Administration Requirements for Suppliers to FMC Technologies Subsea Norway

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Effective date: **November 16, 2015**

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1 References

Unless otherwise specified in this document, the latest revisions of referenced documents listed below shall prevail.

ISO 9000	Fundamentals and vocabulary
ISO 9001	Quality management systems - Requirements
ISO 10005	Quality management - Guidelines for quality plans
ISO 14001	Environmental management system - requirements with guidance for use
ISO 31000	Risk Management - Principles and guidelines
ISO 9431	Construction Drawings - spaces for drawing and for text, and title blocks on drawing sheets
ISO 90003	Software Engineering - guidelines for the application of ISO 9001 to computer software
LIST-0000023456	Instruction for the manual Supplier Master Document Register (SMDR), for FMC Technologies Norway
OHSAS 18001	Occupational health and safety management system requirements
NORSOK S-002	Working environment
NORSOK S-003	Environmental care
NORSOK S-006	HSE evaluation of Suppliers (ST097)
NORSOK S-012	HSE in construction-related activities
NORSOK Z-018	Supplier's documentation of equipment
MRB-0000022883	Manufacturing Record Book Index (MRB Index Template)
LST10086670	Pre-Production Meeting (PPM) Check list
LST60095137	List, Standards List, Subsea - System, GPS Relevant - ISO Standards
CMMI level	Capability Maturity Model Integration for development, CMMI Institute, Carnegie Innovations
EN ISO 9712	Non-destructive testing; Qualification and certification of NDT personnel
Incoterms® 2010	International Commercial Terms published by International Chamber of Commerce
PRD-0000030203	Global Purchasing Terms for Goods and Services

Some of the required reference documentation, such as templates and guidelines, can be downloaded directly from www.fmctechnologies.com/**subsea**suppliers.

2 Definitions

Refer to PRD-0000030203 for definitions used in this document.

Exception: The term **Subcontractor** means **Subcontractor** of any level.

3 Purpose

It is **FMCTI**'s intention that, in the implementation and administration of the **Agreement**, **Supplier** shall utilize its own methods and procedures. However, in order to achieve the required quality and safety of the **Work**, and overall project progress and document control, **FMCTI** has specified certain mandatory requirements as detailed in these Administration Requirements. These will form part of the **Agreement** following the precedence as outlined in PRD-0000030203.

4 Administration, Communication and Reporting

4.1 Organization

Supplier shall create and maintain organization charts for the **Work** and provide a copy to **FMCTI** upon request.

Across **PO**s, **Supplier** shall keep **FMCTI** informed about changes to their organization, systems and their **Subcontractors**. As a minimum, **Supplier** shall keep the Supplier Questionnaire updated at all-time with the following information:

- List of **Key Personnel**.
- List of emergency contacts (24 hours availability).
- Bank account-related information.
- Organization (ownership, company name, management, addresses, etc.).
- Business Management System, incl. certification/accreditation.
- List of qualified **Subcontractors**.

Updated Supplier Questionnaires shall be sent by email to **FMCTI**'s Commercial Point of Contact and Supplier.Quality@fmcti.com.

4.2 Commercial Communication

The contact details of **FMCTI**'s Commercial Point of Contact (the Buyer) and **Supplier**'s nominated contact person will be provided in the **Purchase Order** (**PO**). All communication of a commercial nature between the **Parties**, affecting the **PO**, shall include these persons.

Supplier shall be online on **FMCTI**'s electronic collaboration systems, unless otherwise justified and agreed. **Supplier** shall have routines in place to support execution in these systems to ensure accurate and timely **PO** confirmation, schedule management, and reporting.

Letter format shall be used in all communication between **Supplier** and **FMCTI**. Communication shall be signed by **Supplier** or **FMCTI**'s representative as applicable, or an authorized deputy for the **Agreement**. Each letter shall refer to one subject only. Letters can be attached to email.

Email may be used in appropriate circumstances such as correspondence related to reporting, memos, meeting minutes and as otherwise specified in these Administration Requirements.

All communication shall as a minimum include:

- Reference to **Agreement/PO**.
- Subject, date and sequence number where relevant.
- Conclusion and/or actions with due date.

Correspondence shall be archived in a secure location in accordance with **Supplier**'s filing system. **Supplier** shall create and maintain a communication log related to the **PO**.

4.3 Variation Management

Supplier shall establish and maintain a register of concluded **Variation Orders** and pending **Variation Order Requests**. **Variation Order Requests** shall be submitted electronically in the format instructed by **FMCTI**.

4.4 Facilities

When required by **FMCTI**, **Supplier** shall provide facilities for **FMCTI** and/or **Company**. Office facilities shall as a minimum include furniture, internet access, printer, access to welfare facilities, cleaning and heating/air conditioning. All facilities shall comply with any statutory or mandatory rules and regulations.

4.5 Planning and Tracking

Supplier shall perform schedule planning, including progress tracking, for all **Deliverables** in the **PO**, identifying activities, as applicable, for:

- **Supplier**'s documents and **FMCTI Provided Documents**.
- Engineering.
- **FMCTI Provided Items**.
- Raw material and critical components procured from **Subcontractors**.
- Fabrication and manufacturing, including welding and machining as a minimum.
- Sub-assembly, assembly and tests.

The activities shall be based on a logic network which identifies the critical paths. The scheduled activities shall as a minimum:

- Include original plan dates and revised forecasted dates, both of these based on early dates.
- During execution, include actual progress compared with original plan.
- Indicate progress based on physical progression of the activities factored to achieve a percentage weighting for each activity. Once established, the weightings shall not be varied during the **PO**'s duration, unless accepted by **FMCTI**.
- Reflect concluded **Variations**.

4.6 Reporting

Unless otherwise specified in the **Agreement/PO**, **Supplier** shall report as required in this paragraph. Reporting frequency is specified in the **PO**. **FMCTI** is entitled to change content requirements and frequency if considered necessary.

