API Shuttle Vessel Task Force: It's Work and Findings

Tricia Clark

American Shuttle Tankers



API Shuttle Vessel Task Force

Established by API's Marine Committee

- Work with MMS and USCG to facilitate understanding of offshore loading and associated tanker operations, especially those types of tanker operations that may ultimately operate in the Gulf of Mexico.
- Act as a resource during the period where vessel design and technical features are being reviewed



Task Force Members

- ◆ Task Force committee members represented cross section of offshore loading industry.
 - Representatives from nine major oil exploration, major oil and independent shipping companies participated.
 - Representatives from three classification societies provided class input.
 - All brought extensive knowledge of worldwide offshore loading and shuttle vessel operations.





Task Force Initiatives

- ◆ Gather and provide existing rules, regulations, guidelines for offshore vessel operations.
- ◆ Provide relevant sample documentation.
- ◆ Provide list/description of existing FPSO, FSO worldwide.
- ◆ Provide information on various offshore loading and tanker systems utilized in different locales and environments.
- **♦** Arrange for site visits.
- ◆ Identify operating conditions unique to Gulf of Mexico.
- ◆ Determine need for additional industry recommended practices.
- ◆ Provide a summary of findings.



Work Products

- ◆ Site visits to various installations worldwide arranged for regulatory personnel .
- ◆ Regulatory gaps assessment:
 - Best mechanism to accomplish several deliverables
 - Would complement previous FPSO regulatory gaps assessment completed by OOC
- ◆ Guidance for preparation of a joint operations manual:
 - Ability to combine existing best practices and standards
 - Suggested topics for inclusion



- ◆ There are several types of vessels which could make up the shuttle vessel fleet.
 - Tanker of convenience
 - Purpose built tanker
 - Purpose built tanker with BLS and DP
 - Articulated tug barge

Shuttle Tankers

Wide range in approach operators may take with GOM shuttle operations.



 Items which task force felt are adequately addressed through existing regulation, guidelines, class notations or best industry practices -

- Cargo transfer system
- Cargo transfer operation
- Helicopter operations
- Pollution prevention and response
- Safety equipment
- Vessel manning
- Onboard casualty response
- Mooring equipment
- Environmental considerations





◆ Though there are several items which are adequately addressed, operational specifics will need to be covered in joint operations

manual -

- Vessel design
- Emergency towing
- Communications
- Metocean elements
- Bow loading system
- Dynamic positioning
- Approach/departure
- Mooring Master





- ◆ In discussions it was felt there are several areas which will need to be specifically addressed from each field and/or shuttle vessel perspective.
 - Emergency towing capabilities
 - Offshore transfer location
 - DP training

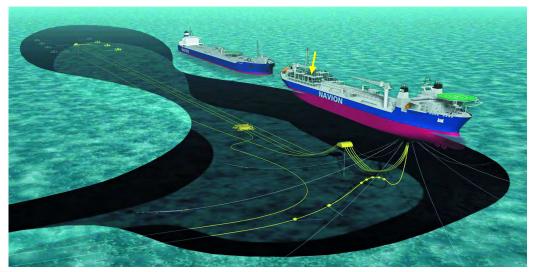
- Assist vessels
- Record keeping
- Field specific risks





Joint Operations Manual

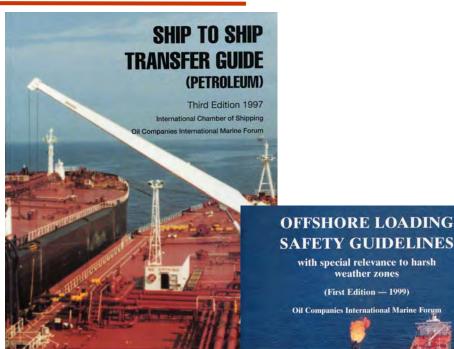
- ◆ Must take into account interactions between two vessels and the specifics of the subsea field.
- ◆ Many companies considering GoM operations have other operations in different parts of the world and have developed operations manuals for these operations. There is much which can be translated into expected GoM operations.
 - ◆ Standards
 - Best practices

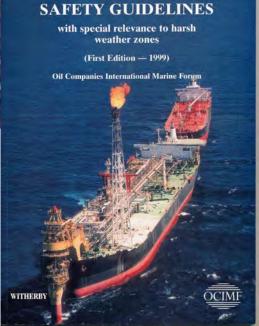




Existing Guidelines

- ◆ OCIMF Offshore Loading Safety Guidelines
- ✦ Risk Minimization
 Guideline for Shuttle
 Tanker Operations
 Worldwide at Offshore
 Locations INTERTANKO
- ♦ OCIMF Ship to Ship Transfer Guide







Proposed Chapter Headings

- → General description of installation and location
- Communications
- ◆ Approach and Departure Procedures for Shuttle Vessel
- ◆ Mooring Operations
- Hose Connection
- ◆ Loading and deballasting operations
- Hose Disconnect
- Unmooring
- ◆ Emergency procedures and contingency plans
- → Equipment descriptions
- Cargo Documentation
- ◆ Appendices checklists, figures, diagrams, field plan



Items for Inclusion in JOM

- ♦ HSE policy
- ◆ Definition of joint organization, showing interfaces
- ◆ Individual responsibilities within the joint operation
- → Standards to be met for risk management
- ◆ Environmental operating limitations and disconnect criteria
- ◆ Operating envelope and ESD limits
- ◆ Information and procedures for field support vessels, helo operations, etc.
- → Means of measuring safety performance
- ◆ Methods for auditing the joint operation
- ♦ System for reporting, investigating and sharing incidents
- → Mechanism for reporting and resolving deficiencies
- Training and certification of personnel
- Inspection of facilities and equipment



API Shuttle Vessel Task Force Summary

- ◆ Task Force believes FPSOs and shuttle vessels must be treated on a total system basis.
- ◆ Task Force did not identify any gaps which might need to be addressed with new regulatory initiatives.
- ◆ Issues identified are operational in nature and can be effectively dealt with through the Joint Operations Manual.
- ◆ Operations are not new, we just need to "tweak" them for expected GoM operations.
- ◆ Develop system performance specifications



What Next?

- ◆ USCG and MMS to keep both industry groups, OOC and API, advised as to regulatory progresses.
- ◆ Utilize expertise of both industry groups as issues arise.
- ◆ API Shuttle Vessel Task Force should stay abreast of developments taking place in other operational areas and be prepared to address applicability for possible GoM operations
- ◆ As it becomes apparent an FPSO for the GoM is imminent with a shuttle vessel as the transportation solution, both the field operator and shuttle vessel operator will need to begin active discussions so development of joint operations manual can begin.

American

Shuttle Tankers