Class VI Injection Well Application

Attachment 10: Emergency and Remedial Response Plan
40 CFR 146.94(a)

Compass Project

Carle Springs, DeWitt County, Illinois

17 May 2023

Project Information

Project Name:	Compass
Project Operator:	Heartland Greenway Carbon Storage, LLC
Project Contact:	Tyler Durham, SVP and Chief Development Officer 13333 California St., Suite 202, Omaha, NE 68154 Phone: 402-520-7089 Email: tdurham@navco2.com
Project Location:	Carle Springs, DeWitt County, IL

CO_2 Injection Well #1 (NC_INJ1) Location
Latitude: 40.281983°
Longitude: -89.005617°

CO_2 Injection Well #2 (NC_INJ2) Location
Latitude: 40.281981°
Longitude: -88.991517°

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List of Acronyms

AoR	Area of Review
CO_2	carbon dioxide
DNR	Department of Natural Resources
ERRP	Emergency and Remedial Response Plan
FEMA	Federal Emergency Management Agency
HGCS	Heartland Greenway Carbon Storage, LLC
IBDP	Illinois Basin–Decatur Project
IEMA	Illinois Emergency Management Agency
IL-ICCS	Illinois Industrial CCS Project
MIT	mechanical integrity test
NC_INJ1	Compass Injection Well #1
NC_INJ2	Compass Injection Well #2
NC_OBS1	Compass Deep Observation Well
SOP	standard operating procedure
TBD	to be determined
UIC	Underground Injection Control
USDW	Underground Source of Drinking Water

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1. Introduction

This section of the permit application addresses the Emergency Remedial and Response Plan (ERRP) that Heartland Greenway Carbon Storage, LLC (HGCS) will implement for the Compass Project. This ERRP describes the actions that HGCS shall take to address and remediate mechanical integrity issues, induced seismic events, and other events that could allow for the movement of the CO_2 or injection zone fluids in a manner that may endanger an underground source of drinking water (USDW) during the construction, operation, or post-injection site care periods of the project.

The following events are identified as potential risk scenarios. These scenarios are discussed further in Section 3 Potential Risk Scenarios. These scenarios were identified and discussed as part of the Risk Assessment performed for the project.

1. Injection Wells (NC_INJ1, NC_INJ2)/ Deep Observation Well (NC_OBS1) well integrity failure,
2. NC_INJ1, NC_INJ2, or NC_OBS1 monitoring equipment failure,
3. Natural Disaster,
4. Fluid (non-CO_2) leakage into a USDW or surface,
5. CO_2 leakage into USDW or surface,
6. Induced seismic event.

In accordance with 40 CFR 146.94 (b), should HGCS obtain evidence that the injected CO_2 stream and/or associated pressure front may cause an endangerment to a USDW, HGCS must perform the following actions:

1. Initiate shutdown plan for the injection well.
2. Take all steps reasonably necessary to identify and characterize any release.
3. Notify the permitting agency (Underground Injection Control (UIC) Program Director) of the emergency event within 24 hours.
4. Implement applicable portions of the approved ERRP.

Where the phrase “initiate shutdown plan” is used, HGCS will immediately cease injection. However, in some circumstances, HGCS will, in consultation with the UIC Program Director, determine whether gradual cessation of injection is appropriate.

2. Local Resources and Infrastructure

Resources in the Area of Review (AoR) of the project that may be affected as a result of an emergency event at the project site include the shallow and lowermost USDWs as discussed in (Attachment 01: Narrative, 2023). These include:

- Unconsolidated glacial till including the Mahomet aquifer
- St Peter Sandstone

In addition to these local aquifers, several surface bodies of water are also located within the AoR. These include:

- Kickapoo Creek
- Little Kickapoo Creek
- Long Point Creek
- Short Point Creek
- Mud Creek
- Burlison Creek
- Tenmile Creek
- Prairie Creek
- Rock Creek
- Small unnamed streams and ponds

Population centers and towns in the vicinity of the project that may be affected as a result of an emergency at the project site include:

- Randolph, IL
- Heyworth, IL
- Wapella, IL
- Carle Springs, IL
- Bucks, IL

Heyworth Municipal Water and Wastewater Treatment Plant are within the AoR. Other major public infrastructure (parks, cemeteries, etc.) within the AoR includes:

