

**§ 250.903**

(2) *Design verification plan requirements.* The design plan shall also include the following:

(i) All design documentation specified in § 250.901(b) of this part, and

(ii) Abstracts of the computer programs used in the design process.

(3) *Fabrication verification plan requirements.* The fabrication plan shall also include fabrication drawings and material specifications for artificial island structures, major members of concrete- and steel-gravity structures, all the primary load-bearing members included in the space-frame analysis for jacket structures, and a summary description of the following:

(i) Structural tolerances,

(ii) Welding procedures,

(iii) Material (concrete, gravel, or silt) placement methods,

(iv) Fabrication standards,

(v) Material quality-control procedures,

(vi) Methods and extent of non-destructive examinations (NDE) for welds and materials, and

(vii) Quality assurance procedures.

(4) *Installation verification plan requirements.* Additionally, the installation plan shall include a summary description of the planned marine operations, contingencies considered, alternate courses of action, and the inspections to be performed including a graphical identification of areas to be inspected and the acceptance/rejection criteria.

(c) *Requirements for resubmittal.* All such plans or the appropriate part affected shall be resubmitted for approval if the CVA is changed, if the CVA's or assigned personnel's qualifications change, or if the level of work to be performed changes. The summary of technical details need not be resubmitted, unless changes are made in the technical details.

(d) *Combining of plans.* For manmade islands or platforms fabricated and installed in place, the fabrication and installation verification plans shall be combined.

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**30 CFR Ch. II (7-1-03 Edition)**

**§ 250.903 Certified Verification Agent duties and nomination.**

(a) *CVA duties.* The CVA nominated by the lessee and approved by the Regional Supervisor shall conduct the appropriate reviews in accordance with the following:

(1) *Design phase.* (i) The CVA shall conduct the design verification to ensure that the proposed platform or major modification has been designed to withstand the maximum environmental and functional load conditions anticipated during the intended service life at the proposed location.

(ii) The design verification shall be conducted by, or be under the direct supervision of, a registered professional civil or structural engineer.

(iii) The CVA shall consider the applicable provisions of §§ 250.904 through 250.911 of this part and use good engineering practice in conducting an independent assessment of the adequacy of all proposed planning criteria, environmental data, load determinations, stress analyses, material designations, soil and foundation conditions, safety factors, and other pertinent parameters of the proposed design.

(iv) Interim reports shall be submitted by the CVA, as appropriate, to the Regional Supervisor and the lessee.

(v) Upon completion of the design verification, a final report shall be prepared which summarizes the material reviewed by the CVA and the findings and includes a recommendation that the Regional Supervisor either accept, request modification(s), or reject the proposed design. In addition, the report shall include the particulars of how, by whom, and when the independent review was conducted and any special comments considered necessary. The final report shall be submitted to the lessee and, in triplicate, to the Regional Supervisor within 6 weeks of the receipt of the design data or from the date the approval to act as a CVA was issued, whichever is later.

(2) *Fabrication verification.* The CVA shall monitor the fabrication of the platform or major modification to ensure that it has been built in accordance with the approved design plans and specifications and the fabrication plan, including the following:

(i) Periodic onsite inspections shall be made while fabrication is in progress. The following of the fabrication items, as appropriate, shall be verified:

- (A) Quality control by lessee and builder,
- (B) Fabrication site facilities,
- (C) Material quality and identification methods,
- (D) Fabrication procedures specified in the approved plan and adherence to such procedures,
- (E) Welder and welding procedure qualification and identification,
- (F) Structural tolerances specified and adherence to those tolerances,
- (G) The NDE requirements and evaluation results of the specified examinations,
- (H) Destructive testing requirements and results,
- (I) Repair procedures,
- (J) Installation of corrosion-protection systems and splash-zone protection,
- (K) Erection procedures to ensure that overstressing of structural members does not occur,
- (L) Alignment procedures,
- (M) Dimensional check of the overall structure, and
- (N) Status of quality-control records at various stages of fabrication.

(ii) The CVA shall consider the applicable provisions of §§250.904 through 250.911 of this part and use good engineering practice in conducting an independent assessment of the adequacy of the fabrication of the platform or major modification.

(iii) Interim reports shall be submitted by the CVA, as appropriate, to the Regional Supervisor and the lessee.

(iv) If the CVA finds that fabrication procedures are changed or design specifications are modified, the lessee shall be informed. If the lessee prefers to accept the modifications as informed by the CVA, the Regional Supervisor shall also be informed.

