Record 16-540

This page is not part of the proposal for Record 16-540. It provides background for the changes put forward for this record on a recirculation ballot subsequent to ballot 20-1819RC1.

This is a revised proposal to address 2 comments.

The first comment relates directly to this record (16-540 – III ballot 20-1819RC1), which requested an “X” be added to Table NCA-3200-1 (line 3211.10 to address an omission with respect to responsibilities for an N Certificate Holder, Division 2. This change is displayed as a red X inside a green box on page 2 of this proposal.

The second comment (from a BNCS member) occurred on record 20-412 (III ballot 20-2837) regarding concern with the use of “assemble” in the paragraph regarding material documentation. Record 20-412 addresses changes to HHA and HHB to align with the requirements in Subsection NCA. The proposal was updated to reflect a change for using “assemble” to “collect” regarding records to verify materials. To align with Subsection NCA wording, the comment also results in needing to make the same change in paragraph NCA-3211.31 of the proposal for record 16-540. Hence, the second change occurs on page 13 of this proposal, in paragraph NCA-3211.31 (c). This change is displayed as the word “assemble” lined out, and the word “collect” added in red font. This change is also highlighted by a green box.
### Table NCA-3200-1
Responsibilities of the Certificate Holder or Designer

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NCA-3211: Responsibilities

NCA-3211.1: Establishing, Documenting, and Maintaining a Quality Assurance Program

(a) The Owner is responsible for documenting a Quality Assurance Program (NCA-4133).

(b) Certificate Holders are responsible for establishing, documenting, and maintaining a Quality Assurance Program in accordance with NCA-4134 for N, NV, NPT, NS, and NA Certificate Holders.

(c) This Quality Assurance program shall be evaluated and accepted by the Society. The Certificate Holder shall file the Quality Assurance Manual with the Authorized Inspection Agency (NCA-5121), and a copy shall be made available to the Inspector (NCA-5123) and the Authorized Nuclear Inspector Supervisor (NCA-5122).

(d) The Certificate Holder shall be responsible for surveying, qualifying, and auditing suppliers of subcontracted services (NCA-3125), including nondestructive examination contractors and Material Organizations. Material Organizations holding a Quality System Certificate (Materials) and Certificate Holders whose scope includes supply or manufacture and supply of material need not be surveyed nor audited for work or material covered by the scope of their certificate. Subcontractors holding an appropriate Certificate need not be surveyed nor audited for work within the scope of the subcontractor’s certificate.

(e) An N or NV Certificate Holder may qualify vendors of subcontracted services (NCA-3125) other than those requiring a Certificate, such as Material Organization, for another Certificate Holder doing work for that N or NV Certificate Holder. The qualification documentation shall be supplied to the other Certificate Holder prior to their use of the subcontracted service or Material Organization.

(f) For NS Certificate Holders, the qualification of organizations not certified by the Society shall be limited to the furnishing of material and subcontracted services to the NS Certificate Holder doing the qualifying.

(g) An N, NPT, NA, or NV Certificate Holder may subcontract furnace brazing operations involving uniform heating to an organization not holding a certificate, provided:

1. the work performed is within the scope of activities of the Certificate Holder’s Certificate of Authorization;

2. the Certificate Holder’s Quality Assurance Program shall provide for the subcontracting of furnace brazing operations, including Authorized Inspection, and these provisions shall be acceptable to the Certificate Holder’s Authorized Inspection Agency;

3. the Certificate Holder’s Quality Assurance Program provides for surveillance by the Certificate Holder at their subcontractor’s facility during the brazing operation;

4. the Certificate Holder shall be responsible for surveying and accepting the Quality System Programs of the subcontractor;

5. the Certificate Holder shall assure that the subcontractor uses written procedures and brazing operators that have been qualified as required by the Code;

6. the Certificate Holder shall be responsible for controlling the quality and for assuring that all materials and parts that are submitted to the Inspector for acceptance, including those brazed by subcontractors, conform to all applicable requirements of this Section.

(h) the N or NV Certificate Holder may supply replacement material without material supply being shown in the scope of their certificate, provided the following apply:

1. Supply of replacement material is included in their Quality Assurance Program.
(2) The replacement material conforms to all applicable requirements of this Section.

(3) The replacement material is provided exclusively for incorporation into items originally manufactured or fabricated and furnished by the Certificate Holder under their certificate.

(4) Certified Material Test Reports or other documentation shall identify that replacement material is intended exclusively for incorporation into items originally manufactured by the Certificate Holder.

NCA-3211.2: Making Documents Available to the AIA.

The Certificate Holder or Designer is responsible for making documents specified by this Section available to the AIA (the Inspector or the Authorized Nuclear Inspector Supervisor) including those requested by the Inspector to ensure compliance with Code requirements and, for NS Certificate Holders, the performance of the annual audit (NCA-5242).

NCA-3211.3: Compliance with this Section

(a) For Division 2 construction, the N Certificate Holder has the responsibility for constructing the concrete containment in accordance with the Design Drawings and Construction Specification and in accordance with this Section. The N Certificate Holder’s responsibilities do not include design of the component.

