

RECOMMENDED PRACTICE
DNV-RP-E102

RECERTIFICATION OF BLOWOUT
PREVENTERS AND WELL CONTROL
EQUIPMENT FOR THE US OUTER
CONTINENTAL SHELF

JUNE 2010

DET NORSKE VERITAS

FOREWORD

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- J) Cleaner Energy
- O) Subsea Systems

Amendments and Corrections

This document is valid until superseded by a new revision. Minor amendments and corrections will be published in a separate document normally updated twice per year (April and October).

For a complete listing of the changes, see the "Amendments and Corrections" document located at:
<http://webshop.dnv.com/global/>.

The electronic web-versions of the DNV Offshore Codes will be regularly updated to include these amendments and corrections.

The electronic pdf version of this document found through <http://www.dnv.com> is the officially binding version
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1. Introduction

The purpose of this document is to describe DNV's recommendations for recertification of BOP and well control equipment used in drilling operations on the US Outer Continental Shelf.

It is DNV's recommendation that a recertification of blowout preventers and well control equipment used for drilling, completion, workover and well intervention operations, should be performed at least every five years. The purpose of this recertification is to verify and document that the equipment condition and properties are within the specified updated acceptance criteria as well as recognized codes and standards, thus ensuring that documentation of the condition of the equipment is available at all times.

2. Definitions, abbreviations and references

2.1 Verbal forms

<i>Shall</i>	Verbal form used to indicate requirements strictly to be followed in order to conform to this RP and from which no deviation is permitted, unless accepted by all involved parties.
<i>Should</i>	Verbal form used to indicate that among several possibilities one is recommended as particularly suitable, without mentioning or excluding others, or that a certain action is preferred but not necessarily required.
<i>May</i>	Verbal form used to indicate a course of action permissible within the limits of this RP.

2.2 List of Abbreviations

BOP	Blow Out Preventer
CoC	Certificate of Conformance
DNV	Det Norske Veritas
DOI	US Department of the Interior
PT	Penetrant Testing
ET	Eddy Current Testing
ITP	Inspection and Test Plan
MT	Magnetic Particle Testing
NDT	Non Destructive Testing
MMS	US Minerals Management Service
OCS	US Outer Continental Shelf
OEM	Original Equipment Manufacturer
PMI	Positive Material Identification
PWHT	Post Weld Heat Treatment
QA	Quality Assurance
QC	Quality Control
RP	Recommended Practice
QP	Quality Plan
RT	X-ray, Radiographic Testing
UT	Ultrasonic Testing
WCP	Well Control Package
WO	Work Over
WOCS	Work Over Control System
WOS	Work Over System
WPQR	Welding Procedure Qualification Record
WPS	Welding Procedure Specification

2.3 Definitions

Well Control Equipment	All equipment used to control well pressure during drilling, well testing, completion, workover, and well intervention activities.
Contractor	Company undertaking the contract and any sub contractors engaged in work covered by this RP.
Owner	Owner company or the engineering agency in charge of equipment. The Owner may act through a consultant, an inspector or other authorized representative.
Third Party	Class Society, Organization, or person who is separate and independent from the Owner and Contractor. The 3 rd party can verify compliance to this RP, and, if required, issue a recertification completion report.
Repair	Correct or mend an item that is damaged, or does not meet the specified acceptance criteria.
NDT	None destructive testing (e.g. inspection of materials/welds).
Heat treatment	Controlled heating and cooling of materials for the purpose of changing physical or mechanical properties.
Component	Individual piece used in the assembly.

2.4 Reference standards/ documents

- 1) ISO 9001, Quality management systems Requirements
- 2) US Department of the Interior Mineral Management Service - "Increased Safety Measures for Energy Development on the OCS" NTL No. - 2010-N05, dated 8 June, 2010
- 3) US Department of the Interior "Increased Safety Measures for Energy Development on the Outer Continental Shelf", dated 27 May, 2010
- 4) API Specification 6A/ ISO 10423 "Specification for Well-head and Christmas Tree Equipment"
- 5) API Specification 16A/ ISO 13533 "Specification for Drill Through Equipment"
- 6) API Specification 16C "Choke and Kill System"
- 7) API Specification 16D "Specification for Control Systems for Drilling Well Control Equipment and Control Systems for Diverter"
- 8) API Specification 16F "Specification for Marine Drilling Riser Equipment"
- 9) API RP 53, Recommended Practices for Blowout Prevention Equipment Systems for Drilling Wells.