(v) A final report shall be prepared by the CVA covering the adequacy of the entire fabrication phase giving details of how, by whom, and when the independent monitoring activities were conducted and providing any special comments considered necessary. The final report is not required to cover as-

pects of the fabrication already included in interim reports. The final report shall describe the CVA's activities during the verification process, summarize the findings, contain a confirmation or denial of compliance with the design specifications and the approved fabrication plan, and a recommendation to accept or reject the fabrication. The report shall be submitted to the lessee and, in triplicate, to the Regional Supervisor immediately after completion of the fabrication of the platform.

(3) *Installation phase.* The CVA shall witness the loadout of the jacket, deck(s), and piles from the fabrication site(s); review the towing records; conduct an onsite survey after transportation to the approved location; witness the actual installation of the platform or major modification; determine that the platform has been installed at the approved location in accordance with the approved design and the installation plan; and shall comply with the following:

(i) The CVA shall consider the applicable provisions of §§250.904 through 250.911 of this part and use good engineering practice in conducting an independent assessment of the adequacy of the installation activities. The following parts of the overall installation process, as appropriate, shall be verified:

- (A) Loadout and initial flotation operations, if any;
- (B) Towing operations to the specified location;
- (C) Launching and uprighting operations;
- (D) Submergence operations;
- (E) Pile installation; and
- (F) Final deck and/or component installation.

(ii) The CVA shall observe the installation activities, spot-check equipment, procedures, and recordkeeping, as necessary, to determine compliance with §§250.904 through 250.911 of this part and the approved plans, and immediately report to the Regional Supervisor and the lessee any discrepancies or damage to structural members. Approval for modified installation procedures or for major deviation from approved installation procedures shall be obtained from the Regional Supervisor.

(iii) Interim reports shall be submitted by the CVA, as appropriate, to the Regional Supervisor and the lessee.

(iv) A final report shall be prepared by the CVA covering the adequacy of the entire installation phase giving details of how, by whom, and when the independent monitoring activities were conducted and providing any special comments considered necessary. The final report shall describe the CVA's activities during the verification process, summarize the findings, contain a confirmation or denial of compliance with the approved installation plan, and a recommendation to accept or reject the installation. The report shall be submitted to the lessee and, in triplicate, to the Regional Supervisor within 2 weeks of completion of the installation of the platform.

(4) All data provided to the CVA shall be handled in the strictest confidence and not be released by the CVA without the consent of the lessee.

(5) Individuals or organizations acting as CVA's for a particular platform shall not function in any capacity other than that of a CVA for that specific project, whenever the additional activities would create a conflict, or appearance of a conflict of interest.

(b) *CVA nomination.* (1) *Nomination.* Individuals or organizations shall be nominated by the lessee planning to use their services. The lessee shall specify whether the nomination is for the design, fabrication, or installation phase of verification; for two phases; or for all three phases.

(2) *Qualifications.* Qualification submissions shall contain sufficient information to determine compliance with § 250.902(b)(1)(ii) of this part.

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#### § 250.904 Environmental conditions.

(a) *General.* The performance standards of this section pertain to all platforms covered by these requirements regardless of the fabrication material.

(1) *Environmental considerations.* All environmental phenomena appropriate to the areas of fabrication, transportation, and installation of an offshore platform shall be considered and their influence on the platform accounted for. Such phenomena shall include

wind, waves, current, temperature, tide, marine growth, chemical components of air and water, snow and ice, earthquakes, tsunamis, seiche, and other appropriate phenomena.

(2) *Environmental data.* Statistical data and defensible statistical and mathematical models shall be employed to describe the range of pertinent expected variations of environmental phenomena. Defensible data supplied by meteorologists, oceanographers, or other appropriate specialists are acceptable as the basis for design. Where possible, environmental phenomena shall be described by the characteristic parameters most relevant in the evaluation of effects on the platform.

(b) *Statistical methods.* (1) When statistical methods are employed in the determination of parameters characterizing environmental phenomena, the statistical methods and distributions employed shall be appropriate to their application as evidenced by relevant statistical tests, confidence limits, and other measures of statistical significance.

(2) Short-term and long-term variations of environmental phenomena such as wind, waves, and current shall be described by statistical distributions relevant to the parameter considered. Defensible statistical modeling techniques shall be used in the prediction of extreme values.

(3) When hindcasting techniques are employed to approximate environmental parameters, the validity of the model used shall be defensible.

(c) *Design considerations.* (1) *General.* A thorough assessment of the environment in the vicinity of the installation site shall be made to determine the conditions expected to occur at the site over the life of the platform.

(2) *Design environmental condition.* (i) "Design environmental condition" means the environmental factors producing the most unfavorable effects on the platform. Parameters describing the design environmental condition are given in paragraphs (c)(2)(ii) (A), (B), and (C) of this section.

(ii) The design environmental condition shall reflect the various environmental events that individually or collectively represent the most severe