

BOBBY JINDAL GOVERNOR

State of Louisiana department of natural resources Office of Conservation

STEPHEN CHUSTZ
SECRETARY

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COMMISSIONER OF CONSERVATION

SEVENTH AMENDMENT TO DECLARATION OF EMERGENCY AND DIRECTIVE

Pursuant to the authority granted to the Commissioner of Conservation and Assistant Secretary of the Louisiana Department of Natural Resources under La. R.S. 30:1, et seq., particularly La. R.S. 30:6.1, this SEVENTH AMENDMENT TO THE DECLERATION OF EMERGENCY AND DIRECTIVE is hereby issued;

It is hereby declared that since issuance of the Sixth Amendment to Declarations of Emergency and Directive effective June 25, 2013 and issued to Texas Brine Company LLC (T149) concerning a sinkhole that has occurred immediately adjacent to OXY GEISMAR NO. 3 well site (Serial Number 180708), the associated salt cavern, and the OXY GEISMAR NO. 3A observation well (Serial Number 974265), the following facts have been found:

- 1) On March 22, 2013, the Secretary of the Louisiana Department of Natural Resources formed the Blue Ribbon Commission on Bayou Corne and Grand Bayou Public Safety ("BRC") to provide its recommendations on appropriate remediation/monitoring benchmarks or conditions to ensure sustained public safety, as well as, on additional data needed to assess current conditions and define those benchmarks.
- 2) These recommendations are to be reported to the Secretary of the Louisiana Department of Natural Resources, the Commissioner of Conservation, the Governor's Office of Homeland Security and Emergency Preparedness, and the Assumption Parish Office of Homeland Security and Emergency Preparedness.
- On or about June 27, 2013, the BRC reported to the Commissioner of Conservation the recommendation that sinkhole water quality depth profile sampling be undertaken in accordance with the minimal recommended requirements document "RRD-GAS-02" attached hereto as Exhibit "A". On or about June 27, 2013, Texas Brine Company LLC (T149) was provided with the RRD-GAS-02 document. On or about July 2, 2013, Texas Brine Company LLC (T149) responded by providing comments on RRD-GAS-02 in a document called "Comments on BRC RRD-GAS-002 Sinkhole Water Quality Depth Profile Sampling" attached hereto as Exhibit "B". On or about July 11, 2013, the BRC met via webinar/conference call and having reviewed and considered TBC's response determined that RRD-GAS-02 should remain as it was written. The Commissioner of Conservation was informed of the BRC's determination on July 12, 2013.
- 4) On or about June 5, 2013, the BRC reported to the Commissioner of Conservation the recommendation that subslab differential pressure monitoring be undertaken in accordance with the minimal recommended requirements document "RRD-GAS-08A" attached hereto as Exhibit "C". On or about June 5, 2013, Texas Brine Company LLC (T149) was provided with the RRD-

GAS-08A document. On or about June 26, 2013, the Commissioner of Conservation was informed that the BRC was expressing concerns about a report that Texas Brine Company LLC (T149) was not following the recommended requirements outlined in RRD-GAS-08A. On or about June 27, 2013, Texas Brine Company LLC (T149) was informed of the BRC's concerns. On or about June 28, 2013, Texas Brine Company LLC (T149) responded to these concerns in a document called "RRD-8A Issues" attached hereto as Exhibit "D". On or about June 11, 2013, the BRC met via webinar/conference call and having reviewed and considered TBC's response determined that RRD-GAS-08A should remain as currently written. In particular the BRC determined, correctly installed sealed sample ports installed in the floor slab are required as outlined in RRD-GAS-08A. The Commissioner of Conservation was informed of the BRC's determination on July 12, 2013.

