**Oil Rig – Land Rig / Jack-Up Rig**
**Training Purposes Only**

**1. General Information**

* **Assessment Title**: [Task or Activity being Assessed]
* **Location**: [Rig Site or Specific Area]
* **Date**: [Date of Assessment]
* **Time**: [Start Time]
* **Assessed By**: [Name and Role of Person Completing the Assessment]
* **Supervisor**: [Name of Supervisor Overseeing the Work]
* **Work Activity Description**:
[Brief description of the work to be performed (e.g., "Well drilling operations," "Routine maintenance of BOP system," "Lifting operation with crane")]

**2. Hazard Identification**

Identify all potential hazards associated with the job or task. Hazards can be physical, chemical, biological, ergonomic, or environmental in nature.

| **Step No.** | **Task Description** | **Potential Hazards** | **Risk Associated with Hazard** |
| --- | --- | --- | --- |
| 1 | Setting up drilling equipment | Slips, trips, falls (on wet surfaces) | Injury from falls, Sprains/Strains |
| 2 | Performing hot work (welding) | Fire, Burns, Toxic fumes (e.g., welding fumes) | Burns, Lung damage, Fire hazards |
| 3 | Confined space entry for maintenance | Oxygen deficiency, Toxic gas exposure (e.g., H2S) | Asphyxiation, poisoning, Injury |
| 4 | Lifting heavy equipment with crane | Equipment failure, Falling objects | Crushing injury, Electrocution (if near power lines) |
| 5 | Pressure testing of equipment | High-pressure fluid, Burst pipes | Injury from high-pressure release, Hydrostatic shock |
| 6 | Working at heights (e.g., scaffolding) | Fall from height, Falling tools | Serious injury or fatality, Struck-by falling objects |

**3. Risk Assessment**

For each hazard identified, assess the **likelihood** and **severity** of the risk, then calculate the **overall risk level**. The risk level will guide you in identifying necessary control measures.

| **Step No.** | **Hazard Description** | **Likelihood (Low/Medium/High)** | **Severity (Low/Medium/High)** | **Risk Level (Low/Medium/High)** | **Control Measures** | **Residual Risk (Low/Medium/High)** |
| --- | --- | --- | --- | --- | --- | --- |
| 1 | Slips, trips, falls | Medium | Medium | Medium | Use of non-slip footwear, maintain clean work areas, proper lighting | Low |
| 2 | Fire, Burns | High | High | High | Fire extinguisher on site, fire watch, PPE (fire-resistant clothing, gloves), ventilation | Low |
| 3 | Oxygen deficiency, Toxic gas exposure | High | High | High | Air monitoring, use of SCBA (self-contained breathing apparatus), entry permits | Low |
| 4 | Equipment failure, Falling objects | Medium | High | High | Regular inspection of lifting equipment, use of tool lanyards, barricade lifting zones | Medium |
| 5 | High-pressure fluid release | Low | High | Medium | Pressure relief valves, PPE (face shields, gloves), training on emergency procedures | Low |
| 6 | Fall from height | Medium | High | High | Fall protection (harnesses, lanyards), scaffolding inspection, safety barriers | Low |

**4. Control Measures and Mitigation Strategies**

List the control measures required to reduce the risk to an acceptable level. These should include both **engineering controls** and **administrative controls** (e.g., procedures, training, personal protective equipment).