(b) The N and NV Certificate Holder have the responsibility for the structural integrity using the Design Specification as a basis of design, complying with this Section, and furnishing a Design Report if required.

(c) The NPT and NS Certificate Holders shall have all work performed in accordance with the applicable requirements of this Section.

(d) The NA Certificate Holder has responsibility for those activities required to place and attach components to their support structures or join items in accordance with the applicable requirements of this Section.

NCA-3211.4: Obtaining a Certificate

The appropriate Certificate (NCA-8100) shall be obtained for:

(a) the Owner, after receipt of notification from the regulatory authority that an application for a construction permit or combined license for a specific plant has been docketed, shall obtain an Owner’s certificate from the Society for unit(s) docketed concurrently for each site prior to beginning field installation. The information to be supplied by the Owner when making applications is given in forms issued by the Society. A written agreement with an Authorized Inspection Agency (NCA-8130) is required prior to application.

(b) the construction of any concrete containment intended to be in compliance with the requirements of this Section and to be stamped with a Certification Mark with N Designator.

(c) the construction of any item intended to be in compliance with the requirements of this Section and to be stamped with a Certification Mark with N Designator. An N Certificate Holder may do all of the work of an NPT, NS, or NA Certificate Holder at the location shown on their certificate, provided that the scope of work is included in this certificate.

(d) the construction of any item intended to be in compliance with the requirements of this Section and to be stamped with a Certification Mark with NPT Designator.

(e) an NS Certificate shall be obtained for the construction of any support intended to be in compliance with the requirements of this Section.
(f) the installation of any item intended to be in compliance with the requirements of this Section and to be stamped with the Certification Mark with NA Designator.

(g) the construction of any item intended to be in compliance with the requirements of this Section and to be stamped with a Certification Mark with NV Designator. An NV Certificate Holder may do all of the work of an NPT or NA Certificate Holder at the location shown on their certificate, provided that the scope of work is included in this certificate.

**NCA-3211.5: Obtaining a Written Agreement with an Authorized Inspection Agency (NCA-8130)**

(a) The Owner and Certificate Holder are responsible for obtaining a written agreement with an Authorized Inspection Agency (NCA-8130) prior to application.

(b) For Owners: after receipt of notification from the regulatory authority that an application for a construction permit or combined license for a specific plant has been docketed, the Owner shall obtain an Owner’s certificate from the Society for unit(s) docketed concurrently for each site prior to beginning field installation. The information to be supplied by the Owner when making applications is given in forms issued by the Society.

**NCA-3211.6: Filing of the Quality Assurance Manual**

The Certificate Holder shall file with the Authorized Inspection Agency (NCA-5121) copies of the Quality Assurance Manual. The Certificate Holder shall keep a copy on file available to the Inspector (NCA-5123) or the Authorized Nuclear Inspector Supervisor (NCA-5122).

**NCA-3211.7: Certified Material Test Reports and Certificates of Compliance**

The Certificate Holder is responsible for review of Certified Material Test Reports and Certificates of Compliance for materials (NCA-1220) used by them.

**NCA-3211.8: Control of Records**

The Certificate Holder is responsible for the preparation, accumulation, control, and protection of required records while in their custody (NCA-4134.17).

**NCA-3211.9: Approval of Material**

The Certificate Holder is responsible for the documentation of review and approval of material used by them as permitted by NCA-1140(e).

**NCA-3211.10: Data Report**

The N, NPT, NA, and NV Certificate Holder shall certify compliance with this Section by signing the appropriate Data Report Form and applying the appropriate stamping (Article NCA-8000).

**NCA-3211.11: Subcontracted Services**

The Certificate Holder is responsible for subcontracting (NCA-3125) for materials, design, fabrication, installation, examination, testing, and inspection. The Certificate Holder shall retain overall responsibility, including certification and stamping.

**NCA-3211.12: Preparing Construction Procedures, and Shop and Field Drawings.**

(a) Construction procedures shall give sufficient detailed information about the methods of construction and fabrication to enable those reviewing the procedures to determine whether the requirements of the Design Specification, the Construction Specification, and the Design Drawings will be satisfied. Construction procedures will include test procedures to be performed by the Certificate Holder that are needed to establish conformance.
(b) The Certificate Holder shall provide shop and field drawings. Distribution of shop and field drawings is shown in Table NCA-3200-2.

NCA-3211.13: Certifying and Filing of the Owner’s Data Report
The Owner or their designee shall prepare Form N-3 (Section III Appendices, Mandatory Appendix V).

NCA-3211.14: Establishing the Code Editions, Addenda, and Code Cases to be used.
The Owner is responsible for establishing the Code Editions, Addenda, and Code Cases to be used in Design Specifications, and determining that they are acceptable to the regulatory and enforcement authorities having jurisdiction at the nuclear power plant site (NCA-1140).

