

## **NR CHECKLIST**

Rev. 4, (11/2020)

Certifica	ate Number: Date completed:			
lationa	I Board Inspection Code Part 3, 1.6			
lanual เ	used for completing this checklist:			
E	Edition:			
a) Orç	ganization	Υ	N	References
1.	Has the Organizational Structure of the program identified the levels of management responsible for the Quality System Program, including authority and lines of communication?			
2.	Are individuals responsible for the Quality System Program established and documented on an organizational chart by title?			
3.	Are individuals within the organization responsible for defining and measuring the overall effectiveness of the Quality System Program sufficiently independent from the pressures of production?			
4.	Do individuals responsible for Quality have direct access to upper level management on matters effecting quality?			
5.	Has management provided measures for individuals or groups assigned the responsibility of inspection, testing, checking or otherwise verifying an activity has been correctly performed? Including:  a) Identifying quality problems; b) Initiating, recommending or providing solutions; c) Verifying implementation of solutions; and			
6.	d) Control of unsatisfactory conditions.  Does the organization structure clearly describe interfaces between external and internal organizations/organization units?			
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<b>b) Sta</b>	tement of Policy and Authority  Does the Statement of Policy and Authority (Statement) identify the titles of individuals	Υ	N	References
	who have the authority and responsibility charged with ensuring the quality program is implemented as described?			
2.	Does the Statement confirm their freedom in the organization to identify quality problems and to initiate, recommend and provide solutions?			
3.	Does the Statement include a statement that if there is a disagreement in the implementation of the quality assurance program, the matter is to be referred for resolution to a higher authority and shall be resolved in a manner that will not conflict with code, jurisdiction/regulatory authority or quality program requirements?			
4.	Does the Statement include a statement of the full support of management?			
5.	Is the Statement signed and dated by a senior management official within the organization?			
c) Ou	ality Assurance Program (QAP)	Υ	N	References
c) Qua	Is the Quality system program implemented as described within the text of the Quality Assurance Manual, including use of appropriate forms as referenced in the QA Manual?	1	14	- ACIGIGIOGS
2.	Does the organizational structure delineate the levels of responsibility, organizational authority, and lines of communication for individuals involved in the QA program?			
	-Continued on next page-			

System Program.

10.

required statements?

concerned with the Quality System Program?

(	Company Name:					
(	Certificate Number: Date completed:					
	c) Qua	ality Assurance Program (QAP) (continued)	Υ	N	References	
	3.	Is the Quality System Program clearly documented and supported by written policies, procedures, and instructions, and are these written policies and procedures based on the organization's scope of work to be performed?				
	4.	Are all the elements that are required by NBIC Part 3 implemented?				
	5.	Does the program provide for accomplishment of activities affecting quality under suitably controlled conditions and prerequisites for activities satisfied?				
	6.	Does the program provide for ready detection of nonconforming materials and items, and for the timely and positive corrective action?				
	7.	Does the Quality System Program clearly and accurately define the scope of activities, and whether the activities will be conducted in the shop, at field sites, or both?				
	8.	Are repair/replacement activities controlled at all points necessary (scope) to assure conformance to the rules of the NBIC, ASME Section XI, Section III or other codes as				

applicable? Including regulatory/jurisdictional requirements as specified in the Quality

Is the Policy and Responsibility Statement signed by management and contain all

Does the responsibility of individual (s) or group(s) that affects quality include the review, acceptance and control of written procedures and monitoring of activities

Do quality activities utilize suitable controlled conditions such as; appropriate equipment, suitable environmental conditions and prerequisites for performance.

d) Des	sign Control	Υ	N	References
1.	Does the Quality System Program provide for control of design activities whether performed by the applicant, owner, or subcontracted services?			
2.	Does the Quality System assure that, and correctly incorporate the owner's design specifications, drawings, procedures, and instructions which are necessary to perform the work undertaken?			
3.	Does the system provide provisions to assure that the appropriate quality standards are specified and included in the owner's design specification, drawings, procedures, and instructions?			
4.	Does the system provide for the review of the owner's design specification, drawings, procedures, and instructions meeting requirements of a specific code edition/addenda of Section XI, NBIC or other codes/standards?			
5.	Are the applicant's engineering personnel properly qualified and certified as required by the applicable Code?			
6.	Are there provisions for reconciling any design conflicts between the owner and the repair/replacement organization?			
7.	Are controls identified for subcontracting design and verification of design documents?			
8.	Is responsibility for design clearly identified and documented on the NR-1 and/or NVR-1 forms?			