Regardless of reporting frequency, any significant HSE incidents and quality issues shall be reported without undue delay. In the event of fatalities, lost time incidents, or high potential incidents, this shall be reported within 2 hours after the occurrence. **Agreement/PO** may specify additional HSE reporting requirements.

Reporting format shall be as agreed with **FMCTI**, and shall, as a minimum, identify **FMCTI**'s project number, **PO** number, **PO** line and part number.

Standard reporting shall, as a minimum, include:

- Monthly summary of HSE incidents and quality issues.
- Monthly status of HSE activities and HSE performance as specified in Paragraph 5.4, unless waived by **FMCTI** in writing.
- Potential risks with status of preventive actions.
- Progress summary, including challenges with status of mitigating actions.
- Updated schedule with specified cut-off date, reflecting the activities and requirements as specified in Paragraph 4.5, and, when applicable, include available float per activity.
- Forecast of activities scheduled to be completed within 4 weeks, including activities with hold and witness requirements.

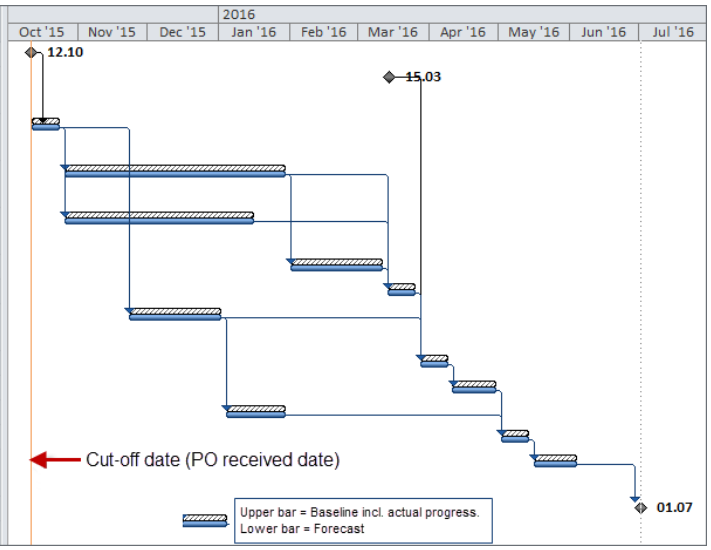
Additional requirements for **PO**s exceeding an **Agreement Price** of one (1) million US dollars:

- Original schedule must be accepted by **FMCTI**, and shall become **Supplier**'s baseline for the **Work**'s further progress and forecast reporting.
- Reporting shall include timescale chart displaying original schedule, revised forecasted schedule, and actual progress reflecting the requirements as specified in Paragraph 4.4.
  - Chart shall identify critical and sub-critical paths. A sub-critical path is a series of activities where completion is within one week of the critical path completion.
  - See examples of timescale charts on the next page.
- Reporting shall reflect cost progression, including concluded **Variations**.

These additional reporting requirements may also be required when the total value of ongoing **Work** for **FMCTI** exceeds one (1) million US dollars.

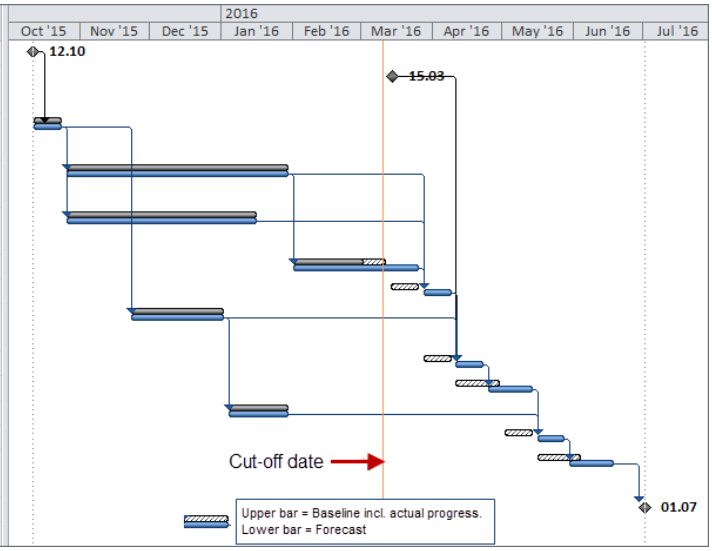
Example 1 Schedule at **PO** start date

	Task Name	Duration	Forecast start	Forecast finish
1	PO received from FMCTI	0 days	12.10.15	12.10.15
2	Receive FMCTI provided items	0 days	15.03.16	15.03.16
3	Engineering for procurement	10 days	12.10.15	23.10.15
4	Procument of raw materials	70 days	26.10.15	29.01.16
5	Procurement of Long lead item no 1	60 days	26.10.15	15.01.16
6	Machining	30 days	01.02.16	11.03.16
7	Welding	10 days	14.03.16	25.03.16
8	Documents for Assembly	30 days	23.11.15	01.01.16
9	Sub assembly	10 days	28.03.16	08.04.16
10	Assembly	15 days	11.04.16	29.04.16
11	Documents for Test	20 days	04.01.16	29.01.16
12	Test	10 days	02.05.16	13.05.16
13	Prepare final documentation	15 days	16.05.16	03.06.16
14	PO delivery date	0 days	01.07.16	01.07.16



Example 2 Schedule with progress during execution

	Task Name	Duration	Forecast start	Forecast finish
1	PO received from FMCTI	0 days	12.10.15	12.10.15
2	Receive FMCTI provided items	0 days	15.03.16	15.03.16
3	Engineering for procurement	10 days	12.10.15	23.10.15
4	Procument of raw materials	70 days	26.10.15	29.01.16
5	Procurement of Long lead item no 1	60 days	26.10.15	15.01.16
6	Machining	40 days	01.02.16	25.03.16
7	Welding	10 days	28.03.16	08.04.16
8	Documents for Assembly	30 days	23.11.15	01.01.16
9	Sub assembly	10 days	11.04.16	22.04.16
10	Assembly	15 days	25.04.16	13.05.16
11	Documents for Test	20 days	04.01.16	29.01.16
12	Test	10 days	16.05.16	27.05.16
13	Prepare final documentation	15 days	30.05.16	17.06.16
14	PO delivery date	0 days	01.07.16	01.07.16



4.7 Meetings

For ongoing **PO**s, both **Parties** can require status meetings. Details such as frequency, format and content shall be agreed between the **Parties**. When deemed necessary by **FMCTI**, **Subcontractor** shall be represented in such meetings.