The Owner is responsible for verifying through a review of the required documentation that the Code Editions, Addenda, and Code Cases used for completed components and supports, and materials satisfy NCA-1140 and are acceptable to the regulatory and enforcement authorities.

NCA-3211.16: Classifying Equipment
The Owner, either directly or through their designee, shall establish the Code classification of the items that comprise the nuclear power plant.

NCA-3211.17: Designating the Designer, Constructor, and Fabricators for Division 2 Construction.
The Owner is responsible for designating the Designer, Constructor, and Fabricators for Division 2 construction and verifying through a review of the required documentation that the Designer has fulfilled their responsibilities for Division 2 construction.

NCA-3211.18: Providing Adequate Structures, Foundations, and Auxiliary Systems for the Items Covered by Divisions 1 and 2 of this Section.
It is the responsibility of the Owner to assure that intervening elements, foundations and building structures adequate to support the items covered by this Section are provided and to assure that jurisdictional boundary interfaces for Code items are defined and compatible. Loads imposed upon structures outside the scope of this Section by items covered by this Section shall be defined in the Design Specification. Concrete reactor vessels or concrete containments bearing on soil or rock or on caissons or piles require an allowable bearing pressure or allowable load per caisson or pile to be determined by the Owner and furnished to the Designer.

(a) Provision and Correlation
It is the responsibility of the Owner to provide, or cause to be provided, Design Specifications for components, supports, and appurtenances. The Owner, either directly or through their designee, shall be responsible for the proper correlation of all Design Specifications. Separate Design Specifications are not required for parts, piping subassemblies, appurtenances, or supports when they are included in the Design Specification for a component (NCA-1210). However, the applicable data from the component Design Specification (Division 1) or the Construction Specification and Design Drawings (Division 2) shall be provided in sufficient documented detail to form the basis for fabrication in accordance with this Section.
(b) Contents of Design Specifications

(1) The Design Specifications shall contain sufficient detail to provide a complete basis for Division 1 construction or Division 2 design in accordance with this Section. Such requirements shall not result in construction that fails to conform with the rules of this Section. All Design Specifications shall include (-a) through (-h) below

- (a) the functions and boundaries of the items covered (NCA-3211.19(d))
- (b) the design requirements [NCA-2110(a) and NCA-2110(b) and NCA-2140] including all required overpressure protection requirements [NCA-3211.21]
- (c) the environmental conditions, including radiation
- (d) the Code classification of the items covered (Article NCA-2000)
- (e) material requirements including impact test requirements
- (f) additional fracture mechanics data for base metal, weld metal, and heat-affected zone required to use Section III Appendices,
  
  (-1) Nonmandatory Appendix G, Figure G-2210-1 in accordance with Section III Appendices,
  
  (-2) Nonmandatory Appendix G, G-2110(b), when the methods of Section III Appendices,
  
  (-3) Nonmandatory Appendix G are used to provide protection against nonductile fracture for materials that have specified minimum yield strengths at room temperature greater than 50.0 ksi (345 MPa) but not exceeding 90.0 ksi (620 MPa);
  
  (-4) where these materials of higher yield strengths are to be used in conditions where radiation may affect the material properties, the effect of radiation on the KI c curve shall be determined for the material prior to its use in construction
  
  (-g) when operability of a component is a requirement, the Design Specification shall make reference to other appropriate documents that specify the operating requirements
  
  (-h) the effective Code Edition, Addenda, and Code Cases to be used for construction

(2) A Design Specification shall be provided for each concrete containment serving in a single power generating unit or for multiple concrete containments at the same site. In addition to the requirements of (a) above, the Design Specifications for Division 2 items shall include (-a) through (-g) below

- (a) design life
- (b) corrosion effects
- (c) structural acceptance testing requirements (CC-6000)
- (d) shielding requirements
- (e) construction surveillance required by the Designer
- (f) foundation type and allowable loading, if applicable (NCA-3211.18)
- (g) loads from internal structures (NCA-2132)
(3) The Design Specification shall identify those components and/or parts that require a preservice examination and shall include the following:

(-a) examination
   (-1) Edition and Addenda of Section XI to be used
   (-2) category and method, and
   (-3) qualifications of personnel, procedures, and equipment

(-b) welds
   (-1) surface conditioning requirements, and
   (-2) identification/marking system to be used

(c) Boundaries of Jurisdiction

(1) In order to define the boundaries of components with respect to adjacent components, intervening elements, and other structures, the Design Specifications shall include
   (a) the locations of each such boundary
   (b) the forces, moments, strains, or displacements that are imposed at each such boundary
   (c) the structural characteristics of the attached components or structures, whether or not they are within this Section’s jurisdiction when such components or structures provide constraints to the movement of components or appurtenances
   (d) when the foundation support is constructed as an integral part of the concrete containment, it shall be included within this Section’s Division 2 jurisdiction to the extent required by NCA-2132

(2) Definition of Division 1 Boundaries.
   (a) The boundaries for Class 1 components are given in NB-1130.
   (b) The boundaries for Class 2 components are given in NC-1130.
   (c) The boundaries for Class 3 components are given in ND-1130.
   (d) The boundaries for metal containment vessels are given in NE-1132.
   (e) The boundaries for supports are given in NF-1130.
   (f) The boundaries for core support structures are given in NG-1130.