- On or about June 12, 2013, the BRC reported to the Commissioner of Conservation the recommendation that multiphase flow gas and soil data be collected in accordance with the minimum recommended requirements document "RRD-GAS-05" attached hereto as Exhibit "E". On or about June 17, 2013, Texas Brine Company LLC (T149) was provided with the RRD-GAS-05 document. On or about July 3, 2013 Texas Brine Company responded to RRD-GAS-05 proposing an alternative technical approach in a document called "Alternative Technical Approach RRD-GAS-005" attached hereto as Exhibit "F". On or about July 11, 2013, the BRC met via webinar/conference call and having reviewed and considered TBC's response determined that RRD-GAS-05 sets the minimum requirements and if Texas Brine Company LLC (T149) can effectively demonstrate (with appropriate field oversight) and prove that their alternative approach will meet the requirements provided in the RRD-GAS-05, then the BRC would be comfortable with their proposed alternative. Specifically, Texas Brine Company LLC (T149) must prove that its alternative method can collect undisturbed intact soil cores from selected aguitard and Mississippi River Alluvial Aguifer (MRAA) intervals to a depth of 150 feet. The Commissioner of Conservation was informed of the BRC's determination on July 12, 2013.
- Following review of these recommendations, the Commissioner of Conservation 6) determines that the recommendations of the BRC are necessary for the protection of public safety from the potential threat associated with the OXY GEISMAR NO. 3 well (Serial Number 180708) facility and site.
- On or about June 10, 2013, Texas Brine Company LLC (T149) submitted Excel files to 7) DNR on the observation relief well (ORW) Formation Sand Removal History, the ORW Dewatering Summary, and the ORW As-built Summary Table. On or about July 11, 2013 Texas Brine Company LLC (T149) reported water levels from 11 observation relief wells that had measurable wellhead pressure. On or about July 12, 2013, the gas flow rates were reported to DNR from the new ORWs installed within the past month using a modified design. Three wells have been installed using this modified design. One well, ORW-38R is producing no gas, ORW-39 and ORW-40 are producing less than 500 cubic feet per day of gas. Based on the review of all of these data, it appears that some of the ORWs may have clogged or partially obstructed casing perforations or screen or the screen at the bottom of the two-inch drop tubing is not in communication with the gas zone or the annular space in the wells. To be able to define the extent of gas and analyze ORW construction, it is necessary to determine if the current well

design and rehabilitation efforts result in ORWs that are in good communication with the gas zone and the MRAA. Simple water level/pressure recovery tests can be used to determine if each ORW is in hydraulic communication with the MRAA.

- Texas Brine Company LLC (T149) is using pressure recorders referred to as Track-It units for various purposes to record pressures in the ORWs and pressures across the orifice plates on the flow lines. To date none of the raw Track-it data files or output data in Excel format have been provided to DNR. These data are necessary to review and analyze vent well construction and performance and gas depletion.
- 9) The BRC has recommended that reducing and maintaining methane gas formation pressures in the MRAA to equal to hydrostatic pressure across the Bayou Corne gas area is one metric necessary to meet regarding the benchmarks associated with the mandatory evacuation order currently in effect. See Exhibits "A", "C", and "E" attached hereto. In order to accurately determine methane gas formation pressures in the MRAA, accurate gas pressure readings from the vent wells ("ORWs") are necessary. Because the level of water in the ORWs at the time gas pressure readings are taken can affect the gas pressure readings, the level of water must be measured and recorded in the well at the time that pressure readings are taken and recorded.

Therefore, until further notice, based upon the findings herein listed as well as those findings set forth in the original and previous amendments to the declaration of emergency/directives, it is determined that the requirements for declaring an emergency pursuant to La. R.S. 30:6.1 have been met and an emergency continues to exist due to the incidents which have occurred, are occurring, or threaten to occur imminently at the OXY GEISMAR NO. 3 well (Serial Number 180708) facility and site.

It is hereby declared that in response to the emergency, Texas Brine Company LLC (T149) is hereby ordered to undertake any and all necessary actions to assess for and abate threats to human safety and the environment associated with the OXY GEISMAR NO. 3 well (Serial Number 180708) facility and site.

It is further declared that Texas Brine Company LLC (T149) is specifically directed and is hereby ordered to undertake the necessary actions to address the potential danger to human life associated with the OXY GEISMAR NO. 3 well (Serial Number 180708) facility and site, which at a minimum shall require the following:

1. By no later than August 1, 2013 Texas Brine Company LLC (T149) shall undertake sinkhole water quality depth profile sampling in accordance with the specific recommended requirements established by the BRC as set forth in Exhibit "A" attached hereto. This water sampling shall be done in the presence of a witness designated by the Office of Conservation and split samples of each water sample shall be provided to the Office of Conservation designated witness. The field data recorded by the Troll 9500 OR equivalent shall be sent to the Office of Conservation within 24 hours of the sample event.