Guidance note:

Reference to, and use of the above documents and standards is intended to be to the "latest revision and updates".

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2.5 Specific statutory requirements

Specific requirements, short or long term, may at any time be imposed by statute or regulation and should be taken into account in determining the extent and scope of recertification.

An example of such requirements is contained within the US Department of the Interior "Increased Safety Measures for Energy Development on the Outer Continental Shelf" and Mineral Management Service "Notice to Lessees and Operators - NTL No. - 2010-N05", ref 2 and 3.

3. Equipment subject to recertification

All blowout preventers and well control equipment used during drilling, well testing, completion, workover, and well intervention activities should be subject to a recertification scheme. Equipment to be included should be defined in each specific case.

For examples, see Appendix A.

4. Recertification process

4.1 General description

It is DNV's recommendation that a recertification of blowout preventers and well control equipment used for drilling, completion, workover and well intervention operations, should be performed at least every five years. The purpose of this recertification is to verify and document that the equipment condition and properties are within the updated acceptance criteria as well as recognized codes and standards.

Guidance note:

Recertification intervals other than five years may apply when justified through for instance an approved Reliability Centered Maintenance (RCM) analyses.

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The extent of inspection/repair shall be based upon the following parameters:

- original documentation (including design specification)
- repair history
- maintenance history
- operational history
- OEM procedures (including revisions and updates)
- Non-OEM procedures
- Owner's procedures (including revisions and updates)
- standards and codes (latest revision)
- recommendations and directives imposed by the US DOI and MMS.

4.2 Acceptance criteria for assemblies and components

Acceptance criteria shall give confidence with regard to margins for failure. The basis for acceptance criteria shall be documented.

Acceptance criteria shall be based on the OEM's updated revision of acceptance criteria, design specifications, and engineering documentation, as well as recognized codes and standards.

If the equipment subject to recertification has been previously manufactured according to revisions of standards and codes which are no longer valid, a gap analysis may need to be performed between original and latest version of codes and standards requirements.

For all equipment an NDT plan with acceptance criteria shall be prepared to cover both fabrication and operational types of defects (e.g. fatigue/corrosion/erosion).

The acceptance criteria, for each recertification, shall be agreed between Owner, Contractor, and third party in each specific case.

4.3 Recertification process - used equipment

For equipment that has been used in operation the recertification process shall include, but is not limited to, the following steps:

- kick off meeting
- review of Contractor prepared Quality Plan (QP) with Inspection and Test Plan (ITP) which describes the scope of work
- review of original documentation with special focus on traceability
- review of updated design specification (material specification/design analysis)
- review of revisions to applicable codes and standards relevant for the equipment being recertified
- review of records to verify the operational history, extent of maintenance and history of modifications / repairs
- extent of NDT required should be evaluated by design responsible and personnel qualified to a recognized

- inspector qualification scheme
- stripping/dismantling of equipment
- visual inspection
- dimensional inspection
- NDT (e.g. – PT, MT, UT, RT, ET)
- evaluation of inspection reports
- repair and re-inspect (as applicable)
- reassembly
- load/pressure testing and functional testing
- recoating and preservation
- finalize and organize the repair documentation
- Contractor is to issue a Re-certification CoC
- Owner and third party to review the repair documentation
- independent third party to issue a recertification completion report.

4.4 Recertification process - unused equipment

For equipment that has been properly preserved and stored since originally manufactured, the last recertification or a major overhaul, a reduced recertification scope may be possible. In each case, the extent of the recertification scheme to be followed shall be agreed upon between Owner, Contractor and independent third party.

Guidance note:

The level and extent of the reduction must take into account legislation imposed by authorities and changes made to codes and standards.

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4.5 Validation of modifications carried out by non-OEM

For blowout preventers and well control equipment that is modified or enhanced from the original OEM design by an independently qualified non-OEM Contractor, the improvements and / or modifications are to be substantiated by design basis documents, separate qualifications, testing, etc. that validate that the equipment is in compliance with prescribed acceptance criteria and updated reference documents relevant for the well control application for which it is intended.

Guidance note:

Any modifications or upgrades to the BOP stack conducted after delivery shall not have compromised the design or operation of the BOP.