- Diamond Grove Cemetery
- Stewart Cemetery
- Passwater Cemetery
- Bishop Cemetery
- Shiloh Cemetery
- Old Rutledge Cemetery
- Sugar Grove Cemetery
- Long Point Cemetery
- St Patrick Cemetery
- Halsey Cemetery
- Crum Cemetery
- Fairview Cemetery
- Rock Creek Cemetery
- Shiloh Cemetery

- Wapella Park
- Heyworth Centennial Park
- Cobble Creek Park
- Wyndhaven Park
- Splash Pad Park
- Weltman Park
- Hillside Park
- Volunteer Park (Merle Shannon Park)
- Heyworth Courts
- Heyworth Elementary School
- Heyworth Jr-Sr High School

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

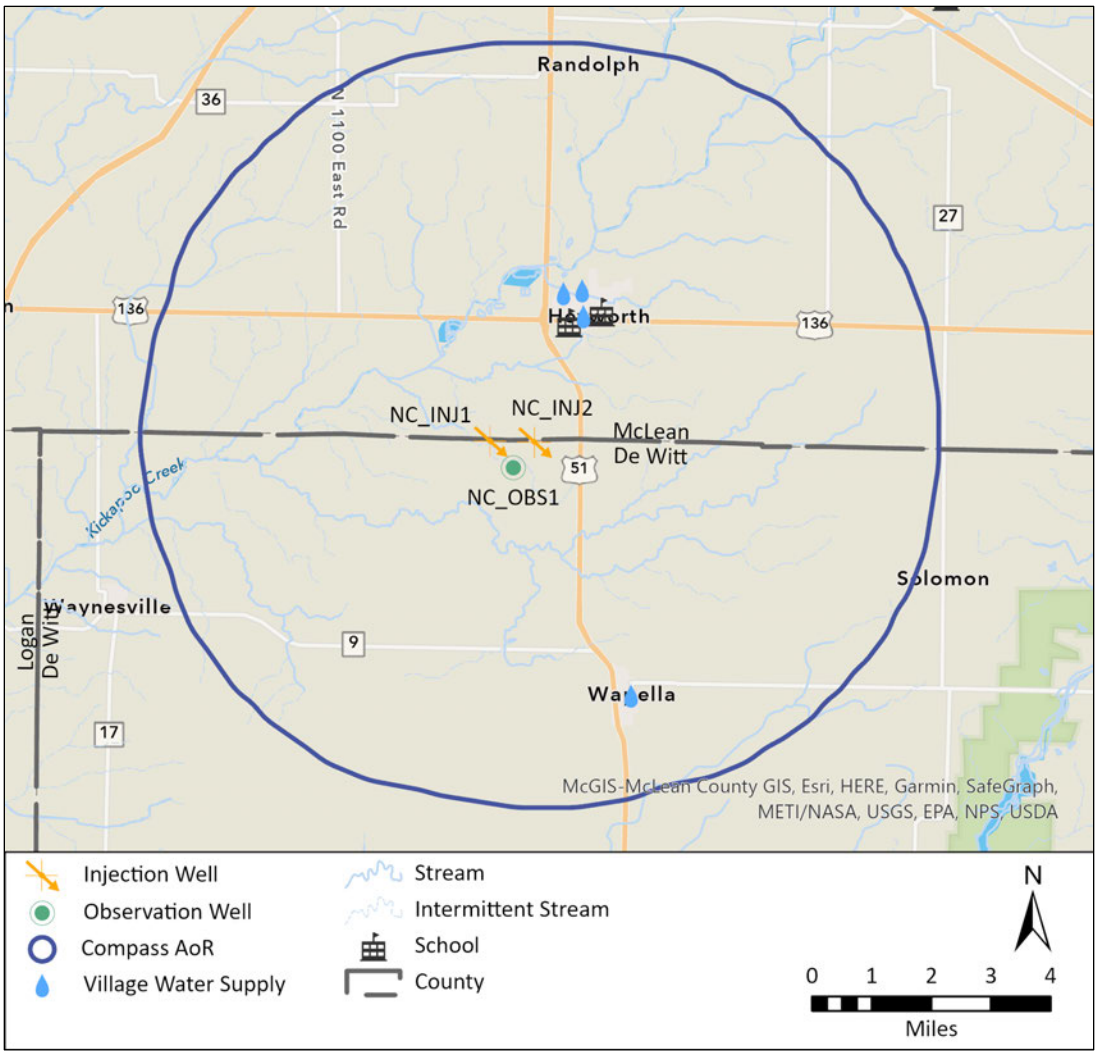

Figure 1: Map of the site resources and infrastructure. AoR is indicated by the blue circle.

