



JOHN BEL EDWARDS
GOVERNOR

State of Louisiana
DEPARTMENT OF NATURAL RESOURCES
OFFICE OF CONSERVATION

THOMAS F. HARRIS
SECRETARY

RICHARD P. IEYOUB
COMMISSIONER OF CONSERVATION

MEMORANDUM

To: Operators of Class I Industrial Waste and Class II Commercial Saltwater Injection Wells

From: Stephen Lee, Director of Injection and Mining Division

Effective February 1, 2021, all Class I and Class II commercial saltwater injection well submittals including or comprising the practice of engineering as defined in LRS 37:681 et seq, shall be prepared by or under the direct supervision of a licensed professional engineer (P.E.) and submittals including or comprising geoscientific work as defined in LRS 37:711.1 et seq. shall be prepared by or under the direct supervision of a licensed professional geoscientist (P.G.). The certifying professionals shall be licensed by and in good standing with their respective boards: the Louisiana Professional Engineering and Land Surveying Board; or the Louisiana Board of Professional Geoscientists. All such submittals shall be sealed, signed, and dated by the licensed professional.

The document attached is intended to offer guidance as to which submittals require specific seals. This list is not intended to be exhaustive and should questions arise, please pose them directly to the Injection and Mining Division.

Injection and Mining Division

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INJECTION AND MINING DIVISION REQUIREMENTS FOR PE AND PG CERTIFICATIONS

