

PERMITTING REQUIREMENTS
AND PROCEDURES

FOR AN

APPLICATION TO DISPOSE
EXPLORATION AND PRODUCTION WASTE
INTO A SOLUTION-MINED SALT CAVERN



DEPARTMENT OF NATURAL RESOURCES
OFFICE OF CONSERVATION
INJECTION & MINING DIVISION

JUNE 20, 2003

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Note: This document can be obtained through the following means:

1. Telephoning the Injection & Mining Division at 225-342-5515, Monday – Friday, 8:00 a.m. – 4:15 p.m.
2. By writing to the following address:

Louisiana Office of Conservation
Injection and Mining Division
PO Box 94275
Baton Rouge, LA 70804-9275
3. In person at the following address, Monday – Friday, 8:00 a.m. – 4:30 p.m.

Louisiana Office of Conservation
Injection and Mining Division
LaSalle Building
617 North 3rd Street, Room 817
Baton Rouge, LA 70802-5428
4. Downloaded from the DNR Web Page at: <http://www.dnr.state.la.us/CONS/documents.ssi>

42. HANGING STRING DATA					
	CASING SIZE (OD - INCHES)	CASING WEIGHT (LB/FT)	CASING GRADE	HANGING STRING SETTING DEPTHS	
				TOP (FEET)	BOTTOM (FEET)
FLUID INJECTION STRING					
FLUID WITHDRAWAL STRING					
43. Well / Facility Ownership (LAC 43:XVII.3107.B.5) (Check One): <input type="checkbox"/> Private <input type="checkbox"/> Federal <input type="checkbox"/> State <input type="checkbox"/> Municipal <input type="checkbox"/> Other - Specify:					
44. Briefly describe the nature of the business associated with the activity for which a permit is sought: (LAC 43:XVII.3107.B.6)					
45. Does the activity proposed in this application and at the location proposed in this application violate local zoning ordinances?				<input type="checkbox"/> YES	<input type="checkbox"/> NO
46. Has the proposed well or salt cavern been plugged and abandoned by or has the site of the proposed facility been restored pursuant to funding through the Oilfield Site Restoration Fund, LSA-R.S. 30:80 et seq (Act 404 of 1993)? (LAC 43:XVII.3103.G)				<input type="checkbox"/> YES	<input type="checkbox"/> NO
47. Is the proposed well, salt cavern, or surface facility located on Indian lands or other lands owned by or under the jurisdiction or protection of the federal government? (LAC 43:XVII.3107.B.9)				<input type="checkbox"/> YES	<input type="checkbox"/> NO
48. Is the proposed well, salt cavern, or surface facility located on state water bottoms or other lands owned by or under the jurisdiction or protection of the State of Louisiana? (LAC 43:XVII.3107.B.9)				<input type="checkbox"/> YES	<input type="checkbox"/> NO
49. Is any surface structure at the proposed salt cavern waste disposal facility less than 500 feet from a residential, commercial, or public building? (LAC 43:XVII.3113.A)				<input type="checkbox"/> YES	<input type="checkbox"/> NO
50. Is any conventional mining (dry or room and pillar) activity occurring or has such activity occurred within the salt stock regardless of distance to the proposed well or waste disposal salt cavern? (LAC 43:XVII.3115.E.2.d)				<input type="checkbox"/> YES	<input type="checkbox"/> NO
51. Is the maximum diameter of the salt cavern less than 100 feet from the property boundary of this applicant? (LAC 43:XVII.3117.B.1)				<input type="checkbox"/> YES	<input type="checkbox"/> NO
52. As measured in any direction, are the minimum distances between the walls of the proposed salt cavern and adjacent salt caverns or any manmade structures within the salt stock less than 200 feet? (LAC 43:XVII.3117.B.2)				<input type="checkbox"/> YES	<input type="checkbox"/> NO
53. As measured in any direction, are the minimum distances between the walls of the proposed salt cavern and the periphery of the salt stock less than 300 feet? (LAC 43:XVII.3117.B.3)				<input type="checkbox"/> YES	<input type="checkbox"/> NO
54. Has any portion of the proposed salt cavern coalesced with an adjacent salt cavern? (LAC 43:XVII.3117.C)				<input type="checkbox"/> YES	<input type="checkbox"/> NO
55. List all permits, licenses, or construction approvals the applicant has received or applied for and which specifically affect the applicant's legal or technical ability to carry out the proposed activity. Include identification number of applications or, if issued, the identification number of the permit, license, or other approvals. (LAC 43:XVII.3107.B.7)					
Regulatory Program or Agency			Permits, Licenses, Construction Approvals		
56. Item Numbers 56.a. – f. to Be Completed by Applicants for a Commercial Facility Permit Only: For any YES response, provide the requested information as an inclusion in the technical report of the application.					
a. Has the applicant provided the names, addresses, and telephone numbers of the principal officers of the company and the names and addresses of local governing authorities? (LAC 43:XIX.519.C.3)				<input type="checkbox"/> YES	<input type="checkbox"/> NO

