

PROM 088 – S06	Specification	Issue: 1	Date: 20/3/17
INS Quality Plan Requirements			

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Introduction

Contractors certified to ISO 9001 are familiar with the requirement for Quality Plans (QPs). However, as many of the goods and services procured by International Nuclear Services (INS) have an impact on nuclear safety, INS has a Contract requirement for the Contractor to provide QPs that satisfy specific requirements.

This document is intended to specify in detail the requirements of the QPs that shall be issued to INS for acceptance.

The INS Contract Quality Requirements Manual (PROM 088 – S03, Reference 1) refers to Quality Grading of products and services. Note that the requirement for QPs applies to Quality Grades 1, 2 and 3, but the level of detail required for quality grade 3 is less.

The requirements of each Quality Grade are identified using the key shown to the right of each heading or subheading as follows:



All clauses within the heading or subheading shall apply to these specified Quality Grades. The example above indicates that all clauses in that heading or subheading are applicable to Quality Grade 1, Quality Grade 2 and Quality Grade 3.



1. General

- 1.1. The required structure of QPs is specified in Appendix 1.
- 1.2. The QPs shall be provided to INS for acceptance in accordance with the Schedule of Documents in Schedule 1 of the Contract and Reference 1.
- 1.3. The QP shall detail all procedures to be used and specify all verifications, inspections and Hold Points that are required by the process. The QP shall also specify the documentation and records required.
- 1.4. The QP itself shall not be the means of recording the signing off of each operation in the QP for each product item. A separate route card, traveller or specific inspection or test document/form (as appropriate) shall be used as the record of the signing off of each operation in the QP by the relevant operator/QC inspector (as necessary) for each product item. This means that the Lifetime Quality Records (LTQRs) prepared by the Contractor under Reference 2 should include only one copy of each QP.
- 1.5. The record of each QP operation shall be completed immediately after the operation has been completed by the Suitably Qualified and Experienced Person (SQEP) carrying out the operation before commencing with the next operation. Under no circumstances shall a person who has not carried out the operation sign off completion of the operation.

2. References

- 1: PROM 088 – S03, INS Contract Quality Requirements Manual.
- 2: PROM 088 – S07, INS Records Requirements (including Lifetime Records Requirements)

Appendix 1

Quality Plan requirements

A QP is usually applicable to a single material, component, assembly or service, and so, for example, components of different designs would usually each have their own QP. Note that the QP shall be consistent with the Process Outline (if applicable to the Contract).

A. General requirements

The QP shall consist of three main parts: cover sheet, documentation sheet and activity sheets, with the detailed requirements as follows:

1. Cover sheet:
 - i. Company name;
 - ii. Title of QP;
 - iii. References (INS Contract Number, Contractor/Subcontractor Reference Number);
 - iv. Identification number of the part or parts;
 - v. Scope of work the QP covers;
 - vi. Activity codes and description (see below);
 - vii. Suitably Qualified and Experienced Person (SQEP) nominated roles for signing off the QP activities;
 - viii. QP signoff by Contractor/Subcontractor (names, titles, signatures, dates);
 - ix. For design or service-related QPs, final signoff when QP is complete.
2. Documentation sheet: this shall identify all standards and specifications applicable to the scope of work.
3. Activity sheets: the requirements of the activity sheets are identified below.

The revision status of the controlling procedures need not be identified in the QP, but the Contractor is responsible for ensuring that the latest applicable approved procedure revisions are used. If there is a record generated for a QP activity, the record shall identify the revision status of the controlling procedures.

B. Activity sheets for design or service-related QP

A design or service-related QP shall include the following in the activity sheets for each sequential step in the design or service provision scope:

- i. Step number;
- ii. Activity name;
- iii. Role name of responsible person;
- iv. Responsible department;

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- v. Procedure or other document used to control the activity;
- vi. Role names of key interfaces;
- vii. Responsibility of the key interface;
- viii. Record of activity.

C1. *Activity sheets for product (fabrication)-related QP*

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A product-related QP shall include the following in the activity sheets for each sequential manufacturing, inspection or test operation:

- i. operation or process number;
- ii. operation or process name (eg weld part x to part y, cut to length, inspect part);
- iii. controlling procedure for that operation (eg OP, inspection or test procedure);
- iv. characteristic being inspected or tested during the operation (eg length, surface finish);
- v. function responsible for carrying out that operation (eg manufacturing, QC);
- vi. inspection or test technique used during the operation (eg visual);
- vii. inspection or test equipment used during the operation (eg micrometer);
- viii. activity codes for product sampling and witnessing (see D below);
- ix. acceptance criteria/specification/tolerances for an inspection or test (eg $25 \pm 1\text{mm}$);
- x. the record produced for the operation or process (eg route card, traveller, specific inspection sheet or document);
- xi. whether the operation or process includes INS Notification, Witness or Hold Points.
- xii. Quality Control Manager (or equivalent) stamp/initial/date to confirm that checks on the records of this specific step for every relevant assembly or component has been carried out and all records are satisfactory.
- xiii. INS Inspector (or equivalent) stamp/initial/date to confirm that a random check on the records of this specific step for every relevant assembly or component has been carried out and all records are satisfactory.

C2. *Activity sheets for product (fabrication)-related QP*

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A product-related QP shall include the following in the activity sheets for each sequential manufacturing, inspection or test operation:

- i. operation or process number;
- ii. operation or process name (eg weld part x to part y, cut to length, inspect part);
- iii. controlling procedure for that operation (eg OP, inspection or test procedure);
- iv. characteristic being inspected or tested during the operation (eg length, surface finish);
- v. function responsible for carrying out that operation (eg manufacturing, QC);

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- vi. inspection or test technique used during the operation (eg visual);
- vii. inspection or test equipment used during the operation (eg micrometer);
- viii. activity codes for product sampling and witnessing (see D below);
- ix. acceptance criteria/specification/tolerances for an inspection or test (eg $25 \pm 1\text{mm}$);
- x. the record produced for the operation or process (eg route card, traveller, specific inspection sheet or document);
- xi. whether the operation or process includes INS Notification, Witness or Hold Points.



For each sequential manufacturing, inspection or test operation, the QP shall specify all of the above items as relevant, irrespective of whether there is repetition with other, similar operations.

The Quality Plans shall include (as a minimum) steps for receipt inspection of materials and components into the process, cleaning of such materials and components, and the manufacture, inspection, test, final cleaning, packing, storage and release to either the next stage of the process or a different manufacturing location.

D. Activity codes

Action	Activity code
100% inspection	I1
Sample inspection	I2 (#)
100% witness	W1
Sample witness	W2 (#)
100% review	R1
Sample review	R2 (#)
INS Hold Point	H
INS acceptance	AP
INS surveillance	S

where '#' is the percentage applicable (for example, I2 (10) is 10% sample inspection).

The selection of activity codes and their inspection requirements (100% or sample) shall take into account the specification, novelty or difficulty of the activity, the criticality of the result or sampling frequencies as specified by relevant Standards (whichever is the most stringent). However, the initial assessment levels of I2, W2 and R2 shall be 100%, only reducing to predetermined lower percentages when INS is assured that the Contractor is meeting and maintaining the required standard.

E. Inspection records

Inspection records as referenced by the QP shall document the following as appropriate:

- i. the unique identity of the assembly or component being inspected (which will allow traceability back to raw materials);

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- ii. revision number of the controlling procedure used;
- iii. unique identifier of the inspection equipment used;
- iv. confirmation that the inspection equipment is suitably calibrated prior to use;
- v. the results of the inspection (eg 25.6mm);
- vi. a pass/fail for the inspection.