The **Party** that initiates the meeting shall submit a proposed agenda to the other **Party** minimum three (3) **Business Days** in advance. Changes to the agenda shall be advised at least one (1) **Business Day** prior to the meeting.

Unless otherwise agreed, the initiating **Party** shall chair the meeting and prepare meeting minutes. The meeting minutes shall be signed by both **Parties**.

When requested, **Supplier** shall provide **FMCTI** the option to attend meetings with **Subcontractor** and/or provide copy of meeting minutes.

4.8 Risk Management

As a minimum, **Supplier** must have an implemented and documented risk management system in accordance with ISO 31000, main clause 5, covering the requirements of the **Agreement/PO**. In the standard, all 'should' shall be read and interpreted as 'shall'.

FMCTI's representatives, or personnel authorized by **FMCTI**, have the right to undertake audits and verifications of **Supplier**'s risk management systems giving fourteen (14) **Days**' notice.

Main focus shall be given to:

- Risk assessment, including appropriate methods for:
  - Identification: Securing that all significant risks are identified.
  - Analysis: Identifying the consequences (positive and/or negative), and their likelihood to determine most appropriate treatment strategies. Evaluation: Making decisions about further treatment.
  - Treatment: Especially with focus on effective mitigations.
  - Review and monitoring: In a timely manner, with assigned ownership, to assure any aspect of risk management is effective.
- Routines and records evidencing that the above steps are periodically repeated.

If requested by **FMCTI**, **Supplier** shall:

- Include a consequence/likelihood matrix for the top 5 risks in the regular reporting.
- Provide a risk register including preventive actions.
- Participate in any risk activities requested by **FMCTI** or **Company**, such as workshops, reviews and follow-up meetings.

4.9 Shipment

Unless formally agreed, **Supplier** shall use Incoterms® FCA and the **FMCTI** appointed Freight Forwarder specified in the **PO**. In order to proceed with booking of shipment, a Packing List/Delivery Note and, when relevant, Proforma Invoice, must be sent to **FMCTI**'s appointed Freight Forwarder.

4.10 Invoicing

Before processing payments, **FMCTI** may request clarification, authentication or additional documentation in relation to any invoice, and **Supplier** shall promptly comply with any such request.

FMCTI shall, after receiving an invoice compliant with provisions of the **Agreement**, pay the amount due to **Supplier** according to the invoice, following reception of a credit/debit note when applicable.

Format and content:

- Submit as one PDF file. Original invoice including relevant documentation.
- In legible print. No italic font or shaded areas.
- Payment Terms according to applicable **Agreement**.
- **Supplier**'s legal entity name, address and Tax/VAT numbers, as per **PO**.
- **FMCTI** legal entity name, FMC Kongsberg Subsea AS, and postal address from **PO**.
- Invoice date, due date, and invoice number.
- Reference to **FMCTI**'s **PO** number, **PO** line, part number, quantity invoiced (not %).
- Net amount payable per **PO** line, with currency.
  Note: Norwegian **Supplier** invoicing in foreign currency with VAT, then VAT must be specified in NOK (Norwegian kroner).
- Clear description of the **Work** being invoiced.
- When relevant, the specific progress/milestone.

Supplier shall submit invoice via the email address stated as invoicing address in the **PO**.

5 Health, Safety and Environment

5.1 Definitions

For the purpose of this paragraph, the following definitions shall apply:

Definition	Description
Shall	An absolute requirement which must be strictly observed to ensure conformity with the standard
Should	A recommendation. Alternative solutions with the same functionality and quality can be accepted.
May	A procedure which is permissible within the framework of the standard permission or a proposal indicating an opportunity for the user of the standard.
Accident	An event which has caused injury, illness and/or damage to/loss of assets, or harm to the environment or to a third party.
Near miss	An event which, under slightly different circumstances, could have caused injury, illness and/or damage to/loss of assets, or harm to the environment or a third party.
Work-related	An event or exposure in the work environment caused or contributed to the condition (injury or illness) or significantly aggravated a pre-existing condition. Work-relatedness is presumed for injuries and illnesses resulting from events or exposures occurring in the workplace, unless an exception as listed below specifically applies.
Work Environment	Establishments and other locations where one or more employees are working or are present as a condition of employment.
Occupational Injury	Any work-related wound or damage to the body resulting from an event in the work environment. Examples include cut, puncture, lacerations, abrasion, fracture, bruise, contusion, chipped tooth, amputation, insect bite, electrocution, or a thermal, chemical, electrical or radiation burn. Sprain and strain injuries to muscles, joints, and connective tissues are classified as injuries when they result from a slip, trip, fall or other similar accidents.
Falling or potential falling	HSE incidents with potential severity level red and yellow where energy is released (accidents + near misses).
First Aid Treatment	Treatment that is limited to visits to a doctor or health care professional solely for observation or counselling; diagnostic procedures, including administering prescription medications that are used solely for diagnostic purposes; and any procedure that can be labelled as first aid.
Medical Treatment	Treatment, other than first aid, and includes managing and caring for a patient for the purpose of combating disease and disorder.
Recordable Cases	An injury or illnesses that is work related and is a new case and results in the following: death, days away from work, restricted work or transfer to another job, medical treatment beyond first aid, or loss of consciousness, or a significant injury or illness diagnosed by a physician or other licensed health care professional, even if it does not result in the above.
Restricted Case	A recordable injury or illness where an employer or health care professional keeps, or recommends keeping, an employee from doing routine functions of his or her job or from working a full workday that the employee would have been scheduled to work before the injury or illness occurred.
Lost Time Injury	A recordable injury or illness where an employer or health care professional keeps, or recommends keeping, an employer off work.
Lost Time Injury Incidence Rate	The total of Lost Time Injuries multiplied by 200,000 hours and divided by actual hours of exposure.
Total Recordable Incidence Rate	The total number of Recordable Cases multiplied by 200,000 hours and divided by the actual hours of exposure.