b. Has the applicant provided evidence that a surface discharge permit has been obtained from the appropriate regulatory agency or provided a notarized Affidavit of No Discharge? (LAC 43:XIX.519.C.15)	<input type="checkbox"/> YES <input type="checkbox"/> NO
c. Has the applicant provided the names of all companies currently or formerly owned or operated by the applicant or the principle officers of the applicant for the receipt, storage, treatment, recycling, or disposal of exploration and production waste or hazardous or nonhazardous industrial or municipal solid waste? (LAC 43:XIX.519.C.17)	<input type="checkbox"/> YES <input type="checkbox"/> NO
d. Has the applicant provided a list of local, state, or federal permits currently or formerly held by the applicant or any of the principle officers of the applicant for the receipt, storage, treatment, recycling, or disposal of exploration and production waste or hazardous or nonhazardous industrial or municipal solid waste? (LAC 43:XIX.519.C.18)	<input type="checkbox"/> YES <input type="checkbox"/> NO
e. For each permit listed in response to item 56.d., has the applicant provided a list of all environmental regulatory violations cited by applicable local, state, or federal regulatory agencies during the five (5) years preceding the date of this application, including notices of violations, compliance orders, penalty assessments, or other enforcement actions and the current status of each violation. (LAC 43:XIX.519.C.19)	<input type="checkbox"/> YES <input type="checkbox"/> NO
f. Has the applicant provided the names and addresses of the official journal of the parish in which the commercial waste disposal facility will be located and, if different from the parish journal, the journal of general circulation in the area where the commercial waste disposal facility will be located? (LAC 43:XIX.519.C.20)	<input type="checkbox"/> YES <input type="checkbox"/> NO

57. AGENT OR CONTACT AUTHORIZED TO ACT ON BEHALF OF THE APPLICANT DURING THE PROCESSING OF THIS APPLICATION

NAME: _____

MAILING ADDRESS: _____

MAILING ADDRESS: _____

CITY, STATE, ZIP CODE: _____

TELEPHONE NUMBER: _____ FAX NUMBER: _____

NOTE: The signature below authorizes the above agent or contact to submit additional information as requested by the Office of Conservation or give oral statements to the office of conservation in support of this application.

58. CERTIFICATION BY APPLICANT

By signing below, I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment or both (LSA-R.S. 30:17).

Print Name of Company Official	Print Title of Company Official
Signature of Company Official	Date

INSTRUCTIONS

I. GENERAL:

- A. An applicant shall not construct, convert, or operate a salt cavern waste disposal facility, or part thereof, without obtaining written authorization (permit) from the Louisiana Office of Conservation, Injection and Mining Division.
- B. Applicants for a noncommercial salt cavern waste disposal facility, or part thereof, shall comply with Statewide Order No. 29-M-2, Chapter 31 (LAC 43:XVII.Chapter 31).
- C. Applicants for a commercial salt cavern waste disposal facility, or part thereof, shall comply with applicable portions of Statewide Order No. 29-M-2, Chapter 31 (LAC 43:XVII.Chapter 31) and applicable portions of Statewide Order No. 29-B, Chapter 5 (LAC 43:XIX.Subpart 1.Chapter 5) as indicated in these instructions.
- D. All applicants shall submit one original and two copies of the complete application package to:

Mailing Address

Louisiana Office of Conservation
Injection and Mining Division
PO Box 94275
Baton Rouge, LA 70804-9275

Parcel Delivery Address

Louisiana Office of Conservation
Injection and Mining Division
LaSalle Building
617 North 3rd Street, Room 817
Baton Rouge, LA 70802-5428

II. THE PERMITTING PROCESS

- A. Applicants for a noncommercial salt cavern waste disposal facility, or part thereof, shall follow the procedures at LAC 43:XVII.3111 for submitting an application and obtaining a permit.
- B. Applicants for a commercial salt cavern waste disposal facility, or part thereof, shall follow the procedures for submitting an application and obtaining a permit at:
 1. LAC 43:XIX.519.B. (Notice of Intent),
 2. LAC 43:XIX.527. (Permitting Procedures),
 3. LAC 43:XIX.529. (Public Notice Requirements),
 4. LAC 43:XIX.531. (Permitting Conditions).

III. APPLICATION FORMS AND FILING FEES: Submit the following forms and fees when submitting the application package:

- A. Include the following forms, where applicable:
 1. One original and two copies of Form UIC-43;
 2. Two original Form MD-10-R for each new well to be drilled into an existing salt cavern;
 3. Two original Form MD-10-R-A for each existing well to be converted to waste disposal.
- B. Applicable non-refundable filing fees per Statewide Order No. 29-R-02/03 (LAC 43:XIX.Subpart 2.Chapter 7):
 1. \$252 for each noncommercial well;
 2. \$631 for one commercial well;
 3. \$314 for each additional commercial wells;
 4. \$126 for each pair submission of Form MD-10-R-A;
 5. \$755 public hearing.

IV. APPLICATION INFORMATION: All applicants shall submit the following minimum information as an attachment to Form UIC-43. Where applicable, the required information must be presented in technical report format. The applicant shall discuss, in detail, its plans for complying with the appropriate regulatory requirements.

- A. The Administrative Information at LAC 43:XVII.3107.B.
- B. Maps and Related Information at LAC 43:XVII.3107.C.1. through C.8.
- C. Area of Review (AOR) information at LAC 43:XVII.3107.D.1. through D.4. and LAC 43:XVII.3115.E.1. through E.2.
Note: Surface AOR not less than one-half mile. Subsurface AOR same as surface, but also include all existing salt caverns and conventional mines within the salt dome regardless of distance from proposed cavern disposal well.