| **Hazard Description** | **Control Measures** |
| --- | --- |
| Slips, trips, falls | - Maintain clean work areas and clear walkways. - Ensure adequate lighting in all work areas. - Use non-slip boots and personal protective equipment (PPE). |
| Fire, Burns | - Ensure fire extinguishers, fire blankets, and fire watches are present during hot work. - Use fire-resistant clothing and face shields during welding. - Ensure adequate ventilation during hot work to reduce the risk of fire. |
| Oxygen deficiency, Toxic gas exposure | - Perform air quality monitoring before and during confined space entry. - Use SCBA, full-face respirators, and other appropriate PPE. - Implement gas detection systems to monitor for hazardous gases like H2S. |
| Equipment failure, Falling objects | - Conduct regular equipment inspections, including load testing of cranes. - Ensure proper lifting techniques and use of tool lanyards. - Barricade areas where overhead lifting is taking place to protect personnel below. |
| High-pressure fluid release | - Verify pressure testing procedures and maintenance schedules are up-to-date. - Use PPE including face shields and gloves. - Provide safety training on high-pressure systems and emergency procedures. |
| Fall from height | - Use fall arrest systems (e.g., harnesses, lanyards) for work at height. - Inspect scaffolding and ensure it is safe for use. - Install guardrails and safety nets where applicable. |

**5. PPE (Personal Protective Equipment) Requirements**

List all the necessary PPE required for each hazard, and ensure that all personnel are trained in its correct use.

| **Hazard Description** | **PPE Required** | **Additional Comments** |
| --- | --- | --- |
| Slips, trips, falls | Non-slip boots | Always wear safety boots with anti-slip soles when walking in work areas. |
| Fire, Burns | Fire-resistant clothing, Welding gloves, Face shield, Respirator | PPE is mandatory during hot work and welding operations. |
| Oxygen deficiency, Toxic gas exposure | SCBA, Full-face respirator, Gloves | Ensure proper training in the use of SCBA and gas monitoring devices. |
| Equipment failure, Falling objects | Hard hats, Steel-toe boots, Tool lanyards | Hard hats must be worn at all times in designated work areas. |
| High-pressure fluid release | Face shields, Gloves, Coveralls | PPE must be worn during pressure testing or any high-pressure operations. |
| Fall from height | Fall arrest harness, Lanyards, Safety boots | Ensure fall protection is always used when working at heights. |

**6. Emergency Procedures**

In the event of an emergency (e.g., fire, gas leak, fall), outline the steps to be taken and the emergency contacts.

* **Fire**:
	+ Evacuate the area immediately.
	+ Activate fire alarms and use fire extinguishers if the fire is small.
	+ If the fire is large, follow the emergency evacuation route.
* **Gas Leak (e.g., H2S)**:
	+ Evacuate the area immediately.
	+ Use gas detection systems to monitor for safe levels.
	+ Contact the Safety Officer and follow evacuation procedures.
* **Fall Injury**:
	+ Call for medical assistance immediately.
	+ Administer first aid if qualified to do so.
	+ Do not move the injured person unless absolutely necessary.
* **Equipment Failure (e.g., Crane)**:
	+ Stop work immediately and secure the equipment.
	+ Perform a thorough inspection.
	+ If necessary, isolate power or energy sources.

**7. Risk Assessment Summary**

Summarize the overall risk for the task and any additional recommendations to reduce risks.

**Overall Risk Level**: [Low/Medium/High]

**Additional Recommendations**:

* Implement more frequent equipment inspections for high-risk tasks.
* Consider conducting regular safety drills related to specific hazards (e.g., fire, gas leak).
* Provide additional training on handling hazardous materials (e.g., chemicals, gases).

**8. Approval and Sign-Off**

| **Name** | **Role** | **Signature** | **Date** |
| --- | --- | --- | --- |
| [Name] | Assessor | [Signature] | [Date] |
| [Name] | Supervisor | [Signature] | [Date] |
| [Name] | Safety Officer | [Signature] | [Date] |

**9. Post-Assessment Review**

This section is for reviewing the effectiveness of control measures after the job is completed.

| **Item** | **Status (Yes/No)** | **Remarks** |
| --- | --- | --- |
| Have all hazards been mitigated? | Yes/No | [Comments] |
| Was PPE used correctly by all personnel? | Yes/No | [Comments] |
| Were there any incidents or near-misses? | Yes/No | [Comments] |
| Did workers follow safety procedures? | Yes/No | [Comments] |