(3) Definition of Division 2 Boundaries.

The Design Specification shall define the boundaries of Division 2 in accordance with the limits defined in CC-1140; it shall also show the external boundaries of the component with respect to its supporting structures. Where the support is constructed as an integral part of the concrete containment, it shall be included within the jurisdiction of Division 2 to the extent required by CC-1140. The Design Specification shall include the specific dimensional location of each boundary, including the boundaries for parts and appurtenances designated to meet the requirements of Division 1.

(d) Certification of the Design Specifications
The Design Specifications shall be certified to be correct and complete and to be in compliance with the requirements of NCA-3211.19 by one or more Certifying Engineers, on behalf of the Owner or their designee. The Certifying Engineers shall be competent in the applicable field of design and related nuclear power plant requirements and qualified by the Owner or their designee in accordance with the requirements of Section III Appendices, Mandatory Appendix XXIII. These Certifying Engineers are not required to be independent of the organization preparing the Design Specifications. Document distribution for Division 2 construction is shown in Table NCA-3200-2.

(e) Filing of Design Specifications

(1) The Design Specifications in their entirety shall become a principal document governing design and construction of items. A copy of the Design Specification shall be made available to the Inspector at the manufacturing site before fabrication begins, and a copy shall be filed at the location of the installation and made available to the enforcement authorities having jurisdiction over the plant installation before components or appurtenances are placed in service. In the case of parts, piping subassemblies, appurtenances, and supports, the Design Specifications need not be made available to the Inspector at the fabrication site (NCA-3211.19(a)). However, the applicable data from the Design Specifications that form the basis for fabrication shall be made available to the Inspector at the fabrication site. Document distribution for Division 2 construction is shown in Table NCA-3200-2.

(2) For pumps and valves 4 in. nominal pipe size (DN 100) and less, for linear supports used as mechanical snubbers, and for standard supports, the Certificate Holder may provide their own Design Specification in accordance with NCA-3211.19(b) as a basis for construction. Prior to installation, the Owner or their designee shall be responsible for reconciling the Certificate Holder’s Design Specification with their own Design Specification.

NCA-3211.20: Reviewing Design Reports

(a) The Design Report that the Certificate Holder or the Designer provides shall be reviewed by the Owner or their designee to determine that all the Design and Service Loadings as stated in the Design Specification have been evaluated, and that the acceptance criteria explicitly provided for in this Section, or additional acceptance criteria permitted by this Section when established in the Design Specification, associated with the specified Design and Service Conditions, have been considered. The responsibility for the method of analysis and the accuracy of the Design Report remains with the Certificate Holder or the Designer.

(b) Except as provided for in (c) below, documentation shall be provided by the Owner or their designee to indicate that the review required by (a) above has been conducted. Prior to the stamping of the component, a copy of this documentation shall be attached to the copy of the Design Report that is made available to the Inspector. A copy of this documentation shall be included with the Design Report that is filed at the location of the installation in accordance with NCA-4134.17 and made available to the regulatory and enforcement authorities having jurisdiction at the site of the nuclear power plant installation. Document distribution for Division 2 construction is shown in Table NCA-3200-2.

(c) When a Certified Design Report Summary (NCA-3211.3940(d)) is furnished in lieu of a Design Report (NCA-3211.3940(b)), for standard supports, documentation shall be provided by the Owner or the Owner’s designee to indicate that the Certified Design Report Summary has been reviewed in accordance with (a) above. Prior to stamping of the component, including piping systems, a copy of this documentation shall be attached to the Certified Design Report Summary that is made available to the Inspector. A copy of this documentation and the Certified Design Report Summary shall be filed at the location of the installation in accordance with NCA-4134.17 and made available to the regulatory and enforcement authorities having jurisdiction at the site of the nuclear power plant.
NCA-3211.21: Designating Overpressure Protection Requirements

The Owner is responsible for designating the overpressure protection requirements for each component or system, including the Class of overpressure protection rules assigned to each component or system and the location of the overpressure protection devices.

NCA-3211.22: Providing and Filing the Overpressure Protection Report

(a) It is the responsibility of the Owner to provide, or cause to be provided, an Overpressure Protection Report for each component or system (NB-7200, NC-7200, ND-7200, or NE-7200).

(b) The report shall be certified as specified in NB-7230, NC-7230, ND-7230, or NE-7230.

(c) The report shall be filed as specified in NB-7250, NC-7250, ND-7250, or NE-7250.

NCA-3211.23: Division 2 construction.

The Owner is responsible for Reviewing and approving the Construction Specification, Design Drawings, and Construction Report for Division 2 construction (Table NCA-3200-2).