D. Technical Information of LAC 43:XVII.3107.E.

Note: LAC 43:XVII.3107.E.1. through E.7. refers the applicant to other sections of the regulations for specific details on requirements to be addressed:

1. LAC 43:XVII.3107.E.1. – Results of salt cavern sonar and mechanical integrity tests
2. LAC 43:XVII.3107.E.2. – Corrective Action: Address the Corrective Action needs for wells or other structures within the Area of Review. (refer to LAC 43:XVII.3107.D.1. through D.4. and LAC 43:XVII.3115.E.1. through E.2. for AOR requirements).
3. LAC 43:XVII.3107.E.3. Geologic and hydrologic studies.
 - a. Refer to LAC 43:XVII.3115.B. Geological Studies and Evaluations: Includes geologic mapping, geomechanical studies, hydrological studies, etc.
 - b. Refer to LAC 43:XVII.3115.C. Core Sampling: Includes specifications for obtaining subsurface cores.
 - c. Refer to LAC 43:XVII.3115.D. Core Analyses and Laboratory Test: Requires analyses and tests be structured to obtain specific results.
4. LAC 43:XVII.3107.E.4. – Wellhead schematic with properly labeled wellhead components.
5. LAC 43:XVII.3107.E.5. – Properly labeled subsurface schematic/construction details of the salt cavern well and salt cavern.
6. LAC 43:XVII.3107.E.6. – Surface site diagrams with properly labeled features and components.
7. LAC 43:XVII.3107.E.7. – Plans and procedures that addresses, in detail, the overall operation of the salt cavern waste disposal facility. The applicant must address how the following regulatory requirements will be fulfilled:
 - a. cavern and surface facility design requirements of LAC 43:XVII.3117,
 - b. well construction and completion requirements of LAC 43:XVII.3119,
 - c. operating requirements of LAC 43:XVII.3121,
 - d. safety requirements of LAC 43:XVII.3123,
 - e. monitoring requirements of LAC 43:XVII.3125,
 - f. pre-operating requirements of LAC 43:XVII.3127,
 - g. mechanical integrity pressure and leak tests requirements of LAC 43:XVII.3129,
 - h. cavern configuration and capacity measurements of LAC 43:XVII.3131,
 - i. cavern capacity limits of LAC 43:XVII.3133,
 - j. managing an inactive cavern as required by LAC 43:XVII.3135,
 - k. reporting requirements of LAC 43:XVII.3137,
 - l. record retention requirements of LAC 43:XVII.3139,
 - m. closure and post closure requirements of LAC 43:XVII.3141.
 - n. any additional information the applicant deems necessary to adequately address the operation of the specific salt cavern waste disposal facility, or parts thereof.

E. Financial Responsibility of LAC 43:XVII.3109.B.

F. Location Criteria of LAC 43:XVII.3113. The applicant must document that no physical structure at a salt cavern waste disposal facility shall be located within 500 feet of a residential, commercial, or public building.

V. ADDITIONAL APPLICATION INFORMATION FOR COMMERCIAL WASTE DISPOSAL FACILITIES. In addition to the above requirements, an applicant for a commercial salt cavern waste disposal facility shall discuss its plans for complying with the following regulatory requirements of Statewide Order No. 29-B, Chapter 5 (LAC 43.XIX.Subpart 1.Chapter 5).

A. Location Criteria of LAC 43:XIX.507.

B. Waste Management and Operations Plan at LAC 43:XIX.515.

- C. Requirements for other treatment and disposal options at LAC 43:XIX.525.B., C., D., and E.
- D. Making notification of an unauthorized waste at LAC 43:XIX.535.F
- E. Receiving waste during times specified at LAC 43:XIX.537.
- F. Receiving, sampling and testing of waste at LAC 43:XIX.543.
- G. Manifest system requirements at LAC 43:XIX.545.

VI. COASTAL USE PERMIT.

All applicants for a salt cavern waste disposal facility located in the Louisiana Coastal Zone must contact the Louisiana Department of Natural Resources, Office of Coastal Restoration and Management to determine if a coastal use permit is required. The purpose of the coastal use permit process is to make certain that any activity affecting the coastal zone, such as a project that involves either dredging or filling, is performed in accordance with guidelines established in the Louisiana Coastal Resources Program. It is the responsibility of the applicant to obtain all necessary permits before facility construction.

VII. CONSTITUTIONAL CONSIDERATIONS – “IT DECISION”

Louisiana Constitutional Article IX, §1, of the Louisiana Constitution imposes a duty of environmental protection on all State agencies and officials which require a balancing process in which environmental costs and benefits must be given careful consideration along with economic, social and other factors. The balancing process was required of State agencies by *Save Ourselves, Inc., et al. vs. the Louisiana Environmental Control Commission, et al.* 452 So.2d 1152 (La. 1984), hereafter "IT Decision".

The "IT Decision" involved a hazardous waste permit under the State's Hazardous Waste Management Plan consistent with the federal Resource Conservation and Recovery Act (RCRA). To meet its obligation under the "IT Decision", the Louisiana Department of Environmental Quality (DEQ) prepared a list of questions which addresses what DEQ deemed necessary to make permit decisions. The main questions touch upon certain issues and considerations which would be applicable to Office of Conservation waste permit decisions, although we are not administering a RCRA authorized program.

In order to satisfy the constitutional requirements, the Office of Conservation must conduct the 'balancing process' utilizing the information and data which will form part of the record supporting the decision on your application to permit your proposed activity. As the applicant for a waste permit, it is necessary for you to provide such information as will be required to evaluate your application considering the "IT Decision". We suggest your staff review the court case to determine what information you believe must be provided.

You must furnish this Office with such information in adequate detail together with sufficient justification and supporting data to allow us to fulfill our constitutional obligation. The following list of questions are those prepared by the DEQ and should be used as guidance when preparing a response to the "IT Decision". Please, restate the questions before providing your response.

A. Have the potential and real adverse environmental effects of the proposed facility been avoided to the maximum extent possible?

(This question requires the permittee to identify adverse environmental effects, both potential and real.)

