

UIC CLASS VI GEOLOGIC STORAGE OF CO₂ PERMIT APPLICATION

Midland CCS Hub

South Midland Facility

Upton County, Texas

Section 10: Emergency and Remedial Response Plan (ERRP)

[40 CFR §146.94(a) - (d)(3)]

Prepared for:

EPA Region 6

Underground Injection Control Section

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10.0 EMERGENCY AND REMEDIAL RESPONSE PLAN (ERRP) [40 CFR 146.82(a)(19), 146.94(a)]

This Emergency and Remedial Response Plan (ERRP) for the Well is provided to meet the requirements of 40 CFR 146.94(a). The comprehensive plan describes potential adverse events that could occur in the development, operation and post-closure phases of the project and the actions to be taken in the unlikely event of such an emergency at the South Midland Facility or within the identified AoR. The ERRP describes the potential affected resources, lists entities and individuals to be notified, and provides actions to be taken expeditiously to mitigate any emergency and protect human health and safety of the environment, including USDWs.

This plan describes actions that Milestone will take in the event of an emergency that could endanger any USDW within the AoR during construction, operation, or post-injection site care. Such events may include unplanned CO₂ release or detection of unexpected subsurface movement of CO₂ or fluids in or from the injection zone.

If Milestone obtains evidence that the injected CO₂ stream and/or associated pressure front may cause an endangerment to a USDW, Milestone will 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 (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, the following protocol will be employed:

Milestone will immediately cease injection. However, given the high injection pressures, supercritical fluid within the wellbore, and high injection rates, Milestone will, in consultation with the UIC Program Director, determine appropriate pre-planned shut-down procedures that allow for safe shutdown of the well and associated mid-stream infrastructure that does not endanger human health, equipment, or the environment.

10.1 Local Resources and Infrastructure in AoR

10.1.1 Description of Project Area

The Facility is located in the near the city of Midkiff, which is an unincorporated desert village in northeastern Upton County, Texas, United States. It lies along Farm-to-Market (FM) 2401 and FM 3095 north of the city of Rankin, the county seat of Upton County, and is primarily an agricultural and petroleum-related community with a total population of 780 and 21 businesses.

The closest highly populated area is Midland, Texas which is about 45 miles northwest of the Facility (Figure 10-1). However, there are a large number of oilfield related structures in the vicinity.



