

	Inspection of Equipment and Materials		IP 20-1-1	
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	(This practice is appropriate for attachment to Inquiry or Purchase Document)		Rev. 1	March 1998

Changes shown by

SCOPE

- I 1.1 This practice lists equipment and materials for which Exxon or its Affiliates require inspection by an Exxon Inspector or an appointed Owner's Representative, and defines requirements relating to the inspection activities of this equipment and material.
- I 1.2 This practice shall be applied to any direct or indirect purchase orders or sub-orders issued on behalf of, or by Exxon or an Exxon Affiliate.
- I 1.3 **An asterisk (*)** indicates that a decision by the Purchaser is required or that additional information is furnished by the Purchaser.

SUMMARY OF ADDITIONAL REQUIREMENTS

- I * 2.1 **IP 20-1-2, Administrative Procedures for Obtaining Inspection**, shall be used with this practice as specified by the Purchaser.
- I * 2.2 **IP 20-1-3, Quality Programs**, shall be used with this practice as specified by the Purchaser.
- I 2.3 **Table 1** lists major equipment and materials requiring inspection by the Inspector, unless waived by the Owner.
- I * 2.4 **Modifications to the requirements of this practice** will be specified in the purchase order for:
 - a. Specific Owner requirements.
 - b. Compliance with local rules and regulations.
 - c. Additions or deletions to **Table 1**.

Note: This does not preclude the Inspector from inspecting material or equipment component parts which are utilized in fabrication/assembly of equipment and materials in **Table 1**.
- I 2.5 **Inspection and test requirements shall include**, but not be limited to, those contained in the purchase order.

DEFINITIONS

- I 3.1 **The term Inspector**, used in this practice, refers to the Exxon Inspector, or the appointed Owner's or Purchaser's Representative.
- I 3.2 **The term supplier**, used in this practice refers to the manufacturer, vendor, sub-supplier, contractor or sub-contractor, and/or the recipient of the purchase order.
- I 3.3 **The term purchase order (or contract)**, used in this practice includes the purchase order (or contract) document, its referenced specifications and practices, attachments, codes, standards, other referenced documents, and all agreed amendments there to.
- I 3.4 **Direct orders** are purchase orders issued to a supplier on behalf of, or by Exxon or an Exxon Affiliate, for materials or equipment. (These are also known as "main orders" or "prime orders.")
- I 3.5 **Indirect orders** are purchase orders issued by a supplier (who is recipient of a direct order) for mill or foundry materials or component parts or subassemblies for fabrication or assembly. (These are also known as "sub-orders, shop orders, internal work orders, etc.")
- I 3.6 **Purchaser** may be Exxon, an Exxon affiliate organization, or Exxon designated representative responsible for procuring equipment, components, materials, systems, or services.
- I 3.7 **Owner** is the Exxon or Exxon affiliate organization who will receive the equipment or materials.

INSPECTION ACTIVITIES AND DATA REQUIREMENTS

- R,C * 4.1 **The scope and extent of inspection** may vary depending on the critical purpose and end use of the equipment. The **specific inspection activities** will be developed by the Inspector and Owner with the supplier. Unless otherwise specified the equipment and materials in **Table 1** may be inspected at the source, or at the supplier or sub supplier final manufacturing or assembly point as determined by the Inspector and Owner.

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- R,O * 4.2 Unless authorized otherwise by the Owner, **the Inspector will not release any equipment and materials which:**
- a. **Do not comply with the requirements of the purchase order**, or
 - b. Cannot be identified with applicable specifications or insufficient data is available to assure compliance, or
 - c. In the opinion of the Inspector, **are of unacceptable workmanship.**
- R,O 4.3 **Data requirements** shall be per the following:
- a. The supplier shall provide sufficient documentation to the Inspector at the time of, during, or before the final inspection and prior to shipment, which demonstrates that the requirements of the purchase order or subsequent amendments have been met. This may include: a copy of mill test data or other acceptable chemical and physical material data, code forms, charts, certificates, inspection and test reports, and other information required in the purchase order.
 - b. If in-process inspection, or final inspection has been waived, the specified number of copies of mill test data or other acceptable chemical and physical material data, code forms, charts, certificates, inspection and test reports, and other required information and certificates needed to verify compliance with local rules and regulations and requirements of the purchase order documents shall be forwarded directly to the Purchaser at or prior to shipment.
 - * c. If specified, a **"Certificate of Compliance"** stating compliance with the purchase order requirements and the applicable specification or standard shall be issued by the supplier, and shall be provided to the Inspector at the time of, or before final inspection and prior to shipment.