- 2. By no later than July 19, 2013 Texas Brine Company LLC (T149) undertake subslab differential pressure monitoring at those properties where it has access (including at properties it gains access rights to moving forward) in accordance with the specific recommended requirements established by the BRC as set forth in Exhibit "C" attached hereto.
- 3. Ensure that prior to undertaking its alternative technical approach for multiphase flow and gas data collection set forth in Exhibit "F" attached hereto, Texas Brine Company LLC (T149) shall be required to test its alternative technical approach by performing a boring in the presence of a witness designated by the Office of Conservation. The location of the demonstration boring shall be based on available cone penetrometer (CPT) data and shall be agreed to by the Office of Conservation. Undisturbed soil samples shall be collected from all intervals specified in Exhibit "E" (RRD-GAS-05) including the aquitard sand, aquitard clay, the fine grained sand at the top of the MRAA, and coarser-grained sand and gravel between the top of the MRAA and 150 feet. The cores shall be logged by both Texas Brine Company LLC (T149) and the Office of Conservation representatives in the field to evaluate if the soil samples are undisturbed. Cores shall be frozen or dry ice in the field and sent to PTS Laboratories or equivalent for testing as specified in Exhibit "E" (RRD-GAS-05). Following this test a written report of the field core results will be reported to the BRC for its consideration. This report shall be submitted to the BRC two weeks after the completion of the boring and well. The laboratory test results shall be reported to the Office of Conservation as soon as they are received from the laboratory. This demonstration boring shall be completed by August 5, 2013.
- 4. As soon as possible, but no later than August 5, 2013, Texas Brine Company LLC (T149) shall demonstrate that each ORW is in communication with the MRAA and that water levels in each ORW vent well shall be measured and recorded each time that daily pressure readings are taken. If the well does not have a drop-tube, then communication with MRAA can be accomplished by flowing the well to demonstrate that it can produce gas. If the well has been reworked to include a drop-tube, then it must be demonstrated that the water level in the drop-tube is in communication with the well perforations. This demonstration shall be done by measuring and recording water level and tubing and casing pressure in the well, pumping a measured volume of water out of the well while water levels and casing pressures are measured and recorded at 5-minute intervals. At the end of pumping, the total volume of water and pumping time shall be recorded. These data shall be tabulated and reported to the Office of Conservation within 48 hours after pumping each well. Texas Brine Company LLC (T149) shall submit a schedule to the Office of Conservation for this demonstration for each well with a drop-tube by no later than July 19, 2013 and all wells with drop-tubes shall be tested and results reported to the Office of Conservation by August 5, 2013. Additionally, Texas Brine Company LLC (T149) shall ensure that, by no later than August 5, 2013, the water level in each ORW vent well shall be measured and recorded both before and after water is removed from any ORW vent well.

Texas Brine Company LLC (T149) shall provide this information to the Office of Conservation within no more than twenty-four hours from when these measurements are taken.

5. As soon as possible, but by no later than August 5, 2013, Texas Brine Company LLC shall submit all Track-It data files or the data in Excel files to the Office of Conservation.

It is further declared that, consistent with La. R.S. 30:6.1.B, if Texas Brine Company LLC (T149) fails to begin the actions listed above prior to the deadline(s) established herein, orders demanding compliance and civil penalties may be issued to Texas Brine Company LLC (T149)R.S. 30:1, et seq.

It is further declared that for purposes of this Declaration of Emergency and Directive, and unless otherwise agreed to, any and all reports and results from the activities detailed above shall be submitted to the Office of Conservation via e-mail at conservationorder@la.gov. Please reference "Emergency Declaration - Texas Brine Company LLC - July 12, 2013" on any and all related correspondence.

In the event Texas Brine Company LLC (T149) believes it is aggrieved by this action, then within 20 days of receipt of this Emergency Declaration and Directive, Texas Brine Company LLC (T149) may make a written request for a public hearing. A public hearing request must be accompanied by a check or money order in the non-refundable amount of \$755 as provided by LAC 43:XIX.Chapter 7 or the request for hearing will be denied. Be advised that pursuant to La. R.S. 30:6.1.D. "any request for hearing, appeal, or request for review [of this emergency declaration and directive] shall not suspend the implementation of the action ordered."

Texas Brine Company LLC's (T149) failure to request a hearing, or to file an appeal, or the withdrawal of a request for hearing on this Emergency Declaration and Directive shall not preclude Texas Brine Company LLC (T149) from contesting the commissioner's findings of facts in any subsequent administrative or judicial proceeding or action.

SO DECLARED, ORDERED, AND DONE this 12 day of July 2013 at Baton Rouge, Louisiana.

COMMISSIONER OF CONSERVATION