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SUPPLIER QUALIFICATION PROCESS



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1 = PURPOSE

The purpose of this document is to inform the Suppliers of National Oilwell Varco's (NOV) Rig Technologies Segment (RIG) of the core expectations regarding the Suppliers' management systems, design requirements, and manufacturing process controls required for doing business with NOV. This manual describes what NOV RIG expects its Suppliers to do to ensure all NOV requirements and expectations are met.

2 SCOPE

This manual applies to all Suppliers providing NOV with materials, products, components, and associated activities, as well as sub-tier sources or sub-suppliers. More stringent Product Quality Standards required by the Purchase Order, Drawings, Specifications, NOV's Customer, Statutory and/or Regulatory Standards shall supersede requirements as defined in this Specification. The requirements in this document do not apply to Suppliers providing items categorized by NOV as "Miscellaneous" unless specifically noted.



NOV National Oilwell Varco RT Rig Technologies

QMS Quality Management System

QHSE Quality Health Safety and Environment

SUPPLIER REQUIREMENTS

Relevant Supplier Requirements are explained in the Supplier Quality Management System - General Requirements documents linked below. Additional product requirements will apply for suppliers whom delivers products, parts or services which are built into NOV products.

5 SUPPLIER QUALIFICATION PROCESS

In order to become a NOV Rig Technology (NOV RT) supplier, relevant NOV RT personnel have to initiate the approval process in our Supplier Management System. NOV RT adds new suppliers based on strategical evaluations and/or need for a specific services or parts which is not delivered by our existing supplier base.

Relevant personnel in NOV RT can request a new supplier in our supplier request system. However, two Manager sign offs and Global Category Management sign off is required before we start the onboarding process for a new supplier.

The controls for onboarding and re-evaluation of suppliers are based on how Critical NOV RT deem the product, part or services that a supplier delivers to us and the associated risk. NOV RT segregates suppliers into three Criticality levels:

✓ **Critical Suppliers**: Suppliers who deliver products, services or parts built into a NOV product where deemed critical in the application used.



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✓ **Non-Critical Suppliers**: Suppliers who deliver products, services or parts built into a NOV product where deemed non-critical in the application used.

✓ Miscellaneous Suppliers: Suppliers who deliver products, services or parts which are not built into NOV products.

5.1 Critical & Non-Critical Suppliers:

Before we can approve a Critical or Non-Critical Supplier in our Supplier Management System it needs to be verified the supplier meets our requirements:

- ✓ NOV RT QHSE Requirements are met;
- ✓ NOV RT Technical Requirements are met;
- ✓ NOV RT Financial Requirements are met;
- ✓ NOV RT Ethical / Compliance Requirements are met;
- ✓ Supplier needs to pass an onsite audit of the Manufacturing Facility if we deem their products / services critical to our operations;
- ✓ In some cases, a first article process is required before we can approve the products/parts.

5.2 // Miscellaneous Suppliers:

In general, we are reluctant to add new suppliers for non-product related services, parts or products. For the suppliers we add the following are being verified:

- ✓ NOV RT Financial Requirements needs to be met
- ✓ There needs to be a strong justification in place



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ANNEX A CRITICAL AND NON-CRITICAL SUPPLIER MINIMUM QUALITY REQUIREMENTS

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The initial evaluation process of Critical and Non-Critical Suppliers has several steps. We validate that minimum QHSE requirements are met through a QHSE questionnaire. Our minimum requirements for Critical and Non-Critical Suppliers are explained below.

Minimum Quality Requirements explained	Critical	Non- critical
Quality Management system:	Required	Required
A quality management system (QMS) is a collection of business		
processes or procedures, focused on consistently meeting customer		
requirements and enhancing their satisfaction. It is aligned with an		
organization's purpose and strategic direction (ISO9001:2015). It is		
expressed as the organizational goals and aspirations, policies,		
processes, documented information and resources needed to		
implement and maintain it. NOV requires a documented QMS to be		
established and effectively implemented.		
Document Control process	Required	
NOV requires process controls to be in place and maintained for all		
special processes.		
It is expected that you shall identify which part of your documentation		
that you need to control and maintain and which media this		
information should be controlled on. Controlled documentation can		
be in any format or media and from any source as long as you have		
identified what you need to control.		
We expect our suppliers to control:		
The management system, including related		
processes/procedures		
Evidence of results achieved (records)		
Information created for the organization to operate		
Control of Records process	Required	Required
NOV requires that our suppliers shall have and maintain a control of		
records procedure/process which identifies the controls and		
responsibilities needed for the identification, collection, storage,		
protection, retrieval, retention time, and disposition of records.		
The records shall remain legible Records shall remain legible,		
identifiable, and retrievable. Records shall be retained for a minimum		
period identified by the customer.		
Contract review procedure	Required	Required