1. What are the potential environmental impacts of the permittee's proposed facility?
 - a. What wastes will be handled?
 - i. Classes of chemicals
 - ii. Quantities (hazardous and non hazardous)
 - iii. Physical and chemical characteristics
 - iv. Hazardous waste classification (listed, characteristic, etc.)
 - b. How will they be handled?
 - i. Treatment
 - ii. Storage
 - iii. Disposal
 - c. Sources of waste
 - i. On-site generation (type and percentage of total handled)
 - ii. Off-site generation (type and percentage of total handled)
 - d. Where will the wastes be shipped if not handled at this site?
 - e. What wastes will remain on-site permanently?

2. By which of the following potential pathways could releases of hazardous materials from the proposed facility endanger local residents or other living organisms?
 - a. Air
 - b. Water
 - c. Soil
 - d. Food
3. What is the likelihood or risk potential of such releases?
4. What are the real adverse environmental impacts of the permittee's proposed facility?
 - a. Short term effects
 - i. land area taken out of system
 - b. Long term effects

B. Does a cost benefit analysis of the environmental impact costs balanced against the social and economic benefits of the proposed facility demonstrate that the latter outweighs the former?

(This question requires the permittee to perform a cost-benefit analysis, or at least a quantitative indication of the economic benefits and a qualitative description of the negative impacts expected from the permittee's operation. The later should come from the answer to question No 1 above.)

1. How was it determined that this facility was needed?
 - a. Local or regional survey
 - i. On-site or off-site needs
 - ii. Regional solid waste management benefit
 - iii. Generic survey of solid waste needs (compatibility with master plan)
2. What will be the positive economic effects on the local community?
 - a. How many permanent jobs will be created?
 - b. What is the expected annual payroll?
 - c. What is the expected economic multiplier from item B2?
 - d. What is the expected tax base and who will receive benefits?
3. What will be the potential negative economic effects on the local community?
 - a. What are the possible effects on property values?
 - b. Will public costs rise for:
 - i. Police protection
 - ii. Fire protection
 - iii. Medical facilities
 - iv. Schools
 - v. Roads (also see below)
 - c. Does the prospective site have the potential for precluding economic development of the area by business or industry because of risk associated with establishing such operations adjacent to the proposed facility?
4. Was transportation a factor in choosing the proposed site?
 - a. What mode(s) of transportation will be used for the site?
 - i. Truck
 - ii. Rail
 - iii. Barge
 - iv. Other
 - b. What geographical area will it serve?
 - c. By how much will local road traffic volume increase?

- i. Can local roads handle the traffic volume expected?
 - ii. Can local roads handle the weight of trucks?
- d. What are the long-term expectations of the proposed site?
- i. Longevity of the facility
 - ii. Who owns the facility?
 - iii. Are the owners financially backed by others?
 - iv. When is closure anticipated?
 - v. Who is responsible for the site after closure?
 - vi. What assurances will there be that the site will be closed in accordance with the plan?
 - vii. What financial assurances will be established to demonstrate the ability to handle problems after closure?
 - viii. Who certifies that the site is properly closed?
 - ix. How are people protected from unwittingly buying land after closure?
- (a) Is the closed facility recorded in the deed?
 - (b) What future uses are possible?

C. Are there alternative projects which would offer more protection to the environment than the proposed facility without unduly curtailing nonenvironmental benefits?

(This question requires the permittee to demonstrate having considered alternate technologies.)

1. Why was this technology chosen (e.g., incineration over landfilling)?
 - a. Are other technologies available?
 - b. Describe the engineering design and operating techniques used to compensate for any site deficiencies.
2. Is the proposed technology an improvement over that presently available?
3. Describe the reliability of technology chosen.
 - a. Past experiences
 - b. Environmental Impacts
4. Describe the sequence of technology used from arrival of wastes to the end process at the facility (flow chart).
 - a. Analysis of waste
 - b. Unloading
 - c. Storage
 - d. Treatment
 - e. Monitoring
 - f. Closure
 - g. Post-closure
 - h. Disposal
 - i. Any residuals requiring further handling
5. Will this facility replace an outmoded/worse polluting one?
6. What consumer products are generating the waste to be disposed? Are there alternative products that would entail less hazardous waste generation?

D. Are there alternative sites which would offer more protection to the environment than the proposed facility site without unduly curtailing nonenvironmental benefits?

(This is the questions that deals directly with siting criteria.)

1. Why was this site chosen?
 - a. Specific advantages of the site.
 - b. Were other sites considered and rejected?

- c. Is the location of the site irrevocable; i.e., would denial of permit based on site preclude the project?
2. Is the chosen site in or near environmentally sensitive areas?
 - a. Wetlands
 - b. Estuaries
 - c. Critical habitat
 - d. Historic or culturally significant area
 - i. Indian mounds
 - ii. Antebellum houses
 - iii. Tourist attractions or facilities (e.g., bed and breakfast inns)
 - iv. Campgrounds or parks
 3. What is the zoning and existing land use of the prospective site and nearby area?
 - a. Is the site located near existing heavy industrial, chemical process or refinery operations?
 - b. Is there a precedent for chemical contamination near the site or is the soil and water pristine?
 - c. Is the area particularly noted for its esthetic beauty?
 4. Is the site flood prone?
 - a. Is the site in a flood plain?
 - i. How current are the maps used to make flood plain determinations?
 - ii. What is the elevation of the site?
 - iii. Is diking required or desired to provide flood protection?
 - (a) What is the design height of the dike?
 - (b) How is the dike protected from erosion?
 - (c) What frequency and design storm was used?
 - (d) Is the access to the site over or through dikes?
 - b. Is the site hurricane vulnerable?
 - i. Is the site in an area subject to storm surge?
 - ii. What are the design storm specifications?
 - iii. Should damage from wave action be considered?
 - iv. For what levels of wind speed is the facility designed?
 5. Is groundwater protected?
 - a. Are aquifers or recharge area underlying the site used for drinking water?
 - b. What is the relationship of the site to the water table?
 - c. What wells exist in the area?
 - d. What is the flow rate and direction of the groundwater flow?
 - e. What is the groundwater quality in the underlying aquifers?
 - f. Is there a hydraulic connection between the aquifers?
 6. Does prospective site pose potential health risks as defined by proximity to:
 - a. Prime agricultural area (crop or pasture land)
 - b. Residential area
 - c. Schools or day care centers
 - d. Hospitals or prisons
 - e. Public buildings or entertainment facilities