5.2 HSE Management System

Supplier shall plan and carry out his activities in a way that the **Work** is performed without loss of life, injury, damage to equipment or facilities, without any environmental damage due to spills or unforeseen discharges, and without unforeseen disruptions to production or processes.

Supplier shall have an implemented and documented HSE Management System compliant with OHSAS 18001, ISO 14001, NORSOK S-002, S-003, S-006 and S-012 and comply with **FMCTI**'s and/or **Company**'s requirements for supervision and monitoring.

- All hazards to the health, safety of personnel and the environment have been identified, assessed and eliminated where possible or are being controlled through formal planning methods and procedures.
- All personnel are given required training and are competent to perform their tasks safely.
- All information concerning HSE incident records/statistics are sent to **FMCTI** upon request.
- Environmental accounting for all the hazardous chemicals is shared with **FMCTI** upon request.
- **FMCTI** specific HSE requirement are implemented as requested.

Supplier shall in addition to the foregoing define specific Security Management measures within its scope and the applicable hazards of the location. No activity shall start unless covered by approved written procedures, plans or other relevant documentation.

Supplier shall comply with all applicable national governing laws and provisions related to HSE and the following requirements:

HSE Management System Elements	Requirements
Leadership and commitment	Responsibility for HSE shall lie with the line management. Top executives shall be personally involved in HSE management. The commitment to HSE shall be evident at all levels within **Supplier**'s organization, and the corporate culture shall ensure HSE focus in all that **Supplier** does.
Policy, strategic objectives and programs	**Supplier** shall have a documented corporate HSE policy. **Supplier** shall document the name, title and experience of the most senior manager in the organization responsible for ensuring that this policy is obeyed. **Supplier** shall also document who has the overall and ultimate responsibility for HSE matters within its organization. **Supplier** shall define and document which methods are applied for informing personnel about its HSE policy, and which routines are executed to inform personnel of any changes to this policy. **Supplier** shall establish an HSE program which covers the elements of the HSE Management System. This program shall form an integral part of the overall HSE program for the respective site, project or activity, and cover specific activities with a description of what is to be delivered. The HSE program shall be preventive and must be kept updated throughout the work. The HSE program shall cover occupational health and the working environment, safety, the environment and emergency response. In addition, the HSE program should be developed in accordance with NORSOK S-012.
Organization, resources and documentation	**Supplier**'s management shall be involved in HSE activities, and in setting and following up HSE objectives. **Supplier**'s organization shall facilitate effective HSE management and communication, with particular emphasis on HSE as an integrated element in planning and implementing operations. Relevant arrangements shall be in place to ensure that meetings are held with HSE as a priority item on the agenda.
Evaluation and risk management	**Supplier** shall employ suitable and generally recognised methods for identifying, assessing, checking and handling hazards and their consequences. These methods shall be documented.

HSE Management System Elements	Requirements
Planning and procedures	Working practices and procedures shall be consistent with **Supplier**'s HSE policy and HSE Management System.
Implementation and monitoring	**Supplier** shall supervise and monitor its' own HSE performance. Results of this supervision and monitoring shall be passed on without undue delay to **Supplier**'s management and personnel. Frequent management inspections shall be performed to verify compliance with prevailing standards.
Auditing and reviewing	**Supplier** shall operate a documented HSE auditing program. The audit process/procedure shall be documented. Planned HSE reviews shall be carried out by members of **Supplier**'s senior management, or by appropriate personnel appointed by the senior management

5.3 Specific HSE Requirements

FMCTI's work regulations, HSE Policy and HSE 12 Golden Rules

- **Supplier**'s personnel shall comply with applicable **FMCTI**'s work regulations and safety rules at all times. All employees shall take part in safety drills and other exercises while on site.
- **Supplier**'s HSE policy for the **Work** shall be fully compliant with the **FMCTI**'s HSE Policy, as specified in Paragraph 5.5.
- **Supplier** shall comply with the **FMCTI**'s HSE 12 Golden Rules. The rules provide an understanding of 12 high risk activities and give better understanding and awareness of the steps needed to avoid serious incidents, as specified in Paragraph 5.6.

HSE induction

- **Supplier** shall attend **FMCTI**'s HSE induction training if required by **FMCTI**.

Assessment of Subcontractors' Suitability

- **Supplier** shall assess the HSE expertise and record of its **Subcontractors**.

Working Environment and Occupational Health

- **Supplier** shall have a system which ensures a good overview of the working environment at sites where its personnel are employed. The overview shall be in accordance with the relevant official requirements and performance indicators. Monitored performance indicators shall make the largest possible contribution to prevention of the health problems related to the working environment.
- **Supplier** shall have a system which ensure and document:
  - The identification and monitoring of all physical, chemical, ergonomic and psychosocial/ organizational factors which could be potentially detrimental to health and performance. This system shall be linked to continuous systematic monitoring of the exposure of **Supplier**'s and **Subcontractor**'s employees to these factors, and to a program for reducing potential exposure which could be harmful to health.
  - Systematic health monitoring as specified by applicable regulations and good professional practice, identification, evaluation and reporting of work related illnesses and corrective measures, follow-up of employees on sick leave, and prevention and treatment of alcohol and drug abuse.
  - That all chemicals due to be used during the work are evaluated for their health risk during transport, use and disposal, and that chemicals with the smallest health risk are given preference wherever this is technically and operationally feasible.

