**Approved By:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| [Approval Link](https://ge.ent.box.com/folder/49795229279) |  | [Approval Link](https://ge.ent.box.com/folder/49795229279) |  |  |
| **Chris Conner**  Senior Engineer - Customer Project Support BHGE - Jandakot |  | **Viraj Gharat**  QMS Lead Jandakot |  |  |

For any feedback to the process, or the document, please contact the process owner –

APAC SPSS Quality Lead

|  |  |  |
| --- | --- | --- |
| APPLICABLE PRODUCT LINES | | |
| Subsea Drilling Systems | Subsea Production Systems (SPS) | |
| Subsea Services & Offshore Equipment | Trees | Controls |
| Flexible Pipe Systems | MCS | Projects |
| Surface Pressure Control  Subsea Production Systems (SPS) |  |  |

**Document Revision Chart:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Rev | Section modified and revision description | Issue date | Expiry date | Author(s) |
| 1.0 | New issue | 21.11.2017 | 20.11.2020 | T Sims |
| 2.0 | Changed process owner from Lead Process Improvement Specialist – Quality (Jandakot) to APAC SPSS Quality Lead.  Added APAC, OFE and SPSS to Section 6.2 Terms, definitions & acronyms.  Section 2 added clarification to sentence - This document is intended to compliment ITO, RFQ, OTR, Sourcing, Engineering and Quality processes & functions **for OFE SPSS Jandakot**.  Section 3.2 b – Removed sentence ‘Certification of a 2.7-3 POU may only be completed by DNVGL’. Replaced with – ‘Refer to DNVGL-ST-E273 Section 1.1.2 ‘Users and use of this standard’ for guidance’.  Removed reference to OGQ-0102 and OGQ-0116 | 14.06.2018 | 13.06.2021  (or revision to DNVGL-ST-E273 Edition April 2016) | TSims |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

**Table of Contents**

[1 Purpose / outcome 4](#_Toc493606408)

[2 Scope & applicability 4](#_Toc493606409)

[3 Process overview / definition 4](#_Toc493606410)

[3.1 Process overview 4](#_Toc493606411)

[3.2 Process definition – Procuring and validating compliance for a certified 2.7-3 POU 5](#_Toc493606414)

[4 Roles & responsibilities 7](#_Toc493606415)

[5 Quality records 7](#_Toc493606416)

[6 References, terms, definitions & acronyms 7](#_Toc493606417)

[6.1 References 7](#_Toc493606418)

[6.2 Terms, definitions & acronyms 8](#_Toc493606419)

[7 Appendix 8](#_Toc493606420)

**Notice**

*This document is strictly confidential and is the property of BHGE, and no person shall have any right to disseminate, reproduce, quote, report or in any manner whatsoever utilise or rely on the contents of this document to any third party (other than Parties to the Contract) without the prior written authorisation of BHGE. In no circumstances shall the use of this document by any person or by BHGE in any presentation, meeting or discussion with any person imply that any such authorisation is given. BHGE retains all rights to any intellectual property that may be contained in this document. The document disclosure if made, is deemed to be made on a without prejudice basis. This document is aimed at providing an insight into BHGE quality processes and procedures. It is not intended and cannot be construed as in any way expanding Parties obligations beyond that set out in the relevant Contract(s) for the Project, and the provisions of such Contract(s) are deemed to prevail over this document at all time*

# Purpose / outcome

The purpose of this information document is to provide guidance to persons involved in the certification process of a 2.7-3 POU in accordance with DNVGL-ST-E273 Edition April 2016.

Full compliance to this work instruction / procedure required by –

*Not applicable … guidance information only*.

# Scope & applicability

This information document is intended to provide guidance only in relation to:

1. Procuring a 2.7-3 POU certified in compliance with DNVGL-ST-E273.
2. Validating compliance of a certified 2.7-3 POU.

This document is intended to compliment ITO, RFQ, OTR, Sourcing, Engineering and Quality processes & functions for OFE SPSS Jandakot.

This document does not replace any requirement of DNVGL-ST-E273, the applicable PBCS (Technical Regulations & Standards), Customer specified requirements or BHGE functional requirements.

# Process overview / definition

## Process overview

## The defined process requirements for 2.7-3 POU certification are located in DNVGL-ST-E273.

## Section 3.2 of this document outlines the areas of manufacturer responsibility in relation to DNVGL inclusive of BHGE oversight. The level of BHGE oversight is dependent on supplier maturity, defined risk and where applicable Project / Customer specified requirements.