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5. Qualification Requirements

5.1 Qualification of Personnel

Personnel performing dismantling, repair, inspection, reassembly and testing shall be qualified in accordance with written requirements of the Contractor, which include specified minimum training and qualification requirements.

Personnel performing welding shall be qualified according to selected recognized standards (e.g. – ASME Section IX, AWS D1.1, etc.).

Personnel performing visual inspection after welding, shall be certified according to recognized inspector qualification schemes (e.g. – AWS Certified Welding Inspector – QC-1)

Personnel performing NDT inspections shall be qualified as a minimum to SNT-TC-1A Level II, or equivalent recognized standards. If the personnel performing NDT are qualified to SNT-TC-1A it is recommended that the owner's written practice is reviewed and found acceptable and that the Level 3 is ASNT Level III or ACCP Professional Level III and certified in the applicable method.

Preparation of NDT procedures and execution of all NDT shall

be carried out under the responsibility of Level III personnel.

Personnel, who are responsible for evaluating the NDT scope regarding fatigue/ corrosion/ erosion, shall be qualified to SNT-TC-1A Level III, or equivalent recognized standards. All welders/ inspectors shall have valid certificates, in accordance with codes and standards specified for the recertification.

Personnel performing heat treatment shall be qualified to follow Contractor's procedures for heat treatment.

5.2 Qualification of alternative contractor/subcontractor

If a contractor other than the OEM/ design responsible is to be used for the recertification scheme, then the following evaluations shall be made by the Owner or OEM and verified by independent third party:

- experience and competence
- the quality system (QA/QC)
- the workshop and facilities
- procedures needed for repair (welding/NDT/coating etc.)
- subcontractors (if any).

The approval of using the Contractor shall be agreed between Owner and independent third party prior to the kick off meeting.

If the Contractor is using a subcontractor to perform the recertification work, the subcontractor shall be evaluated according to the items listed above and approved by Owner and independent third party prior to the kick-off meeting.

5.3 Qualification of Independent Third Party

If a third party is to verify compliance to this RP the organization shall as minimum comply with the following:

- demonstrate the necessary competence for personnel performing work affecting quality
- provide training or take other actions to satisfy these needs
- evaluate the effectiveness of the action taken
- ensure that its personnel are aware of the relevance and importance of their activities and how they contribute to the achievement of the quality objectives
- maintain appropriate records of education, training, skills and experience.

The use of independent third party shall be approved by the Owner.

6. Recertification activities

6.1 Kick-off meeting

All recertification projects shall start with a kickoff meeting, where all relevant parties attend and the scope of work is agreed. The Contractor shall present a preliminary Quality Plan (QP). The following topics shall be discussed:

- type of equipment/ area of application
- definition of equipment and components to be included in the well barrier envelope
- equipment history
- current US DOI and MMS recommendations and requirements regarding BOP and well control equipment
- governing QA/QC documentation
- agreement on standards and codes applicable for the recertification, including revisions
- review of original documentation
- review of OEM's approved and updated design-drawing tolerances
- handling of non-conformances
- recertification documentation requirements and delivery schedule

- the involvement from Owner and independent third party
- contact points between Contractor, Owner, and third party
- project administration (time schedule/ purchase order/ invoicing).

It shall also be decided who shall keep and store the recertification documentation. The documentation will form the basis of future recertification activities.

After the kick-off meeting the Contractor shall finalize the Quality Plan (QP), including listing of the recertification documentation to be provided.

Recertification shall be in compliance with the agreed plan.

6.2 Quality Plan (QP)

The quality plan shall be prepared prior to starting any work on the equipment, and shall include details for the recertification activity. The QP shall be approved by all parties involved prior to starting any work on the equipment.

The QP shall include, but is not limited to, the following items:

- Description of equipment
- Equipment identification (e.g., part number, serial number, etc.)
- Reference to drawings of equipment, including modifications or updates (if any)
- Listing of codes, standards, specifications and procedures utilized for the recertification, including revision number. The listing is to take into account updates and / or revisions since original manufacture of the equipment.
- Reference to Inspection and Test Plan (ITP) which describes the activities to be performed during the recertification (i.e. disassembly, control of marking, visual and dimensional inspection, NDT etc.).

The ITP shall reference to the acceptance criteria for the components, as well as indicate hold, witness, and review points for Owner, Contractor, and independent third party.