3. Potential Risk Scenarios

The following events related to the project, as listed in Section 1, could potentially result in an emergency response:

- NC_INJ1, NC_INJ2, or NC_OBS1 well integrity failure,
- Injection well monitoring equipment failure (e.g., shut-off valve or pressure gauge, etc.),
- Natural Disaster,
- Fluid (non-CO_2) leakage into a USDW,
- CO_2 leakage into USDW, or
- Induced seismic event.

Response actions will depend on the severity of the event(s) triggering an emergency response. Emergency events are categorized as shown in Table 1.

Additional events have also been considered, but were accounted for in other sections, and are not anticipated to occur, or will be accounted for without a formal plan.

- Unanticipated emergency corrective action(s) needed on a well within the AoR
    - The ramifications of this have been addressed in the Financial Assurance section (Attachment 03: Financial Assurance Plan, 2023).
    - Corrective action will be performed on an as needed basis. These actions will likely vary by situation. Response actions, prior to corrective action, will likely be the same as those applied to a CO_2 or non-CO_2 leak into an aquifer.
- CO_2 exposure in facility.
- Air quality monitors will be installed in enclosed spaces. Fans meant to remove the CO_2 from these spaces will be activated if the CO_2 rises above permissible exposure limits.
- Metal leaching due to prolonged wetted CO_2 exposure.

Construction materials confirmed to be suitable for long term corrosive loading will be used for this project.

Table 1: Degrees of risk for emergency events.

Emergency Condition	Definition
Major emergency (high risk)	Event poses immediate substantial risk to human health, resources, or infrastructure. Emergency actions involving local authorities (evacuation or isolation of areas) should be initiated.
Serious emergency (medium risk)	Event poses potential serious (or significant) near term risk to human health, resources, or infrastructure if conditions worsen or no response actions taken.
Minor emergency (low risk)	Event poses no immediate risk to human health, resources, or infrastructure.

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. The potential risk scenarios identified in Section 3 are detailed below. Once equipment placement and location are finalized, a figure will be provided that displays the following:

- Facility building components,
- Project wells,
- Monitoring equipment,
- Emergency shut-down equipment, and
- Flowlines.

It is important to note that in major or serious events, certain actions may be taken to minimize the impact of such events before they are listed in the following action plans. Additionally, as part of the minimization of these events, emergency services may be contacted prior to any other actions taking place.

A formal evacuation plan will be provided as part of the final ERRP and will be specific for site personnel. In addition, primary and secondary muster points will be identified, and these plans will be provided as part of operator training.

4.1. Well Integrity Failure (NC_INJ1, NC_INJ2, or NC_OBS1)

Integrity loss of the injection or observation wells may endanger USDWs. Integrity loss may have occurred if the following events occur (note, this is not an exhaustive list):

- Automatic shutdown devices are activated:
    - *Wellhead injection pressure* exceeds the maximum allowed injection pressure.
        - Note: high-high pressure limit will be set to 5% less than the maximum allowed injection pressure in the permit.
    - *Bottomhole injection pressure* exceeds the maximum allowable bottomhole injection pressure as calculated from the wellhead pressure.
        - Note: high-high pressure limit will be 5% less than the maximum allowed bottomhole injection pressure detailed in the permit.
    - *Annulus pressure* indicates a loss of external or internal well containment
        - The emergency shutdown points of -5 or 1,500 psi are exceeded (Attachment 06: Well Operations, 2023; Attachment 07: Testing and Monitoring, 2023).
    - Note: pursuant to 40 CFR 146.94(b)(3), HGCS must notify the UIC Program Director within 24 hours of any triggering of an emergency shutdown system.
- Mechanical Integrity Test (MIT) results identify a loss of mechanical integrity.
    - Note: pursuant to 40 CFR 146.94(b)(3), HGCS must notify the UIC Program Director within 24 hours of a loss of mechanical integrity that could lead to endangerment of the USDW.