[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

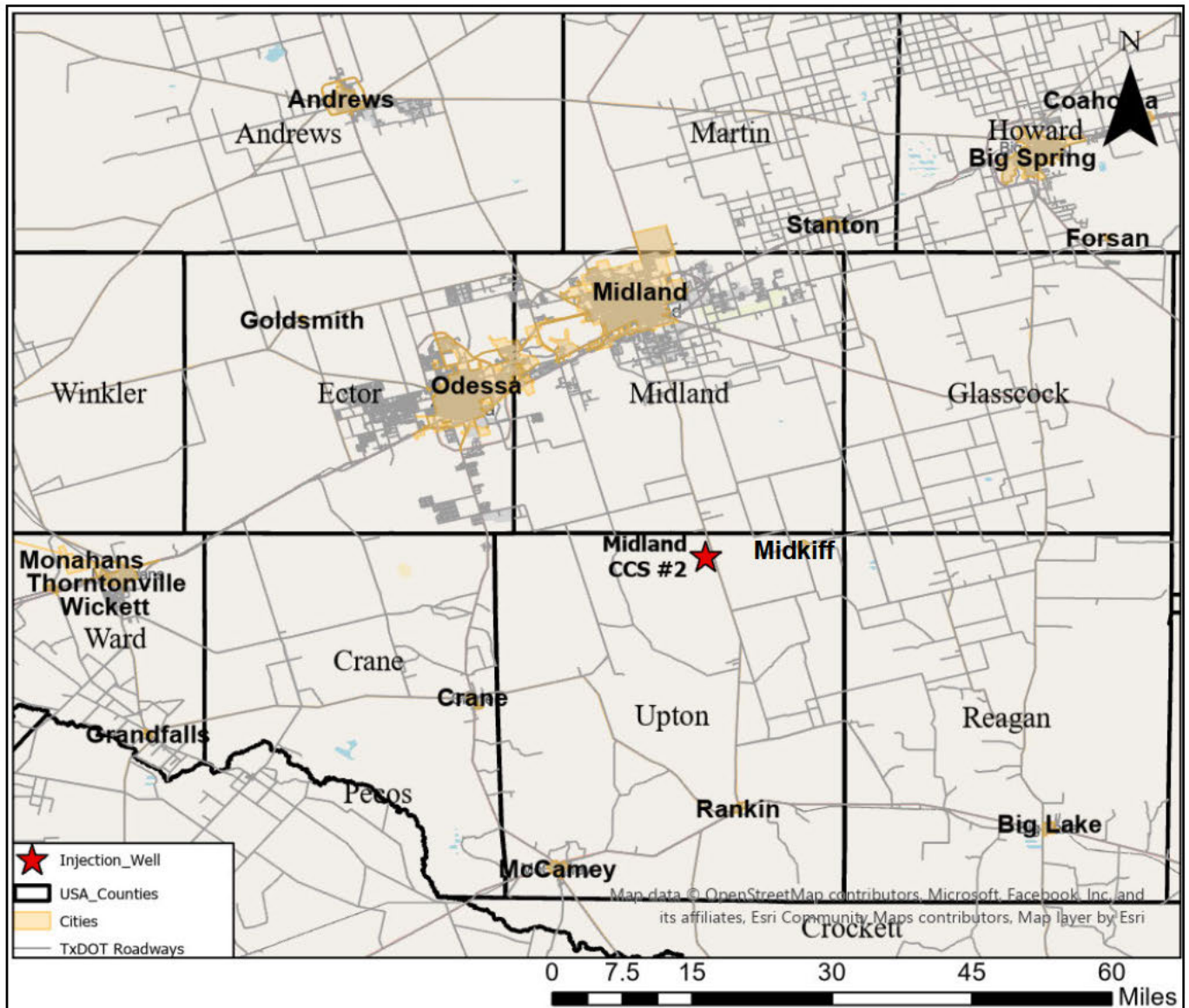
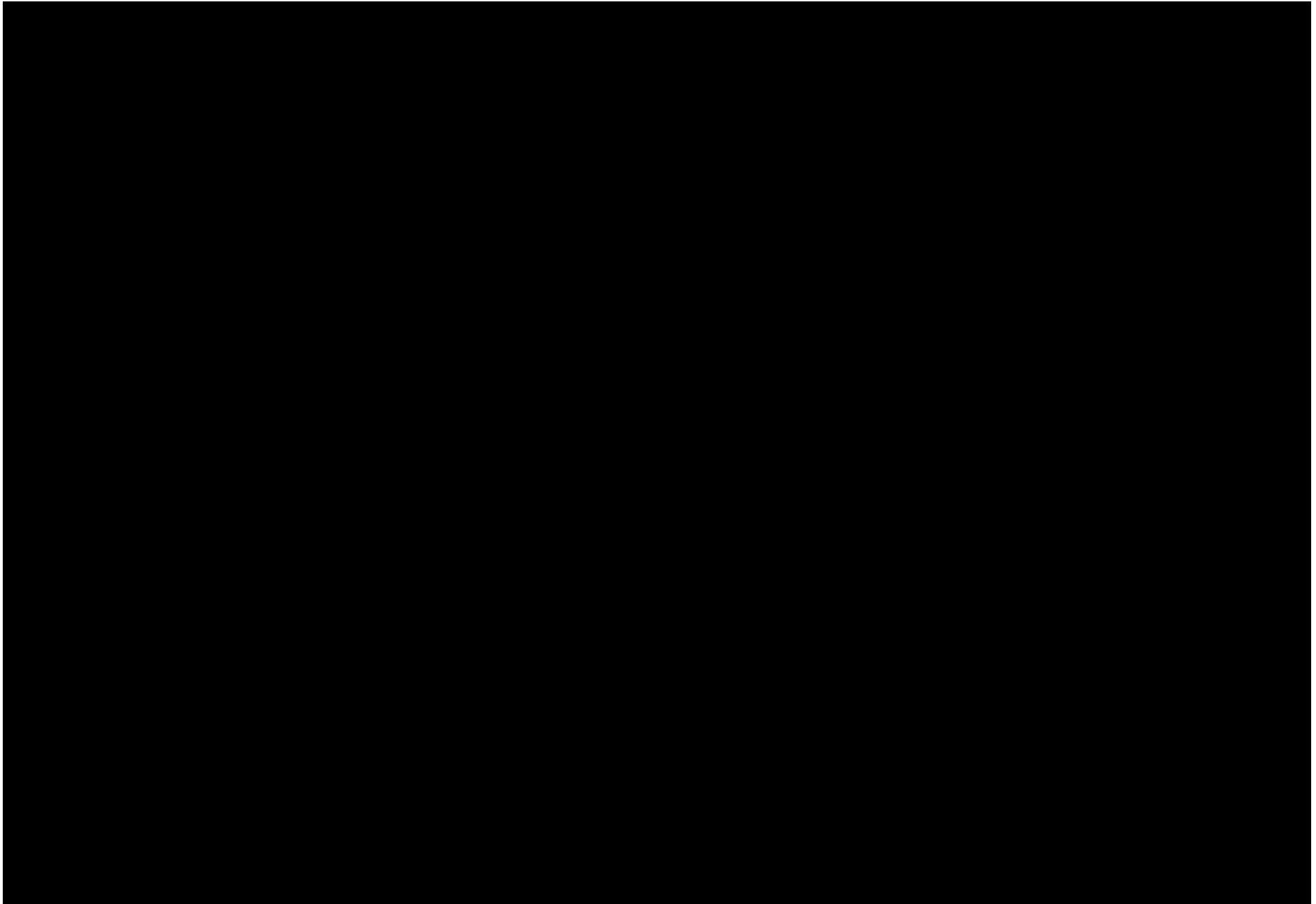


Figure 10-1: General Location Index Map – Surrounding Cities of Midkiff, Rankin & Midland, Texas

The Midland CCS #2 Well will be situated in the northern part of Upton County, Texas. The Well will be drilled at latitude 31.615788°N, longitude -101.990004°W (NAD83).

