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.
Well & Reservoir Testng:  
- Proposed Procedure  
- Interpretation of Results
- Certification That Test Run For Proposed Procedure

Compatibility Studies  
- As long as the study is performed by a 3rd party and the submitter is only the resulting data.
- Interpretation of Compatibility Analysis
- The testing company may submit an interpretation, but IMD reserves the right to disregard the conclusion and/or require an interpretation by a PE.

Radioactive Tracer Survey w/ Time Drive  
- As long as the log is run by a 3rd party and the submitter is only the resulting log or data.
- Interpretation of Tracer Injection Logs
- The testing company may submit an interpretation, but IMD reserves the right to disregard the conclusion and/or require an interpretation by a PE.

Coring Log  
- As long as the log is run by a 3rd party and the submitter is only the resulting log or data.
- Interpretation of Coring Injection Logs
- The logging company may submit an interpretation, but IMD reserves the right to disregard the conclusion and/or require an interpretation by a PE.

Cement Bond Log  
- As long as the log is run by a 3rd party and the submitter is only the resulting log or data.
- Interpretation of Cement Bond Logs
- The logging company may submit an interpretation, but IMD reserves the right to disregard the conclusion and/or require an interpretation by a PE.

Open Hole Log  
- As long as the log is run by a 3rd party and the submitter is only the resulting log.
- Interpretation of Open Hole Logs
- The logging company may submit an interpretation, but IMD reserves the right to disregard the conclusion and/or require an interpretation by a PE or PE - A PE may certify log calculations.

Form UC-17 Work Permit (Minor)  
- Minor work not defined as engineering, e.g. well cleanouts, temperature logs.

Form UC-17 Work Permit (Major)  
- Work requiring engineering design, e.g. line installs, casing patches, recondition.

Form UIC-WHS (For UC-17 or Other Permit Not Requiring PE/PG)  
- PE not required for either Form UIC-WHS or a well bore schematic.

Form UIC-WHS (For UC-17 or Other Permit Requiring PE/PG) & Form UIC-P&A  
- 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  
- PE certification required for any work for which the progress, 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], PE certification of a narrative report outlining the work performed and any changes to the well configuration will be acceptable.

Drilling Progess  
- No

Completion Progress  
- No

Facility Diagrams - P&Ds, Facility Layout Diagrams, etc.  
- No

Cementing Progress/Plan  
- No

Surface-related facilities: piping, valves, flanges, instruments & controls, foundations, etc.

Wellhead and Wellbore Design Schematics  
- PE Certification is required to confirm configuration of newly completed wellbores and wellheads. Minor revisions do not require certification.

Pressure Front, Waste Front Calculations, & Core of Influence  
- No

Calculations must be certified by a PE.

Survey Plans  
- No

Certified by a Professional Land Surveyor.

Corrective Action Plan Submittals (For Deficient Wellbores Within The AOR):  
- Corrective Action Plan  
- Yes
- Depending upon the particular plan, either a PE, a PG, or possibly both will be required.
- Notes/Surveys Compiled for Corrective Action
- Yes
- Static fluid levels, monitor well pressures, fluid analysis, etc.
- Interpretation of Data Related to Corrective Action Plan
- Yes
- 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  
- Enhanced Monitoring Plan  
- Yes
- Depending upon the particular plan, either a PE, a PG, or possibly both will be required.
- Survey Data And Tests For Enhanced Monitoring
- Yes
- User requirements for individual surveys and tests. E.g. MAF/ID, subsidence surveys, etc.
- Interpretation of Monitoring Data
- 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
- Signed original from an LDEQ/LELAP Accredited Laboratory with Chain of Custody required.

Interpretation/Comparison of Subsequent Analyses  
- 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 Plane Maps  
- Yes

Geological, Geophysical, Geotechnical, and Geochemical Evaluations  
- Yes
- Depending upon the particular study, either a PE, a PG, or possibly both will be required.

Core Descriptions and Lithologic Interpetations  
- No

Hugging and Abandonment Programs  
- Yes

Post-Closure Monitoring Plan  
- Yes
- May be certified by either PE or PG.