Requirements for notification of involved parties shall be described in the plan. It is Contractor's responsibility to have the plan completed with signatures and dates for hold, witness and review

- Description of test procedures (pressure tests, functional tests etc.).

Guidance note:

Examples are:

Hold Point:

Owner and independent third party shall be contacted, and shall attend to review documentation, or witness welding/tests.

Typical Hold Points should be:

- kick-off meetings, including with sub contractors (if any)
- verification of procedures
- missing original documentation or traceability
- changes from the design specification
- welding qualification and repair welding
- NDT
- pressure test
- functional/ operational test.

Witness Point:

Owner and independent third party shall be contacted before further work. It shall be agreed upon in each case between the Owner and third party the further engagement.

Review Point:

Owner and independent third party shall be contacted for review of documents.

Typical Review Points should be:

- revisions to specified codes and standards
- review of NDT records and personnel qualifications
- review of WPS/WPQR and material certificates

- review of Contractor's final documentation for the recertification project.

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6.3 Independent Design Review

Original (including updates as relevant) design documentation shall be available and traceable to the components and systems subject to recertification.

The independent design review shall include, but is not limited to, the following activities:

- review of the design specifications, including revisions and updates
- review of drawings, schematics and calculations, including revisions and updates
- review of piping, instrumentation and control diagrams
- review of BOP and well control system configuration
- review of possible revisions to codes and standards relevant to the equipment.

The intention of the independent design review is to confirm that equipment, systems and components are in compliance with the specified design criteria as given by OEM specifications, Codes of Federal Regulations, specific MMS/DOI requirements and applicable industry standards (API Spec. 16A, 16D etc. and their normative references).

6.4 Documentation review and evaluation of history

Original (including updates as relevant) documentation shall be available and traceable to the components and systems subject to recertification.

The documentation review shall include, but is not limited to, review of the following:

- the design specification, including updates and / or revisions
- possible revisions to codes and standards relevant to the equipment
- original documentation, including verification of traceability
- operational history
- maintenance and inspection history / records to verify that equipment has been subject to regular maintenance / inspection
- modification history (if any)
- OEM's specifications for service and repair
- possible changes in DOI, MMS or company's governing documents.

It is important to consider the design lifetime of the equipment during the documentation review. When the equipment has less than five years left of its design lifetime, it shall be specified in the recertification completion report that the equipment has a limited remaining design lifetime. For equipment that has exceeded its design lifetime, recertification may only be possible after special considerations. The scope of work will then have to be agreed upon in each case.

Guidance note:

The original and / or modified design specification describes the design lifetime.

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6.5 Dismantling and cleaning of equipment

The equipment shall be dismantled and cleaned in accordance with the latest version of the OEM's / Contractors procedures (as relevant). Necessary control measures shall be included to avoid mixing / mismatching of parts, by clearly marking for ease of identification. The extent of dismantling shall be defined in the ITP.

6.6 Identification of components

All critical components shall be identified with a unique heat, part, or serial number traceable to original or updated OEM documentation. Lack of component identification for critical components will require replacement if other means to prove fitness for purpose fails (ref. Section 7).

6.7 Inspection and NDT requirements

Visual inspection shall be carried out on all components for identification of visible defects in material and workmanship. Visual inspection shall be documented.

Critical dimensions shall be identified, checked and documented, and shall be within the OEM's updated revision of design drawing tolerances and/or allowed wear limits.

NDT shall be performed in accordance with an approved NDT plan and procedures meeting the requirements outlined in the governing codes and standards. NDT reports shall clearly refer to the actual position on the component.

NDT equipment, such as ultrasonic testing equipment, and PMI shall be calibrated.

6.8 Repair of components

Repair of components shall follow OEM's updated specifications, drawings and recognized standards or codes.

Seals and bolts etc. shall be replaced according to OEM's specification. Procedures shall be established for proper fastening and torquing of bolts.

Before welding, an approved WPQR/WPS shall be presented by the Contractor and the WPQR / WPS shall be in accordance with the specified standards or codes. Material certificates shall be available for review. Extent of NDT shall be described for overlay / inlay welding.

Guidance note:

Material certificates shall be traceable to the actual component. Lack of marking will require steps described in Section 7.

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Repair welding where the Corrosion Resistant Alloy (CRA) layer has been completely removed: In case the material certificate for the component to be welded is not available (base material), the chemical composition shall be established in order to ensure that the selected WPS is applicable for the material in question.