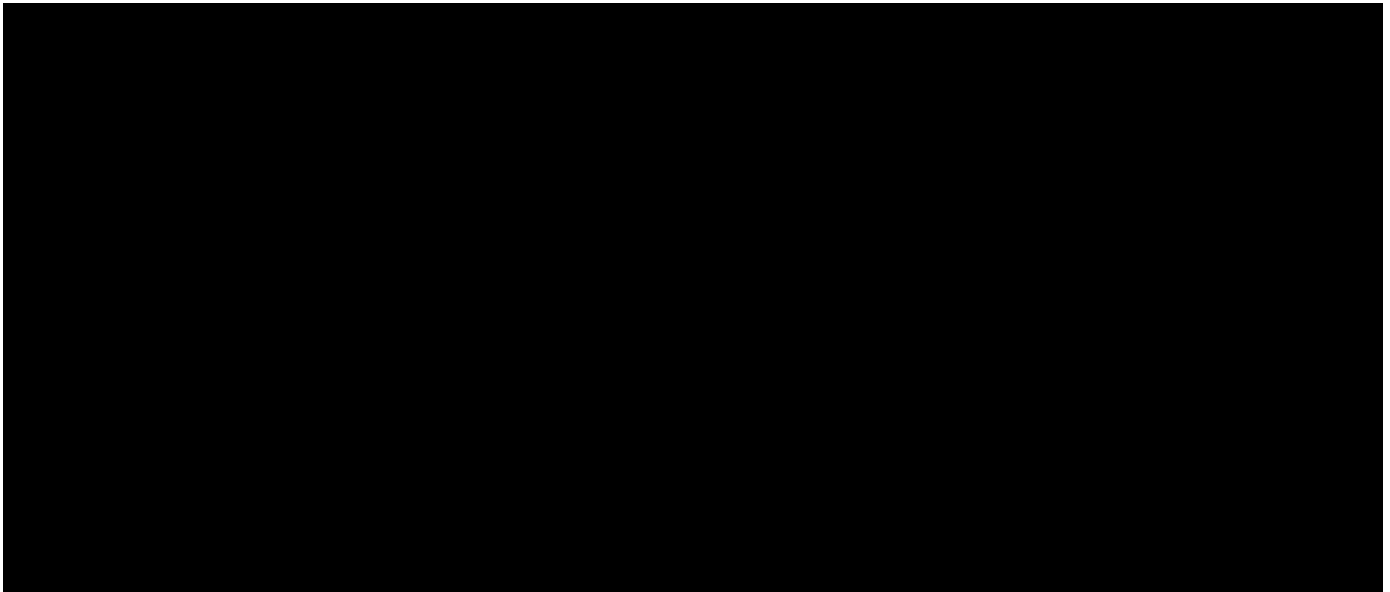


10.2 Potential Risk Scenarios

Several scenarios could activate an emergency response. This ERRP considers any adverse incident with the potential of causing personal injuries, USDW contamination, or property damage as an “event.”

The scope of response, response actions, and order of activities will be proportionate to the severity and impacts of the event and implemented as outlined in this ERRP. “Emergency events” are categorized as shown in **Table 10-1**.

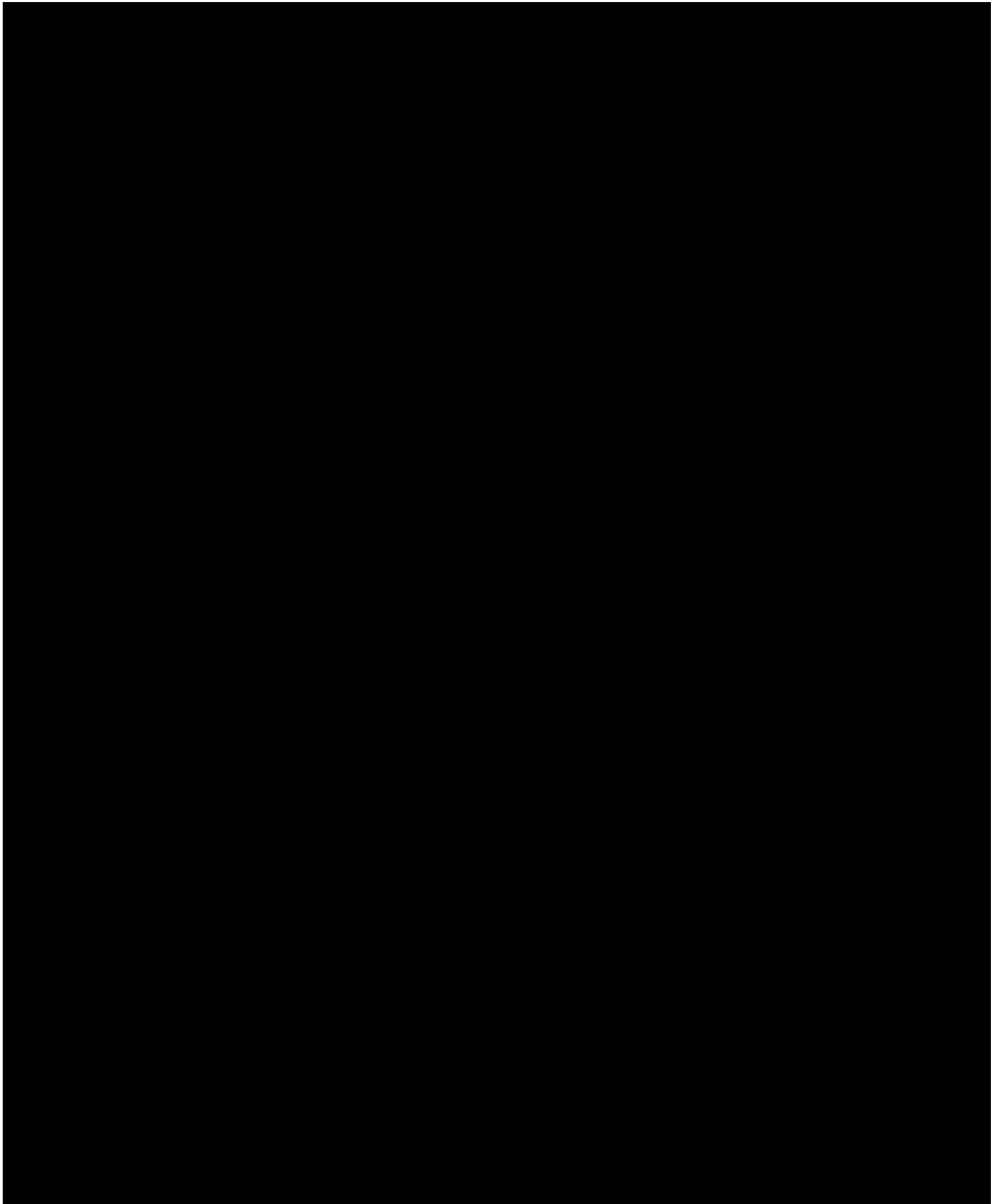
The protocols may be modified and refined based on the specific circumstances and conditions of the event as well as any discussion with governmental authorities having jurisdiction.