Psychosocial Emergency Service

Supplier shall have a documented organization to provide care for its own personnel and psychosocial support for personnel and their immediate families in the event of serious incidents.

Material Safety Data Sheet

Supplier shall have a system in place ensuring that correct information is available on the health risk or fire, explosion and environmental hazards posed by chemical products used in the **Work**.

Personal Protective Equipment (PPE)

Supplier shall be able to demonstrate that the personal protective equipment used during the **Work** provides satisfactory protection in the relevant tasks.

Environmental Management

- **Supplier** shall have a system to ensure and document the following:
  - Evaluation and follow-up of the **Work**'s environmental impact.
  - Selection of environmentally optimal solutions.
  - Inclusion of the environmental aspect in management documentation, including operational procedures
  - Evaluation of measures to reduce discharges/emissions to soil, water and air.
- **Supplier** shall systematically and regularly evaluate, monitor and document chemical usage to ensure minimal discharges and optimal operation, when use of potentially environmentally harmful chemicals.
- **Supplier** shall establish and maintain a register of chemicals used for execution of the **Work**. The register shall be available to **FMCTI** and **Company** for review.

Notification and Reporting of Incidents and Lost Time Injuries (LTI)

- **Supplier** shall comply with all official requirements for notifying and reporting events/hazardous conditions relating to safety, occupational health and the environment. Routines for ensuring such compliance shall be documented.
- All undesirable events/hazardous conditions experienced by **Supplier** shall be reported to **FMCTI** without undue delay, whether the event occurred at **Supplier**'s premises, at any site or at other locations. The report shall include the date of the event, its causes and any preventive follow-up measures taken.
- Every fatalities lost-time injury suffered by **Supplier**'s personnel, and any event with a high loss potential, shall be notified to **FMCTI** within 24 hours of the incident. A full investigation report including direct and underlying causes shall be specified and submitted to **FMCTI**.
- Other undesirable events shall be reported in the monthly report. **Supplier** shall have a system for registering and following up incidents (non-conformances).

Prohibition Notices and Demands for Improvement

Any prohibition notices and demands for improvement imposed on **Supplier** by government authorities shall be reported to **FMCTI** without undue delay. Should a complaint be filed under HSE legislation against **Supplier** while performing the **Work**, this must also be reported to **FMCTI** without undue delay.

5.4 Monthly HSE Reporting

Unless waived by **FMCTI** in writing, a monthly HSE report shall be submitted. The report shall cover the status of monthly HSE activities as specified in table below.

FMCTI shall be informed of **Supplier**'s definition of a lost-time injury and work related illness, and its definition of and practice concerning the use of alternative work. Hours worked shall be specified by (i) the total number of hours worked on the Agreement in the period and (ii) the total number of hours worked by **Supplier** in total (**Supplier** figures).

A report shall be provided in case of any recordable incidents related to the **Work**.

	Supplier's total		<FMCTI Project A>		<FMCTI Project B>	
	Current month	YTD	Current month	YTD	Current month	YTD
Reactive indicators						
1 Number of worked man-hours						
2 Average manpower (average number of employees)						
3 Number of near misses						
4 Number of fatalities						
5 Number of LTI (Lost Time Injuries)						
6 Number of days from LTI						
7 Number of RWC (Restricted Work Injury Cases)						
8 Number of MTC (Medical Treatment Cases)						
9 Number of first aid cases						
10 Number of material damage over USD 10,000						
11 Number of RTA (Road Traffic Accidents)						
12 Number of SVA (Severe Vehicle Accidents)						
13 Number of lifting related incidents						
14 Number of falling objects						
15 Number of environmental incidents						
16 Waste management; % waste segregation						
17 Number of spills greater than one (1) barrel of oil or chemicals						
18 LTIF (Lost Time Injury Frequency)*						
19 TRIR (Total Reportable Injury Rate)*						
20 Number of hours overtime						
21 Sick leave %						
22 Number of reported thefts						
23 Number of criminal damages						
24 Number of violence and threats						
25 Number of robberies						
26 Number of security incidents						
Proactive indicators						
27 Number of HSE inductions						
28 Number of safety observations						
29 Number of JSA (Job Safety Analysis)						
30 Number of Toolbox talks						
31 Number of safety walkabouts						
32 Number of safety moments conducted						
33 Number of HSE training hours						
34 Number of HSE inspections						
35 Number of HSE management visits						
36 Number of HAZID meetings						
37 Number of HSE audits						
38 Number of emergency drills and exercises						
39 Number of HSE meetings						

* Frequencies are per 200.000 working hours

5.5 FMC Technologies HSE Policy

FMC Technologies accepts our responsibility to protect the environment and the health and safety of our employees, their families and the public. Health, Safety and Environment (HSE) performance are core values of the corporation and will be managed as an integral part of our business to benefit employees, customers, neighbours and shareholders. All FMC Technologies employees are responsible for assuring that we achieve continuous and measurable improvement.

We will achieve our vision by:

- Conducting business in a manner that protects public and occupational health, the environment and employee safety.
- Striving for zero HSE incidents in all of our activities.
- Making health, safety and environmental considerations a priority in manufacturing existing products and planning for new products, facilities and processes.
- Complying with all environmental, health and safety laws and regulations.
- Reducing emissions and waste and using energy and natural resources efficiently and intelligently.
- Working with our suppliers, customers, and partners to promote responsible management of products and processes.
- Encouraging constructive communication with our suppliers, customers, neighbours and shareholders on managing health, safety and environmental issues.