Repair welding where the CRA layer has not been completely removed (e.g. UNS N06625): After machining, the thickness measurements of the CRA layer shall be carried out prior to performing any repair welding. The remaining CRA thickness shall be equal to, or above the minimum qualified thickness described in the selected WPS/WPQR. In case the CRA thickness does not fulfil this requirement, the CRA layer will have to be completely removed by machining, and a WPS/WPQR appropriate for clad welding on CMn or low alloy material will have to be selected (see above).

Prior to welding, the specified PWHT shall be verified and evaluated against the tempering temperature described in the original material certificate, and earlier used PWHT(s) (if any). The PWHT temperature should typically be 20 - 25 C below the tempering temperature given in the material certificate.

Heat treatment shall follow OEM's procedures, an approved WPS, and recognized standards or codes. Automatic temperature controlling and recording instruments shall be used. Temperature sensors / recording instruments shall be calibrated at least once a year.

Hardness testing, after heat treatment, shall be carried out in accordance with an approved procedure, and relevant standards or codes.

Machining (if applicable) shall be in accordance with OEM's updated design drawing tolerances.

After welding and machining, it shall be demonstrated that the iron content of the machined surface is within the specified limits (e.g. for UNS N06625 the iron content should typically be < 10%).

NDT shall be performed in accordance with an approved Procedure. Ref. section 6.7.

Moulded elastomeric sealing assemblies that are intended to be reused shall be confirmed by inspection to be in accordance with OEM's updated acceptance criteria.

All components that do not meet the specified updated acceptance criteria shall be replaced or subjected to refurbishment.

6.9 Replacement of components

Replacement components shall be in accordance to OEM's updated design specifications and specified standards and codes.

Replacement of a component made by a manufacturer other than the OEM shall be agreed upon between the contract parties (e.g. Owner, Contractor, and independent third party) in each case. The replacement component shall be designed and produced according to the OEM's updated design specifications and drawings. The component shall be fully documented (i.e. manufacturer's certificate of conformance, material certificate, test reports etc.).

6.10 Reassembly

Updated OEM's specification for reassembly shall be followed.

6.11 Test requirements

Unless the equipment has been subjected to repair (e.g. welding and/or machining of pressure exposed components) the pressure/ load test shall be limited to maximum rated working pressure/load (including low-pressure seal tests).

The equipment shall be function tested in accordance with an approved procedure and recognized standards or codes.

Welding with or without heat treatment or machining of pressure exposed components will require a body pressure test according to the updated design specification. The test pressure should normally be 1.5 times the maximum working pressure.

Automatic recording instruments shall be used. The test recording instruments shall be calibrated at least once every year.

All test procedures shall be referenced in the Quality Plan (QP). Functional/ pressure test reports and charts shall be signed, time stamped and filed together with the final documentation.

6.12 Coating

Updated OEM's specifications shall be followed.

6.13 Preservation

An approved preservation / maintenance procedure shall be followed if the equipment is placed onshore awaiting offshore shipment, or temporarily stored.

6.14 Final documentation

Repair documentation shall be traceable, and shall be included in the final recertification documentation. The final documentation should be organized in an agreed format.

Recommended index for final documentation package:

- 1) Contractor's Certificate of Conformance for the recertification (Recertification CoC)

- 2) Independent third party recertification completion report
- 3) As built drawings
- 4) Earlier issued CoCs regarding overhaul/inspection
- 5) Earlier issued recertification completion reports
- 6) OEM's CoC (when new fabricated)
- 7) Design specification
- 8) Third party documentation (i.e. design verification report, type approval etc.)
- 9) Quality Plan (QP)
- 10) Inspection and Test Plan (ITP)
- 11) Inspection reports
- 12) NDT reports
- 13) Repair documentation (including the applicable WPS, etc.)
- 14) Traceable material certificates for pressure exposed and load bearing components, as a minimum
- 15) Non-conformance reports and technical queries
- 16) Functional/pressure test reports and charts
- 17) Calibration certificates (sensors and recording equipment etc.)
- 18) Welders' certificates, NDT inspectors' certificates, coating inspectors certificates etc.