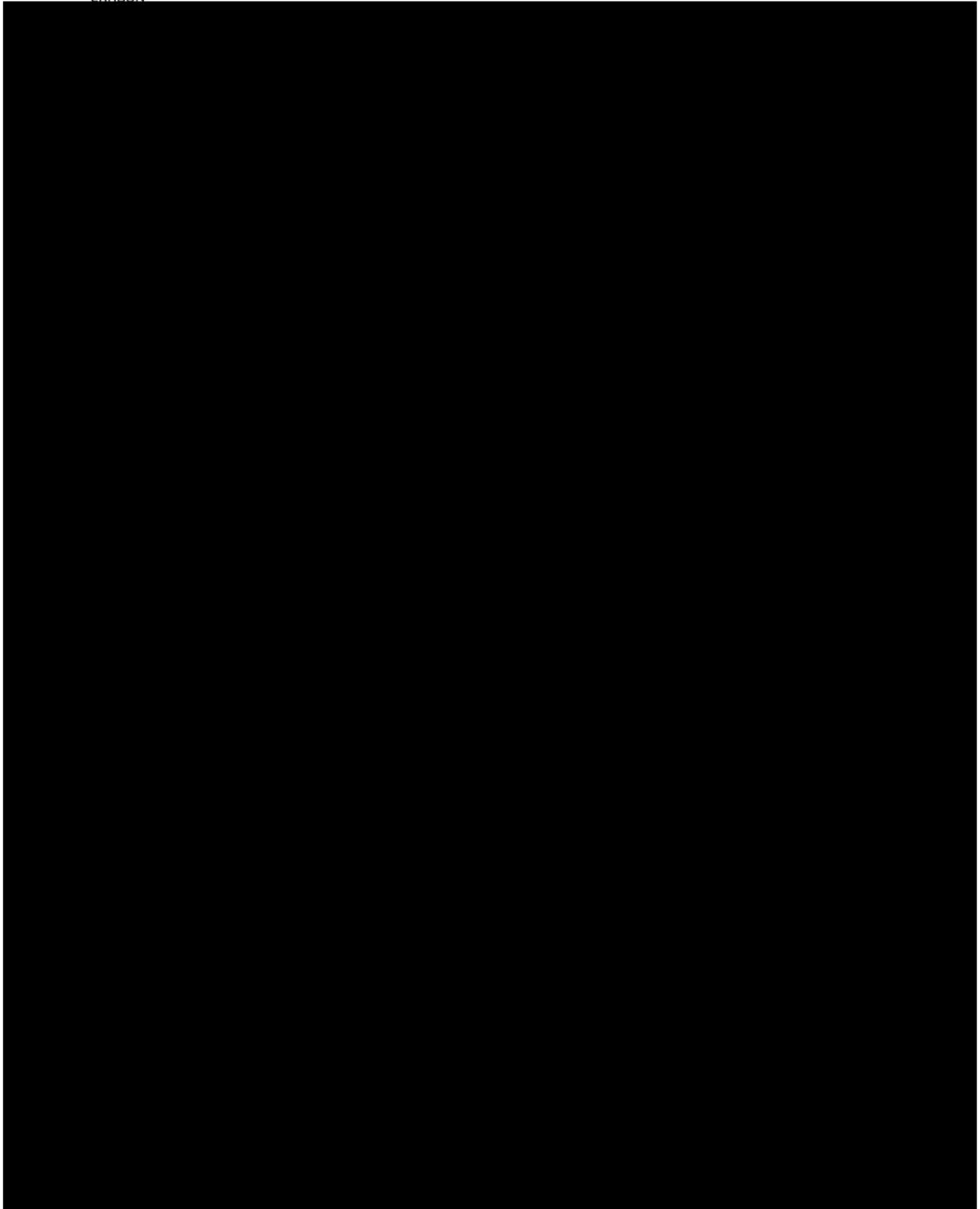


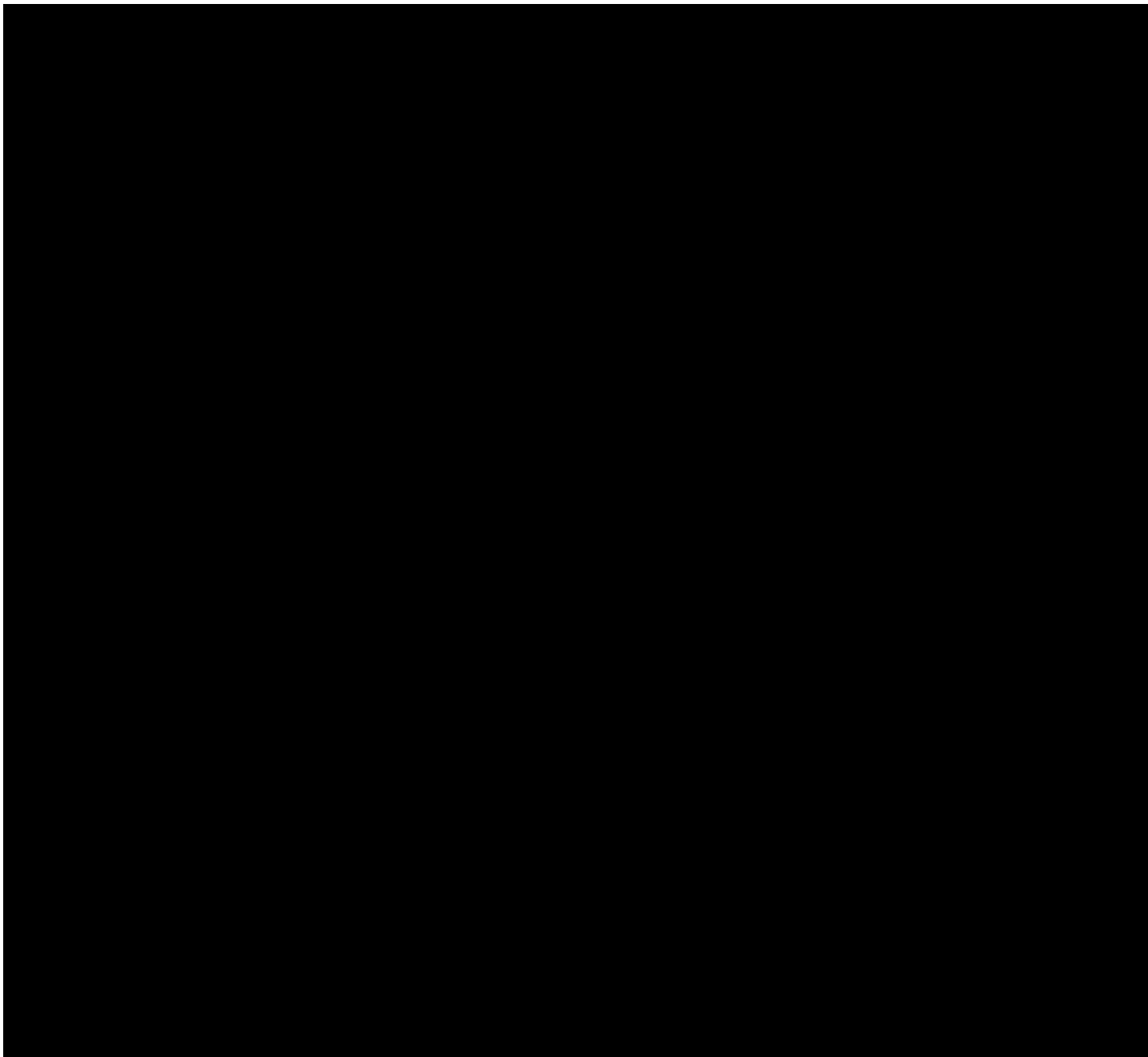
Discovery of an event triggers the corresponding response plan proposed herein. Response plan actions and activities will depend upon the circumstances and severity of the event. Milestone will address an event immediately and, when required, will communicate the event to the UIC Program Director within 24 hours of discovery. Tables of emergencies and responses are found in **Tables 10-2 to 10-7**.

