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Note : Highlighted sections are only applied to tasks associated with Electronic Div'

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Revision History

Rev. No	Date	Description	Remark
0	2017.07.14	New establish for Separation of Nuclear / General Procedure	

1.0 Scope

This procedure applies to receiving inspection, in-process inspection and final inspection performed in-house to verify that the specified requirements for the product are satisfied.

2.0 Responsibilities and Authorities

2.1 The QM Dept General Manager is responsible for verifying, judging and approving the receipt (import) inspection, process inspection and product inspection of the raw and auxiliary materials or inspection results.

2.2 The QM Dept General Manager is responsible for the establishment of the test plan, the conduct of the test, and the determination of the test results, In the event of a nonconformance that has a significant effect on the quality of the test results, the relevant department shall require corrective action in writing.

2.3 The QC inspector has the responsibility and authority to conduct the inspection work fairly and accurately and to maintain the maintenance of inspection records.

2.4 The QM Dept General Manager is responsible for assigning qualified personnel to the personnel performing inspection and testing tasks.

2.5 The Purchasing Dept General Manager is responsible for purchasing the appropriate raw materials and general purchases according to the purchasing requirements and requesting the receiving inspection.

3.0 Performance of inspection

3.1 Receiving inspection

3.1.1 The receiving inspection is carried out by a QC inspector certified by the "QAP-18.2 qualification management procedure ". In the case of the electricity division, auxiliary materials and general purchases are carried out by the purchaser's own inspection.

3.1.2 The purchasing manager requests the QC inspector to inspect the received materials when the raw materials and the outsourced goods are put in BMT, the QC inspectors records the results on the transaction specification and input on the ERP system, processes the accepted product in the warehouse.

3.1.3 The QC inspectors conduct inspections of all or part of the following items.

a) Document review
b) Appearance inspection (appearance)
c) Dimensional inspection
d) Identification mark
e) Test report
f) Packaging, storage status

3.1.4 The goods received shall not be used or machined until tested or otherwise verified.

3.1.5 As a result of the inspection of the goods, the accepted product shall be attached the acceptance tag to the product according to the "QAP-8.1 Material Identification Management Procedure" and goods should be placed in the warehouse or designated storage area.

3.1.6 If there is a nonconformance in the results of the receiving inspection, proceed according to "QAP-15.1 Nonconformance control Procedure". If the content of the nonconformance is minor, return or exchange according to the situation.

3.1.7 The acceptance criteria for raw materials, finished products, etc., shall be

carried out and determined according to the receiving inspection standard, purchase specification, and production drawing.

3.1.8 The QC inspector computerize the results of the inspection, computation registration, stamp and sign on the transaction specification after the receiving inspection

3.1.9 The QC inspector may, if necessary, ask the external supplier to submit the inspection report after carrying out the self-inspection.

3.1.10 It may omit the receiving inspection for:

a) It is not directly related to the quality of the product
b) Normally used consumables (hydraulic oil, protective cap, etc.)
c) When confirmation is made on site for urgent production purposes

3.2 In-Process Inspection (※it is not applicable to Electric Div')

3.2.1 In-process inspection, each worker carries out self-inspection of the first product and records the inspection result on the self-inspection check sheet.

3.2.2 The QC inspector conducts inspections according to the drawings and related standards of the product and records the results of the inspection results on the self-inspection check sheet prepared by the worker.

3.2.3 If the worker finds an nonconformance product during the self-inspection, or if the QC inspector finds a nonconformance product during the verification of the check sheet, it shall be dealt with in accordance with the "QAP-15.1 Nonconformance control Procedure".

3.3 Final inspection

3.3.1 The worker will ask the quality control inspector for final inspection after the necessary process is completed according to the manufacturing

process plan.

3.3.2 The QC inspector inspects the machined product for compliance with the specified requirements according to the drawings and documented criteria.

3.3.3 The QC inspector shall carry out the final inspection in accordance with the approved QC process, the relevant inspection standard, the product specification or the final drawing and record the results in the final inspection report (QAP-10.1-4). In the case of the electricity division, the QC inspector conduct the required tests on the finished product and record the test results in the test report.

3.3.4 At the final inspection, QC inspector confirm that all the requirements for the product are satisfied with the following items.

a) whether all planned processes are completed
b) Are the relevant tests and tests completed?
c) Is there a problem with the related document?
d) Whether the nonconformance has been resolved
e) Whether the product specification or customer requirements are all resolved

3.3.5 If any nonconformance occurs during the final inspection, it shall be handled according to the discrepancy management procedure.

3.3.6 No product shall be shipped until satisfactory completion of all specified activities and the availability of relevant materials and documentation have been prepared and approved.

3.3.7 If the contract specifies that the customer/third party's witness, the final inspection shall be conducted by the presence of the client/third party, If necessary, the inspection schedule can be adjusted in consultation with the customer.

3.3.8 If the customer or third party witness inspection is applicable, the QC inspector will apply for inspection to the customer or the third party when passing the final inspection, nonconformance that occur during the witness inspection shall be completed before shipment.

3.3.9 If all of the related requirements are not resolved at the final inspection, the QC inspector will prepare action plan, notify the production department, and carry out follow-up work according to the customer complaint control procedure.