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Minimum Quality Requirements explained	Critical	Non- critical
NOV requires suppliers to have and maintain a documented procedure for the review of requirements related to the provisions for the products and required servicing. The intent of the contract review is to determine the processes and steps required to meet the		
contractual requirements and these are outputs of the process which are incorporated into the manufacturing and controls during product realization		
Process controls include controls over special processes NOV requires suppliers to document process controls and maintain these processes. The documentation can be in processes, checklists, routers, travelers or equivalent controls such as Inspection and Test Plans. The control documents shall include or reference: Instructions, Acceptance Criteria, tests, inspections and if applicable required customers inspection hold or witness points. NOV has a high focus on special processes and defines special processes as: Where one of the following processes are essential for the integrity and/or functionality of the product the following process	Required where applicable	
shall be considered a special process: Welding, NDE, Heat Treatment, Thermal coating, painting, other surface treatment, Casting processes, and Forging processes. NOV requires process controls to be in place and maintained for all special processes.		
'NOV requires that our direct suppliers have processes in place to select and review their suppliers based on their qualifications and ability to consistently meet the product requirements. This requirement is related to your externally provided products, services intended for incorporation into NOV products and services. If you don't use any suppliers, you may answer not applicable on this question.	Required	
Segregated of suppliers controls according to criticality NOV expects that the methods you have described for qualifying, re- evaluating and controlling your suppliers are related to the criticality of the service or product they deliver. Suppliers of critical products, parts or services would normally be subject to a more detailed due diligence in the approval and re- evaluation phase while suppliers with less product impact would have different controls. This requirement is related to your externally provided products, services intended for incorporation into NOV products and services.	Required	
Supplier Performance	Required	



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Minimum Quality Requirements explained	Critical	Non- critical
NOV expects that our suppliers monitor the performance of their supplier which delivers parts, products or services which is incorporated into products that NOV purchases. Performance monitoring can be related to on time delivery, Quality etc. Many companies use the output of supplier performance to determine supplier controls, identify supplier development opportunities, inputs to supplier risk evaluation or as supplier selection criteria. NOV measures our direct suppliers on OTD and Quality and use this as input to our supplier risk evaluation which we use to determine the performance evaluation frequency and supplier re-evaluation. You may have other performance measures in place, but we expect that		circicat
you have identified what's relevant for your suppliers and monitor based on that.		
If you don't have suppliers, you may answer this as not applicable.		
Documented evaluations of Critical Suppliers The intention of segregating suppliers based on criticality levels is to be able to apply approvals and controls associated with the criticality level of the suppliers. It is up to each supplier to determine the number of criticality levels for their supplier base. NOV use three levels for supplier Criticality: Critical, non-critical and miscellaneous. NOV defines Critical suppliers as suppliers that delivers parts, products and services incorporated into the products delivered to clients where critical is defined as essential to the form fit or function of the final product. NOV has a high focus on Suppliers of special processes and defines special processes as: Where one of the following processes are essential for the integrity and/or functionality of the product the following process	Required	
Documented Final Inspection The intention of the final inspection is to ensure that the product meets requirements. The final inspection can be tailored to the characteristics of the product and the controls applied earlier in the process. When there are good and documented process controls in place, and statistics supports it, the final inspection can be done based on sampling or review of records. It is normally a Princip that the final inspection shall be done by other personnel than the ones performing or directly supervised the production. For single step manufacturing processes, the in-process and final inspection can be done in one operation.	Required	
Acceptance of product and product release	Required	Required



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Minimum Quality Requirements explained	Critical	Non- critical
It is expected that all NOV suppliers delivering parts or product incorporated into NOV products has documented processes or procedures describing the arrangements related to release of product. The arrangements around product release shall be rigid enough to ensure that products are not released to client until all planned controls has been satisfactorily completed and found to confirm to the acceptance criteria. If the product deviates from requirements it shall remain unreleased until deviations are approved by client and		
Implemented procedure covering calibration A procedure/process describing the formalities around calibration needs to be in place. The procedure shall as minimum cover: Testing, measuring, and monitoring equipment shall be calibrated or verified, or both, against measurement standards. The calibration status shall always be identifiable for any user. Storage and handling of calibrated shall be sufficient to protect the tool from damages and safeguard from adjustments that would invalidate the results of the calibration status. For products where tolerances, inspections or services are irrelevant. This question shall be answered as Not applicable.	Required	Required where applicable
Process for handling nonconformances It is expected that all NOV suppliers delivering parts or product incorporated into NOV products has a documented process or procedure for non-conformance in all phases of product or service providing, including engineering, manufacturing and after product is delivered to client (warranty)	Required	Required
Ethical Business standard NOV has a high ethical business standard and has anti bribery and compliance training for employees. We expect our suppliers to have a zero-tolerance policy for bribery and conduct their business to recognized ethical principles and laws. We expect suppliers to state those standards in a procedure or policy and make sure that this policy/procedure is communicated to all relevant personnel that may be exposed.	Required	Required

