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Control Plan (CP)

Key Point(s):

- The Control plan is the description of all Product and Process control operations implemented in the production process. It is a living document and shall reflect the manufacturing process and control systems at all times.
- 「Control Plans form a central part of the Supplier's overall process to achieve Nissan's requirements for Quality, Cost and Delivery.
- In accordance with IATF 16949, there are 3 stages of control plan used during the NPQP phases:
- The Prototype Control Plan:
  - A Prototype Control Plan is a description of the dimensional measurements material and performance tests that will occur during manufacture of the prototype part.
- The Pre-Launch Control plan:
  - A Pre-Launch Control Plan is a description of the product/ process controls, dimensional measurements, material and performance tests that occur after prototype and before full production.
  - The Pre-Launch control plan covers the ramp-up period and should include additional product/ process controls to be implemented until the production process is validated e.g. reinforced controls, firewalls, containment etc.
- The Production Control plan:
  - Production Control Plan is a description of the product/ process controls, dimensional measurements, material and performance tests that occur during mass production.
  - The production control plan is a logical evolution of the pre-production control plan.
  - The production control plan shall not be implemented until the exit criteria of ramp-up are achieved.

Minimum Content Requirement(s):

- The Control plan shall include:
  - Identification of all Special Characteristics and Key Features, with suitable control methods and appropriate check frequency*.
    *Note）
    In case of sampling inspection, supplier shall define frequency of article inspection with considering after changeover, break time and condition through one shift (e.g. first, middle and end) to grip any change. And conduct it properly.
- Identification of process characteristics.
  Note: In some processes one process characteristic may affect several product characteristics e.g. temperature, pressure, time, etc. for injection moulding process. Temperature, current, voltage, pressure, etc. for welding process
  - Identification of all other features to be checked according to contracted requirements.
  - The production and process control operations mentioned in the Process flow chart, including rework and repair, storage, "cleanliness" operations if applicable,

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- The calibration/ maintenance of all control means and the check of the error proofing (poka-yoke) devices
- Details of reaction plans

- Special Characteristics and Key Features Diagram shall accompany the Control Plan.

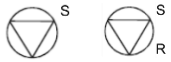
- The supplier must ensure consistency throughout all documentation (e.g.: Control plan, Process Flow Chart , Special Characteristic and Key Features Diagram, Inspection Report, FMEA) for:
  - operation step numbering
  - product characteristics identification

Output Document Description:

Item	Completion Instructions
Prototype	Tick this box if this is a Prototype Control Plan
Pre-Production / Pre-Launch	Tick this box if this is a Pre-Launch Control Plan
Production	Tick this box if this is a Production Control Plan
Project	Nissan Vehicle / Power train project for which the part is being developed / manufactured.
Special Characteristic Identification	Tick all boxes that apply to the product being developed/manufactured.
Document Reference No./ Version	The Suppliers reference no. and version no. for the document.
Document Revision Date	The date of the latest revision of the document.
Document Origin Date	The date when the document was first issued.
Supplier Name	Supplier Company name.
Supplier Plant	Location at which the product will be produced. Note: If the site supplying off-tool parts for a trial build is different to that supplying off-process part for a later trial, this should be discussed with Nissan and should be reflected in all project management documentation.
Supplier Code	Unique code to each supplier, issued by Nissan Purchasing Dept.
Author	The name of the person who created / revised the document.
E-mail	The E-mail address of the person who created / revised the document.
Tel	The telephone number of the person who created / revised the document.
Part Name	The part name or description as identified on the product drawing.
Part No.	As issued by Nissan design department.

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Design Note No.		The latest design note number that applies to the product being developed / manufactured.
Supplier Approval		The name and signature of the person approving the Control Plan.
Date		The Control Plan approval date.
Dept		The department in which the above signatory works.
Nissan Acknowledgement		The name and signature of the Nissan person who acknowledges receipt of the Control Plan.
Date		The date of the Nissan acknowledgement.
Process No and Process description		The process step number and description taken from the Process Flow Chart.
Machine, Device, Jig, Tools for Mfg		The name of the processing equipment including any identification reference.
Characteristics	No.	Characteristic Number as identified in the Special Characteristics and Key Features Diagram
	Product	Product Characteristics are the features or properties of a part, component or assembly that are described on engineering documents e.g. drawings, specifications or other engineering information.
	Process	Process characteristics are manufacturing process parameters that have an effect on product characteristics. These parameters must be identified and controlled to ensure product conformity and minimize product variation.
Special Char. / Key Feature Ident'n (Special Characteristic / Key Feature Identification)		Characteristic Class according to the Special Characteristics and Key Features Diagram. NISSAN Special Characteristics Identification: Important A Important B Important C OBD  safety special characteristics  Key Features Identification: The Supplier's own identification symbol should be used unless otherwise specified by Nissan. Note: Key Features shall include features affecting type approval (homologation, certification and regulation) not included in Special Characteristics.

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Specification / Tolerance		Specifications/ tolerances may be obtained from various engineering documents, such as, but not limited to, drawings, design reviews, material standard, computer-aided design data, manufacturing, and/or assembly requirements.
Methods	Evaluation / measurement technique	The measuring system that will be used to confirm the specification or tolerance This system includes gauges, fixtures, tools, and/ or test equipment required to measure the part/ process/ manufacturing equipment.
	Sample Size & Freq'cy	For each activity, the amount of product to be sampled and the frequency the activity will be carried out.
	Control Method	This column contains a brief description or reference for how the result of the evaluation and measurement will be controlled.
	Maintenance	Any maintenance and calibration activities of equipment, gauges, tools and dies that take place as part of the normal process (e.g. Total Productive Maintenance (TPM) activities). If the supplier has a maintenance activity standard, the standard number should be specified.
	Poka Yoke	Describes any error proofing activities incorporated into the process.
Reaction Plan		Supplier countermeasure action plan

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