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OPERATIONS STANDARD

Approval

Approved for the Alaska Asset

Shell Exploration & Production Company	Approved	Date
Dwight Johnson – Operations Services Manager	<i>Original signed.</i>	<i>9th July 2009</i>
Peter Slaiby - General Manager	<i>Original signed</i>	<i>9th July 2009</i>

*** Note * Original signed copy of this procedure is filed**

Effective

9th July 2009

Compliance Date

9th July 2009

Expires

In force until revised and/or superceded.


Custodian

Alaska Venture Marine Logistics

Author

Kaighin, John : Marine Contracts Manager Alaska

Continued on next page

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Reviewers


Fox, Rick : Alaska Venture Asset Manager
Edmondson, Jon : Alaska Project Coordinator
Miner, Kate : Alaska Logistics Manager
Finlayson, Callum : EPW Marine Manager
Purvis, Travis : Well Delivery Manager Alaska
Craddock-Melin, Lynn : Marine Contracts Manager, Alaska
Flynn, Dan : EPW Regional Logistics Manager
Jean, Lucy : Alaska Venture, Environmental Engineer

Topic Define & formalise minimum technical criteria for all Alaska Venture vessels.

Purpose/Scope The purpose of this Operations Procedure is to provide a consistent, safe method for full marine compliance with Statutory, EPW (OPS 11) and Alaska Venture operating/permitting requirements. Facilitating fully functional, fit for workscope vessels for all Alaska venture operations.

Applies to This document applies to all Shell employees and contractors conducting operations on behalf of the Shell Alaska Venture.

Primary Responsibility Alaska Venture Marine Logistics supervision shall be responsible for assuring that this procedure is provided and that operators are instructed to use this procedure prior to all marine operations.

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VESSEL QUALITY ASSURANCE

The EPW Vessel Quality Assurance Process (Attachment 1) shall be followed to determine vessel suitability for employment by the Alaska Venture. As per the Assurance Process for the bulk transportation of hydrocarbons the Shell Standard for Ship Quality Assurance shall apply.


VARIANCE

Any variance from these Alaska Venture Vessel Minimum Technical Criteria shall be subject to a formal evaluation and risk assessment by the EPW Marine Manager and formally approved by the Alaska Venture Asset Manager.

DEFINITIONS


- Shall** Indicates mandatory; requires approval to deviate
- Should** Indicates good practice, which should be followed wherever practical; recommended action
- May, Can** Indicates optional guidance; to be considered
(Reference EP Business Control Document Standard - Sept 08)

Vessel : All platform supply Vessels, anchor handler tug supply Vessels, standby Vessels, multi-role Vessels, passenger carrying craft including hovercraft, maintenance Vessels, harbour tugs, line handling boats, pilot boats, swamp boats, riverine craft, icebreakers, marine crafts used for company sponsored recreational activities. It also applies to the core marine elements of geophysical surveying Vessels, diving support Vessels, jackup rigs, semi-submersible units, flotels, hook-up (crane/lift) barges, pipe laying and rock dumping barges, Floating Production, Storage and Offloading Units (FPSOs) and Floating Storage Unit (FSUs).
(Reference EP2005-262-ST).

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EQUIPMENT	CRITERIA
<i>Hull</i>	<p>Tanks in all self propelled Vessels used for carrying fuel (cargo and for propulsion) <u>shall</u> be separated or capable of being separated from the hull.</p> <ul style="list-style-type: none"> • Vessels should comply up to 1st January 2014 • Vessels shall comply after 1st January 2014
<i>Propulsion</i>	<p>Self propelled Vessels <u>shall</u> have a minimum two independent main propulsion units driving two independent propellers</p> <p>OR</p> <p><u>Shall</u> have a single propulsion unit AND Minimum one azimuth thruster of capacity to maintain the vessels position in at least Beaufort Force 4 conditions.</p> <p>Vessels <u>should</u> have at least one thruster located at the forward part of the vessel, capacity to maintain the vessels position in Beaufort Force 4 conditions.</p>
<i>Potable Water</i>	<p>Fixed potable water system required for drinking and washing with capacity for all crew, supernumeraries, operational roles and endurance. Capacity and endurance <u>shall</u> be defined by workscope.</p>
<i>Minimum Speed</i>	<p>Self propelled Vessels including tugs <u>should</u> be capable of 8 kts in at least Beaufort Force 4 conditions. Includes Tugs when not engaged in towing operations.</p>
<i>Transfer Hoses</i>	<p>FUEL HOSES – where fitted Vessels <u>shall</u> have the following :</p> <ol style="list-style-type: none"> a) Hose’s compliant with EP2005-262 inspection & retirement protocol. b) Standard connections “DRY LOCK” (or of similar type). c) Breakaway coupling (minimum 1). <p>BULK – where fitted Vessels <u>shall</u> have the following :</p> <ol style="list-style-type: none"> a) Hose’s compliant with EP2005-262 inspection & retirement protocol. b) Standard connections “CAM LOCK” (or of similar type).

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EQUIPMENT	CRITERIA
<i>Discharge of Ballast Water and Sewage</i>	<p>GREY WATER :</p> <p>Phosphate-free cleaning agents <u>shall</u> be used onboard the Vessel.</p>
	<p>SEWAGE :</p> <p>Vessels <u>shall</u> comply with all USCG and IMO (MARPOL) definitions, rules & regulations. In addition the following shall apply :</p> <ol style="list-style-type: none"> 1. No <u>untreated</u> sewage shall be discharged into the sea at any time within the Chukchi Sea and the Canadian & US Beaufort Seas. 2. Sewage may be discharged following : <ol style="list-style-type: none"> a. treatment onboard in a “sewage treatment plant” <p>OR</p> <ol style="list-style-type: none"> b. retained in a “holding tank” on minimum capacity of 30days for discharge ashore 3. Sewage treatment plants and holding tanks shall comply with the requirements of MARPOL ANNEX IV, Regulation 9, 1.1 & 1.3. 4. Chlorine shall not be used onboard vessels for general cleaning of the sewage system or associated connected systems. 5. As a minimum sewage systems shall be subject to annual re-validation and testing in compliance with the parameters recorded in the Sewage Approval Certificate (MARPOL ANNEX IV & IMO MEPC 159) or equivalent USCG requirements.