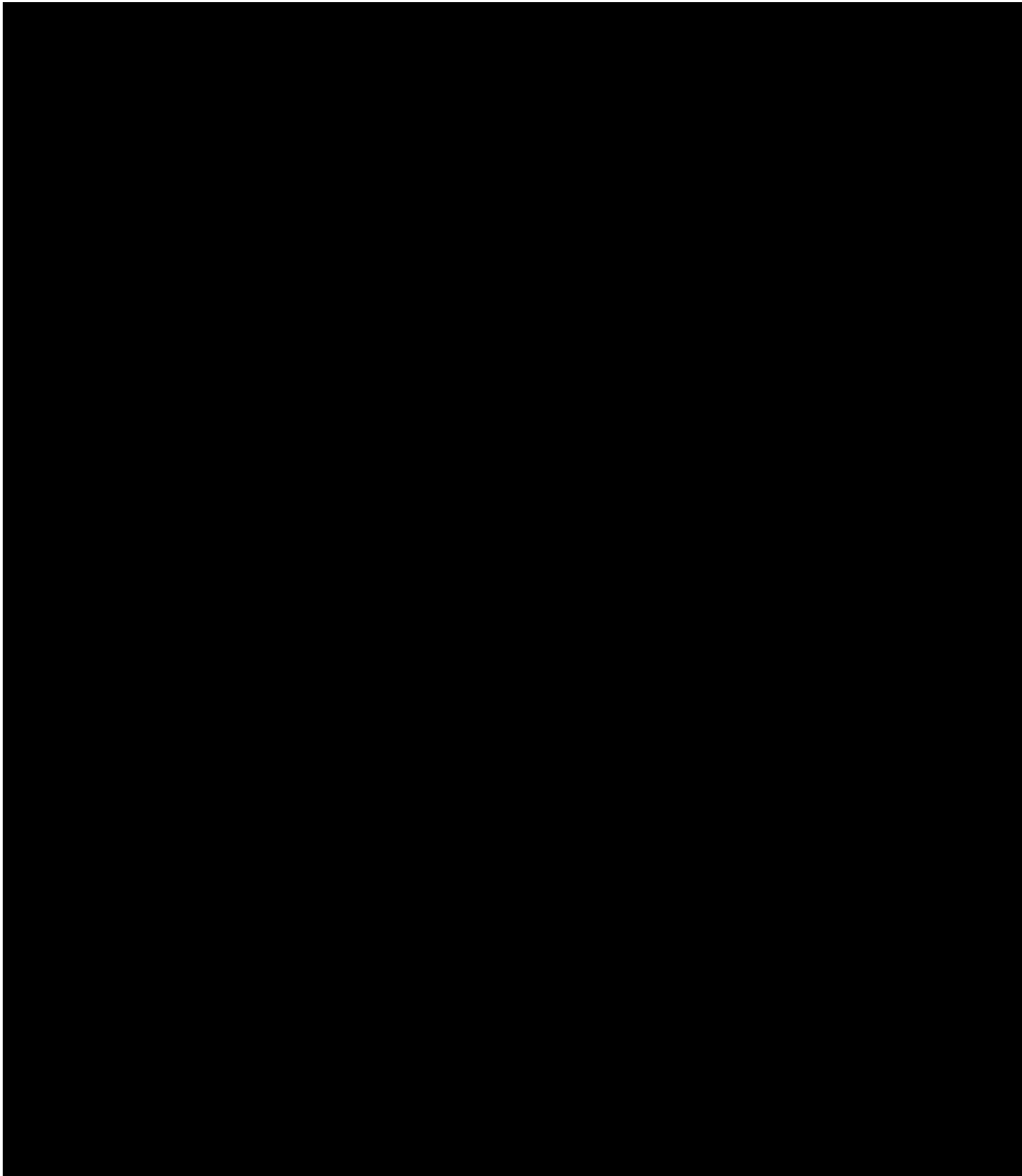
The protocols described in this document are conceptual and may be adjusted based on actual circumstances and conditions of the event and any previous communication with governmental authorities having jurisdiction.