e) Pr	e) Procurement Document Control		N	References
1.	Does the program establish a system for control of documents for the procurement of materials, items, and subcontracted services?			
2.	Are there review and control of documents, including revisions, for procurement of materials, items, and subcontracted services? This includes requirements to the extent necessary to assure compliance with the owner's design specification, NBIC and applicable codes and standards referenced for the Repair/replacement activity?  -Continued on next page-			

ertific	ate Number: Date completed:			
e) Pro	ocurement Document Control (continued)	Υ	N	References
3.	Does the quality program require the supplier to maintain a Quality System Program consistent with the applicable requirements of the section of the Code to which the repair/replacement activities are performed?			
4.	Has the system been implemented to assure that all purchased materials, items, and subcontracted services conform to the requirements as established by the Quality System Program, the NBIC and the applicable code sections? To include:  a) Procurement documents shall include a scope of work to be performed; b) Technical requirements specified/referenced; c) Access to supplier's facilities when required; d) Required documentation to be submitted or retained; e) Supplier reporting of non-conformances; and f) Review and acceptance of procurement documents submitted and received.			

f) Inst	ructions, Procedures and Drawings	Υ	N	References
1.	Has the applicant established a system for the review and approval of instructions, procedures, and drawings, including revisions? This includes regulatory and enforcement authorities when required.			
2.	Does the system provide for instructions, procedures, drawings to be used, identified and distributed to personnel to assure Code compliance?			
3.	Do the instructions, procedures, and drawings include the appropriate quantitative and qualitative criteria for determining that activities affecting quality have been satisfactorily accomplished?			
4.	Does the applicant maintain a written description of procedures used for the control of quality that includes examination inspection and testing acceptance criteria?			
5.	Do the written procedures and/or work instructions provide sufficient detail to accomplish the requirement, including using trained and qualified personnel, and are they implemented as required?			
6.	Are instructions, procedures, and drawings made available to the Authorized Nuclear Inspector, and are they approved for release by authorized personnel, including the AIA prior to work performed?			

g)	Dog	cument Control	Υ	N	References
	1.	Does the applicant's system establish the controls for preparation, review, issuance,			
		use, and approval of documents for the following?			
		a) Specifications;			
		b) Work Instructions;			
		c) Procedures; and			
		d) Drawings.			
	2.	Does the Quality System Program establish measures to ensure that the latest			
		applicable documents, including revisions are reviewed for adequacy, completeness			
		and approved for release by authorized personnel?			
	3.	Does the Quality system establish measures for distribution of documents to locations			
		where the prescribed activity will be performed?			

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h) Co	ntrol of Purchased Material, Items, and Services	Υ	N	References
1.	Has the applicant established a system which assures that all purchased materials, items and services conform to the requirements of the owner's design specification and applicable code edition and addenda?			
2.	Does the system provide for the following controls, as appropriate for: including objective evidence of material requirements such as;  a) Source evaluation and selection; b) Evaluation of objective evidence of Quality; and c) Source inspection, audit and examination of material items or services upon delivery or completion.			
3.	Are activities (inspections, procedures, instructions) that affect quality being properly implemented in accordance with the Quality System Manual?			
4.	Are there controls established for supplier generated documents, including revisions that provide for acquisition, processing and evaluation against acceptance criteria specified.			
5.	Does the system require identification of materials, items and services for traceability for source evaluations?			

i) Ider	ntification and Control of Items	Υ	N	References
1.	Has the Quality System Program established requirements for the identification and control of materials and items, included partially fabricated assemblies?			
2.	Does the system require maintenance of identification of materials and items, either on the material or item, or on a record throughout the repair, or replacement activity? (storage and handling)			
3.	Is the method used for the identification/markings of materials, or items either permanent or temporary? Are the markings, whether permanent or temporary, legible and not detrimental to the component or system?			
4.	Do the instructions for identification of materials or items describe where the identification will be located, and assure that the markings will not interfere with the function or quality of the item?			
5.	Is the information on Certified Material Test Reports, or Certificates of Compliance verified for applicable Code requirements, as specified in the owner's design specification?			
6.	Does the applicant's program include requirements for the receiving, reviewing, and accepting of all Certified Material Test Reports, and Certificates of Compliance, including use of trained and qualified personnel?			
7.	Are tests performed by the applicant or subcontractors in compliance with the material specification or other requirements and the supporting documents list all the required range of values?			
8.	When additional examination and testing is performed, are there previsions for updating/certifying existing reports/records?			