4.0 Performance of test

4.1 All test methods performed in the laboratory shall be documented and performed in accordance with the procedures.

4.2 The test personnel conducting the examination shall complete the appropriate subject of education and training and shall be qualified according to the "QAP-18.2 qualification management procedure"

4.3 Products and specimens for testing shall be identified and segregated.

4.4 The test acceptance criteria conform to the customer specification or related standard, and it is decided whether or not to accept the test according to the test result.

4.5 The results of the test shall be recorded in the test report and shall be maintained after review and approval by the head of the quality management department.

5.0 Control of Nonconformance

5.1 Failed products identified by inspect or test are using a hold tag to prevent inadvertent use. The hold tag should be recorded in detail about the content of the nonconformance.

5.2 If it is not possible to identify it due to the characteristic of the product, it shall be stored in a designated area.

5.3 The nonconformance product shall be processed in accordance with the disposal procedure after the nonconformance report is prepared in accordance with "QAP-15.1 nonconformance control procedure".

5.4 The related operation shall not be performed until the nonconformance has been satisfactorily completed and the hold tag has been removed.

5.5 The results of re-inspection or retesting for the nonconformance shall be recorded in the nonconformance report or shall be kept attached to it.

6.0 Control of the inspection and testing status

6.1 Identification of receiving inspection status

After receiving inspection, the QC inspector makes a judgment on the receiving inspection report or the transaction specification sheet, attaches the acceptance tag, and puts it in the applicable warehouse.

6.2 Identification of in-process inspection status

The QC inspector shall record the acceptance mark on the traveler(work order sheet) after the in-process inspection according to the relevant standards and drawings. the nonconformance products that occur during the in-process shall be stored in a separate storage location with a holding tag attached.

6.3 Identification of final inspection status

6.3.1 The QC inspectors shall carry out the final inspection according to the relevant standard and customer requirements and record the results on the final inspection report. the QC inspectors shall ensure that only those products that satisfy the requirements for the product or that are approved by the special using shall be shipped.

6.3.2 If necessary, the final acceptance product shall be stored in the packed state with the acceptance tag attached.

7.0 Documentation

7.1 The test records, including the material certifications requested by the customer, shall be managed in accordance with the Quality Record Control Procedure (QAP-17.1).

7.2 If applicable, the inspection and test records shall include the following information:

a) Items to be inspected and tested
b) Date of inspection and test
c) Inspector's name
d) Acceptance Result
e) Identification of measurement and test equipment used
f) Applicable procedure and work standard number and revision No. or edition and supplement of relevant inspection and test standard
g) Personal information to evaluate the results

8.0 NDE

8.1 NDE is performed by qualified Suppliers on the ASL, if required by the customer or Code.

8.2 The QM Dept General Manager shall be responsible for issuing procurement document for NDE which includes the applicable procurement requirements.

8.3 NDE Personnel

a) NDE personnel of the supplier shall be trained, qualified and certified in accordance with the Written Practice of the supplier which meets the requirements of SNT-TC-1A.

b) There are three basic levels of qualification (NDE Level I, II and III). In the process of being qualified and certified to NDE Level I, an individual shall be considered as a trainee. A trainee shall work along with a certified individual and shall not conduct independently any examination, interpret any result of an examination, or write a report of examination results.

c) The QM Dept General Manager shall be responsible for review of the subcontractor's written practice and accepting all NDE personnel qualification/certification record and NDE Level III personnel have been qualified by written examination.

d)When there is a specific reason to question the performance of NDE personnel, the QM Dept General Manager may require re-qualification.

8.4 NDE Procedures and NDE Reports by the NDE supplier

a) NDE Procedures shall be prepared in accordance with the requirements of the Code, BMT, and customer.

b) The qualification of each NDE procedure shall be proven by an actual demonstration to the satisfaction the appointed NDE Level III for support. The demonstration is evidenced by the Level III personnel and ANI with their dated signature on each procedure.

c) All NDE Procedures shall be approved by the QM Dept General Manager.

d) When there is any specific reason to question the capability of NDE Procedures to produce the required results, the QM Dept General Manager may require re-qualification of the Procedure. When procedure qualification is specified, a change of requirement in the Code identified as an essential variable from the specified value, or range of values, shall require re-qualification of the written procedure. A change of a requirement identified as a nonessential variable from the specified value, or range of values, does not require re-qualification of the written procedure. All changes of essential or nonessential variable from the value, or range of values, specified by the NDE

Subcontractor's written procedure shall require revision of the written procedure.

e) The results of NDE shall be documented on an appropriate NDE report. The NDE report shall contain the following information :
(1)identification and revision number of the applicable procedure(s)
(2)identification of the examination personnel and their qualification level if required by the applicable Code Section.
(3)material and thickness
(4)date of examination

f)All NDE reports shall be prepared by certified NDE personnel who evaluate the actual results to verify that the examination has been performed in accordance with the applicable Procedures.

8.5 The qualification and certification records for NDE personnel shall be maintained by the QM Dept General Manager.

9.0 Record and Storage

No	Name	Form number	Retention period	Storage Dept'	Remark
1	Material Test Report	QAP-10.1-1	5 year	QM Dept	
2	Dimension Inspection Report	QAP-10.1-2	5 year	QM Dept	
3	Pressure test Report	QAP-10.1-3	3 year	QM Dept	
4	Final inspection Report	QAP-10.1-4	5 year	QM Dept	
5	Self-inspection Report	QAP-10.1-5	3 year	QC Team	※Electric Div'
6	Test Certificate	QAP-10.1-6	3 year	QC Team	※Electric Div'