Response actions:

1. Notify the UIC Program Director within 24 hours of the emergency event, per 40 CFR 146.94(b)(3).
2. Determine the severity of the event, based on the information available, within 24 hours of notification.
    a. For a Major or Serious emergency:
        i. Initiate Company Shutdown Procedures/Plan.
            1. Shut-in the well(s)
                a. All necessary valves closed and locked out
            2. Vent CO_2 from surface lines and facility as necessary
            3. Limit access to wellhead and surface facilities to only those authorized
                a. Caution tape or barriers may be used to limit access to the well and facility
            4. Initiate evacuation plans (if necessary)
                a. Communicate at all times with personnel and local authorities if evacuation is necessary
            5. Monitor wellhead pressure (tubing and annulus) and temperature as is feasible.
                a. This information should be used to assess the nature and extent of the mechanical integrity failure
            6. Identify appropriate remedial actions to repair damage to the well
        ii. If contamination is detected, identify, and implement appropriate remedial actions.
            1. Potential actions are listed in the ERR portion Financial Assurance section of this application and are dependent on the magnitude of any potential contamination (Attachment 03: Financial Assurance Plan, 2023).
        iii. Perform MIT prior to bringing the well back online.
    b. For a Minor emergency:
        i. Assess the well to determine whether there has been a loss of mechanical integrity.
        ii. If a loss of mechanical integrity is present, initiate the shutdown plan.
            1. Shut-in the well(s)
                a. All necessary valves closed and locked out as per Company shutdown procedures/plans
            2. Vent CO_2 from surface lines and facility as necessary
            3. Limit access to wellhead and surface facilities to only those authorized
                a. Caution tape and/or rope may be used to limit access to the well and facility
            4. Reset automatic shutdown devices
            5. Monitor wellhead pressure (tubing and annulus) and temperature as is feasible.
                a. This information should be used to assess the nature and extent of the mechanical integrity failure
            6. Identify appropriate remedial actions to repair damage to the well.
        iii. If contamination is detected, identify, and implement appropriate remedial actions.

1. Potential actions are listed in the ERR portion Financial Assurance section of this application and are dependent on the magnitude of any potential contamination (Attachment 03: Financial Assurance Plan, 2023).

iv. Perform MIT prior to bringing the well back online.

4.2. Well Monitoring Equipment Failure (NC_INJ1, NC_INJ2, or NC_OBS1)

The failure of monitoring equipment for wellhead pressure, temperature, and/or annulus pressure may indicate a problem with the injection or observation wells that could endanger USDWs. This subsection covers the remedial response and procedures to be followed should one (or more) of the following monitoring sensors fail:

- Injection Well (NC_INJ1, NC_INJ2)
  - Wellhead injection pressure
  - Wellhead injection temperature
  - Annulus pressure
  - Annulus fluid volume
  - Injection flowrate
- Deep Observation Well (NC_OBS1)
  - Annulus pressure
  - Annulus fluid volume

Response actions:

1. Determine the impact of the event, based on the information available, within 24 hours of the event occurring. At this time, the impact of the loss of monitoring equipment should be assessed, and a viable alternative method should be determined and implemented.
   a. Assess the well to determine whether there has been a loss of mechanical integrity associated with the failure of a piece of monitoring equipment.
   b. If a loss of mechanical integrity is not present, assess the impact the loss of monitoring equipment could have on operations.
      i. If the impact is negligible, implement the viable alternative method of monitoring determined during the initial assessment.
      ii. Plans to replace the equipment should consider replacing the equipment as soon as is feasible based on operational conditions and suitability of the alternative method of monitoring.
      iii. Provide details of the equipment failure, the alternative method of monitoring, and impact to continuous data collection to the UIC Program Director as part of the routine operational reporting.
   c. If a loss of mechanical integrity is present, initiate the shutdown plan.
      i. Notify the UIC Program Director within 24 hours of the event, per 40 CFR 146.94(b)(3)
      ii. Shut-in the well
         1. All necessary valves closed and locked out
      iii. Vent CO_2 from surface lines and facility as necessary