SUPPLIERS OBLIGATIONS

- R,C 5.1 **Quality Assurance.** The supplier is obligated to assure the quality of the equipment and materials being provided under the purchase order, either directly or indirectly. The supplier is to provide its own quality control and inspection of the materials to ensure that the requirements of the purchase order and its referenced specifications are met. The supplier is also obliged to record and maintain records of the quality/inspection activities performed. Inspection by the Inspector does not relieve the supplier of this obligation. Neither does such inspection relieve the supplier from guarantees as to material; apparatus; workmanship or performance, or both.
- R,C 5.2 **Free Entry.** The supplier shall afford the Inspector the right of access and free entry to any areas of the supplier or sub supplier premises where storage, or work or testing of any material, component, or equipment is being performed to fulfill the purchase order requirements. Unrestricted opportunity shall be provided to the Inspector to verify conformance of these materials, components and equipment with the direct purchase order requirements.
- I 5.3 **Inspector's Safety.** The supplier is to provide a safe working environment for the Inspector and to alert the Inspector of potential hazards. If in the opinion of the Inspector, the working conditions are unsafe, the Inspector will not perform the work.
- I * 5.4 **Quality Program.** When **IP 20-1-3, Quality Programs**, is specified, the supplier shall follow the **approved Quality Program** to assure the quality of the materials and equipment he is providing directly or indirectly, and that the requirements of the purchase order and its referenced specifications and all attachments and amendments there to are met.

Revision Memo

9/68	Original Issue of Basic Practice	6/76	Revision 5
6/69	Revision 1	1/78	Revision 6
1/70	Revision 2	1/80	Revision 7
6/72	Revision 3	1/86	Revision 8
1/75	Revision 4		
12/94	Revision 0 - Original Issue of International Practice		
3/98	Revision 1		
	Minor editorial changes only.		

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TABLE 1
LIST OF EQUIPMENT AND MATERIALS TO BE INSPECTED

(Unless otherwise specified the equipment and materials in this table may be inspected at the originating source, or at the supplier or sub supplier final manufacturing or assembly points, as determined by the Inspector and Owner.)

1. **Agitators and mixers:** Over 20 hp (15 kW)
2. **Boilers and their parts:**
 - a. Assembled water walls and superheater.
 - b. Boiler tubes after bending, or after fin attachment for water walls.
 - c. Drums.
 - d. Headers.
 - e. Installed refractory (shop only).
 - f. Stacks.
 - g. Steam separation equipment.
 - h. Tube Supports.
3. **Bolting:**
 - a. Alloy (e.g., A193, A320, A325, etc.).
 - b. Material involving impact tests for services below - 50°F (- 45°C), including witnessing of impact tests.
 - c. Greater than 2 in. (50 mm) diameter.
 - d. All coated bolts.
4. **Burners:** for process equipment such as boilers, fired heaters, incinerators, sulfur plants, etc.
5. **Castings other than valve bodies:** All ductile iron, carbon steel, and alloy castings (if not part of equipment otherwise listed in this practice) for the following:
 - a. Pressure containing service.
 - b. Load bearing, or critical vessel internals such as grid plates cat cracking plants.
 - c. High temperature service [above 1000°F (538°C)].
 - d. Foundry for casings for compressors, pumps, turbines and expanders developing or requiring 5000 hp (3750 kW) or more.
 - e. Castings when "first-piece" or "pilot castings" are required.
 - f. Castings subject to nondestructive examinations (NDE).
6. **Centrifuges:** Over 20 hp (15 kW).
7. **Circuit breakers:** All circuit breakers (with associated relays and panels) rated above 600 volts.
8. **Compressors:**
 - a. Centrifugal, axial and rotary screw compressors for special purpose applications.
 - b. Packaged, integrally geared compressors.
 - c. Reciprocating compressors for process applications.
 - d. Other compressors, including axial, centrifugal, rotary screw, reciprocating and liquid ring compressors over 150 hp (112 kW), except laboratory units, or portable commercial units such as for paint sprayers, sandblast machines, or gunite machines.
9. **Control Panels for Instruments,** where functional tests or specific name brand components are required.
10. **Cyclones, and trickle valves,** including installed refractory linings (shop only).
11. **Dryers**
12. **Engines:** Diesel and gas over 150 hp (112 kW) [does not include drivers for construction equipment].