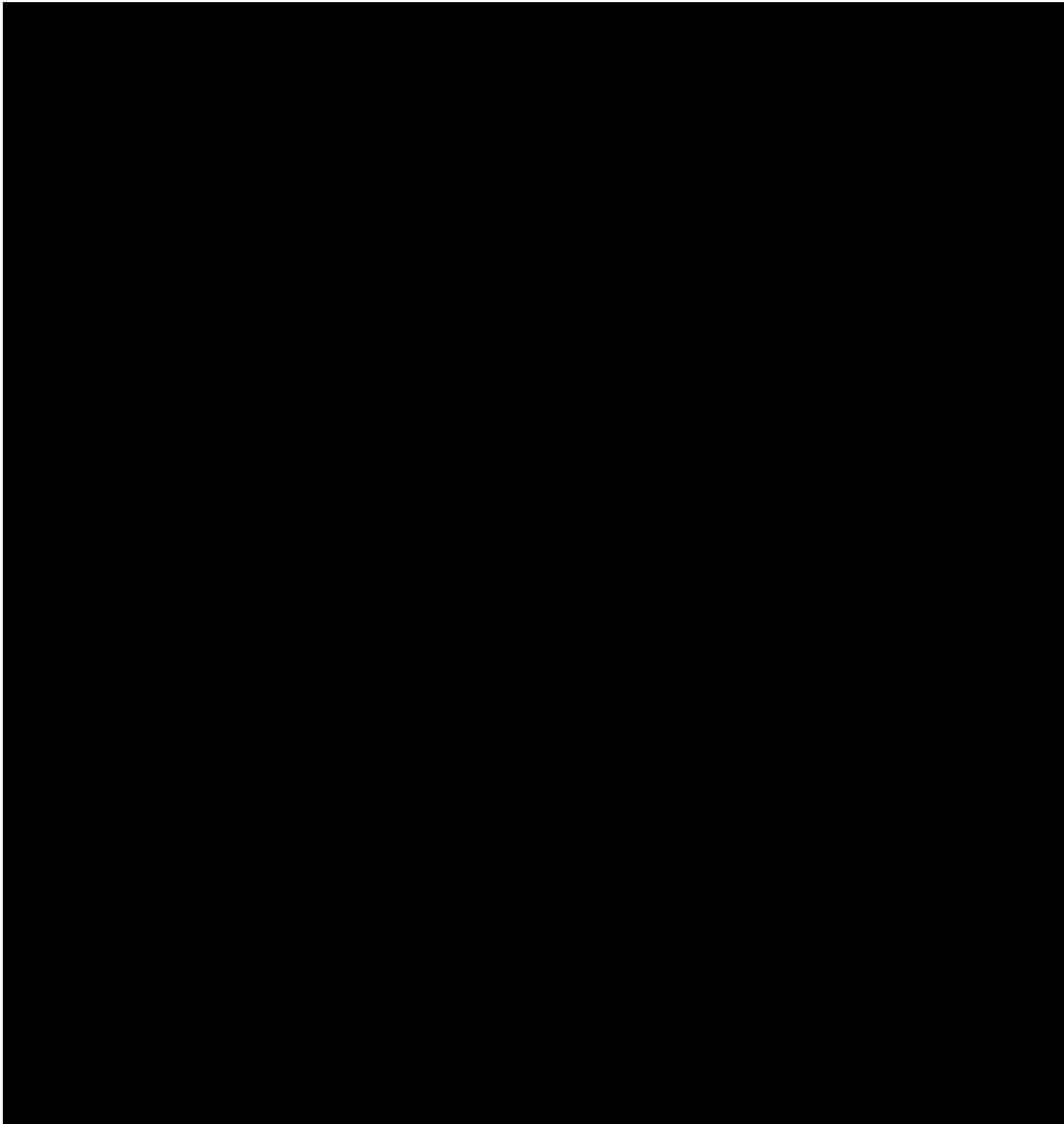
If an event triggers cessation of injection and remedial actions, Milestone will demonstrate the efficacy of the response actions to the satisfaction of the UIC Program Director before resuming injection operations. Injection operations will only resume upon receipt of written authorization of the UIC Program Director. See permit **Section 10.8**.

