluation, determine whether normal operations can continue.</li> <li>4. Evaluate continuous microseismic monitoring data to identify potentially correlated events; consult with the UIC Program Director and CARB Executive Officer on next steps.</li> </ol>
Red	Seismic event > M2.5 with local observation or felt report or damage report	<ol style="list-style-type: none"> <li>1. Initiate shutdown plan, in consultation with the UIC Program Director and CARB Executive Officer.</li> <li>2. Notify Belridge Producing Complex, On Duty Manager of Operations and/or On Duty Supervisor(s), using the Aera Pre-Incident Plan for Emergency Response as applicable.</li> <li>3. Evaluate site conditions:                     <ol style="list-style-type: none"> <li>a. If a loss of mechanical integrity is known or suspected, follow response actions described in <b>Section 4.1.3</b>.</li> <li>b. If sensor/monitoring equipment failures are known or suspected, follow response actions described in <b>Section 4.2.3</b>.</li> <li>c. If a potential brine or CO<sub>2</sub> release to a USDW is known or suspected, follow response actions described in <b>Section 4.3.3</b>.</li> </ol> </li> <li>4. Following evaluations, determine whether normal operations can continue.</li> <li>5. Evaluate continuous microseismic monitoring data to identify potentially correlated events; consult with the UIC Program Director and CARB Executive Officer on next steps.</li> </ol>

## **5. EMERGENCY COMMUNICATIONS PLAN**

The following response personnel have contact information listed in the Belridge Producing Complex Emergency Incident Placard and will be dispatched in case of a Major or Serious Emergency.

- Belridge Producing Complex, On Duty Manager of Operations and/or On Duty Supervisor(s) (see placard for contact phone number)
- Belridge Critical Well Response Team: (661) 765-1133, 24-hour (800) 247-5977
- Contractors including Patriot Environmental Service: (800) 624-9136
- Public and Media Liaison: (661) 665-5627

The site-specific emergency contact list in **Table 3** will be maintained on site and updated as appropriate during the life of the project.

**Table 3: Contact Information for Key Local, State, and Other Authorities**

Organization	Phone Number
Trans West (dispatches Emergency Response (ER) Teams and connects to Kern County services (Sheriff & Fire Dept.)	(661) 765-4450
Kern County Sheriff	(661) 862-8740
Kern County Fire Dept.	(877) 237-2911 (877-AERA-911) (emergency) (661) 324-6551 (non-emergency)
California Governor's Office of Emergency Services Warning Center (Cal OES)	(800) 852-7550
Patriot Environmental Service	(800) 624-9136
UIC Program Director	(415) 972-3971
EPA National Response Center (24 hours)	(800) 424-8802
CARB Executive Officer	(800) 242-4450
California Geological Survey	(916) 445-1825
California Highway Patrol	911

Aera will communicate with appropriate members of the public who may be affected by an emergency event. The amount of information, timing, and communications method(s) will be appropriate to the event and its severity, and will include event description, potential impacts to the environment or other local resources, investigation summary, response actions, and status. Aera will provide periodic updates as necessary.

If necessary, Aera will also communicate with entities who may need to be informed about or act in response to the event, including local water purveyors or operators, CO<sub>2</sub> suppliers, pipeline operators, oil and gas operators, landowners, and other departments/authorities as guided by the CARB Executive Officer and UIC Program Director.

## **6. EMERGENCY AND REMEDIAL RESPONSE PLAN REVIEW TIMELINE**

This EERP shall be reviewed:

- At least once every 5 years following its approval by the CARB Executive Officer and UIC Director;
- Within one year of an AoR reevaluation;
- Within 30 days following significant changes to the injection process or the injection facility, or a Serious or Major Emergency; or,
- As required by the CARB Executive Officer and UIC Director.

If the review indicates that no amendments to the EERP are necessary, Aera will provide the EPA with the documentation supporting the “no amendment necessary” determination.

If the review indicates that amendments to the EERP are necessary, amendments shall be made and submitted to the EPA within 120 days following an event that initiates the EERP review procedure.

## **7. STAFF TRAINING AND EXERCISE PROCEDURES**

Aera facility staff and contractors working at the Aera CCS Facility or within the AoR may require training depending on project role and activities. This may include, but not be limited to, the following:

- Incident Command System Training
- CO<sub>2</sub> Facilities Training
- CO<sub>2</sub> Safety Training
- CO<sub>2</sub> Hazards Training
- Emergency Response Training

## **Figures**