Site Assessment  
- 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 UC-1  
- No
- Form UC-1 must be signed in accordance with LAC 43:JVIII.105.D for non-hazardous wells and LAC 43:JVIII.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
- 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 PE and PG seals outlining the portion(s) of the report to be certified by each. Before the application can be deemed administratively complete.

Emergency Action Plan Outline  
- No

IT Response  
- No

AOR Map  
- No

AOR Well List  
- No

Water Well List  
- No

Form UIC-24  
- No

Waste Mangement  
- No

For any text 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

<table>
<thead>
<tr>
<th>Submittal</th>
<th>PE</th>
<th>PG</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Well &amp; Reservoir Testing</td>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td><em>Proposed Procedure</em></td>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Interpretation of Results</td>
<td>Yes</td>
<td>No</td>
<td>May be included with an interpretation of results (preferred by IMD).</td>
</tr>
<tr>
<td>Radiometric Tracer Survey w/ Time Drive</td>
<td>No</td>
<td>No</td>
<td>As long as the log is run by a 3rd party and the submitter is only the results log or data.</td>
</tr>
<tr>
<td>Interpretation of Caving Inspection Log</td>
<td>No</td>
<td>No</td>
<td>The logging company may submit an interpretation, but IMD reserves the right to disregard the conclusions and/or require an interpretation by a PE.</td>
</tr>
<tr>
<td>Casing Inspection Log</td>
<td>No</td>
<td>No</td>
<td>As long as the log is run by a 3rd party and the submitter is only the results log or data.</td>
</tr>
<tr>
<td>Interpretation of Casing Inspection Log</td>
<td>No</td>
<td>No</td>
<td>The logging company may submit an interpretation, but IMD reserves the right to disregard the conclusions and/or require an interpretation by a PE.</td>
</tr>
<tr>
<td>Cement Bond Log</td>
<td>No</td>
<td>No</td>
<td>As long as the log is run by a 3rd party and the submitter is only the results log or data.</td>
</tr>
<tr>
<td>Interpretation of Cement Bond Log</td>
<td>Yes</td>
<td>Yes</td>
<td>The logging company may submit an interpretation, but IMD reserves the right to disregard the conclusions and/or require an interpretation by a PE.</td>
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<tr>
<td>Open Hole Log</td>
<td>No</td>
<td>No</td>
<td>As long as the log is run by a 3rd party and the submitter is only the results log.</td>
</tr>
<tr>
<td>Interpretation of Open Hole Log</td>
<td>Yes</td>
<td>Yes</td>
<td>The logging company may submit an interpretation, but IMD reserves the right to disregard the conclusions and/or require an interpretation by a PE or PG. A PE may certify log calculations.</td>
</tr>
<tr>
<td>Form UIC-17 Well Permit (Minor)</td>
<td>No</td>
<td>No</td>
<td>Either work not defined as engineering, e.g. well cleanouts, temperature logs.</td>
</tr>
<tr>
<td>Form UIC-17 Well Permit (Major)</td>
<td>Yes</td>
<td>No</td>
<td>Work requiring engineering design, e.g. liner installs, casing patches, recompletion in different intervals.</td>
</tr>
<tr>
<td>Form UIC-32 Change of Zone</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Form UIC-106 (For UIC-17 or Other Permit Not Requiring PE/PG Stamps)</td>
<td>No</td>
<td>No</td>
<td>PE not required for either Form UIC-106 or a well bore schematic.</td>
</tr>
<tr>
<td>Form UIC-106 (For UIC-17 or Other Permit Requiring PE/PG Stamps) &amp; Form UIC-PBA</td>
<td>No</td>
<td>No</td>
<td>If the form need not be stamped if a schematic attesting to the well configuration is submitted with a PE certification (preferred by IMD).</td>
</tr>
<tr>
<td>Well Completion/Conversion Documents</td>
<td>Yes</td>
<td>No</td>
<td>PE certification required for any work for which the process, 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), PE certification of a narrative report outlining the work performed and any changes to the well configuration will be acceptable.</td>
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<tr>
<td>Drilling Progress</td>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Completion Progress</td>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Casing Cementing Progress/Plan</td>
<td>Yes</td>
<td>No</td>