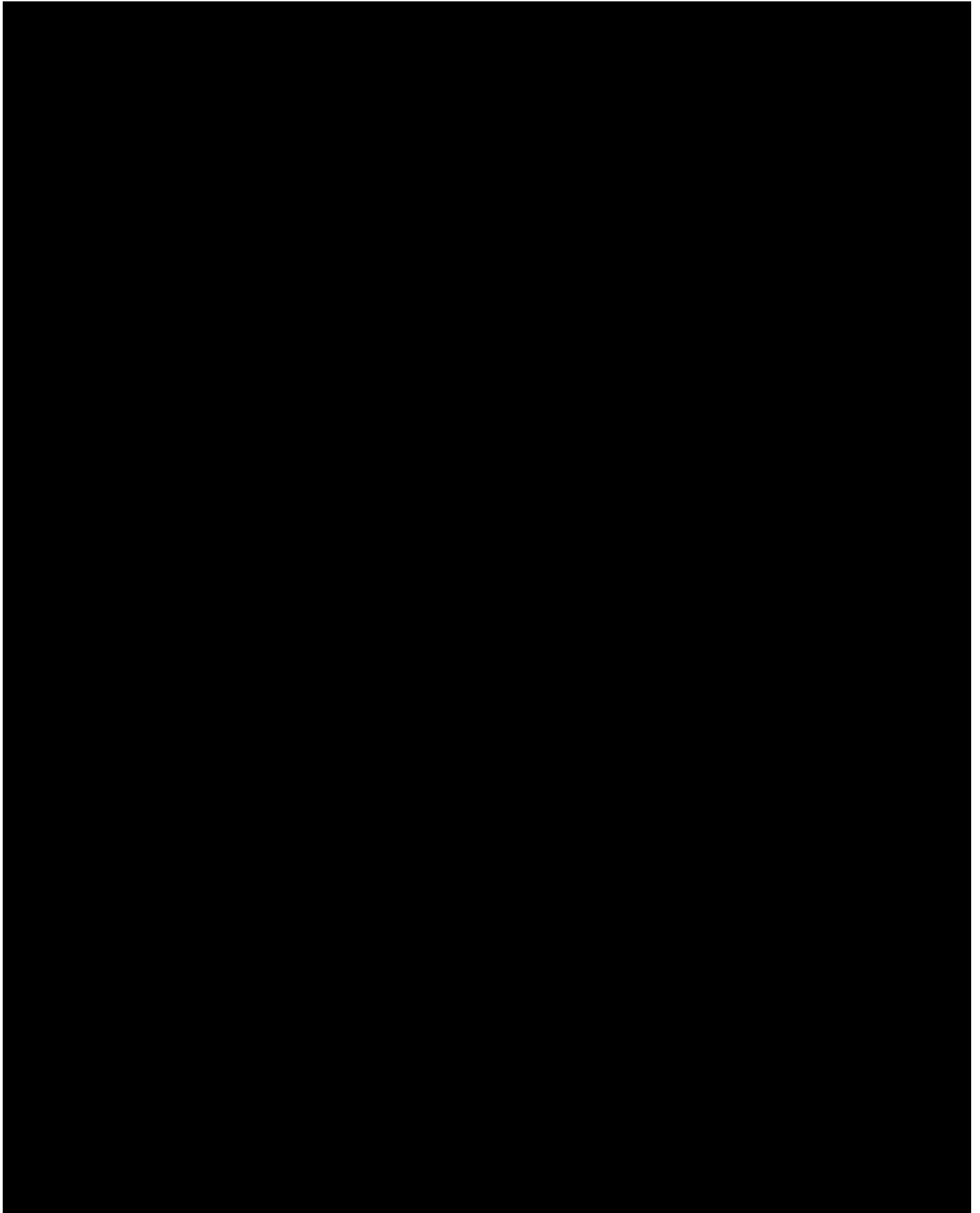


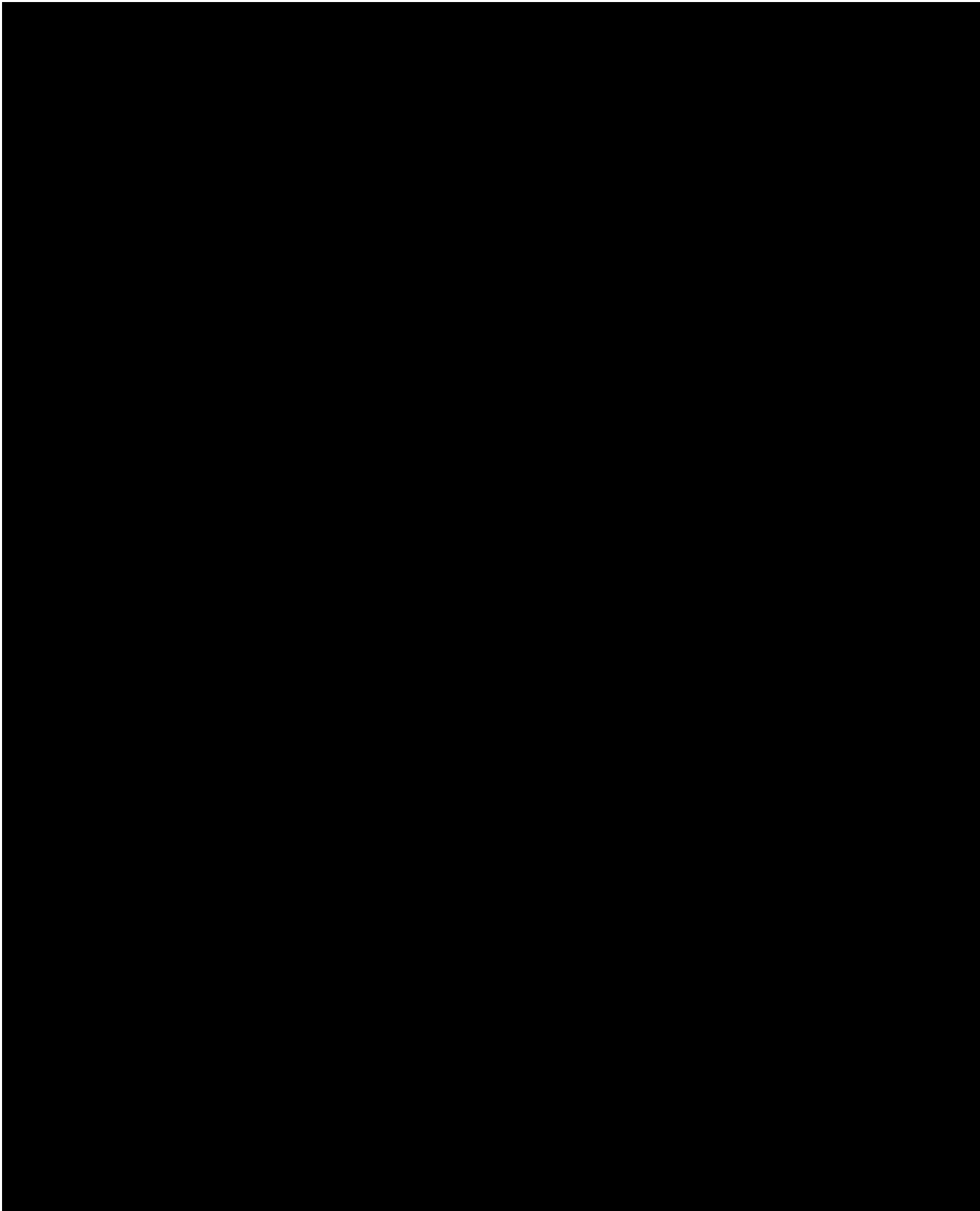












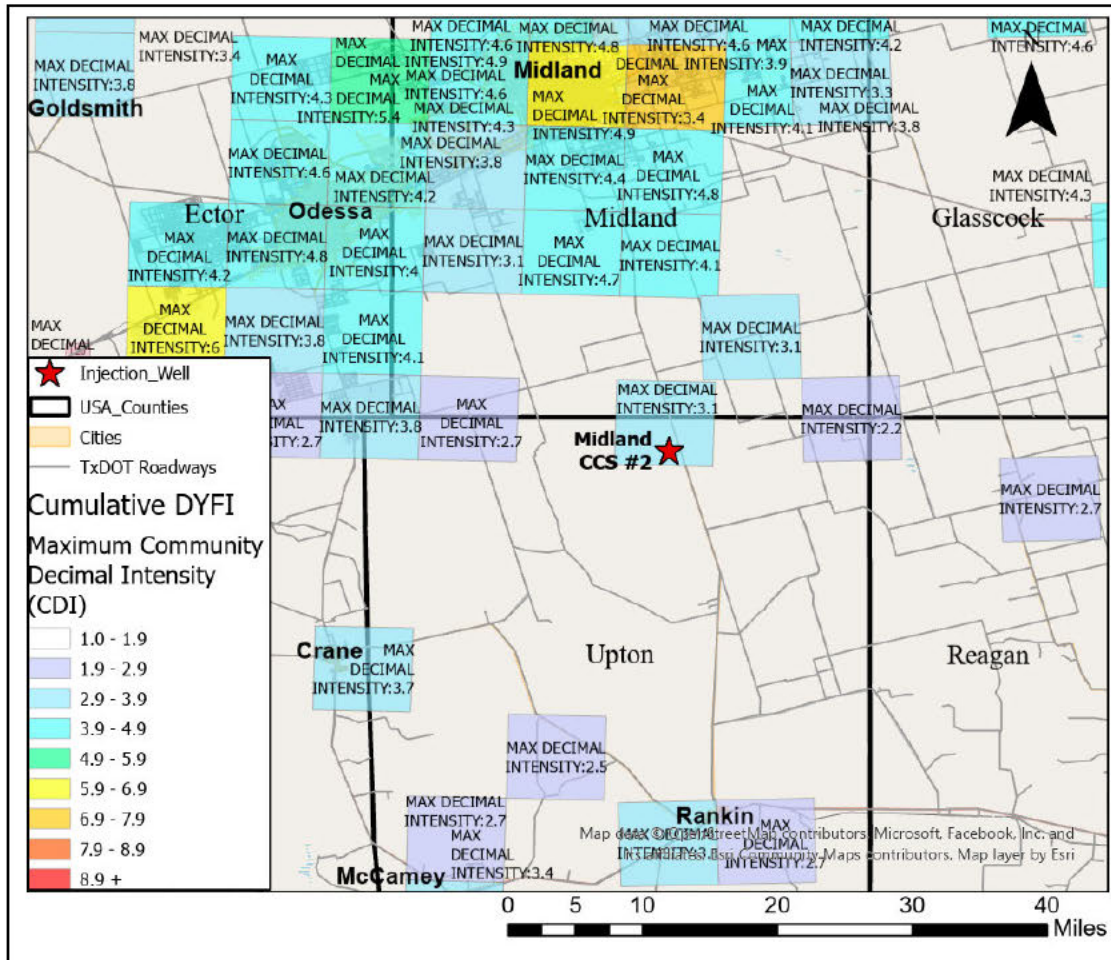


Figure 10-3: “Did you Feel It” Internet-based Macroseismic Intensity Map for Upton County
Data is Cumulative from the year 2001 to present. DYFI polygon at the well location has a max decimal intensity of 3.1

10.2.6.1 Did you Feel It Analysis

The “Did You Feel It” (DYFI) internet-based macroseismic intensity map in **Figure 10-3** shows the

[REDACTED]

10.4 Emergency Communication Plan

As appropriate, if related to health and safety, [REDACTED] or if environmentally related, [REDACTED] will communicate with the public and first responders regarding events that require an emergency response, including the impact of the event on drinking water, potential atmospheric releases or the severity of the event, actions taken or planned, etc. [REDACTED] will communicate with EPA Region 6, TCEQ and RRC officials regarding regulatory matters.



Milestone will also communicate with other entities who may need to be informed about or take action in response to the event, including local water systems, CO₂ source(s) and pipeline operators, landowners, Oil and Gas Operators and Regional Response Teams (as part of the National Response Team).

Additionally, prior to the commencement of CO₂ injection operations, Milestone, via [REDACTED] will communicate in writing with landowners residing/living adjacent to the storage site to provide a summary of the information contained within this ERRP, including but not limited to information about the nature of the operations, size of the AoR, hazards and characteristics of injectate, operator contact list, potential risks, and possible response approaches.

[REDACTED]

[REDACTED]

[REDACTED]

Table 10-9: Contact Information for Key Local, State and Other Authorities

Agency	Phone Number
Upton County Sheriff's Office	432-693-2422
Upton County Emergency Management Department	432-693-2321 ext. 2
Upton County 911 Coordinator	432-693-2014
Texas State Police	512- 424-2000 (HQ, Austin) 432-498-2140, Midland
Texas Dept. of Public Safety 24-hour non-Emergency	800-525-5555