iv. Limit access to wellhead and surface facilities to only those authorized
    1. Caution tape and/or rope may be used to limit access to the well and facility
v. Reset automatic shutdown devices
vi. Monitor wellhead pressure (tubing and annulus) and temperature as is feasible.
    1. This information should be used to assess the nature and extent of the mechanical integrity failure
    2. Note that alternative methods of monitoring may need to be implemented at this time.
vii. Identify appropriate remedial actions to repair damage to the well.
viii. If contamination is detected, identify, and implement appropriate remedial actions.
    1. Potential actions are listed in the ERR portion Financial Assurance section of this application and are dependent on the magnitude of any potential contamination (Attachment 03: Financial Assurance Plan, 2023).
ix. Perform MIT prior to bringing the well back online.

4.3. Natural Disaster

Disturbance or damage as a result of a natural disaster may impact the normal operation of the project. A non-exhaustive list of examples of such potential events and the impact to the project they may cause are:

- An earthquake damages compression equipment and causes an integrity issue with the CO_2 flowline,
- Lightning strikes the wellhead and damages all surface monitoring equipment,
- Severe flooding (i.e., 100-year flood) limits access to the well or injection facility.

These events may impact or damage the ability to properly operate the well or utilize the facility for the intended purposes of the project. If a natural disaster occurs that affects normal operation of the injection well, perform the following response actions:

1. Notify the UIC Program Director within 24 hours of the emergency event, per 40 CFR 146.94(b)(3).
2. Determine the severity of the event, based on the information available, within 24 hours of notification.
    a. For a Major or Serious emergency:
        i. Initiate shutdown plan.
            1. Shut-in the wells
                a. All necessary valves closed and locked out
            2. Vent CO_2 from surface lines and facility as necessary
            3. Limit access to wellhead and surface facilities to only those authorized
                a. Caution tape and/or rope may be used to limit access to the well and facility
            4. Initiate evacuation plans (if necessary)

a. Communicate at all times with personnel and local authorities if evacuation is necessary

5. Monitor wellhead pressure (tubing and annulus) and temperature as is feasible.
    a. This information should be used to assess the nature and extent of the mechanical integrity failure
6. Identify appropriate remedial actions to repair damage to the well

ii. Determine if any leaks of fluid have occurred due to the natural disaster
1. If contamination is detected, identify, and implement appropriate remedial actions.
2. Potential actions are listed in the ERR portion Financial Assurance section of this application and are dependent on the magnitude of any potential contamination (Attachment 03: Financial Assurance Plan, 2023).

iii. Perform mechanical integrity test prior to bringing the well back online.

b. For a Minor emergency:

i. Assess the well to determine whether there has been a loss of mechanical integrity.

ii. If a loss of mechanical integrity is present, initiate the shutdown plan.
1. Shut-in the well(s)
    a. All necessary valves closed and locked out
2. Vent CO_2 from surface lines and facility as necessary
3. Limit access to wellhead and surface facilities to only those authorized
    a. Caution tape and/or rope may be used to limit access to the well and facility
4. Reset automatic shutdown devices
5. Monitor wellhead pressure (tubing and annulus) and temperature as is feasible.
    a. This information should be used to assess the nature and extent of the mechanical integrity failure
6. Identify appropriate remedial actions to repair damage to the well.

iii. Determine if any leaks of fluid have occurred due to the natural disaster
1. If contamination is detected, identify, and implement appropriate remedial actions.
2. Potential actions are listed in the ERR portion Financial Assurance section of this application and are dependent on the magnitude of any potential contamination (Attachment 03: Financial Assurance Plan, 2023).

iv. Perform mechanical integrity test prior to bringing the well back online.