NCA-3211.24: Section XI accessibility.

The Owner is responsible for providing for the design and arrangement of components to permit accessibility in accordance with Section XI.

NCA-3211.25: Designating Records to be Maintained and Providing for Their Maintenance.

The Owner shall be responsible for designating the records to be maintained (NCA-4134.17). The Owner shall also be responsible for continued maintenance of the records required by this Section and Section XI, Rules for Inservice Inspection of Nuclear Power Plant Components, at the power plant site, the Certificate Holder’s plant, or other locations determined by the Owner. The Owner shall advise the enforcement authority in writing regarding the location of the records.

NCA-3211.26: Performing or Assigning a Designee for Other Duties as Defined Throughout this Section.

The activities necessary to provide compliance with responsibilities assigned to the Owner by Table NCA-3220-1 may be performed on the Owner’s behalf by a designee; however, the responsibility for compliance remains with the Owner. When the Owner assigns any of the responsibilities listed in Table NCA-3220-1, such assignment shall contain, as a minimum, the name and address of the designee, the responsibilities being assigned, and the applicable nuclear facility or facilities.

NCA-3211.27: Structural Design Preparation

The Designer is responsible for preparing the structural design of the component in conformance with this Section and the Design Specification (NCA-3211.19)

NCA-3211.28: Prepare the Design Drawings and Construction Specification

The Designer is responsible for the preparation of Design Drawings and the Construction Specification.

(a) Design Drawings

The Design Drawings shall contain the following:

(1) concrete and steel liner thickness

(2) size and location of reinforcing steel
(3) size and location of prestressing tendons
(4) size and location of penetrations
(5) all other details necessary to construct the item in accordance with the requirements of the Design Specification, the Construction Specification, and this Section

(b) Construction Specification

The Construction Specification shall contain the following:

(1) material specifications
(2) material shipping, handling, and storage requirements
(3) inspection requirements
(4) appropriate Code references
(5) requirements for personnel or equipment qualification
(6) material or part examination and testing requirements
(7) acceptance testing requirements
(8) leak testing requirements
(9) requirements for shop drawings
(10) requirements for batching, mixing, placing, and curing concrete
(11) requirements for the fabrication and installation of the prestressing system, reinforcing steel, embedments, and all other parts
(12) identification of parts requiring a Certification Mark
(13) design life for parts and materials where necessary to establish compliance with the Design Specification
(14) construction surveillance to be performed by the Designer as required by the Design Specification
(15) construction documents that require review by the Designer — as a minimum, these will include the requirements of Table NCA-3200-2.

NCA-3211.29: Prepare and submit the Design Report.

The Designer shall prepare a Design Report in sufficient detail to show that the applicable stress limitations are satisfied when the component is subject to the loading conditions specified in the Design Specification and this Section. The Design Report prepared by the Designer shall contain calculations and sketches substantiating that the design is in accordance with the Design Specification and this Section. Distribution of the Design Report is shown in Table NCA-3200-2.

NCA-3211.30: Surveillance of construction.

The Designer is responsible for performing surveillance of construction to the extent designated by the Owner in the Design Specification (Table NCA-3200-2).

The Designer is responsible for:

(a) Construction Procedures

Construction procedures give sufficient detailed information about the methods of construction and fabrication to enable those reviewing the procedures to determine whether the requirements of the Design Specification, the Construction Specification, and the Design Drawings will be satisfied. Construction procedures will include test procedures to be performed by the Certificate Holder that are needed to establish conformance with the requirements of the documents listed in this Article. Distribution of procedures is shown in Table NCA-3200-2.

(b) Shop and Field Drawings

The Division 2 N Certificate Holder shall provide shop and field drawings. Distribution of shop and field drawings is shown in Table NCA-3200-2.

(c) Material Documentation

The Division 2 N Certificate Holder shall assemble records to verify that materials comply with the requirements of this Section and the Construction Specification.

(d) Contents of the Construction Report

The Division 2 N Certificate Holder shall provide a Construction Report. The report shall include the following:

1. a summary of construction progress showing key dates of major construction activities
2. a complete and detailed record of all containment acceptance testing
3. a summary of quality control records for components and parts
4. a list of as-built, design, field, and shop drawings showing the latest revision used for construction and date
5. a summary of deviations (nonconformances) giving a brief description of the nature of the deviations (nonconformances) and the corrective actions and the date when the corrective actions were taken
6. distribution and approvals as shown in Table NCA-3200-2.


(a) Revision of Design Drawings and Construction Specification

Design Documents issued for use in construction shall be revised to reflect any change in the Design. Changes to Design Documents shall be reviewed and certified in accordance with NCA-3211.32(b).

(b) Certification of the Construction Specification, Design Drawings, and Design Report

1. The Construction Specification, Design Drawings, and Design Report shall be reviewed and certified to be correct and in accordance with the Design Specification and this Section by one or more Certifying Engineers, on behalf of the Designer. The Certifying Engineers shall be competent in the field of design of concrete components and qualified by the designer in accordance with the requirements of Section III Appendices, Mandatory Appendix XXIII. These Certifying Engineers are not required to be independent of the organization designing the component. Distribution of Construction Specification, Design Drawings, and the Design Report is shown in Table NCA-3200-2.