j) Cor	trol of Processes	Υ	N	References
1.	Does the Quality System Program establish controls for processes used; i.e., NDE, Welding, Heat Treatment and Bending and Forming? Use of process sheets, checklists, travelers, plans.			
2.	Is all NDE performed in accordance with the owner's specification and Code requirements?			
3.	Are all NDE Procedures and personnel approved and qualified in accordance with the applicant's Quality System Program?			
4.	Have all NDE Procedures been demonstrated to the satisfaction of the Authorized Nuclear Inspector on sample pieces with known defects prior to use?			
	-Continued on next page-			

Company Name:						
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j) Cor	ntrol of Processes (continued)	Υ	N	References
5.	Are there provisions for the Authorized Nuclear Inspector to have NDE Procedures			
	and/or NDE personnel re-qualified, when deemed necessary?			
6.	Is welding performed and documented in accordance with the applicant's Quality			
	System Program, the applicable code sections and the NBIC?			
7.	Are there provisions that welding be performed in accordance with the owner's design			
	specification using qualified procedures and personnel?			
8.	Are there provisions for the responsibility for qualification and certification of welding			
	procedures?			
9.	Has responsibility been established for qualification and certification of welders, and			
	welding operators?			
10.	Is there a system in place that establishes responsibility for instruction, assignment,			
	and supervision of welders, and welding operators?			
11.	Does the system provide for re-qualification of weld procedures, welders, and welding			
	operators by the Authorized Nuclear Inspector for just cause?			
12.	Has the applicant qualified, or if subcontracted, approved the applicable Heat			
	Treatment procedures in accordance with the owner's specification and QAM?			
13.	Do the approved heat treatment procedures satisfy the applicable code requirements?			
14.	Are personnel performing heat treatment activity qualified and certified, as applicable,			
	to the certificate holder's procedures?			
15.	Has the applicant's program established provisions for the review and acceptance of			
	heat treatment activities, which includes requirements for identification, traceability,			
	personnel qualifications and receipt inspection?			
16.	Do the welding procedures that are used, satisfy the heat treatment requirements as			
	established by the owner's design specification, and applicable Code requirements?			
17.				
	Code requirements, and the owner's specification?			
18.	Does the applicant's bending and forming procedures identify the appropriate			
	acceptance requirements as established by the Code or the owner's design			
	specification?			
19.	Have the procedures for bending and forming operation been reviewed and approved			
	as required?			
20.	Do the Process Sheets, Check Lists, or Travelers identify NDE, Welding, Heat			
	Treatment, Bending and Forming activities? Are instruction procedures numbered and			
	assigned a revision level applicable for the work identified?			
21.	Is space provided for reporting results of the completion of specific operations at			
	checkpoints of repair/replacement activities?			

k) Ex	aminations, Tests and Inspections	Υ	N	References
1.	Are in-process, final examination, and tests performed in accordance with the			
	applicant's Quality System Program? Is inspection planning process implemented?			
2.	Has the applicant established that in-process and final examination and tests are in accordance with specifications, drawings, instructions, and procedures which incorporate or reference the requirements and acceptance limits contained in the applicable design documents?  a) Calibrated instrumentation; b) Equipment type;			
	c) Trained personnel; d) Condition of test equipment and the item to be tested; e) Suitable environmental conditions; and f) Provisions for data acquisition.  -Continued on next page-			

Cc	Company Name:				
Ce	ertifica	ate Number: Date completed:			
П	k) Exa	aminations, Tests and Inspections (continued)	Υ	N	References
	3.	Are examination activities affecting quality performed by qualified persons other than the person who performed the activity being examined?			
	4.	Do process sheets, travelers, or checklists identify the activity to be performed, document number, and revision to which the examination or test is to be performed, with space provided for recording the applicable results?			
	5.	Do process sheets, travelers, or checklists provide provisions for the quality personnel and Authorized Nuclear Inspectors to select Hold Points and sign off inspections?			
	6.	Does the applicant's Quality System Program establish requirements that the Authorized Nuclear Inspectors' Hold Points cannot be bypassed?			
	7.	Does the repair/replacement plan include:  a) Description of activities required; b) Defects and examination methods used; c) Defect removal methods; d) Required documentation and stamping; and e) Acceptance criteria.			
	8.	Are the repair/replacement plans and evaluations subject to review by the enforcement and regulatory authorities, when required? (Review objective evidence when required)			