Texas Dept. of Transportation	800-558-9368
Local Midkiff Volunteer Fire Department	PO Box 130, Midkiff, TX 79755
Midland Fire Department	432-685-7332
Angel MedFlight – advanced air transport-DOT and FAA provider	855-827-8890
Texas Division of Emergency Management agency:	512-424-2208
Texas Commission of Environmental Quality / Water Division:	512-239-6696
The Railroad Commission of Texas 24-Hour Emergency reporting line	844-773-0305 (toll free) or 512-463-6788
UIC Texas Program Director:	512-239-6466
EPA National Response Center (24 hours)	800-424-8802
EPA Region 6 (South Central, <i>serving AR, LA, OK, and TX</i>) Customer Service Hot Line	toll-free line - 800-887-6063; Outside Region 6 call 214-665-2760
Milestone Environmental South Midland Facility Emergency Hotline	432-305-4360
Rankin County Hospital District	432-693-1200
Midland Memorial Hospital	432-221-1111

Table 10-10: Potential Contractor and Service Providers

Agency	Phone Number
Permian Paving Excavation and Dirt Work / Hauling	432-214-2317
Midland County Emergency Management Temporary Housing & Rentals	432-688-4160
Schlumberger Cementing	720-272-5288
Schlumberger Core Analysis	801-232-5799
Schlumberger Direction & Measurements	484-522-8434
Schlumberger Products & Services	517-755-9050
Schlumberger Bits	517-755-9050
Schlumberger Completions	440-391-2711
MI SWACO Drilling Fluids	661-549-3645
Hazardous Waste Disposal in Midland Texas	708-263-0756

10.5 Plan Review [40 CFR 146.94(d)]

This ERRP will be reviewed and updated at least once every five (5) years. Any amendments to the plan will be approved by the UIC Program Director and will be incorporated into the permit. This plan will also be reviewed and re-submitted to the UIC Program Director given the following:

- 1. [REDACTED]
- 2. [REDACTED]

If the review indicates that no amendments to the ERRP are necessary, Milestone will provide the UIC Program Director with the 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 UIC Program Director within sixty (60) days following an event that initiates the ERRP review procedure.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]