

### **COLC Permit Application Documentation Review**

This is a document that supplements the final report submitted to COLC. The remaining missing elements based on the Mueller/Nicklos documentation review are listed below in two sections. Section 1: elements that could be covered by a 3-5 day full condition survey of the rig once it is on location. A full condition survey includes but is not limited to the opening of critical equipment for verification that the equipment has been kept in a safe and reliable working condition. The survey will cover the following areas: drilling equipment, mud system, BOP and well control equipment, marine equipment, electrical equipment, main machinery, safety equipment, maintenance system, and spare parts. Section 2: documentation that should still be provided. The missing elements have been classified as Critical, Major, or Minor.

**Critical** – Elements where the management system requirements is not being complied with and/or is seen to bring about a prominent threat to regulatory compliance, industry recommended practices, personnel, the environment and/or assets.

**Major** – Elements where the management system requirements, though addressed in some form in the management system, is not fully compliant. These items may be contributing factors to incidents involving regulatory compliance, industry recommended practices, personnel, the environment and/or assets.

**Minor** - Opportunities to improve the management system or items that have little/no effect on safety or the environment.

#### **Section 1: Missing elements that could be covered by a 3-5 day full condition survey of the rig once it is on location:**

##### **API Bulletin 75L**

##### **Safety and Environmental Information**

There were generic hazardous classification area drawings for Nicklos Drilling Rig 5. There were electrical drawings provided, but they did not indicate the equipment installed in relation to hazardous areas and their Ex ratings for the classed area.

The electrical equipment in hazardous areas should have their Ex ratings verified before operations commence. (Critical)

##### **Hazards Analysis**

Nicklos Drilling Company does not have a hazard analysis register for Nicklos Drilling Rig 5. They state they perform hazard inspections; however, no records were provided.

If they perform detailed regular hazard inspections, keep the records, and discuss the findings from these with the crew this should satisfy this section. Records of these hazard inspections should be provided. (Major)

##### **Assurance of Quality and Mechanical Integrity of Critical Equipment**

Nicklos Drilling Company stated that the management system utilized to track maintenance of Nicklos Drilling Rig 5 is simply using run time and general maintenance recommended by the manufacturer of the equipment. Nicklos Drilling Company provided an Excel sheet of equipment that had been recently inspected.

Without a dedicated maintenance system in place and records, the best way to determine if they are maintaining the equipment would be to perform a survey once the rig is on location. (Major)

##### **Emergency Response and Control**

The plan and frequency of regularly scheduled emergency drills should be provided before operations commence. This could be checked during a survey or by documentation review. (Minor)

**League City Drilling Ordinance****Division 5:****Section 42-121, Final Inspections**

The documentation should be provided for the detailed equipment, hazardous-area drawings with electrical certification for all equipment located in the depicted hazardous area, or a package for the low-pressure or poorboy degasser. (Major)

**Division 6:****Section 42-142, Fire Prevention**

Documentations should be provided for automated valves that close or shut down the equipment in the event of an abnormal change in operating pressure and wellhead automated emergency shut-off valves to the well production sale line and for the electric motors prior to commencing drilling operations. (Critical)

**Section 42-143, Well Control Equipment and Procedures**

Documentation should be provided for the well control equipment and the components of the pressure control system, including the data books for each pressure control component, prior to commencing drilling operations. (Critical)

**Section 42-144, Hoisting and Rigging Equipment**

Documentation should be provided for the hoisting and rigging equipment on the rig prior to commencing drilling operations. (Major)

**Section 42-146, Storage Vessel Labels**

The labeling of the storage vessels for chemicals should be verified prior to commencing drilling operations. (Major)

**Section 2: Documentation that should be provided before operations commence:****League City Drilling Ordinance****Division 7:**

All the Mueller insurance updates should be provided to COLC. (Critical)

**Division 6:****Section 42-152, Drilling Foreman**

The specific personnel certifications, including the IADC certified training, should be provided prior to commencing drilling operations. (Major)

**Section 42-154, Crew Training-Drilling Contractor**

Nicklos Drilling Company should provide their training matrix covering spill prevention, firefighting, and other facility personnel training to outline the individual rig positions and their training requirements.

The specific personnel certificates should be provided before operations commence. (Major)

**Division 3:****Section 42-98, Environmental Management – Hazard Mitigation Plan**

The severe weather plan does not discuss how the surrounding environment will be protected, monitored, and managed against adverse impacts for inclement weather.

A plan should be considered by Nicklos Drilling before operations commence. There were plans for personnel. What is done with the rig in case of tornadoes, hurricanes, etc.? (Major)

**Section 42-84, Contacts Sheet**

This can be provided before operations commence. (Minor)

**Section 42-99, Environmental Management – Risk Management Assessment**

The Emergency Response—Risk Management Plan does not cover economical application of resources. Also, there is no prioritization of the risks.

This should be considered by Nicklos and Mueller. (Minor)

#### **API Bulletin 75L**

##### **Procedures to Manage Change**

Nicklos Drilling Company stated they are changing the bridging document to state they will be using their MOC procedures.

The Nicklos Drilling Company procedures have already been reviewed. Once the bridging document is changed, this section will be satisfied. (Minor)

##### **Training**

Nicklos Drilling Company should provide their training matrix covering spill prevention, firefighting, and other facility personnel training to outline the individual rig positions and their training requirements.

(Major)

##### **Pre-Start-Up Review**

The rig-specific hazard inspection forms, personnel training records, and equipment-specific operating procedures should be provided before operations commence. Hazard inspections and equipment-specific operating procedures can be looked at during a survey. (Major)

##### **Audit of Safety and Environmental Management System Elements**

Nicklos Drilling Company stated that there are no formalized audits of the ESH management systems. The system is reviewed on an annual basis to review any company changes as well as regulatory additions or changes.

Records of the annual review should be provided. This is a documentation based item. (Minor)

##### **Records and Documentation**

Record keeping for audits, maintenance records, personnel training records, etc. should be provided. (Major)