4.4. Non-CO_2 (Brine) Fluid Leakage into USDW or Surface

Elevated concentrations of indicator parameter(s) in groundwater sample(s) or other evidence of fluid (brine) leakage into a USDW.
Response actions:

1. Notify the UIC Program Director within 24 hours of the emergency event, per 40 CFR 146.94(b)(3).
2. Determine the severity of the event, based on the information available, within 24 hours of notification.
3. For all emergencies (Major, Serious, or Minor):
    a. Shut-in the wells
        i. All necessary valves closed and locked out
    b. Vent CO_2 from surface lines and facility as necessary
    c. Collect confirmation sample(s) of groundwater and perform groundwater constituent analysis to determine elevated parameters
        i. The parameters to be tested are provided in the testing and monitoring plan (Attachment 07: Testing and Monitoring, 2023).
        ii. If the presence of indicator parameters is confirmed, develop (in consultation with the UIC Program Director) a case-specific work plan to:
            1. Potential actions are listed in the ERR portion Financial Assurance section of this application and are dependent on the magnitude of any potential contamination (Attachment 03: Financial Assurance Plan, 2023).
    d. The following plan of action may be initiated should drinking water be negatively impacted:
        i. Potential actions are listed in the ERR portion Financial Assurance section of this application and are dependent on the magnitude of any potential contamination (Attachment 03: Financial Assurance Plan, 2023).
    e. Continue groundwater remediation and monitoring on a frequent basis (frequency to be determined by HGCS and the UIC Program Director) until unacceptable adverse USDW impact has been fully addressed.

4.5 CO_2 Leakage into USDW or Surface

Elevated concentrations of indicator parameter(s) in groundwater sample(s) or other evidence of CO_2 leakage into a USDW.
Response actions:

1. Notify the UIC Program Director within 24 hours of the emergency event, per 40 CFR 146.94(b)(3).
2. Determine the severity of the event, based on the information available, within 24 hours of notification.
3. For all emergencies (Major, Serious, or Minor):
    a. Shut-in the wells
        i. All necessary valves closed and locked out

b. Vent CO_2 from surface lines and facility as necessary
c. Collect confirmation sample(s) of groundwater and perform routine analysis to determine elevated parameters
    i. The parameters to be tested are provided in the testing and monitoring plan.
    ii. If the presence of indicator parameters is confirmed, develop (in consultation with the UIC Program Director) a case-specific work plan:
        1. Potential actions are listed in the ERR portion Financial Assurance section of this application and are dependent on the magnitude of any potential contamination (Attachment 03: Financial Assurance Plan, 2023).
d. The following plan of action may be initiated should drinking water be negatively impacted:
    i. Potential actions are listed in the ERR portion Financial Assurance section of this application and are dependent on the magnitude of any potential contamination (Attachment 03: Financial Assurance Plan, 2023).
e. Continue groundwater remediation and monitoring on a frequent basis (frequency to be determined by HGCS and the UIC Program Director) until unacceptable adverse USDW impact has been fully addressed.

4.6. Induced Seismic Event

Induced seismic events typically refer to minor seismic events that are caused by human activity. These events are typically caused when activity alters the stresses or fluid pressures in subsurface formations. This alteration of fluid pressures and stresses could potentially be caused by the injection of fluids. This change in stress can cause fault movement and energy release. This energy release results in seismic events.

It is not expected that natural seismicity will affect the project. The Illinois Basin–Decatur Project (IBDP) demonstration injected CO_2 into the Lower Mt. Simon Sandstone and Arkose Zone and generated microseismic events (all less than M2) during injection (Bauer et al., 2016). The subsequent and adjacent commercial project IL-ICCS (UIC Permit IL-115-6A-0001) also injects into the Lower Mt. Simon Sandstone and Arkose and has mitigated the frequency of microseismicity through increasing the distance from the bottom of the perforated interval to the Precambrian basement. The Compass Project plans to inject CO_2 into the Lower Mt. Simon Sandstone and Arkose Zone and will monitor for induced seismicity as well. The passive seismic monitoring will be used to accurately determine the locations and magnitudes of potential injection-induced seismic events with the primary goals of:

- Addressing public and stakeholder concerns related to induced seismicity,
- Monitoring the spatial extent of the pressure front from the distribution of seismic events,
- Identifying activity that may indicate failure of the confining zone and possible containment loss

A surface-based passive seismic monitoring array will be designed with seismic monitoring stations at a range of azimuths to optimize the accuracy of the event locations and magnitudes. This network can easily be expanded in response to monitoring results or future AoR re-evaluations, if necessary.

Based on the periodic analysis of the monitoring data, observed level of seismicity, and local reporting of felt events, the site will be assigned an operating state. The operating state is determined using threshold criteria which correspond to the site's potential risk and level of seismicity. The operating state provides operating personnel with information about the potential risk of further seismicity and guides them through a series of response actions.

