

FPSOs and Other Offshore Assets: Certification and Readiness for the New Phase

Brian Baker | August 20, 2024

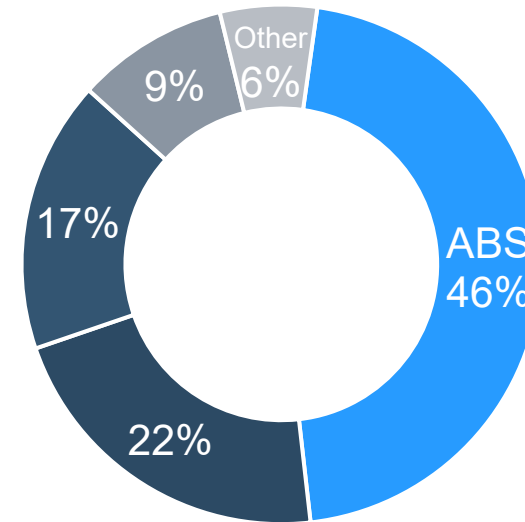


ABS

The American Bureau of Shipping

- Founded in 1862
- Marine Classification Society focused on the safety of people, asset and environment.
- ABS as a class society represents industry and develops standards (Rules) related to:
 - Design
 - Construction
 - Operational maintenance
- ABS verifies compliance with Class Rules for the life cycle of the asset.

- ABS is leader in classing offshore assets, including FPSOs and other production units:



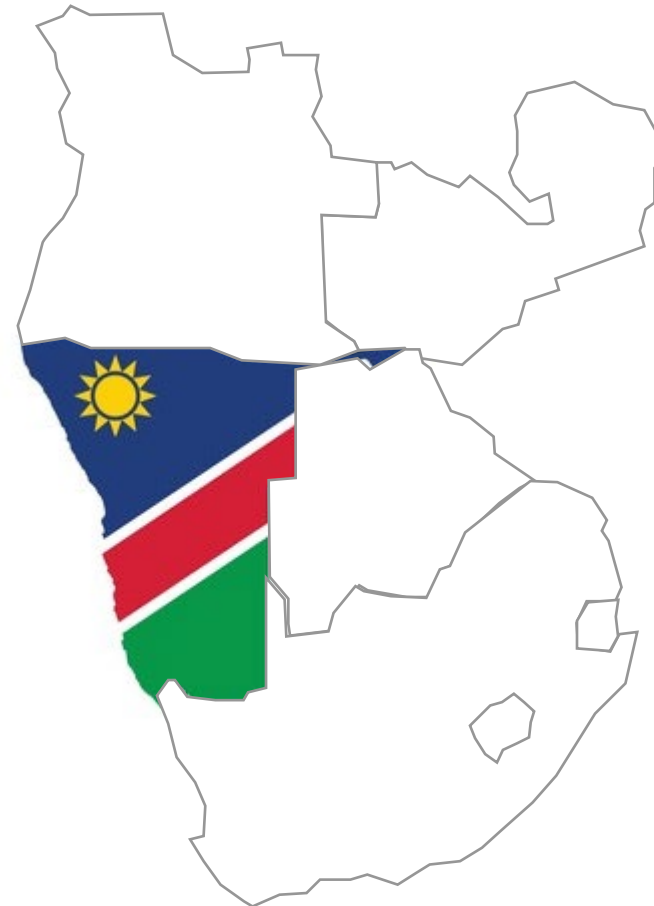
17 units in West Africa

O&G Industry is coming to town!



- Anchor Handlers
- Pipe-laying
- Subsea installation
- Crew boats
- Workboats

All these assets are required to be **Classed**



Focusing on FPSO Integrity Management



- Regular inspection regime
 - Thickness measurement to measure plate thickness to verify corrosion
 - NDE to detect anomalies such as cracks, fractures, etc.
 - Ultrasound, magnetic particles, liquid penetrant, etc.
 - Underwater inspections by divers
 - Testing Laboratories for materials, equipment, etc.
 - Remote inspection technology: drones, cameras, crawlers, etc.

• Continuous need for maintenance, upgrades and repairs

- Materials for structural repairs:
 - Steel plates, profiles, chains, etc.
- Equipment and components for maintenance and repair:
 - Valves, pipes, flanges, electrical devices, etc.
 - Pressure vessels, heat exchangers, electric motors, etc.



Local industry getting ready for the challenge

- Certification of materials
- Steel:
 - Certified at the mill, or tested by qualified testing laboratories
- Valves, electrical devices, etc.:
 - Certified following industry standards

• Certification of equipment

- Unit certification: case by case
- Type approval: ideal for repetitive supplies or serial production
 - Requirements:
 - Review design for compliance
 - Manufacturing and shop testing
 - List in ABS Type Approval website



Local industry getting ready for the challenge

- Qualification of labor and services

Services providers to the offshore industry are required to be approved as a **Service Supplier** by the Classification Society (in general)

- How to Become a Recognized Service Provider:

- Certification for the specific service
- Process:
 - Request certification
 - Documentation review
 - Facility audit
 - Satisfactory practical demonstration and performance
 - Listed in ABS Supplier website



Local industry getting ready for the challenge

- Fabrication yards, repair facilities and shipyards
- Welding procedures to be approved prior to fabrication or repair begins.
- Welders to be qualified to individual procedure.
- Material traceability to be established.
- Fabrication and assembly procedures to be approved.
- Inspection and Testing Plans (ITP) to be approved.



Key Takeaways

- To serve the offshore vessels, local industry needs to develop:
 - Certification processes
 - Qualification of labor and services
- Classification Rules have specific requirements, always having safety in mind.
 - Certification and qualification are Class Society specific
- Start early, get ready before the need arrives.
 - Certification processes duration depends on many factors
- Class can help with specific guidance.



Thank You

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