Class I Haz and Non Haz Industrial Injection Wells
November 12, 2020

Submittal	PE	PG	Comments
Well & Reservoir Testing:			
<i>Proposed Procedure</i>	Yes	No	
<i>Interpretation of Results</i>	Yes	No	
<i>Certification That Test Run Per Proposed Procedure</i>	Yes	No	May be included with an Interpretation of Results (preferred by IMD).
Compatibility Studies	No	No	As long as the study is performed by a 3rd party and the submittal is only the resulting data.
<i>Interpretation of Compatibility Studies</i>	Yes	No	The testing company may submit an interpretation, but IMD reserves the right to disregard the conclusions and/or require an interpretation by a PE.
Radioactive Tracer Survey w/ Time Drive	No	No	As long as the log is run by a 3rd party and the submittal is only the resulting log or data.
<i>Interpretation of Casing Inspection Logs</i>	Yes	No	The logging company may submit an interpretation, but IMD reserves the right to disregard the conclusions and/or require an interpretation by a PE.
Casing Inspection Log	No	No	As long as the log is run by a 3rd party and the submittal is only the resulting log or data.
<i>Interpretation of Casing Inspection Logs</i>	Yes	No	The logging company may submit an interpretation, but IMD reserves the right to disregard the conclusions and/or require an interpretation by a PE.
Cement Bond Log	No	No	As long as the log is run by a 3rd party and the submittal is only the resulting log or data.
<i>Interpretation of Cement Bond Log</i>	Yes	No	The logging company may submit an interpretation, but IMD reserves the right to disregard the conclusions and/or require an interpretation by a PE.
Open Hole Log	No	No	As long as the log is run by a 3rd party and the submittal is only the resulting log.
<i>Interpretation of Open Hole Log</i>	Yes	Yes	The logging company may submit an interpretation, but IMD reserves the right to disregard the conclusions and/or require an interpretation by a PG or PE. A PE may certify log calculations.
Form UIC-17 Work Permit (Minor)	No	No	Minor work not defined as engineering. E.g. well cleanouts, temperature logs.
Form UIC-17 Work Permit (Major)	Yes	No	Work requiring engineering design. E.g. liner installs, casing patches, recompletion.
Form UIC-WH1 (For UIC-17 or Other Permit <u>Not</u> Requiring PE/PG Stamp)	No	No	PE not required for either Form UIC-WH1 or a well bore schematic.
Form UIC-WH1 (For UIC-17 or Other Permit Requiring PE/PG Stamp) & Form UIC-P&A	Yes	No	The forms need not be stamped if a schematic attesting to the well configuration is submitted with a PE certification (preferred by IMD).
Well Completion/Conversion Documents	Yes	No	PE certification required for any work for which the prognosis, plan, or permit required a PE stamp. In the case of a new well, this requirement can be met by PE certification of a well schematic with all pertinent well construction information. In the case of work performed upon an existing well (conversion), PG certification of a narrative report outlining the work performed and any changes to the well configuration will be acceptable.
Drilling Prognosis	Yes	No	
Completion Prognosis	Yes	No	
Facility Diagrams - P&Ds, Facility Layout Diagrams, etc.	Yes	No	Surface-related facilities: piping, valves, flanges, instruments & controls, foundations, etc.
Casing Cementing Prognosis/Plan	Yes	No	Casing cementing plans from professional 3rd party cementing companies may be submitted as part of a completion prognosis or as part of a remedial plan submitted with a Form UIC-17 Work Permit. However, IMD reserves the right to disregard the plan and/or require a PE certification.
Wellhead and Wellbore Design Schematics	Yes	No	PE Certification is required to confirm configuration of newly completed wellbores and wellheads. Minor revisions do not require certification.
Pressure Front, Waste Front Calculations, & Cone of Influence	Yes	No	Calculations must be certified by a PE.
Survey Plats	No	No	Certified by a Professional Land Surveyor.
Corrective Action Plan Submittals (For Deficient Wellbores Within The AOR):			
<i>Corrective Action Plan</i>	Yes	Yes	Depending upon the particular plan, either a PE, a PG, or possibly both will be required.
<i>Data/Surveys Collected for Corrective Action</i>	No	No	Static fluid levels, monitor well pressures, fluid analyses, etc.
<i>Interpretation of Data Related to Corrective Action Plan</i>	Yes	No	Depending upon the particular plan and data interpreted, a PE certification may be required. IMD will decide on a case-by-case basis.
Enhanced Monitoring Plan Submittals			
<i>Enhanced Monitoring Plan</i>	Yes	Yes	Depending upon the particular plan, either a PE, a PG, or possibly both will be required.
<i>Surveys And Tests For Enhanced Monitoring</i>	-	-	See requirements for individual surveys and tests. E.g. falloff test, subsidence surveys, etc.
<i>Interpretation of Monitoring Data</i>	Yes	Yes	Depending upon the particular plan, either a PE, a PG, or possibly both will be required.
Baseline Water Quality Surveys and Subsequent Surveys/Analyses	No	No	Signed original from an LDEQ LELAP Accredited Laboratory with Chain of Custody required.
<i>Interpretation/Comparison of Subsequent Analyses</i>	Yes	Yes	Depending upon the particular study, either a PE, a PG, or possibly both will be required.
Geologic Structure Maps, Isopach Maps, Cross-Sections, Fault Plan Maps	No	Yes	
<i>Interpretations of Geologic Structure and Lithology</i>	No	Yes	
Geological, Geophysical, Geomechanical, and Geochemical Evaluations	Yes	Yes	Depending upon the particular study, either a PE, a PG, or possibly both will be required.
Core Descriptions and Lithologic Interpretations	No	Yes	
Plugging and Abandonment Programs	Yes	No	
Post-Closure Monitoring Plan	Yes	Yes	May be certified by either PE or PG.
Site Assessment	Yes	Yes	Depending upon the particular circumstances, either a PE, a PG, or possibly both will be required. Most site assessments are expected to require both a PE and PG.
Form UIC-1	No	No	Form UIC-1 must be signed in accordance with LAC 43:XVII.105.D for non hazardous wells and LAC 43:XVII.205.D for hazardous wells. Attachments and other submittals that are part of a permit application must be certified in accordance with the enumerated logs, tests, plans, etc. Submittals of tabular data, lists, etc. whether from Conservation files or other public or private entities need not be certified.
Technical Report (as part of an application)	Yes	Yes	Because the Technical Report has definite elements of both engineering and geology, a cover sheet(s) should be included with the original application bearing the PG and PE seals with descriptions of the portion of the report certified by each. If revisions to the Technical Report are submitted during the application review, a new cover sheet(s) will be required with PG and PE seals outlining the portion(s) of the report to be certified by each <i>before the application can be deemed administratively complete.</i>
Emergency Action Plan Outline	No	No	
IT Response	No	No	
AOR Map	No	No	
AOR Well List	No	No	
Water Well List	No	No	
Form UIC-24	No	No	
Waste Manifests	No	No	

For any test or calculations not listed, contact Injection and Mining Division as to whether a PE or PG stamp will be required.

