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|  |  |  |
| --- | --- | --- |
| APPLICABLE PRODUCT LINES | | |
| ☐ Subsea Drilling Systems | Subsea Production Systems (SPS) & Subsea Services (SRV) | |
| ☐ Surface Pressure Control & Offshore | ☐ Trees | ⊠ Controls |
| ☐ Flexible Pipe Systems (FPS) & Wellstream Construction Services (WCS) | ☐ MCS | ☐ Projects |
| ☐ Subsea Production Systems (SPS) & Subsea Services (SRV) | ☐ Subsea Services | |

**Document Revision Chart:**

|  |  |  |  |  |
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**Table of Contents**

[1 Purpose / Outcome 3](#_Toc523312540)

[2 Scope & Applicability 3](#_Toc523312541)

[3 Process Overview 4](#_Toc523312542)

[4 Exceptions 5](#_Toc523312543)

[5 Quality Records 5](#_Toc523312544)

[6 References, terms, definitions & acronyms 6](#_Toc523312545)

[6.1 References 6](#_Toc523312546)

[6.2 Terms, definitions & acronyms 6](#_Toc523312547)

[7 Appendix 8](#_Toc523312548)

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# Purpose / Outcome

Teamcenter has 3 levels of release; Preliminary Release, Intermediate Release and Approved Release. The high-level definitions of these release levels are:

|  |  |
| --- | --- |
| Preliminary Release (Oracle PS 7) = | Design in progress, do not purchase/manufacture |
| Intermediate Release (Oracle PS 6) = | Manufacture in House: Design complete, part ready for build |
|  | Purchased Item: Requirements specification complete, part ready for PO placement |
| Approve Release (Oracle PS 0) = | Manufacture in House: Validation and Verification complete, part ready for shipping |
|  | Purchased Item: Design and Validation & Verification complete, part ready for PO receipt |

The intent of the work instruction is to give more detail to what is required to achieve intermediate and approved released and when these different release levels should and should not be used.

# Scope & Applicability

This process refers only to the requirements and consequences of using intermediate release and approve release on product or manufacturing parts, for various part categories.

NOTE: All documents and designs/drawings linked to a part, need to be approved before a part can be sent for either intermediate or approve release. Neither documents nor designs can be linked to a part after it has been released by any person in any role. The part must be uprev’ed to be able to link more documents/designs.

This work instruction does **not** cover any other stages of the part lifecycle, other part types or other parallel processes, including:

* Planning BOM transfer
* Project Parts
* Software Parts
* Special Customer Requirements
* Design Process Plan (DPP)
* Document and design lifecycle

For details on these processes please refer to the appropriate work instructions.

# Process Overview

\*\*For further details of Oracle functionality at all part statuses/release levels, refer to appendix.

|  | | Intermediate Release (Oracle PS 6) | | Approve Release (Oracle PS 0) | |
| --- | --- | --- | --- | --- | --- |
| Part Category | Part Sub-Category | Requirement to Achieve Release Level | Oracle Functionality at PS6\*\* | Requirement to achieve release level | Oracle Functionality at PS 0\*\* |
| BHGE Specified Vendor Designed |  | * CDR Approved * Requirements Spec Released (e.g. DRL, FDS, SDRL, Quality Requirements etc.) | * POR can be released from ASCP * Quote and Place PO * Cannot receipt PO | * All Eng docs code 1 (inc. design, test, handling and operation documents) * EPC Approved and DPP closed * MRB not required * FAT results not required | Part can be PO receipted |
| BHGE Designed Vendor Manufacture | Project Specific Assembly | * Follow requirements of DPP * If DPP is complexity level 2 or higher, only CDR required | * POR can be released from ASCP * Quote and Place PO * Cannot receipt PO | * DVR Complete * DPP Closed | Part can be PO receipted |
| NPI Product | * DDR completed and DPP approved |
| Component – no in-house Validation | * Design engineering complete * DPP approved where applicable |
| Component - with in-house Validation | Intermediate release not to be used | | * Design engineering complete * DPP approved where applicable | PO can be placed & PO receipted |
| BHGE Designed Manuf. In House | Top level assembly | * DDR completed and DPP approved * All child parts at minimum Intermediate release * All docs and designs released | * Carry out PPM * Work Order can be released from ASCP * Kit, manufacture, book to stock * Cannot Ship | * DVR Complete (Without EFAT) * DPP Closed | Part can be shipped |
| Sub-assembly same team | Intermediate release not to be used | | All engineering complete | Part can be manufactured |
| Sub-assembly different team | * DDR completed and DPP approved * All child parts at minimum Intermediate release * All docs and designs Approve, Released in Teamcenter | * Carry out PPM * Work Order can be released from ASCP * Kit, manufacture, book to stock * Cannot Ship | * DVR Complete (Without EFAT) * DPP Closed | Top level part can be approved released |
| Vendor Designed Off the Shelf |  | Intermediate release not to be used | | All engineering complete | PO can be placed & PO receipted |

# Exceptions

The following processes are considered out of scope for control via use of intermediate and approved release:

1. Vendor qualification: If a new vendor is brought online the qualification of their manufacturing processes and quality controls shall be controlled out with this process
2. Quality inspections and approval: Verification of manufacture, either in house or at a third party shall be controlled out with this process
3. In house qualification of BHGE designed vendor manufactured parts: Since a part requires approve release to receipt the PO (and subsequently pay the vendor), the part must be given approve release prior to qualification being complete if the qualification is being managed by BHGE. This includes where this is being undertaken at a separate 3rd party to the manufacturer, such as a test house

# Quality Records

The following is a summary of records produced by this work instruction that shall be maintained and controlled according to the requirements of BHGE-QUA-013 Control of records. All records shall be in line with Records location map relevant for the site/organization.