The passive seismic monitoring system structure is presented in Table 2. The table corresponds to each level of operating state with the threshold conditions and operational response actions.

4.7. Unforeseen Events

Should unforeseen events occur (i.e., meteor strike, global pandemic, etc.) that could impact the operations and integrity of the program, response steps will be provided to the UIC Program Director and implemented once approved.

Table 2: Seismic monitoring system for seismic events > M1.0 with an epicenter within the project AoR

Operating State	Threshold Condition *, **	Response Action *
Green	Seismic events less than or equal to M1.5	1. Continue normal operation within permitted levels.
Yellow	Five (5) or more seismic events within a 30-day period having a magnitude greater than M1.5 but less than or equal to M2.0	1. Continue normal operation within permitted levels. 2. Within 24 hours of the event, notify the UIC Program Director of the operating status of the well.
Orange	Seismic event greater than M1.5 and local observation or felt report Seismic event greater than M2.0 and no felt report	1. Continue normal operation within permitted levels. 2. Within 24 hours of the incident, notify the UIC Program Director of the operating status of the well. 3. Review seismic and operational data. 4. Report findings to the UIC Program Director and issue corrective actions, if necessary.
Magenta	Seismic event greater than M2.0 and local observation or report	1. Initiate rate reduction plan. 2. Within 24 hours of the incident, notify the UIC Program Director of the operating status of the well. 3. Communicate with personnel and local authorities to initiate evacuation plans, as necessary. 4. Monitor well pressure, temperature, and annulus pressure to verify well status and determine the cause and extent of any failure; identify and implement appropriate remedial actions (in consultation with the UIC Program Director). 5. Determine if leaks to ground water or surface water occurred (CO_2 or brine). 6. If USDW contamination is detected: a. Notify the UIC Program Director within 24 hours of the determination. b. Follow plan of action as detailed in Sections 4.4 and 4.5. 7. Review seismic and operational data. 8. Report findings to the UIC Program Director and issue corrective actions, if necessary.
Red	Seismic event greater than M2.0, and local observation or report, and local report and confirmation of damage* Seismic event >M3.5	1. Initiate shutdown plan. 2. Within 24 hours of the incident, notify the UIC Program Director of the operating status of the well. 3. Communicate with personnel and local authorities to initiate evacuation plans, as necessary. 4. Monitor well pressure, temperature, and annulus pressure to verify well status and determine the cause and extent of any failure; identify and implement appropriate remedial actions (in consultation with the UIC Program Director). 5. Determine if leaks to groundwater or surface water occurred. 6. If USDW contamination is detected: a. Notify the UIC Program Director within 24 hours of the determination. b. Follow plan of action as detailed in Section 4.4 and 4.5. 7. Review seismic and operational data. 8. Report findings to the UIC Program Director and issue corrective actions, if necessary.

*Report findings to the UIC Program Director and issuing corrective action will occur within 25 business days (five weeks) of change in operating state.
** Onset of damage is defined as cosmetic damage to structures, such as bricks dislodged from chimneys and parapet walls, broken windows, and fallen objects from walls, shelves, and cabinets.

5. Response Personnel, Authorities, and Equipment

Site personnel, project personnel, and local authorities will be relied upon to implement this ERRP. The injection wells and monitoring wells are located in southwest McLean County. Offsite monitoring of shallow groundwater will occur at various points throughout the sites listed in Section 2. As such, local responders for these places will be utilized for emergency contacts and will be notified of an incident as necessary. In addition, state agencies may need to be notified as well. Site personnel to be notified (not listed in order of notification):

1. Project Engineer(s)
2. Safety Manager(s)
3. Environmental Manager(s)
4. Project Manager

All staff will be trained in the methods prescribed in Section 8 of this document. A site-specific emergency contact list will be developed, maintained, and periodically updated during the life of the project. The list will include phone numbers and email addresses for facility emergency 24-hour contacts. HGCS will provide the current site-specific emergency contact list to the UIC Program Director prior to commencement of injection operations.

Table 3: Contact information for key local, state, and other authorities.