INJECTION AND MINING DIVISION REQUIREMENTS FOR PE AND PG CERTIFICATIONS

Class II, Commercial Saltwater Disposal Wells
November 12, 2020

Submittal	PE	PG	Comments
Well & Reservoir Testing:			
<i>Proposed Procedure</i>	Yes	No	
<i>Interpretation of Results</i>	Yes	No	
<i>Certification That Test Run Per Proposed Procedure</i>	Yes	No	May be included with an Interpretation of Results (preferred by IMD).
Radioactive Tracer Survey w/ Time Drive	No	No	As long as the log is run by a 3rd party and the submittal is only the resulting log or data.
<i>Interpretation of Casing Inspection Logs</i>	Yes	No	The logging company may submit an interpretation, but IMD reserves the right to disregard the conclusions and/or require an interpretation by a PE.
Casing Inspection Log	No	No	As long as the log is run by a 3rd party and the submittal is only the resulting log or data.
<i>Interpretation of Casing Inspection Logs</i>	Yes	No	The logging company may submit an interpretation, but IMD reserves the right to disregard the conclusions and/or require an interpretation by a PE.
Cement Bond Log	No	No	As long as the log is run by a 3rd party and the submittal is only the resulting log or data.
<i>Interpretation of Cement Bond Log</i>	Yes	No	The logging company may submit an interpretation, but IMD reserves the right to disregard the conclusions and/or require an interpretation by a PE.
Open Hole Log	No	No	As long as the log is run by a 3rd party and the submittal is only the resulting log.
<i>Interpretation of Open Hole Log</i>	Yes	Yes	The logging company may submit an interpretation, but IMD reserves the right to disregard the conclusions and/or require an interpretation by a PG or PE. A PE may certify log calculations.
Form UIC-17 Work Permit (Minor)	No	No	Minor work not defined as engineering. E.g. well cleanouts, temperature logs.
Form UIC-17 Work Permit (Major)	Yes	No	Work requiring engineering design. E.g. liner installs, casing patches, recompletion in different interval.
Form UIC-32 Change of Zone	Yes	Yes	
Form UIC-WH1 (For UIC-17 or Other Permit <u>Not</u> Requiring PE/PG Stamp)	No	No	PE not required for either Form UIC-WH1 or a well bore schematic.
Form UIC-WH1 (For UIC-17 or Other Permit Requiring PE/PG Stamp) & Form UIC-P&A	Yes	No	The forms need not be stamped if a schematic attesting to the well configuration is submitted with a PE certification (preferred by IMD).
Well Completion/Conversion Documents	Yes	No	PE certification required for any work for which the prognosis, plan, or permit required a PE stamp. In the case of a new well, this requirement can be met by PE certification of a well schematic with all pertinent well construction information. In the case of work performed upon an existing well (conversion), PG certification of a narrative report outlining the work performed and any changes to the well configuration will be acceptable.
Drilling Prognosis	Yes	No	
Completion Prognosis	Yes	No	
Casing Cementing Prognosis/Plan	Yes	No	Casing cementing plans from professional 3rd party cementing companies may be submitted as part of a completion prognosis or as part of a remedial plan submitted with a Form UIC-17 Work Permit. However, IMD reserves the right to disregard the plan and/or require a PE certification.
Wellhead and Wellbore Schematics	Yes	No	PE Certification is required to confirm configuration of newly completed wellbores and wellheads. Minor revisions do not require certification. Major revisions shall be stamped by the PE overseeing the work performed.
Pressure Front, Waste Front, & Cone of Influence Calculations	Yes	No	Calculations must be certified by a PE.
Survey Plats	No	No	Certified by a Professional Land Surveyor.
Corrective Action Plan Submittals (For Deficient Wellbores Within The AOR):			
<i>Corrective Action Plan</i>	Yes	Yes	Depending upon the particular plan, either a PE, a PG, or possibly both will be required.
<i>Data/Surveys Collected for Corrective Action</i>	No	No	Static fluid levels, monitor well pressures, fluid analyses, etc.
<i>Interpretation of Data Related to Corrective Action Plan</i>	Yes	No	Depending upon the particular plan and data interpreted, a PE certification may be required. IMD will decide on a case-by-case basis.
Enhanced Monitoring Plan Submittals:			
<i>Enhanced Monitoring Plan</i>	Yes	Yes	Depending upon the particular plan, either a PE, a PG, or possibly both will be required.
<i>Surveys And Tests For Enhanced Monitoring</i>	-	-	See requirements for individual surveys and tests
<i>Interpretation of Monitoring Data</i>	Yes	Yes	Depending upon the particular plan, either a PE, a PG, or possibly both will be required.
Baseline Water Quality Surveys and Subsequent Surveys/Analyses	No	No	Signed original from an LDEQ LELAP Accredited Laboratory with Chain of Custody required.
<i>Interpretation/Comparison of Subsequent Analyses</i>	No	No	
Groundwater Investigations and Remediation	Yes	Yes	Depending upon the particular plan, either a PE, a PG, or possibly both will be required.
Geologic Structure Maps, Isopach Maps, Cross-Sections, Fault Plan Maps	No	Yes	
<i>Interpretations of Geologic Structure and Lithology</i>	No	Yes	
Geological, Geophysical, Geomechanical, and Geochemical Evaluations	Yes	Yes	Depending upon the particular study, either a PE, a PG, or possibly both will be required.
Core Descriptions and Lithologic Interpretations	No	Yes	
Plugging and Abandonment Programs	Yes	No	
Form UIC-2 COMM	No	No	Form UIC-2 COMM must be signed in accordance with LAC 43:XVII.405.A. Attachments and other submittals that are part of a permit application must be certified in accordance with the enumerated logs, tests, plans, etc. Submittals of tabular data, lists, etc. whether from Conservation files or other public or private entities need not be certified.
Emergency Action Plan Outline	No	No	
IT Response	No	No	
AOR Map	No	No	
AOR Well List	No	No	
Water Well List	No	No	
Form UIC-10, 19, 19A, 21	No	No	

For any test or calculations not listed, contact Injection and Mining Division as to whether a PE or PG stamp will be required. PE and PG requirements pertain to the well itself and reservoir. Contact the Environmental Division for surface facility inquiries.