This policy will be enabled through corporate standards/management system and appropriate business or site policies and management plans that establish objectives and targets. Implementation will be achieved through management and organizational commitment, allocation of sufficient human and capital resources and rigorous measurement and corrective systems.

'HSE focus in all we do'

5.6 FMC Technologies HSE 12 Golden Rules

The purpose is to establish standard best practice procedures for the twelve (12) highest risk activities that we perform. These golden rules will provide employees with an understanding of these risk areas and a better understanding and awareness of the steps needed to avoid a serious incident. These rules will be incorporated into the site/business HSE procedures and behavioral observation process.

1. Mechanical Lifting Operations

Lifts utilizing cranes, hoists, or other mechanical lifting devices will not begin until:

- ‘No Touch Policy’ - Tag lines and/or Push/Pull sticks will be used to guide loads lifted by cranes, hoists, forklifts or other mechanical lifting equipment. Under no circumstances should a person guide or handle a suspended load with his/her hands.
- A Job Safety Analysis (JSA) has been completed and the weight of the load and the lifting method and equipment has been determined by a competent person.
- Lifting devices are rated appropriately for the load to be lifted.
- All lifting equipment and gear have been inspected for damages or defects before rigging.
- Only trained and authorized persons are allowed to rig a load or operate lifting equipment.
- All employees are clear from the load to be lifted. No person shall go underneath a suspended load.

2. Lift Truck Operations

Lift trucks are not to be operated unless:

- The truck has been inspected and confirmed to be in safe working order.
- Certified and authorized persons are operating the lift trucks.
- They are driven at a safe speed – no faster than brisk walking pace.

Lift trucks shall never be used:

- To lift or carry people.
- To carry a load heavier than the rated capacity
- With the forks raised
- While using a mobile phone or smoking.

3. Lifting, Carrying and Handling

Before physically handling any equipment, objects or chemicals the following precautions need to be taken:

Lifting and carrying objects

- Never lift an object over 23 kg (50 lbs.) without the aid of another employee or a mechanical lifting device. (Note: in some countries, there is a lower weight limit for females)
- Use the correct lifting techniques when lifting and carrying objects.
- Always inspect the routes over which an object will be moved to ensure that there are no obstructions or spills that could cause a slip or trip
- Never carry an object up or down a stairs if you cannot see where you are stepping and/or cannot use one hand to hold the star railing.
- Never lift an object that you cannot grip or control safely. Objects that cannot be gripped or controlled safely must be carried in a suitable container, lifted by a mechanical lifting device or by two employees.

Hand protection

- Gloves are required for lifting, carrying and handling parts, tools and equipment.
- The proper glove will be selected based on the potential risk of physical injury, chemical exposure or required task.
- Glove should not be worn when there is a risk of the glove being caught and pulled into rotating or moving equipment.

4. Working at Heights

Working at a height above 2 meters (6 feet) above ground cannot proceed until:

- A fixed platform is used with guard or hand rails, or
- A fall arrest equipment is used that has:
  - A proper anchor, mounted preferably over-head
  - Full body harness using double latch self-locking snap hooks at each connection
  - Synthetic fiber lanyards with shock-absorber
- A visual inspection of the fall arrest equipment and system is completed and damaged equipment is taken out of service
- Person(s) is competent to perform the work at height and to use a fall arrest system.
- All tools and equipment are secured to prevent from dropping from height.
- The area below the work is cordoned off.

5. Working with High Pressure Equipment

Before any hydrostatic or gas pressure testing can be conducted:

- A JSA is completed, reviewed and signed by all persons and posted in the work area.
- All pressure test equipment must be inspected and confirmed to be in safe working order before use.
- Approved testing procedures must be available and made known to all involved.
- The safe stand-off distance, determined by ballistic calculations, must be barricaded with caution tape and/or flashing lights
- Only competent persons are allowed to conduct pressure testing or be within the barricaded test area while the system is under pressure as allowed by the procedure.
- Never adjust any fitting while system is under pressure. Testers must be behind protective shields during the pressure test.
- Any incident involving pressure testing is to be immediately followed by a work stoppage and a complete and thorough bleed-down of the system

6. Energy Isolation

Isolate hazardous energy sources prior to conducting work on any system. Hazardous energy sources may be mechanical, electrical, hydraulic, and other. Isolation of hazardous energy sources cannot proceed unless:

- All hazardous energy sources have been identified.
- The method of isolation and discharge of stored energy are executed by a competent person
- Stored energy has been confirmed to be discharged or released.
- A system of locks and warning tags are utilized at isolation points
- A test is conducted to ensure the isolation is effective before starting work on the equipment

7. Hot Work

Work involving the use of open flame or spark producing equipment for welding, cutting, brazing, pre-heating will not proceed until:

- The work area environment is inspected and a hot-work permit has been issued by a competent person
- The hot work permit is posted in the work area.
- The work area is cleaned and free of flammable materials and debris.
- Fire extinguishers are provided in the work area
- A fire watch is provided continuously during the work and for a period of 1 hour after the work is complete, and intermittently for an additional 3 hours.

8. Confined Space Entry

Entry into a confined space cannot proceed unless:

- All other options have been considered and ruled out.
- Testing of atmospheric conditions in the confined space had been conducted and evaluated and is repeated as required.
- A confined space entry permit has been issues and signed by an authorized person.
- The entry permit is posted in the work area.
- All persons involved are competent and fit to do the work.
- A stand-by person is stationed outside the confined space.
- Adequate ventilation is provided in the confined space.
- Emergency rescue equipment and procedure is available.

9. Environmental Conservation

In all areas of operations, the impact of the environment should be considered before beginning any activity:

- Waste coolant, oil, chemicals, etc. are properly collected and disposed of and not discharged into open drains, waterways or land.
- Metal scrap, wood waste, plastics, etc. are segregated and properly disposed of or recycled.
- All hazardous or harmful emissions into the atmosphere are contained, controlled and monitored.
- The use of energy is controlled, reduced and monitored.