6.15 Issuance of independent third party recertification completion certificate

If an independent third party has verified a successful completed recertification according to this RP, the independent third party is to issue a recertification completion report (for an example see Appendix C). The report shall as a minimum include the following information:

- traceability to the recertified equipment with description (name) of the equipment
- details of OEM
- details of non-OEM contractors (if applicable)
- regulations, codes and standards used as basis for the recertification
- Owner of equipment and contractor
- scope of work
- description of independent third party involvement
- non-conformances and technical queries.
- operational envelope of the equipment, e.g. temperature, operating pressure, loadings etc.

The recertification is completed when the recertification completion report is issued.

7. Insufficient equipment documentation

Experience has shown that equipment often has insufficient or no documentation. This may result in a significant scope of work in order to verify compliance with the recertification requirements.

The objective is to ensure the same documented quality and safety of the equipment as achieved through normal recertification.

If relevant design specifications (or updates) are missing or cannot be made available, the equipment concerned cannot be recertified.

7.1 Establishing acceptable documentation

To establish documentation of material properties, and traceability to a material certificate, the following steps shall be performed (in addition to the activities described in Section 6):

- hardness measurements
- chemical composition analysis (spectrography)
- on site analysis, or plastic replica, of the microstructure should be carried out if a considerable gap exists between the result from hardness test and the original design specification.

Owner and independent third party shall verify that the component's material properties are within the original design specification. If the material certificate is missing then mechanical testing should be performed, in addition to the steps described above.

Guidance note:

Hardness results and chemical analysis evaluation are, as a minimum, required to be able to estimate the material's tensile properties. By in addition having access to the microstructure, the toughness properties can be roughly estimated. It should be noted that it is not possible to give any exact toughness values. Based on the non destructive tests only, it is not possible to evaluate the toughness or tensile properties.

Where components are exactly of the same design and origin, random selection of items for destructive testing would be sufficient to satisfy collective confidence levels for materials. In each case the extent of the random selection shall be agreed upon, between contract parties. The minimum design temperature for the equipment shall be equal to or higher than the specified mechanical testing temperature.

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7.2 Material testing laboratory

A material testing laboratory with expertise to perform testing plus interpretation and documentation of the results from the material testing shall be utilized.