No records required by this work instruction.

# 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 |
| --- | --- | --- |
| ASCP | Advanced Supply Chain Planning | - |
| - | BHGE Designed Manufactured in House | BHGE both designs and manufactures the part. This includes both assembly and in-house machining  Examples: Subsea Control Module, Tree, Master Valve Block, Surface Modem Unit, Choke Module |
| - | BHGE Designed Vendor Manufacture | BHGE are the design authority and the vendor is only responsible for manufacture  Examples: Connections Systems (Turn-key contract), SCM Podlock, MVB Forging |
| - | BHGE Specified Vendor Designed | The vendor is the design authority; however, the design is bespoke and based on BHGE requirements specifications. The process is the same regardless of whether the Vendor retains the IP or this is subsequently given to BHGE  Examples: Hydraulic Power Unit, Wet Gas Flow Meter, Subsea Landing String |
| - | Component - No In-house Validation | BHGE are design authority and once part is received by BHGE there will be no further validation to be completed. This may because there are no validation actions required or because the design validation is being undertaken by the vendor.  Examples: SCM Hydraulic Manifold, ROV override, 19” racking |
| - | Component – with In-house Validation | BHGE are design authority and further design validation is required once the part has been received by BHGE  Examples: SCM Podlock, PCB, Riser pipe |
| CDR | Concept Design Review | - |
| DPP | Design Process Plan | - |
| DRL | Design Requirements List | - |
| DVR | Design Verification Review | - |
| DDR | Detailed Design Review | - |
| EPC | Engineering Package Closeout | - |
| EFAT | Extended Factory Acceptance Test | - |
| FAT | Factory Acceptance Test | - |
| FDS | Functional Design Specification | - |
| MRB | Manufacturing Record Book | - |
| MVB | Master Valve Block | - |
| - | NPI Product | Any newly designed product, either on project or as part of an NPI Programme  o Examples: Any newly designed product |
| PS | Part Status | - |
| PPM | Pre-Production Meeting | - |
| PDR | Preliminary Design Review | - |
| PCB | Printed Circuit Board | - |
| - | Project Specific Assembly | Configuration of existing products (possibly including new design items, but not new products)  Examples: Stab-plates, Electrical Flying Leads, Product Structured Tree |
| PO | Purchase Order | - |
| POR | Purchase Order Request | - |
| ROV | Remote Operated Vehicle | - |
| - | Sub-assembly Different Team | A sub-assembly which is being designed and managed by a distinctly separate team to the top-level assembly  Examples: Subsea Electronics Module (part of SCM), SCM Mounting Base (part of Tree or Manifold), Connection Termination (Part of Tree or Manifold) |
| - | Sub-assembly Same Team | A sub assembly which is being designed and managed by the same team as the top-level assembly  Examples: Surface Modem Unit, Master Valve Block, Clamp Connector Assembly |
| SCM | Subsea Control Module | - |
| SDRL | Supplier Documents Requirements List | - |
| - | Top Level Assembly | The highest-level part on the BOM, which in turn is linked to the project BOM and/or the sales order (excluding spares which form part of another assembly for the main deliverables)  *Examples: Subsea Control Module, Tree, Manifold, Porch* |
| - | Vendor Designed Off The Shelf | The vendor is the design authority and all design and verification is completed by the vendor prior to PO placement  *Examples: Threaded Fastener, Resistor, Capacitor, Hydraulic Instrumentation, I-Beam* |

# Appendix

Oracle Transactions by Release Level

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Teamcenter Status** | **Approved** | Obsolete | Obsolete | **N/A** | **Intermediate** | **Preliminary** | N/A | N/A |
| **ePIMS Part Status** | **0** | 1 | 3 | **5** | **6** | **7** | 2 | 4 |
| **Oracle Pascal Item Status** | **Active\_0** | Active\_1 | Inactive\_3 | **Planning\_5** | **Engg\_6** | **Engg\_7** | Active\_2 | Active\_4 |
| **Oracle Actions** |  |  |  |  |  |  |  |  |
| BOM Allowed | **X** | X | X | **X** | **X** | **X** | X | X |
| Build in WIP | **X** |  |  |  | **X** |  |  |  |
| Customer Orders Enabled | **X** | X |  |  |  | **X** |  |  |
| Internal Orders Enabled | **X** | X |  |  | **X** | **X** |  |  |
| Invoice Enabled | **X** | X | X |  |  |  | X |  |
| Process Execution Enabled | **X** |  |  |  |  |  |  |  |
| Purchasable | **X** |  |  |  | **X** |  |  |  |
| Recipe Enabled | **X** |  |  |  |  |  |  |  |
| Stockable | **X** | X | X |  | **X** |  | X | X |
| Transactable | **X** | X | X |  | **X** |  | X | X |