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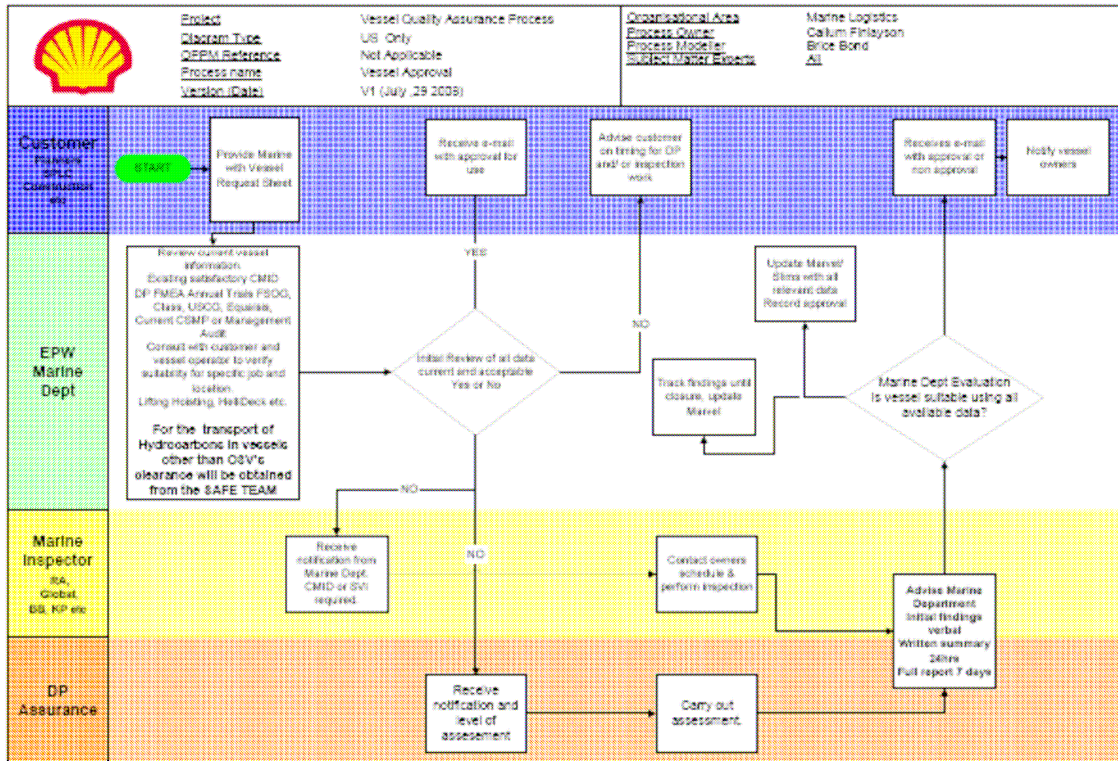
	<p>BALLAST WATER :</p> <p>Vessels shall comply with the IMO – International Convention for the Control and Management of Ships Ballast Water and Sediments.</p> <p>Vessels shall comply with the requirements detailed in the US EPA – General Vessel Permit Section 2.2.</p>
<i>Waste Management</i>	<p>Handling and disposal of garbage shall be conducted in accordance with Local, International and the Shell Procedures and Processes as detailed in the Alaska Compliance Manual. All Vessels shall have a Waste Management Plan that meets Shell requirements.</p> <p>All shipboard garbage shall be disposed of at Shell approved sites.</p> <p>Victualing Waste : Disposal of Victualing (food) waste shall be in accordance with MARPOL ANNEX V Regulation 3 and 4. No disposal within the MODU 500m zone or within 12 miles of the shore.</p>
<i>Environmentally Friendly Hydraulic Fluid</i>	Vessels <u>should</u> use environmentally friendly hydraulic oil suitable for low temperature Arctic environments.

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EQUIPMENT	CRITERIA
<i>Owner and Vessel Management Systems</i>	Shall be compliant with Local and International Maritime Regulations.
	All Owners with vessels of 500 gross tonnes or above shall be International Safety Management (ISM) accredited. Owners with vessels below 500 gross tonnes shall operate as a minimum under an HSE Management System.
	Shall be fully compliant with the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW 95)
<i>Communications</i>	<p>The Vessel shall be fitted with all necessary installation and systems for communication and operation according to both US and International rules and regulations. EPIRB must be capable of operating in the Arctic Environment</p> <p>Vessels should be fitted with the following :</p> <p>GENERAL</p> <ul style="list-style-type: none"> • Two independent fixed VHF sets Marine Band radio with DSC • MSAT / Tag Phone • Iridium fixed base unit (SC4000 or better) • Electronic Data Transfer system - minimum 64 kilobits per second MPDS <p>SAFETY / EMERGENCY</p> <ul style="list-style-type: none"> • One Search and Rescue (Radar) Transponder (SART). • Electronic man-overboard (MOB) alarm system • One portable marine VHF transceiver per lifeboat /raft plus one spare • Aviation VHF frequencies

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Attachment 1 : Vessel Assurance Process



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