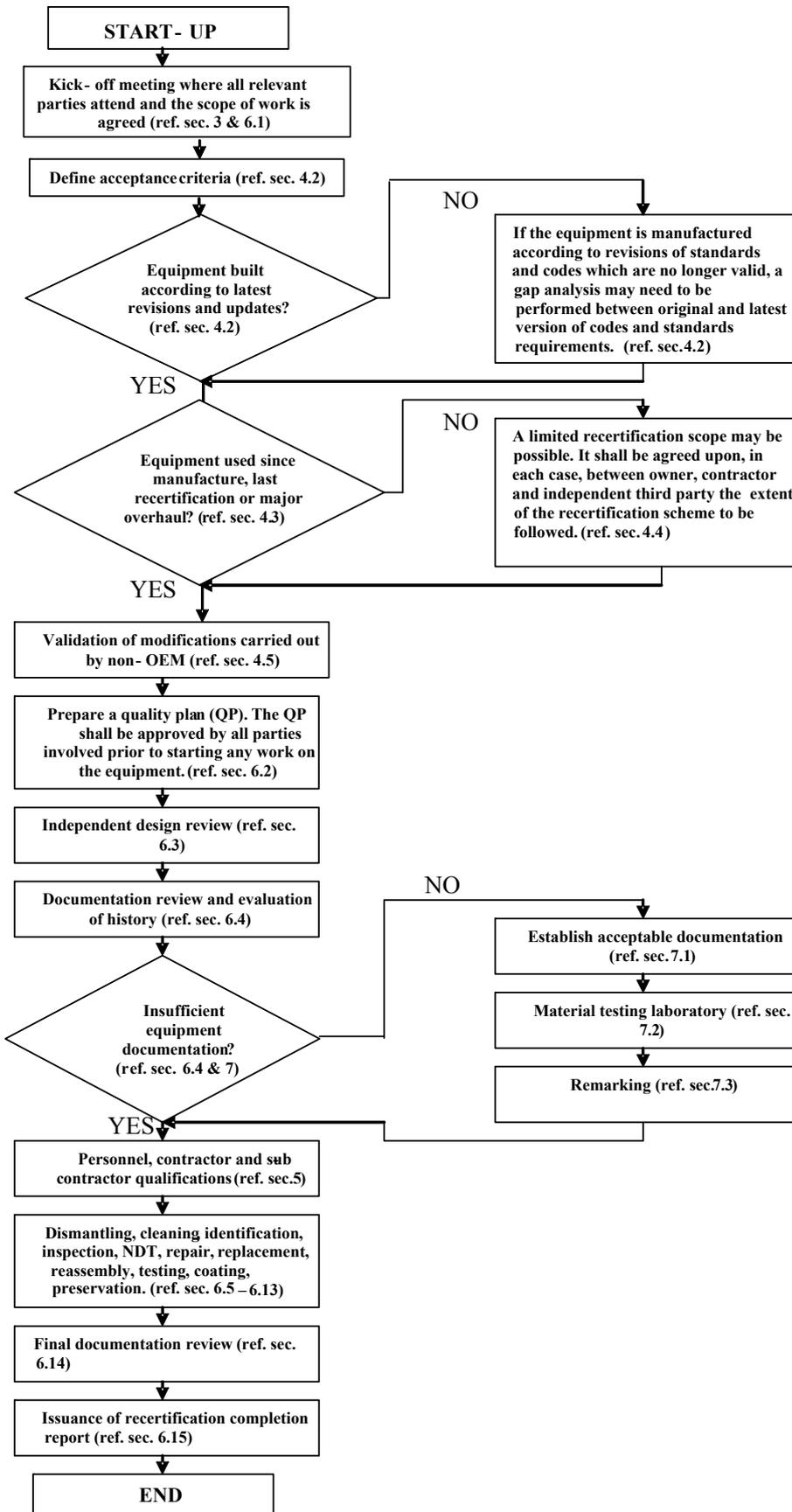
7.3 Remarking

Remarking can be done only after the process described in Section 7.1 has been fulfilled. Remarking of a component shall be verified and documented by independent third party.

APPENDIX A EQUIPMENT DESCRIPTION

BOP and C&K Systems		
<i>BOP comprising (but not limited to):</i>	<i>BOP Control System comprising (but not limited to):</i>	<i>Choke & Kill System comprising (but not limited to):</i>
Annular BOP	Control System arrangement	Valves and Fittings
Pipe Ram BOP	Accumulators	Drilling Choke
Shear Ram BOP	Actuators	C&K Lines (rigid)
Shear Seal Ram BOP	Hydraulic Hoses	C&K Flexible hoses
Bonnets	Valves and Fittings	Union Connections
Actuators and Stems	HPU w/equipment	Swivel Unions
Wellhead connectors	Control Pods	Drilling Choke Control system
		Drilling Choke Control lines
		Actuators
Well Control Equipment and Systems for Well Access		
<i>Workover System comprising (but not limited to):</i>		<i>Equipment used directly after drilling the production hole (but not limited to):</i>
Tension Frame	EDP (Emergency Disconnect Package) with retainer valve (RV) and Connector	Landing string (commonly used in connection with completion with BOP on XT) w/connectors
Surface Flow Tree or Circulation Head	LRP (lower riser package) with SSR and PIV (typically) and Connector	Retainer Valve
Slick Joint	Adaptors and cross-overs	Latch connector
Upper Stress Joint	Studs and nuts	Lubricator Valve
Tension Joint	WOCS (workover control system)	Shear Joint
High Set Lubricator Valve		Subsea Test Tree
Standard Joints		
Pup Joints		
Safety Joint		
Lower Stress Joint		
<p>Guidance note: All main pressure containing and major load carrying parts shall be subject to recertification. That includes all hydrocarbon wetted parts and safety critical systems.</p> <p style="text-align: center;">---e-n-d---of---G-u-i-d-a-n-c-e---n-o-t-e---</p>		

APPENDIX B FLOW CHART FOR RECERTIFICATION PROCESS



APPENDIX C RECERTIFICATION COMPLETION REPORT (EXAMPLE)

Third party recertification completion report



Report No:		Rev. No.:	
Equipment/ assembly:	Assembly part No.:	Assembly Serial No.:	Manufacturer:
Equipment tag No.:	Part No.:	Serial No.:	
Contractor/ address/ country:		Owner of equipment/ offshore unit:	
Reference to Contractor's final documentation:		Work order:	
Scope of work:			

Third party recertification completion report

Report No:	Rev. No.:
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Reference to regulations, standards, codes and RP:

Non-conformities and compensating measures:
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Comments:

Statement:

Responsible engineer:	Stamp:	Head of section:
	Place/ date	