

Employee Name _____

Supervisor _____

Location _____



IADC UBO RIG PASS® ORIENTATION PROGRAM

FORM UBO-5

EMPLOYEE ORIENTATION CHECKLIST

INSTRUCTIONS:

This form may be used to document an employer's participation in a basic orientation program. As each topic is completed, the employee and instructor should both initial the appropriate box and note the date the item was completed. When all items are complete, the employer may issue a UBO RIG PASS® completion card. The original of this form should be kept on file by the employer.

Topic	Employee Initials	Instructor Initials	Date
I. Underbalanced Operations (UBO)			
A. Underbalanced Technology			
1. Introduction to Underbalanced Drilling Operations (UBO)			
a. What Is It			
b. Why Do It			
c. How: JP or CT			
d. Types of Injection Systems			
i. Parasite String			
ii. Parasite Casing			
iii. Drill Pipe			
2. IADC UB Well Classification System			
a. UBO Level Designation			
i. Level 0			
ii. Level 1			
iii. Level 2			
iv. Level 3			
v. Level 4			
vi. Level 5			
b. UBO Application Type Designation			
i. Low-Head/Near Balance			
ii. Underbalanced			
* Gas Drilling			
* Mist			

Employee Name _____

Supervisor _____

Location _____

Topic	Employee Initials	Instructor Initials	Date
* Foam			
Disposable foam			
Recyclable foam			
* Gas/Fluid Mixture			
Water Base Fluid with Injected Gas			
Oil (Diesel Type or Synthetic) with Injected Gas			
* Fluid (No Injected Gas)			
Flow Drilling			
Floating Mud Cap			
Pressurized Mud Cap			
B. Fluid Gases Used in UBO – Description and safety problems of each.			
1. Air			
2. Natural Gas			
3. Nitrogen			
a. Cryogenic Nitrogen			
b. Membrane Generated Nitrogen			
c. Other Onsite Generation Systems			
4. Exhaust Gas			
5. Liquids and Chemicals			
C. Specialized UBO Equipment. Description, operation, and general safety concerns.			
1. Rotating Diverters			
2. Flow Control Manifold			
3. High Pressure Lines, Valves, and Restraints			
4. Low Pressure Flow Line, Blooie Line, and Restraints			
5. Separator System – All Components			
6. Gas Generation or Delivery System			
a. Oxygen Depleted/Enriched Areas			
b. Liquid Nitrogen Spills (Offshore)			
c. Noise and Vibration			
d. Exhaust Fumes			
7. Hazardous Zone Management			
8. Standpipe Valves and Bypass Lines			

Employee Name _____

Supervisor _____

Location _____

Topic	Employee Initials	Instructor Initials	Date
e. Venting Tanks to Flare Stack – Caution			
B. Housekeeping			
1. Spills			
2. Leaks in Lines and Connections			
3. Trip Hazards			
4. Caution Signs on High-Pressure Lines and Vessels			
5. Other Signs, Cones, Banners, and Barricades			
C. Communications			
1. Organization – Chain of Command			
a. Rig Contractor Overall Supervisor (OIM or Rig Manager)			
b. Operator Supervisor (Company Man)			
c. Separator System Supervisor			
d. Compressor or Gas System Supervisor			
e. Tool Pusher			
f. Other Service Company Supervisors (Directional, Snubbing, etc.)			
2. Communications Interfaces – How Managed			
D. Logistics and Transportation			
1. Parking Areas			
2. Truck Lanes			
3. Fuel Trucks (Access)			
4. Heavy Lifts (Offshore)			
5. Restricted Lifts during UBO (Offshore)			
6. Flare Placement – Effect of Wind Change or Flare Change			
a. Main Road			
b. Escape Routes			
c. Muster Points			
d. Helicopter Landings (Offshore)			
III. Personal Protective Equipment (PPE).			
A. UBO Hazards and PPE Requirements			
1. Working around Compressors			
a. Hearing Protection			
2. Liquid Nitrogen			

Employee Name _____

Supervisor _____

Location _____

Topic	Employee Initials	Instructor Initials	Date
a. Hearing Protection			
b. Gloves			
3. Nitrogen or Inert Gas Generation			
a. Zone Control			
b. Hearing Protection			
c. Personal Environmental Monitor			
4. Natural Gas			
a. Personal Environmental Monitor			
b. Fire Retardant Coveralls			
5. Formation Fluid Production			
a. Storage Zone Control			
b. Wind Direction Indicators			
c. Breathing Air Equipment/Respirators			
i. Designated Safe Zones			
ii. Equipment location			
6. Flare Byproducts			
a. Zone Control			
b. Wind Direction Indicators			
IV. Hazard Communications and Materials Handling.			
A. Hazards Specific to UBO			
1. Pressure Release from Drill Pipe			
a. NRV			
2. Pressure Buildup in the Annulus			
a. Plugged Line at Surface			
b. Solids Bridge Down Hole			
3. Changing and Handling Rotating Diverter Packers/Stripper Rubbers			
4. Trapped Pressure in Equipment (i.e., BOP Stack, Rotating Diverter Bearings)			
5. Flare Byproducts			
6. Energized/High Pressure Lines			
7. Confined Space Entry – The Separator and Other Vessels, Mud Tanks, etc.			
8. Hydrocarbon Storage			

Employee Name _____

Supervisor _____

Location _____

Topic	Employee Initials	Instructor Initials	Date
9. Lifting and Material Handling Issues over Pressurized Equipment			
B. Transportation of Hazardous Materials Specific to UBO			
1. Exposed Equipment Purge			
2. Dangerous Goods Manifest			
a. Liquid N2			
b. Produced Fluids			
c. Purged Equipment Exposed to Hazardous Well Fluids			
B. Uncontrolled/Accidental Release of Hazardous Materials			
1. Definition of Potential Releases Relative to UBO			
a. Plugged Line at Surface			
b. Solids Bridge Down Hole			
2. Incident Witness/Reporting Procedure (Emphasize: Do not attempt to handle on your own)			
V. Occupational Health.			
A. Employee's Health, Safety, and Environmental Responsibilities. (Review the site hazards specific to UBO.)			
1. Read/Check/Understand Work Permits on Receipt			
2. General Safety Briefings, All Safety Meetings Relative to Job Function.			
3. Work Instruction – Question to Understand			
4. Awareness – Site Specific Hazards			
a. Health Hazard Reporting			
5. Potential Hazards at the UBO Work Site			
a. Hydrogen Sulfide (H2S), Carbon Monoxide/Carbon Dioxide, Oxygen Enriched/Deficient Environment			
b. Diesel Mist (Oil-Based Mud, Diesel, and Nitrogen)			
c. Noise, Heat, and Vibrations from Compressors/Flares, etc.			
d. Inert Gas in Confined Space			
e. Changing Wind Conditions			
f. Leaks			
i. General			
ii. Flare Line, Flow Lines, etc.			
iii. Tanks, Vessels, etc.			
iv. BOP Stack, Rotating Diverter, Snubbing Stack			

Employee Name _____

Supervisor _____

Location _____

Topic	Employee Initials	Instructor Initials	Date
v. Fuel or Chemical Storage Tanks			
B. Work Permit Requirements Specific to UBO			
1. Pressure Testing			
a. Vessels and Lines with Gas			
b. BOP Stack and Valves			
c. Rotating Diverter			
2. Confined Space Entry			
a. Vessel or Mud Tank Entry			
b. Engine Enclosures			
c. Membrane Unit Enclosures			
d. Cellar			
3. Hot Work			
a. Around Vessels or Mud Tanks			
b. On or around the Rig			
c. Around Membrane Units			