- f. Food storage area
 - g. Existing community health problems that may be aggravated by operation of additional hazardous waste disposal capacity
7. Is air quality protected?
- a. Is the site within an ozone or non-attainment area?
 - b. What contaminants are likely to be generated at the site?
 - c. What protection is afforded from each contaminant generated by the site?
 - d. What is the potential for unregulated emissions?
 - f. What plans are implemented to provide for odor control?
 - g. Who will be affected by emissions?
 - i. What is the direction of the prevailing winds?
 - ii. Describe the expected frequency of "bad air" conditions.
 - h. Describe the control of vapors at various stages of process.
8. Have physical site characteristics been studied; what has been done in terms of a geotechnical investigation?
- a. Site geology
 - b. Hydrology
 - c. Topography
 - d. Soil properties
 - e. Aquifer location
 - f. Subsidence problems
 - g. Climatic conditions

E. Are there mitigating measures which would offer more protection to the environment than the facility as proposed without unduly curtailing nonenvironmental benefits?

(This question requires the permittee to demonstrate having considered the most stringent techniques for reducing or more efficiently handling waste.)

- 1. Is this facility part of a master plan to provide waste management? Whose plan?
 - a. How does it fit into the plan?
 - b. What geographical area is served by the plan?
- 2. Does this facility fit into an integrated waste management system? (Reduction, recovery, recycling, sales tax, exchange, storage, treatment, disposal).
 - a. On-site
 - b. Regional
- 3. Can waste be disposed by some other means?
 - a. Technology limitations
 - b. Cost factors
 - c. Other reasons
- 4. What quality assurance control will be utilized to protect the environment?
 - a. Plans for lab work
 - b. How are out-of-spec wastes handled?

- c. What happens to rejected wastes?
 - d. Treatment stabilization
 - e. Segregation of noncompatible wastes
 - f. Handling of containerized wastes
5. Innovative techniques used to control release of waste or waste constituents into the environment.
- a. Surface impoundment
 - b. Land application treatment
 - c. Landfill (burial)
 - d. Incinerator
 - e. Container storage
 - f. Tanks

VIII GUIDANCE: CLOSURE PLAN AND COST ESTIMATE FOR SALT CAVERN WASTE DISPOSAL FACILITIES

- A. A closure plan and cost estimate (or revised closure plan and cost estimate) must be submitted to the Office of Conservation, Injection & Mining Division in order to adequately evaluate the estimated cost to plug and abandon and close each solution-mined exploration and production waste disposal well / cavern, facility, associated equipment, and return the site to as close as possible to its original condition. The closure plan and cost estimate must be prepared by an independent professional consultant and must not include any services or equipment provided by owners or partners of the facility or related sister companies. All work shall be performed by outside contractor(s) and must include the cost of overall professional project supervision and technical support. The following minimum information must be included in the closure plan and cost estimate:
- B. A cover letter containing at least the following information:
- 1. Name and type of facility for which the closure plan is being submitted;
 - 2. Well Serial Number(s) if assigned;
 - 3. Facility location (include parish and nearest town or community);
 - 4. Name, address and telephone number of third-party independent consultant responsible for the preparation of the closure plan;
 - 5. Waste disposal facility Site Code;
 - 6. A brief description of changes or alterations made to the facility since the last closure plan was submitted.
- C. An itemized plugging and abandonment procedure (step-by-step prognosis) including, but not limited to:
- 1. The amount of casing(s) that will be cut and pulled;
 - 2. Size and amount of hanging strings to be removed;
 - 3. The amount, size, and depth of casing and any other materials to be left in the well;
 - 4. The type, number, and depth placement of each plug and/or retainer including the elevation of the top and bottom of each plug;
 - 5. The type, grade, and quantity of material to be used for each squeeze, plug, retainer, etc.;
 - 6. The method of placement of plugs;
 - 7. Any proposed tests or measurements, including wireline logging, to be done before or during abandonment of the well / cavern;
- D. A schematic diagram of the well / cavern as presently or proposed to be completed.
- E. A schematic diagram of the well / cavern after plugging and abandonment procedures are completed.
- F. A proposed or current surface facility diagram showing the locations of all above ground structures.
- G. A proposed or current piping and instrumentation diagram (P&ID) of tank batteries on the premises. The diagram should identify the size and contents of the piping, the direction of fluid flow, and show all tanks (capacity, physical dimensions and contents), pumps, valves, safety devices, and instruments (pressure gauges, level indicators, etc.). The P&ID should be updated as needed to reflect any changes or alterations.
- H. Estimated costs to be incurred for all well plug and abandonment, facility closure, equipment and debris removal, and site restoration activities, including but not limited to:
- 1. Rig time;
 - 2. Rental tools;