I) Tes	et Control	Υ	N	References
1.	Has an interface system been established between the certificate holder's and the owner's test control procedures, which incorporates or references the requirements			
	and acceptance limits contained in the design documents?			
2.	Are test results and acceptance criteria provided and approved by qualified personnel?			
3.	Are the necessary provisions for monitoring or witnessing tests identified in the applicable test procedure?			
4.	Has the applicant established prerequisites that calibrated instrumentation, and the appropriate equipment used; trained personnel are used, and condition of test equipment and the item to be tested meet suitable environmental conditions, and are there provisions for data acquisition?			
5.	Is there a system for compiling, documenting, and evaluating test results using qualified personnel?			
6.	Do test records contain the following information:  a) Item tested; b) Date of test; c) Tester or date recorder; d) Type of Observation; e) Results and acceptability; f) Deviations and actions taken; and g) Person evaluating results.			

m) Co	ontrol of Measuring and Testing Equipment	Υ	N	References
1.	Does the applicant's Quality System Program establish requirements for the calibration, control, issuance, and retrieval of measurement and test equipment?			
2.	Is measurement and test equipment identified to ensure traceability of the equipment being tested, and are records maintained?			
3.	Is the measurement and test equipment designed for the activity being tested, in regard to range, type, and accuracy to verify conformance to established requirements?  -Continued on next page-			

erti	icate Number: Date completed:			
m)	Control of Measuring and Testing Equipment (continued)	Υ	N	References
	4. Has the applicant developed procedures to ensure that all measurement and test equipment is calibrated, properly adjusted at specific periods, or used at intervals to maintain accuracy within the specified limits? (frequency)	-		
	<ul> <li>Are the calibration methods used for measurement and test equipment traceable to known standards, where such standards exist?</li> </ul>			
	6. Does the program allow for subcontracted calibration services as an alternative to survey and audit of supply? (NCA 3126)			
	7. Does the program provide requirements for when discrepancies are found they shall be resolved back to the prior periodic check?			
n)	landling, Storage and Shipping	Υ	N	References
11)	Does the applicant have established processes or procedures that will prevent damage, deterioration or misuse of material, items or components used and stored?	•	IN	Kelelelices
	2. Does the quality program specify controls for handling, shipping, storage, cleanliness and preservation?			
	3. Does the quality program ensure that special equipment and protective environments are specified, provided, and verified when required?			
	<ul> <li>4. Does the quality program ensure that special tools and equipment: <ul> <li>a) are utilized and controlled for safe an adequate handling;</li> <li>b) are inspected and tested in accordance with specified procedures at specified intervals or prior to use; and</li> <li>c) operators are experienced or trained?</li> </ul> </li> </ul>			
0)	Quality Assurance Records	Υ	N	References
	1. Has the applicant established procedures for maintenance of Quality Records for the repair and replacement program?			
	<ul> <li>Does the applicant's procedure for Quality Records identify requirements for maintenance of the following?</li> <li>a) Materials;</li> <li>b) Manufacturing;</li> <li>c) Examinations and test data taken before and during the repair or replacement;</li> <li>d) Applicable procedures;</li> <li>e) Specifications;</li> <li>f) Drawings used (as builts) with applicable revisions, and issue date;</li> </ul>			
	<ul><li>g) Identification numbers of all documents; and</li><li>h) Others as required by the Code and QA manual.</li></ul>			
	3. Do the Quality Records identify qualification of personnel, procedures, equipment and related repairs, or replacement activities?			
	4. Verify that the applicant provides suitable protection from deterioration and damage for all records while in the applicant's care.			
	<ol> <li>Verify the control system used for the storage, maintenance, retrieval and correction of records.</li> </ol>			
	6. Are there provisions for transfer of records to the owner at their request?			
	7. Does the system provide for, after the completion of repair, or replacement activities that the records, including audit reports required to verify compliance with the applicable engineering documents and the applicant's Quality System Program have been maintained at a place mutually agreed upon by the owner and the applicant?			
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o) Qu	ality Assurance Records (continued)	Υ	N	References			
9.	Does the applicant's program identify requirements that Quality Records shall be maintained for a period of five years after the completion of the repair, or replacement?						
10.	Does the applicant's Quality System Program identify requirements for registration of the completed Form NR-1, or Form NVR-1, as applicable, to the National Board and when required, the Jurisdiction? Is a registration log maintained?						
11.	Are records filed and maintained in a manner to allow access by the ANI, ANIS, ANII or ANIIS?						
n) Co	rrective Action	Υ	N	References			
1.	Does the applicant's system provide for correction of conditions adverse to quality?	_ <u>  I</u>	IN	References			
2.	Does the system provide for documenting corrective actions?	_					
	•	_					
4.	Verify that the system provides for personnel responsibilities including management review.	+					
5.	Does the system provide for measures to assure corrective action taken to preclude repetition?						
6.	Does the corrective action program extend to the performance of subcontractor's activities?						
a) Ins	spection or Test Status (not to include operating status)	Υ	N	References			
1.	Does the system provide measures to indicate inspection and test status of parts,	+	1	110101011000			
	items, or components during the repair/replacement activity?						
2.	Does the system provide positive identification of the part, item, or component by						
	means of stamps, labels, routing cards, or other acceptable methods?						
3.	Does the system provide procedures for the identification of acceptable and						
	unacceptable items and for the control of status indicators?						
4.	Does the system specify the authority for application and removal of status indicators	<u>}</u>					
r) Nor	nconforming Materials or Items	Υ	N	References			
1.		,					
2.	Does the applicant's nonconforming system provide for identification by legibly marking, tagging or other methods?						
3.	Does the applicant's system provide for disposition/evaluation/Jurisdiction of nonconforming items, materials or procedures by authorized personnel?						
4.	Does the system define for the responsibility and authority of personnel for nonconforming items?						
5.	Does the applicant's system provide for verification of or resolution of (closure) nonconformances?						
6.	Does the applicant's system provide for the Authorized Nuclear Inspectors' involvement of disposition and verification of completed activities?						
7.	Does the Quality System Program provide for closure and filing/maintenance tracking of documents?						
8.	Does the quality program provide for documented procedures to be followed for internal and external organizations non-conformances?						
9.	Does the quality program provide for training, management review or corrective						