10. Operating Motor Vehicles

All categories of vehicles must not be operated unless:

- Vehicle is fit for purpose, inspected and confirmed to be in safe working order.
- The number of passengers does not exceed the manufacturer's design specification for the vehicle.
- Loads are secure and do not exceed manufacturer's design specifications or legal limits for the vehicle.
- Seat belts are worn by all occupants.

Drivers must not operate the vehicle unless:

- They are trained, certified and medically fit to operate the class of vehicle
- They are familiar with the local traffic laws.
- They are not under the influence of alcohol, drugs and are not suffering from fatigue
- The do not use cell phones, including hands-free devices, and radios (2-way) while driving

11. Working in High Risk Countries

Before traveling to a high risk country always assess the risks and follow the crisis plan:

- Check the FMC Technologies Security Intranet site for:
  - Travel advisories, restrictions and bans
  - Country risk assessments
  - City security reports
  - Health and disease reports
  - Contact information for your national embassy
- Carry an SOS International emergency medical card.
- Make sure that vaccinations are current, especially when visiting developing countries
- Ensure that an Essential Business Trip Request is completed and signed by the Vice President responsible for your business if you are traveling to a country designated by FMC Technologies as high risk.
- List key contacts and phone numbers for the hotel, site to be visited, transportation, etc. Provide this list to you manager and establish a call-in protocol.
- Ensure that you will have a mobile phone that will work at you destination.

Upon arrival at the destination:

- Do not use transportation from unknown sources. If the pre-determined transportation in not there call the local contact.
- Use only hotels that have been identified as safe by your local contact.
- Do not go out at night alone.
- Report all suspicious activities to your contact and Corporate Security.

12. Management of Change

Work rising from temporary and permanent changes to organization, personnel, systems, process, procedures, equipment, products materials or substances cannot proceed unless a Management of Change process is completed.

- All proposed changes must undergo an adequate HSE review to ensure that additional hazards that my potentially be introduced with such changes are identified, and control measures implemented before the changes are effected.
- The proposed changes and assessment should be reviewed and approved by Management.
- The changes must be communicated to all operating personnel.
- Upon completion, the changes should be audited against the approved plan to confirm that there is no HSE hazard.
- The changes should be reviewed periodically to assess effectiveness and take corrective action if necessary.

6 Quality

6.1 Introduction

The purpose of this paragraph is to specify **FMCTI** administrative requirements for **Supplier**'s Quality Management System. Requirements for document submission, document handling and technical formats are described within Paragraph 7.

6.2 Quality Management System

Supplier shall have an implemented and documented quality system in accordance with the latest released version of EN ISO 9001.

Supplier of software and their **Subcontractors** shall have a documented and implemented quality system in accordance with ISO 90003 or CMMI maturity level 2 or equivalent with documented acceptance by **FMCTI**.

FMCTI shall be informed of any identified deficiencies and nonconformities in **Supplier** systems with respect to **FMCTI** requirements, together with a plan for rectifications.

6.3 Pre-Production Meeting (PPM)

When requested by **FMCTI** through Part Report or Inspection and Test Plan (ITP), **Supplier** shall call for a PPM prior to manufacturing start-up to ensure the following:

- All issues and queries are resolved
- All requirements are understood and can be met
- Relevant documents have been submitted by **Supplier** and reviewed and accepted by **FMCTI**.

The PPM check list, LST10086670, shall be used. The check list can be found via the Q-specification in the Part Report or on www.fmctechnologies.com/**subsea**suppliers.

6.4 Submission of Technical Queries

A technical query is a request for clarity or to obtain detailed information concerning engineering specifications, drawings, Bill of Material (BOM) or production requirements, before the **Work** commence.

Supplier shall direct such queries to the Technical Point of Contact with copy to the Commercial Point of Contact, both specified in the **PO**.

If **FMCTI** concludes that requirements has to change as a result of a query, then **Supplier** and **FMCTI** has a joint responsibility to ensure that **Work** is not conducted before the change to the requirement is implemented.

Technical query shall not be confused with a Non-Conformance Request (NCR) as specified in Paragraph 6.5.

6.5 Non-Conformance Handling

6.5.1 Non-Conformance Request (NCR)

To deviate from the specified technical and quality requirements, **Supplier** shall request permission by **FMCTI** by submitting a NCR; deviation or concession.

Supplier shall provide relevant information to enable **FMCTI** to evaluate the requests, by completing **FMCTI**'s NCR template. The template is available on www.fmctechnologies.com/**subsea**suppliers.

Supplier shall submit the request by using the email address specified in the **PO.**

Supplier shall perform and document all actions identified in order to eliminate the risk for recurrence.

6.5.2 Implementation of Approved Non-Conformance

FMCTI will notify **Supplier** when an NCR is approved or rejected. The NCR will be assigned a **FMCTI** Quality Notification (QN) number. **Supplier** shall not proceed with the correction before an updated disposition is received from **FMCTI**.

6.5.3 Complaints

If the **Deliverable** has a non-conformity caused by **Supplier,** discovered when delivered to **FMCTI**, **FMCTI** will issue a request for a Corrective Action Report (CAR) to **Supplier**.

After receipt of the CAR request from **FMCTI**, a completed CAR form shall be sent to CAR.Suppliers@fmcti.com with a copy to **FMCTI** Commercial Point of Contact within ten (10) **Business Days**.

6.6 Change Management of OEM Parts

When **Supplier** has design responsibility, Original Equipment Manufacturer (OEM), **Supplier** shall issue a technical query, to **FMCTI** Technical Point of Contact, as specified in the **PO**, whenever a change to a part affects form, fit, function and/or interface, quality or traceability requirements.