3. Mud / brine costs;
 4. Wireline costs;
 5. Cement and retainers;
 6. Cutting casings;
 7. Welding including welding a one-half inch inscribed metal cap on casing;
 8. Removal, including trucking costs, and disposal of any and all wastes (liquid or solid) or other material to an off-site disposal facility (assume storage tanks are full). Disposal costs should be price charged to generators;
 9. Cleaning and gas-free certification of storage tanks and barges;
 10. Dismantling and removing all storage tanks, piping, pumps, concrete, any and all related surface equipment and debris. Salvage value, up to the cost of removal, is allowed on storage tanks only and if the facility owner has clear title to the property;
 11. Site restoration activities such as digging, backfilling, grading and seeding;
 12. Onsite supervision by an outside contractor of all closure activities. This amount shall be the greater of \$1,000 or 5% of the total estimated cost of closure.
- I. A summary page itemizing each closure activity with its associated cost. These costs should be totaled and clearly identified as the total closure cost. Any supporting bids or estimates from outside contractors should be attached. The costs and description of services to be performed by outside contractors should match those activities itemized in the summary.
- J. Refer to applicable closure costs and guidelines for any brine disposal wells used at the facility.

The obligation to implement the closure plan survives the termination of a permit or the cessation of waste disposal activities. The closure plan and cost estimate must include provisions for closure acceptable to the Commissioner and must be designed to reflect the costs to the Office of Conservation to complete the approved closure.

IX. NOTICE OF INTENT BY APPLICANT TO FILE APPLICATION – EXAMPLE WORDING.

The following is example wording to be used by an applicant when placing the Notice of Intent advertisement in the required publications.

<p>NOTICE OF INTENT</p> <p>IN ACCORDANCE WITH THE LAWS OF THE STATE OF LOUISIANA AND THE RULES AND REGULATIONS OF THE DEPARTMENT OF NATURAL RESOURCES, OFFICE OF CONSERVATION,</p> <p>(NAME OF APPLICANT)</p> <p>(ADDRESS OF APPLICANT)</p> <p>IS HEREBY PUBLISHING A NOTICE OF INTENT TO FILE AN APPLICATION WITH THE COMMISSIONER OF THE OFFICE OF CONSERVATION, POST OFFICE BOX 94275, BATON ROUGE, LOUISIANA 70804-9275. SAID APPLICATION WILL REQUEST APPROVAL FROM THE INJECTION & MINING DIVISION TO OPERATE A <u>Commercial / Noncommercial</u> FACILITY TO DISPOSE OF NONHAZARDOUS EXPLORATION AND PRODUCTION WASTE IN A SOLUTION-MINED SALT CAVERN.</p> <p>THE PROPOSED FACILITY WILL BE LOCATED IN _____ <u>Parish Name</u> _____, SECTION _____, TWP _____, RNG _____, APPROXIMATELY _____ MILES _____ <u>Direction</u> _____ FROM _____ <u>Nearest City / Community</u> _____, LOUISIANA.</p> <p><i>Note: If facility is to be located within a city limit, include the street address of the facility instead of distance to the nearest community.</i></p> <p>APPLICANT INTENDS TO DISPOSE OF NONHAZARDOUS EXPLORATION AND PRODUCTION WASTE GENERATED FROM THE DRILLING AND PRODUCTION OF OIL AND GAS WELLS BY MEANS OF DEEP WELL, SUBSURFACE INJECTION INTO A SOLUTION-MINED SALT CAVERN AFTER INITIAL STORAGE IN _____ <u>Tanks; Surface Impoundments; Barges; Etc.</u> _____ <i>Select item(s) applicable to the proposed facility.</i></p>
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The wording in the above Notice of Intent may vary in some instances but must contain the following minimum information:

1. Name and address of the applicant;
2. Location of the proposed facility;
3. Nature and content of the proposed waste streams(s); and
4. Methods(s) of storage, treatment and/or disposal to be used.

X. NOTICE BY APPLICANT OF PUBLIC HEARING – EXAMPLE WORDING

The following is example wording to be used by an applicant when placing the advertisement in the required publications for a public hearing on the application.

NOTICE OF PUBLIC HEARING

IN ACCORDANCE WITH THE LAWS OF THE STATE OF LOUISIANA, AND WITH PARTICULAR REFERENCE TO THE PROVISIONS OF LRS 30:4, NOTICE IS HEREBY GIVEN THAT THE COMMISSIONER OF CONSERVATION WILL CONDUCT A PUBLIC HEARING AT time A.M./P.M., _____ Day of Week _____, _____ Date _____, IN Room _____ OF _____ Building _____, Address _____, _____ City _____, LOUISIANA

AT SUCH HEARING THE COMMISSIONER OF CONSERVATION OR HIS DESIGNATED REPRESENTATIVE WILL GIVE ALL INTERESTED PARTIES AN OPPORTUNITY TO PRESENT TESTIMONY, FACTS, OR ORAL OR WRITTEN COMMENTS RELATIVE TO THE APPLICATION OF

(NAME OF APPLICANT)

(ADDRESS)

TO CONSTRUCT AND OPERATE A Commercial / Noncommercial FACILITY IN SECTION _____, TOWNSHIP _____, RANGE _____, OF _____, PARISH, LOUISIANA, FOR THE PURPOSE OF DISPOSING NONHAZARDOUS EXPLORATION AND PRODUCTION WASTE, GENERATED FROM THE DRILLING AND PRODUCTION OF OIL AND GAS WELLS, BY MEANS OF DEEP WELL, SUBSURFACE INJECTION INTO A SOLUTION-MINED SALT CAVERN

THE APPLICATION IS AVAILABLE FOR INSPECTION BY CONTACTING Office of Conservation Contact Person, OFFICE OF CONSERVATION, INJECTION AND MINING DIVISION, 617 NORTH 3RD STREET, ROOM 817, BATON ROUGE, LOUISIANA 70802, PHONE (225) 342-5515, OR BY CONTACTING THE _____ (Parish Police Jury, Parish Council or Other Local Governing Authority) ‡ .