Company Name:

	ficate Number: Date completed:			
s)	Audits	Υ	N	References
	Are there provisions for planned, comprehensive periodic internal annual audits of elements of the Quality System to determine effectiveness of the program?			
	2. Does the applicant provide responsibility for assigning auditors and lead auditors for both internal and external audits?			
	3. Does the system provide for audits to be conducted in accordance with procedures, audit scope, audit plans, and audit checklists?			
	4. Does the applicant's system provide for not assigning auditors to areas where they are responsible?			
	5. Are there provisions for the required audit report to be submitted and signed by the lead auditor?			
	6. Are there provisions for qualification and certification of auditors and lead auditors?			
	7. Are audit results reviewed by management?			
	8. Are follow-up actions including re-audit of deficient areas identified and corrective actions taken?			
t)	Authorized Nuclear Inspector	Υ	N	References
	1. Are there provisions for the Authorized Inspector's review of design documents, including the User's Design Specification?			
	2. Are there provisions for free access for the ANI and ANIS of the applicant's or subcontracted facility to satisfy Code requirements?			
	3. Are there provisions for the ANI to select Hold and inspection Points as required?			
	4. Are there provisions for annual audits by the AIA?			
	5. Are there provisions for signing Form NR-1 or NVR-1?			
	6. Are there provisions for notifying the inspector by responsible personnel?			
	7. Are there provisions to ensure code and NBIC requirements are met by the organization including refusal by the ANI to sign the NR-1 or NVR-1 forms when requirements are not met?			
u)	Exhibits	Υ	N	References
	1. Are the forms and exhibits referenced in the Quality Assurance Manual explained in the text and included as part of the referencing document or as an appendix to the Quality Assurance Manual?			
	Are the forms controlled and identified to show the latest approved revision, name, and other corresponding references as stated in the Quality Assurance Manual?			
	and other corresponding references as stated in the addity resourches wantati.	<u> </u>		
v)	Interface with the Owner's Repair/Replacement Program	Υ	N	References
	Is the applicant's repair/replacement plan acceptable to the jurisdiction and the Owner's Authorized In-Service Nuclear Inspector (ANII)?			
	2. Does the applicant's repair/replacement activity performed satisfy Code, referenced			
	standards, and owner's requirements?		-	
	3. Does the applicant's repair and replacement program have provisions for documenting the activities on the Form NR-1 or Form NVR-1, whichever is applicable?			
	<ul><li>4. Does the applicant provide the Form NR-1 and/or NVR-1 for distribution to the Owner,</li></ul>			
	jurisdiction and National Board for registration as required?			
	Does the applicant's program provide for control of nameplates and stamping?	<del>                                     </del>		