2. In order for the Certifying Engineer to certify the Construction Specification and Design Drawings, it is necessary that the Design Specification has been certified. For the Constructor or Fabricator to do work in
accordance with Construction Specifications and Design Drawings, it is necessary that these documents have been certified.

**NCA-3211.33: Certification of the Construction Report.**

The Construction Report shall be evaluated by the Designer, who shall certify that the Construction Report conforms to the requirements of Division 2 and the Design Specification. They shall also provide any supplemental analysis needed to substantiate this evaluation. Prior to certification, they shall review the file of as-built, design, shop, and field drawings to establish that the list provided by the Constructor in the Construction Report corresponds to the as-built, design, shop, and field drawings that will be maintained as a file by the Owner. Distribution of the Construction Report is shown in Table NCA-3200-2.

**NCA-3211.34: Document Distribution**

The Owner (NCA-3211.19(g), Designer and N-2 Certificate Holder are responsible for document distribution as shown in Table NCA-3200-2.

**NCA-3211.35: Construction of Components and Parts**

The Division 2 N Certificate Holder is responsible for constructing the components and parts in accordance with the Design Drawings and Construction Specification(s) and in accordance with this Section.

**NCA-3211.36: Qualification of Material Organizations**

The Division 2 N Certificate Holder is responsible for qualification of Metallic Material Organizations (NCA-3800) and manufacturers of nonmetallic material (NCA-3900).

**NCA-3211.37: Preparing the Construction Report**

The Division 2 N Certificate Holder shall provide a Construction Report. The report shall include the following:

(a) a summary of construction progress showing key dates of major construction activities

(b) a complete and detailed record of all containment acceptance testing

(c) a summary of quality control records for components and parts

(d) a list of as-built, design, field, and shop drawings showing the latest revision used for construction and date

(e) a summary of deviations (nonconformances) giving a brief description of the nature of the deviations (nonconformances) and the corrective actions and the date when the corrective actions were taken

(f) distribution and approvals as shown in Table NCA-3200-2

**NCA-3211.38: Structural Integrity Testing**

The Division 2 N Certificate Holder is responsible for structural integrity testing in accordance with Article CC-6000.

**NCA-3211.4039: Contributing information to the Constructor needed for the preparation of the Construction Report for Division 2 construction.**

The N Certificate Holder shall provide a Construction Report. The report shall include the following:

(a) a summary of construction progress showing key dates of major construction activities

(b) a complete and detailed record of all containment acceptance testing
Record 16-540

(c) a summary of quality control records for components and parts

(d) a list of as-built, design, field, and shop drawings showing the latest revision used for construction and date

(e) a summary of deviations (nonconformances) giving a brief description of the nature of the deviations (nonconformances) and the corrective actions and the date when the corrective actions were taken

(f) distribution and approvals as shown in Table NCA-3200-2

NCA-3211.3940: Provision of a Design Report when one is required:

The Division 1 N Certificate Holder is responsible for:

(a) The preparation of Drawings

The drawings used for construction shall comply with the Design Specifications and the rules of this Section and shall be in agreement with the other design output documents.

(b) The Design Report

The drawings used for construction shall be in agreement with the Design Report before it is certified and shall be identified and described in the Design Report. It is the responsibility of the N Certificate Holder to furnish a Design Report for each component and support, except as provided in NCA-3211.3940(b) and NCA-3211.3940(c). The Design Report shall be certified on behalf of the N Certificate Holder by a Certifying Engineer when it is for Class 1 components and supports, Class CS core support structures, Class MC vessels and supports, Class 2 vessels designed to NC-3200 (NC-3131.1), or Class 2 or Class 3 components designed to Service Loadings greater than Design Loadings. A Class 2 Design Report shall be prepared for Class 1 piping NPS 1 (DN 25) or smaller that is designed in accordance with the rules of Subsection NC.

(c) The Load Capacity Data Sheet

The Load Capacity Data Sheet shall state the load capacity of the support and identify the tests and calculations used to establish the load capacity. The Load Capacity Data Sheet shall adequately identify the support. The Load Capacity Data Sheet for supports for Class 1 components, Class MC vessels, and Class 2 vessels designed to NC-3200 shall be certified by a Certifying Engineer on behalf of the N or NS Certificate Holder. The Certifying Engineer shall be qualified by the N or NS Certificate Holder in accordance with the requirements of Section III Appendices, Mandatory Appendix XXIII. The Load Capacity Data Sheet shall specify the organization responsible for retaining the data substantiating the stated load capacity. Such data shall be on file and available for review.

(d) Certified Design Report Summary.