<td>Casing cementing plans from professional 3rd party cementing companies may be submitted as part of a completion program or as part of a remedial plan submitted with a Form UIC-17 Well Permit. However, IMD reserves the right to disregard the plan and/or require a PE certification.</td>
</tr>
<tr>
<td>Wellhead and Wellbore Schematics</td>
<td>Yes</td>
<td>No</td>
<td>PE Certification is required to confirm configuration of newly completed wells and wellheads. Minor revisions do not require certification. Major revisions shall be stamped by the PE overseeing the work performed.</td>
</tr>
<tr>
<td>Pressure Front, Waste Front, &amp; Cone of Influence Calculations</td>
<td>Yes</td>
<td>Yes</td>
<td>Calculations must be certified by a PE.</td>
</tr>
<tr>
<td>Survey Plans</td>
<td>No</td>
<td>No</td>
<td>Certified by a Professional Land Surveyor.</td>
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<tr>
<td>Corrective Action Plan Submittals (For Deficient Wellbores Within The AOM):</td>
<td></td>
<td></td>
<td></td>
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<td>Corrective Action Plan</td>
<td>Yes</td>
<td>Yes</td>
<td>Depending upon the particular plan, either a PE, or PG, or both will be required.</td>
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<tr>
<td>Data/Surveys Collected for Corrective Action</td>
<td>No</td>
<td>No</td>
<td>Static fluid levels, monitor well pressures, fluid analyses, etc.</td>
</tr>
<tr>
<td>Interpretation of Data Related to Corrective Action Plan</td>
<td>No</td>
<td>No</td>
<td>Depending upon the particular plan and data interpreted, a PE certification may be required. IMD shall decide on a case-by-case basis.</td>
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<td>Enhanced Monitoring Plan Submittals:</td>
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<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Surveys And Tests For Enhanced Monitoring</td>
<td>Yes</td>
<td>Yes</td>
<td>See requirements for individual surveys and tests.</td>
</tr>
<tr>
<td>Interpretation of Monitoring Data</td>
<td>Yes</td>
<td>Yes</td>
<td>Depending upon the particular plan, either a PE, or PG, or both will be required.</td>
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<td>Baseline Water Quality Surveys and Subsequent Surveys/Analyses</td>
<td>No</td>
<td>No</td>
<td>Signed original from an LLSDL LEAP Accredited Laboratory with Chain of Custody required.</td>
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<td>Interim Well Completion of Subsequent Analyses</td>
<td>No</td>
<td>No</td>
<td></td>
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<tr>
<td>Groundwater Investigations and Remediation</td>
<td>Yes</td>
<td>Yes</td>
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<td>Geologic Structure Maps, Isopach Maps, Cross-Sections, Fault Plan Maps</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
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<tr>
<td>Interpretations of Geologic Structure and Lithology</td>
<td>No</td>
<td>No</td>
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<td>Geological, Geophysical, Geomechanical, and Geochemical Evaluations</td>
<td>Yes</td>
<td>Yes</td>
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<td>Yes</td>
<td>Yes</td>
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<td>Plugging and Abandonment Programs</td>
<td>Yes</td>
<td>No</td>
<td></td>
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<tr>
<td>Form UIC-2 COMM</td>
<td>No</td>
<td>No</td>
<td>Form UIC-2 COMM must be signed in accordance with LAC 43.4 SVN 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, tests, etc. whether from Conservation files or other public or private entities need not be certified.</td>
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<td>Emergency Action Plan Outline</td>
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<td>IT Response</td>
<td>No</td>
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<tr>
<td>ACR Map</td>
<td>No</td>
<td>No</td>
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<tr>
<td>ACR Well List</td>
<td>No</td>
<td>No</td>
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<tr>
<td>Rover Well Log</td>
<td>No</td>
<td>No</td>
<td></td>
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<tr>
<td>Form UIC-10, 19, 31A, 21</td>
<td>No</td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

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.