## Process definition – Procuring and validating compliance for a certified 2.7-3 POU

|  | Process Start/Stop | Quote (See Sect 6.2) | Sourcing | Engineering | Quality | Manufacturer | DNVGL | **NOTES –**  Numeric ‘Ref’ refers to the applicable DNVGL-ST-E273 Section. |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Process Step Connector |
| Decision Point |
| Ultimate Step Responsibility |
| Key Step Contributor |
| Ref | Activity | Responsibility | | | | | | Additional Requirements & Links |
| a | Identify requirement for a certified 2.7-3 POU.  (Identify as BHGE or vendor design). |  |  |  |  |  |  | Reference shall be made to the relevant PBCS and/or customer specified requirement.  In the absence of regulatory or customer specified requirements the decision to procure a certified 2.7-3 POU shall be based on business impact and risk. |
| b | Specify part requirement for a certified 2.7-3 POU |  |  |  |  |  |  | Note:  Refer to DNVGL-ST-E273 Section 1.1.2 ‘Users and use of this standard’ for guidance.  Certification requires POU’s to be designed, manufactured, tested and marked in compliance with DNVGL-ST-E273. |
| c | Communicate requirement for a certified 2.7-3 POU  (RFQ, PO stage) |  |  |  |  |  |  | It is recommended to clearly reference to the requirements of DNVGL-ST-E273 Section 2  ‘Approval and Certification Procedures’. |
| 2.1.1 | Application for approval and certification |  |  |  |  |  |  | BHGE should confirm compliance to this certification step requirement.  DNVGL will consider the application in accordance with 2.1.2 ‘Approval schemes’. |
| 2.2 | Documents for approval and information |  |  |  |  |  |  | BHGE should confirm compliance to this certification step requirement.  ‘Required design documentation’ is detailed in DNVGL-ST-E273 Section 2.2.2  HOLD  Design approval required with BHGE Engineering to ensure item is fit for purpose.  This represents completion of the full BHGE or Vendor engineering detail design phase (i.e. Design must be fully complete and DNVGL reviewed with comments incorporated where appropriate). |
| 2.3 | Issue Design Verification Report |  |  |  |  |  |  | BHGE should validate compliance to this certification step requirement. |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 2.4.1 | Production control |  |  |  |  |  |  | The Manufacturers Quality Plan (or ITP) shall be reviewed by DNVGL to ensure both Production control and Production inspection can be properly verified/validated.  HOLD  Dependent on supplier maturity, verified capability and risk profile it is recommended that:   1. BHGE review the ITP 2. A PPM is completed (including DNVGL attendance if applic) prior to manufacture. |
| 2.4.2 | Production inspection |  |  |  |  |  |  | BHGE should validate compliance to this certification step requirement. |
| 2.4.3 | Testing |  |  |  |  |  |  | BHGE should validate compliance to this certification step requirement. |
| 2.4.4 | Certificate and DNVGL marking |  |  |  |  |  |  | BHGE should validate compliance to this certification step requirement. |
| d | Issue MRB |  |  |  |  |  |  | The MRB shall meet the BHGE Sourcing requirements for vendor documentation.  The MRB shall meet any project or customer specified requirements.  The MRB shall include all evidence of DNVGL approval and certification for a 2.7-3 POU |

# Roles & responsibilities

| Key Role | Responsibility |
| --- | --- |
| Sourcing | Communicate manufacturing requirements.  Facilitate PPM.  Validate certification compliance with Quality. |
| Quality | Oversight in-process compliance (risk dependent).  Verify / validate documentation. |
| Engineering | Part requirement specification. |

# Quality records

| Record | Owner | Storage location |
| --- | --- | --- |
| Not applicable to this information guideline.  Note - Quality Records (e.g. MRB) mentioned in this document are defined as a requirement in applicable procedures and/or work instructions. |  |  |

# References, terms, definitions & acronyms

## References

| Number | Name | Training material & quiz |
| --- | --- | --- |
| n/a | BH[GE O&G QMS Lexicon](http://supportcentral.ge.com/@lexicon) | n/a |
| n/a | [Subsea Systems & Drilling QMS Lexicon](http://libraries.ge.com/download?fileid=697340101101&entity_id=55721334101&sid=101) | n/a |
| DNVGL-ST-E273 Edition April 2016 | 2.7-3 Portable offshore units |  |
| ITP-U106905 | GENERIC INSPECTION AND TEST PLAN  DNVGL-ST-E273 (APRIL 2016) PORTABLE OFFSHORE UNIT | Available in ePIMS |
|  |  |  |

## Terms, definitions & acronyms

Italicized terms have been defined in [BHGE QMS Lexicon](http://supportcentral.ge.com/@lexicon) for Terms, Definitions and Acronyms. In case of conflict with [BHGE QMS Lexicon](http://supportcentral.ge.com/@lexicon). For this document, the below table will take precedence.

| Acronym | Term | Definition |
| --- | --- | --- |
| 2.7-3 |  | Portable Offshore Unit per DNVGL-ST-E273 Edition April 2016 |
| APAC | Asia Pacific |  |
| BHGE | Baker Hughes a GE Company |  |
|  | Certified 2.7-3 POU | A POU designed, manufactured, tested and marked in compliance with DNVGL-ST-E273 Edition April 2016.  Certification may only be issued by DNVGL |
| DNVGL |  | Certification authority for POU’s |
| ISL | Integrated Services Lead |  |
| ITO | Inquiry to Order |  |
| ITP | Inspection & Test Plan |  |
| MRB | Manufacturing Record Book |  |
| ODM | Operations Delivery Manager |  |
| OFE | Oilfield Equipment |  |
| OTR | Order to Remittance |  |
| PBCS | Product Baseline Compliance Specification |  |
| POU | Portable Offshore Unit |  |
| PPM | Pre-production meeting |  |
|  | Quote | Process of defining scope related to part, customer and TRS requirements. This activity can be a combination of ODM, ISL, ITO, Quality, Engineering and other stakeholders as required. |
| RFQ | Request for Quotation |  |
| SPSS | Subsea Production Systems & Services |  |
| TRS | Technical Regulations and Standards |  |

# Appendix

Not applicable