For standard supports designed by analysis, a Certified Design Report Summary may be furnished in lieu of a Design Report when the manufacturer of the standard support provides their own Design Specification [NCA-3211.19(f)]. The Design Report used to justify the Certified Design Report Summary shall be certified by a Certifying Engineer, on behalf of the N or NS Certificate Holder prior to completion of the Certified Design Report Summary. The Certifying Engineer shall be qualified by the N or NS Certificate Holder in accordance with the requirements of Section III Appendices, Mandatory Appendix XXIII. The Certified Design Report Summary shall include (1) through (7) below.

(1) A description or sketch of the standard support including the manufacturer’s catalog item number or identification number.

(2) Identification and location of the standard support manufacturer’s applicable Design Specification.

(3) Identification and location of the standard support manufacturer’s applicable Design Report.
(4) The classification (Class 1, 2, 3, or combination) of the standard support.

(5) A summary of allowable loads, temperatures, and associated Service Level Limits that the designer of the piping system or other component may use in their design.

(6) Applicable Code Editions and Addenda. (if applicable).

(7) Date the Certified Design Report is certified. As an alternative, if the Certified Design Report Summary is certified by a Certifying Engineer, on behalf of the N or NS Certificate Holder, the Date of Certification may be the date the Certified Design Report Summary is certified.

(e) Stress Analysis of Parts

When the N Certificate Holder purchases parts from an NPT Certificate Holder, it is the responsibility of the N Certificate Holder to provide or cause to be provided the calculations for the parts and to incorporate them into the design output documents.

(f) Stress Analysis of Appurtenances

The design output documents for each appurtenance that is to be attached to a completed component shall be provided unless they are already included in the component design output documents.

(g) Reconciliation of Design Drawing Changes with Design Report

Any modification of any document used for construction, from the corresponding document used for design analysis, shall be reconciled with the Design Report by the person or organization responsible for the design. A revision or addenda to the Design Report shall be prepared and (if required by NCA-3211.3409(a)) certified to indicate the basis on which this has been accomplished. All such revised documentation shall be filed with the completed Design Report.

(h) Certification of Design Report

(1) The Design Report for Class 1 components and supports, Class CS core support structures, Class MC vessels and supports, Class 2 vessels designed to NC-3200 (NC-3131.1), or Class 2 or Class 3 components designed to Service Loadings shall be certified by one or more Certifying Engineers, on behalf of the N Certificate Holder. The Certifying Engineers shall be competent in the applicable field of design and qualified by the N Certificate Holder in accordance with the requirements of Section III Appendices, Mandatory Appendix XXIII. The Design Report shall be certified only after all design requirements of this Section have been met. Such Certifying Engineers shall be other than the individuals certifying the Design Specifications (NCA-3211.19(e)) but are not required by these rules to be independent of the organization holding the certificate.

(2) It is the intent of this Section that the certification of the Design Report shall in no way relieve the N Certificate Holder of the responsibility for the structural integrity of the completed item for the conditions stated in the Design Specifications.

(i) Availability of Design Report and its Documentation of Review

The N Certificate Holder shall make a copy of the completed Design Report, Load Capacity Data Sheets, Certified Design Report Summaries, and the drawings used for construction available to the Inspector.

(j) Provision of the Design Report to the Owner or Their Designee

The N Certificate Holder shall submit to the Owner or their designee a copy of the completed Design Report for all components and supports for review and documentation of review to the extent required by NCA-3211.20.
(k) Filing the Design Report or Certified Design Report Summary


**NCA-3211.40: Contributing information to the Constructor needed for the preparation of the Construction Report for Division 2 construction.**

The N Certificate Holder shall provide a Construction Report. The report shall include the following:

(a) a summary of construction progress showing key dates of major construction activities

(b) a complete and detailed record of all containment acceptance testing

(c) a summary of quality control records for components and parts

(d) a list of as-built, design, field, and shop drawings showing the latest revision used for construction and date

(e) a summary of deviations (nonconformances) giving a brief description of the nature of the deviations (nonconformances) and the corrective actions and the date when the corrective actions were taken

(f) distribution and approvals as shown in Table NCA-3200-2

**NCA-3211.41: Fabricating Parts**

The NPT Certificate Holder shall fabricate parts assigned to him in accordance with the Design Drawings, Construction Specification(s), and this Section.

**NCA-3211.42: Provision of Design Report for appurtenances when not included in the component Design Report.**

The Design Documents for each appurtenance which is to be attached to a completed component shall be provided unless they are already included in the component Design Documents.

**NCA-3211.43: Completing a Certificate of Conformance.**

(a) The NS Certificate Holder shall certify compliance with this Section by signing the NS-1 Certificate of Conformance for welded items (Article NCA-8000).

1. Multiple supports of the same type can be listed by attaching additional sheets to the NS-1 Certificate of Conformance.

2. The NS-1 Certificate of Conformance shall be forwarded to the Purchaser prior to or with the shipment.

3. Each welded support shall be traceable to the NS-1 Certificate of Conformance using a permanent marking method that is not detrimental to the support being supplied.

