



OTC 18859

## How To Maximize the Benefit of Classification of a FPSO

Paulo Biasotto and Ulrik Frorup, Bureau Veritas

Copyright 2007, Offshore Technology Conference

This paper was prepared for presentation at the 2007 Offshore Technology Conference held in Houston, Texas, U.S.A., 30 April–3 May 2007.

This paper was selected for presentation by an OTC Program Committee following review of information contained in an abstract submitted by the author(s). Contents of the paper, as presented, have not been reviewed by the Offshore Technology Conference and are subject to correction by the author(s). The material, as presented, does not necessarily reflect any position of the Offshore Technology Conference, its officers, or members. Papers presented at OTC are subject to publication review by Sponsor Society Committees of the Offshore Technology Conference. Electronic reproduction, distribution, or storage of any part of this paper for commercial purposes without the written consent of the Offshore Technology Conference is prohibited. Permission to reproduce in print is restricted to an abstract of not more than 300 words; illustrations may not be copied. The abstract must contain conspicuous acknowledgment of where and by whom the paper was presented. Write Librarian, OTC, P.O. Box 833836, Richardson, TX 75083-3836, U.S.A., fax 01-972-952-9435.

### Abstract

Based on the experience gained during several FPSO projects over the previous years, this paper discusses the overall Classification services for a FPSO Project and, if carefully planned with the various actors (Project owner, EPCI and contractors) and balanced with the requirements to certification and verification, how they can provide added technical value and support project management.

Classification services for the construction of a seagoing tanker are standardized for overall process / project management and technical requirements. For the Classification of a FPSO, such services can be planned to maximize the benefit of having a third party partner along the entire execution of the project. The Classification requirements are to be balanced with the overall codes and standards applicable for the project to avoid any “grey” areas, and to address the maximum safety parameters. The services may incorporate review of drawings and inspection at the construction sites for all requirements coming from International Rules, National Authorities and Industry standards. Class can also adapt the services to fit with Asset Integrity Management plans or other planned programs for the operating units.

This paper defines the typical scope of Classification and discusses the different contractual setups of these services, such as enabling Class to communicate findings and surveyor comments directly to the Project Owner and/or EPCI. Class can play an important role as “messenger” improving communication between the different major contractors on the project. It is the aim that readers experienced with Classification of FPSO projects could use this paper as a check list for future projects and that offshore engineers inexperienced with Classification will get a more detailed view over these services and how they can benefit from them.

Finally contractual setup and organization in the Classification society should be followed up by application of an internet platform for centralizing drawing reviews and

certificate register, including all written communication for supporting of the Project Management. The project manager is to have access to the numerous project correspondences from all involved offices at any time.

### Codes and standards - project requirements

During the initial project preparations by the Project Owner, one of the important design tasks is to clearly identify the codes and standards to be applied in the project. For the floating unit the list is to include the following precisions:

- International Rules
- Flag state requirements
- Coastal state requirements
- Industry standards
- Classification notations

This list will support the project specification and be a reference document during the complete project. It should be provided with detailed reference of each code to assure that all contractors will refer to same editions. The list will help to clarify the deliverables in terms of certificates from the nominated Classification society and/or third-party certification agency.

By having this document available early in the project, it serves as a master reference for bids prepared by designers and shipyards. It is also recommended to have the Project Owner’s documents and specifications dealing with the interpretations of the industry standards and any Company particular requirements, as there seems to be a difference in the interpretations when comparing different FPSO projects. This is leaving room for uncertainties.

For the precision of the Classification notation, this is to be discussed with each considered Society as the exact scope of Classification for a FPSO may vary slightly between them. It appears that the bare minimum is the hull including marine systems and mooring. The principle is that the Owner together with the Classification Society will choose the most suitable marks and notation for the given service of the unit. The Owner may request additional notations and hereby extend the scope of Classification.

### Project requirements for Classification

In the following it is assumed that the project is to be classed, either due to requirement from flag or coastal state, or due to project owner’s corporate requirements. This decision is then incorporated into the project specification and needs to