‡ MAKE THESE ITEMS APPLICABLE TO EACH PROPOSED FACILITY.

XI. AFFIDAVIT OF NO DISCHARGE

A reproduction of the Affidavit of No Discharge below must be completed by all applicants who do not intend to discharge fluids under a permit issued by the Department of Environmental Quality, Water Pollution Control Division.

STATE OF LOUISIANA
DEPARTMENT OF NATURAL RESOURCES
AFFIDAVIT OF NO DISCHARGE

State of _____ Parish or County of _____ being
duly sworn, deposes _____ *Name of Owner or Principal Officer* _____ and says:

I am _____ *Title Owner or Principal Officer* _____ of _____ *Firm, Partnership, Corporation, Etc.* _____

This affidavit is being executed for the purpose of notifying the Louisiana Department of Natural Resources that there _____ *Is No Discharge or Will Be No Discharge* _____ of any pollutant into the waters of the State of Louisiana from the _____ *Company Name* _____ facility located _____ *Name of City or Brief Location Description* _____, _____ *Parish* _____, Louisiana, as of _____ and thereafter. Further, this report is a true and correct reflection of the operation reported herein and that no pertinent matter inquired into in this report, and known by him, has been omitted therefrom.

Sworn to before me this _____ *Date* _____ day of _____ *Month* _____, 20____.

Notary Public in and for _____ *Parish* _____, _____ *State* _____

My commission expires _____ *Date* _____

Affix Notary Seal to this Affidavit

(Address of owner or principal officer signing this Affidavit:)

(Telephone Number)

XII. FINANCIAL RESPONSIBILITY

A. Letter or Credit.

A reproduction of the Letter of Credit below must be completed by all applicants choosing to use a Letter of Credit to comply with the financial responsibility requirements for the regulated activity.

DATE: _____

TO: Commissioner of Conservation
Louisiana Office of Conservation
PO Box 94275
Baton Rouge, Louisiana 70804-9275

RE: FINANCIAL SECURITY

(Name of Company)
(Well Name and Serial No. or Commercial Facility Site Code)
(location, section township and range)
(Parish and State)

IRREVOCABLE LETTER OF CREDIT NO. _____

Dear Sirs:

We hereby establish our irrevocable Letter of Credit No. _____ in your favor, at the request and for the account of _____ *(Company Name)* up to the aggregate amount of _____ *(Amount in US Dollars)* available upon presentation by the Commissioner of Conservation, Office of Conservation, Louisiana Department of Natural Resources, of:

- 1) your sight draft, bearing reference to this Letter of Credit No. _____; and
- 2) your signed statement reading as follows: "I certify that the amount of the draft is payable pursuant to regulations issued in accordance with the requirements of La. R.S. 30:1 et seq."

This Letter of Credit is effective as of _____ *(Date No. 1)*, and shall expire on _____ *(Date No. 2)*, but such expiration date shall be automatically extended for a period of at least one year on _____ *(Date No. 2)*, and on each successive expiration date, unless at least 120 days before the current expiration date, we notify both you and _____ *(Company Name)* by certified mail that we have decided not to extend this letter of credit beyond the current expiration date. In the event you are so notified, any unused portion of the credit shall be available upon presentation of your sight draft for 120 days after the date of receipt by both you and _____ *(Company Name)* as shown on the signed return receipts.

The purpose of this letter of credit is to provide financial security for proper closure of the solution-mined salt cavern exploration and production waste disposal operation identified in this Letter of Credit.

This letter is subject to the Uniform Customs and Practice for Documentary Credits (1993 Revision) fixed by the International Chamber of Commerce Brochure No. 500.

We hereby agree with you and negotiating banks or bankers that drafts drawn under and in compliance with the terms of this credit shall be duly honored on due presentation to the drawee.

Yours truly,

(Name of Bank)

BY: _____
Duly Authorized Signature

(Name of Bank)

BY: _____
Authorized Counter Signature

B. Surety Bond

A reproduction of the Surety Bond below must be completed by all applicants choosing to use a Surety Bond to comply with the financial responsibility requirements for the regulated activity.

STATE OF LOUISIANA
PARISH OF EAST BATON ROUGE

BOND NO. _____

SURETY BOND

FROM: _____
(Name of Principal)

AND

_____ *(Name of Surety)*

TO: OFFICE OF CONSERVATION
DEPARTMENT OF NATURAL RESOURCES
STATE OF LOUISIANA

THIS SURETY BOND is given by, _____ Principal, and, _____ Surety, to Office of Conservation, Department of Natural Resources, State of Louisiana, Creditor, of PO Box 94275, Capitol Station, Baton Rouge, Louisiana 70804-9275, pursuant to the following terms and conditions:

Principal and Surety are bound to Creditor in the sum of \$ _____ U.S. Dollars, for the payment of which Principal and Surety jointly and severally bind themselves, their successors and assigns.