(b) For those items not requiring an NS-1 Certificate of Conformance (i.e., non-welded supports), a Certificate of Compliance shall be supplied.

1. The Certificate of Compliance shall include the Certificate of Authorization number and expiration date. When the Certificate Holder has design responsibility, the Certificate of Compliance shall include the number and revision level of the Design Report, the Certified Design Report Summary, or Load Capacity Data Sheet.

2. For organizations that are not certificate holders, the Certificate of Compliance shall reference the Quality System Program, revision level, and date to which the work was performed that was approved by
the organization to whom the supports are supplied. This shall be considered the manufacturing organization’s certification that all activities have been performed in accordance with this Article.

NCA-3211.44: Supports for Piping Subassemblies or Parts

The NS Certificate Holder is responsible for compliance with NCA-1230 for supports supplied as parts or supports that are part of the piping subassemblies or component, with the exception that no stamping is required.

NCA-3211.45: Fabrication of Supports

The NS Certificate Holder is responsible for fabricating in accordance with the Design Drawings, Design Specification(s), and this Section.

NCA-3211.46: Providing a Design Specification

The NS Certificate Holder is responsible for providing a Design Specification for standard supports in accordance with NCA-1230.19(h)(2) and, when required, preparation of design output documents for standard supports in accordance with NCA-3211.3940.

NCA-3211.47: Compliance with Design Output Documents

The NS Certificate Holder is responsible for complying with the provisions of design output documents (NCA-3211.3940).

NCA-3211.48: Supply of Supports Constructed to Previous Boiler Code editions and addenda

The NS Certificate Holder may supply supports constructed to previous Boiler Code editions and addenda without stamping and ANI inspection.

NCA-3211.49: Provision of a Design Report when one is required

The NV Certificate Holder is responsible for:

(a) Preparation of Drawings.

The drawings used for construction shall comply with the Design Specifications and the rules of this Section and shall be in agreement with the other design output documents.

The drawings used for construction shall be in agreement with the Design Report before it is certified and shall be identified and described in the Design Report. It is the responsibility of the NV Certificate Holder to furnish a Design Report for each component. The Design Report shall be certified by a Certifying Engineer when it is for Class 1 components, or Class 2 or Class 3 components designed to Service Loadings greater than Design Loadings.

(b) Preparation of Design Output Documents for Parts and Appurtenances.

(1) When the NV Certificate Holder purchases parts from an NPT Certificate Holder, it is the responsibility of the NV Certificate Holder to provide or cause to be provided the calculations for the parts and to incorporate them into the design output documents.

(2) The design output documents for each appurtenance that is to be attached to a completed component shall be provided unless they are already included in the component design output documents.

(c) Reconciliation of Design Drawing Changes with the Design Report

Any modification of any document used for construction, from the corresponding documents used for design analysis, shall be reconciled with the Design Report by the person or organization responsible for the design. A revision or addenda to the Design Report shall be prepared and (if required by NCA-3211.491(b)) certified to
indicate the basis on which this has been accomplished. All such revised documentation shall be filed with the completed Design Report.

(d) Certification of the Design Report

(1) The Design Report for Class 1 components, or Class 2 or Class 3 components designed to Service Loadings, shall be certified by one or more Certifying Engineers competent in the applicable field of design and qualified in accordance with the requirements of Section III Appendices, Mandatory Appendix XXIII. The Design Report shall be certified only after all design requirements of this Section have been met. Such Certifying Engineers shall be other than the individuals certifying the Design Specifications (NCA-3211.19(g)) but are not required by these rules to be independent of the organization holding the certificate.

(2) It is the intent of this Section that the certification of the Design Report shall in no way relieve the NV Certificate Holder of the responsibility for the structural integrity of the completed item for the conditions stated in the Design Specifications.

(e) Availability of the Design Report and its Documentation of Review

The NV Certificate Holder shall make a copy of the completed Design Report and the drawings used for construction available to the Inspector.

(f) Provision of a Design Report to Owner or their Designees for Review, and Documentation of Review.

The NV Certificate Holder shall submit to the Owner or their designee a copy of the completed Design Report for all components for review and documentation of review to the extent required by NCA-3211.20.

(g) Filing the Design Report

The NV Certificate Holder is responsible for filing the Design Report at the site of installation.

NCA-3211.50: Capacity Certification Tests

The NV Certificate Holder is responsible for completing capacity certification tests in accordance with the requirements of this Section (NB/NC/ ND/NE-7700).
### Table NCA-3200-1

#### Document Distribution for Division 2 Construction

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**Legend:**
- O — Owner or his designee
- D — Designer
- C — Constructor
- F — Fabricator
- M — Material manufacturer
- I — Inspector
- J — Enforcement authority

**Note:**
(1) Information provided to the indicated participants when required to satisfy their designated responsibilities under this Section. Other information provided only by specific arrangement with the Owner. Participants are required to furnish only such information as is necessary to permit the recipient to perform his duties in conformance with this Section. Other information may be furnished at the discretion of the responsible parties.