Agency	Phone Number
McLean County Sheriff's Office	309-888-5034
DeWitt County Sheriff's Office 24 HR Dispatcher	217-935-9507 217-935-3196 (Dispatcher)
DeWitt County EMS	217-570-0176
Illinois State Police Troop 5 Serving DeWitt and McLean Counties	815-844-1500
McLean County Emergency Management Agency (EMA)	309-888-5020
Illinois Emergency Management Agency (IEMA)	217-782-2700 217-782-7860 (24-hour Response)
Federal Emergency Management Agency (FEMA)	800-621-3362 (FEMA Helpline) 312-408-5500 (FEMA Region 5 General)
Environmental Services Contractors to be determined (TBD)	TBD
Underground Injection Control (UIC) Program Director (Region 5)	312-353-7648
EPA Region 5 UIC Class VI Wells/Carbon Sequestration	312-353-3944
EPA National Response Center (24 hours)	800-424-8802
Illinois Department of Natural Resources (DNR) Oil & Gas Resource Management	217-782-6302

Equipment required in the event of an emergency and remedial response will vary, dependent upon the emergency event. Response actions (cessation of injection, well shut-in, and evacuation) will generally not require specialized equipment to implement. Where specialized equipment (such as a workover rig or logging equipment) is required, HGCS shall be responsible for its procurement.

6. Emergency Communications Plan

The order of contact call-out should an emergency occur is as follows:

1. Project Manager,
2. Necessary emergency authorities,
3. Impact landowners (if any),
4. HGCS Management Teams,
5. HGCS Public Response Personnel (Section 5).

Within 24 hours, following contact with the public response personnel, incidents will be reported to the Region 5 office staff assigned to the project.

Based on the appropriate level of emergency response and the magnitude of the event, a crisis event center will be established. For minor emergencies, this will be held on at the wellsite. For major or serious emergencies, a crisis event center will be established at a safe location. This will serve as the headquarters for communication on the emergency. HGCS will establish a liaison to communicate with the public and impacted landowners.

This liaison will then communicate with the public and impacted landowners about any event that requires an emergency response to ensure that the public understands what happened and whether there are any environmental or safety implications. The amount of information, timing, and communications method(s) will be appropriate to the event, its severity, whether any impacts to drinking water or other environmental resources occurred, any impacts to the surrounding community, and their awareness of the event.

HGCS will describe what happened, any impacts to the environment or other local resources, how the event was investigated, what responses were taken, and the status of the response. For responses that occur over the long-term (e.g., ongoing cleanups), HGCS will provide periodic updates on the progress of the response action(s).

HGCS will also communicate with entities who may need to be informed about or act in response to the event, including local water systems, CO_2 source(s) and pipeline operators, landowners, and Regional Response Teams (as part of the National Response Team). A detailed list of these people will be developed and updated periodically.

7. Plan Review

In accordance with 40 CFR 146.94(d), this ERRP shall be reviewed:

- At least once every five years following its approval by the permitting agency,
- Within one year of an AoR re-evaluation,
- Within a time to be determined as part of the permit following any significant changes to the injection process or the injection facility, or an emergency event, or
- As required by the permitting agency.

If the review indicates that no amendments to the ERRP are necessary, HGCS will provide the permitting agency with documentation supporting the "no amendment necessary" determination. If the review indicates that amendments to the ERRP are necessary, amendments shall be made and submitted to the permitting agency within six months following an event that initiates the ERRP review procedure.

8. Staff Training and Exercise Procedures

HGCS will develop a standard operating procedure (SOP) in tandem with the contractors that provide the surface capture and compression equipment, the surface monitoring system, and develop detailed operating procedures to be followed in the event of an emergency that will be supplied to all other contractors.

Included in this SOP will be specific details that can be used to train the project operators regarding the ERRP. Based on these SOPs, annual training and testing will be provided to all those involved with the project as well as those identified in Section 5 of this document.

All personnel identified and assigned as reponding personnel in the document will complete initial training prior to the commentment of operations. Documentation of this initial traning as well as annual certifications will be documented and retained.

9. References

Attachment 01: Narrative, 2023: Compass.

Attachment 03: Financial Assurance Plan, 2023: Compass.

Attachment 06: Well Operations, 2023: Compass.

Attachment 07: Testing and Monitoring, 2023: Compass.

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