Principal has applied to Creditor to receive a permit or has in effect a permit issued by Creditor to operate a Commercial Facility, Site Code / Noncommercial Facility *(insert appropriate facility type)* for the receipt, storage, treatment or disposal of exploration and production waste in a solution-mined salt cavern in _____ Parish, Louisiana pursuant to the provisions of LSA-R.S. 30:1 et seq, and Statewide Order No. 29-B, LAC 43:XIX.Chapter 5 or LAC 43:XVII.Chapter 31 *(insert appropriate regulation for commercial or noncommercial facility)* . Principal is required to provide bonding to insure the adequate closure of such facility and this bond is issued for said purpose.

This obligation shall run continuously and shall remain in full force and effect until and unless the bond is canceled as provided herein or as otherwise provided by law.

Surety may cancel the bond only by sending notice of cancellation by certified mail to both Principal and Creditor. Cancellation cannot occur or be effective until 120 days after the date of receipt of notice of cancellation by both Principal and Creditor. Further, such notice of cancellation or cancellation shall not affect this surety bond in respect to any obligation which may have arisen prior thereto.

Surety shall become liable on this bond obligation if and when Principal fails to perform his obligation to adequately close the facility as determined by Creditor after notice and in accordance with administrative procedures.

Following such determinations, Creditors shall draw on the surety bond by requesting payment by certified mail, and Surety shall pay the amount thereof within 30 days of receipt of said demand. If payment is not made within said 30 days period, Surety shall also be liable for legal interest from date of receipt of demand, 10% of principal and interest as attorneys fees and all court cost incurred to collect the obligation.

The amount of the bond liability is as expressed herein, but Principal and Surety take notice of the legal requirements for annual review of the closure bond amounts, which is based upon cost estimates for adequate closure. Following this review Creditor may increase, decrease or allow the amount to remain the same. Upon notice from Creditor, if an increase is required, Principal shall cause the bond amount to be increased or shall otherwise provide the added security within 60 days after notice.

IN WITNESS WHEREOF, the Principal and Surety have executed this surety bond at _____ (City, State) _____
on this _____ day of _____, 20_____.

WITNESSES:

(Name and Signature of Principal's 1st Witness)

(Name of Principal)

(Name and Signature of Principal's 2nd Witness)

By: _____
(Name and Signature of Principal's Representative)

(Name and Signature of Surety's 1st Witness)

(Name of Surety)

(Name and Signature of Surety's 2nd Witness)

By: _____
(Name and Signature of Surety's Representative)

Approved, accepted and executed by Creditor at Baton Rouge, Louisiana this _____ day of _____, 20_____.

WITNESSES:

OFFICE OF CONSERVATION

By: _____

COMMISSIONER OF CONSERVATION

C. Pledge of Certificate of Deposit

To obtain a Pledge of Certificate of Deposit form, please go the appropriate internet link below or contact the Injection & Mining Division office..

1. If applying for one well or waste disposal cavern, go to the following link: www.dnr.state.la.us/cons/financSecCD1.pdf
2. If applying for multiple wells or waste disposal caverns, go to the following link: www.dnr.state.la.us/cons/financSecCD2.pdf

D. Insurance – Pollution Liability Coverage

Proof of insurance must be provided by a certificate of liability insurance which must be worded as provided below. Underlines should be completed with the information requested.

COMMERCIAL / NONCOMMERCIAL (insert appropriate facility type) FACILITY
CERTIFICATE OF LIABILITY INSURANCE

1. _____ (*Name of Insurer*), (the "Insurer") of _____ (*address of Insurer*) hereby certifies that it has issued liability insurance covering bodily injury and property damage to _____ (*name of insured*), (the "insured"), of _____ (*address of insured*) in connection with the insured's obligation to demonstrate financial responsibility under (commercial facility insert) LAC 43:XIX.511 I (noncommercial facility insert) LAC 43:XVII.3109.B. The coverage applies at (insert facility site code or address for each facility) for sudden and accidental pollution liability. The limits of liability are (insert the dollar amount of "each occurrence" and "annual aggregate" limits of the Insurer's liability), exclusive of legal defense costs. The coverage is provided under policy number _____, issued on _____ (*insert date*). The effective date of said policy is _____ (*insert date*).

2. The insurer further certifies the following with respect to the insurance described in LAC 43:XIX.511.E.1.
- a. Bankruptcy or insolvency of the insured shall not relieve the insurer of its obligation under the policy.
 - b. The insurer is liable for the payment of amounts within any deductible applicable to the policy, with a right of reimbursement by the insured for any such payment made by the insurer. This provision does not apply with respect to that amount of any deductible for which coverage is demonstrated.
 - c. Whenever requested by the Commissioner of Conservation, the insurer agrees to furnish to the Commissioner a signed duplicate original of the policy and all endorsements.
 - d. Cancellation of the insurance, whether by the insurer, the insured, a parent corporation providing insurance coverage for its subsidiary, or by a firm having an insurable interest in and obtaining liability insurance on behalf of the owner or operator of the commercial facility or transfer station, will be effective only upon written notice and only after the expiration of 60 days after a copy of such written notice is received by the Commissioner of Conservation.
 - e. Any other termination of the insurance will be effective only upon written notice and only after the expiration of 30 days after a copy of such written notice is received by the Commissioner of Conservation.

I hereby certify that the wording of this instrument is identical to the wording specified in LAC 43:XIX.511.E as such regulation was constituted on the date this certificate was issued, as indicated below, and that the insurer is licensed to transact the business of insurance, or eligible to provide insurance as an excess of surplus lines insurer, in one or more states, and is authorized to conduct insurance business in the state of Louisiana.

(Signature of authorized representative of Insurer)

(Type name of authorized representative of Insurer)

(Title), Authorized Representative of _____ (Name of Insurer)

[Address of Representative]

DATE OF ISSUANCE: _____.