If a non-conformance to **FMCTI** specification is discovered, **Supplier** shall apply **FMCTI** requirements as specified in Paragraph 6.5.

6.7 Handling of FMCTI Provided Items

Supplier shall performed receipt of **FMCTI Provided Items** as per their goods receipt process and store under appropriate conditions.

FMCTI Provided Items shall only be utilized in the project for which it is intended. If **Supplie**r wants to utilize an item for another project than received for, this shall be subject to acceptance by **FMCTI**.

If the documentation required for **FMCTI Provided Item** is not received when receiving the item, **Supplier** shall request this from **FMCTI** before proceeding with the **Work**.

When required by Part Report, **Supplier** shall document traceability of **FMCTI Provided Items** in the manufacturing records.

6.8 Inspection & Test Plan (ITP)

If **FMCTI**'s Q-specification for MPQP/ITP is linked to Part Report, **Supplier** shall follow the requirements in the specification.

When ITP is required by a Documentation Requirement List (DRL), **Supplier** shall prepare an ITP sequentially listing applicable manufacturing, inspection and test activities for the referred part numbers.

An ITP may be re-used for **POs** to Stock (specified in **PO**'s Header Text), provided there are no changes to the activities, selected **Subcontractors**, or referenced documents. Any changes to the above shall be documented and submitted to **FMCTI** through a revised ITP for approval by **FMCTI** and, when required, **Company**.

The ITP shall as a minimum include:

- Reference to **FMCTI** part number.
- Reference to **FMCTI** project number, when given in PO.
- PPM as an activity, when required.
- References to **Supplier** and/or **Subcontractor**'s location for all activities.
- A list of all distinct manufacturing activities in all phases of production that can affect the product's quality.
- A list of all examinations, inspections, and test to be performed by **Supplier** and/or **Subcontractors** with reference to relevant activities, processes and procedures:
  - HSE intervention point prior to critical tests
  - The activities shall as a minimum include all applicable requirements stated on the Part Report and other documented clarifications.
  - The type of verifying document that will be generated on completion of each intervention.
  - Stage Gate Review of Manufacturing Record Book (MRB), when required by **Agreement** and other documented agreements.
  - **Suppliers** own planned Intervention Points
  - Interventions for **FMCTI** and **Company** when agreed otherwise provide columns for later input of this information.

Note: ISO 10005 Quality management - Guidelines for quality plans, section 5.18, can be used as a guideline for preparation of Inspection & Test Plans.

All Quality Control or Quality Surveillance reports by **Supplier** and its **Subcontractors**, including QMS audit reports if relevant, shall be made available to **FMCTI** upon request**.**

6.9 Intervention Points

The following definitions apply unless otherwise specified by the Part Report:

Hold Point (H)	A critical step in manufacturing and testing where it is essential that **Supplier**, **FMCTI** and/or **Company** representative participates in the inspection/process activity of the material/equipment in order to ascertain that the product for delivery complies with the specified requirements. Formal advance notification shall be given, as specified in Paragraph 6.10. The step shall not proceed without the presence of **Supplier**, **FMCTI** and/or **Company** representative, or without a written statement giving a waiver.
Witness Point (W)	A critical step in manufacturing or testing where it is desirable that **Supplier**, **FMCTI** and/or **Company** representative participates in the inspection/process activity of the material/equipment in order to ascertain that the product for delivery complies with the specified requirements. Formal advance notification shall be given, as specified in Paragraph 6.10. The step can proceed with or without the presence of **Supplier**, **FMCTI** and/or **Company** representative after the designated time has passed.
Monitor Point (M)	A step in manufacturing and testing that proceeds as scheduled, without advance notification, but may be subject to **Supplier**, **FMCTI** and/or **Company** observation. Monitor activities are intended for process verification, not product inspection.
Review (R)	Verification of a step in manufacturing or testing by **Supplier**, **FMCTI** and/or **Company** by review of objective evidence.

6.10 Notification of Hold and Witness Activities

Supplier shall notify **FMCTI,** any hold/witness activities as specified in the ITP or MPQP.

Notification time shall be minimum ten (10) **Business Days** unless otherwise is stated in the **PO/Agreement**. Notifications must be submitted by **Supplier** latest 14:00 GMT+1 (2 PM).

Supplier shall use and complete the **FMCTI** Global Notification Template, which is located at www.fmctechnologies.com/**subsea**suppliers.

All notifications related to **PO**s for **FMCTI** in Kongsberg (first issue, postponements and updates), shall be submitted electronically to the email address FKSnotifications@fmcti.com. Copy shall be submitted to any other relevant **FMCTI** personnel such as Commercial Point of Contact, Quality Engineer and Quality Administrator, if known.

The email's subject shall as a minimum contain **FMCTI**'s **PO** number, project number and project name. Example: PO 4700123456, SS-K20004 Aquila.

One email shall only contain notification(s) for one **FMCTI** project. Notifications for several projects in the same email will be rejected and returned.

6.11 Non-Destructive Examination (NDE)

Suppliers shall perform **Work** in accordance with **FMCTI** Q-specification and is responsible for training personnel in the use of the procedures and maintaining records of the training. If **Supplier** prefers to use his own procedure(s) that are fully compliant to the **FMCTI** specification, these procedure(s) shall be submitted to **FMCTI** for acceptance**,** when required by Part Report, prior to be used on a specific application basis.

When Supplier choose to use **FMCTI**'s Q-specification as working procedures for NDE, the specification have to be listed in the SMDR for the specific part number.

Positive reporting is required.

The qualification process of personnel shall comply with requirements specified in **FMCTI** Q-specification Q02200. If not accessible from any **FMCTI** Part Report, this specification shall be requested by **Supplier**.

6.12 Mechanical Completion Records and Tag Numbering

If project specific Tag Numbering or Mechanical Completion are required, the specification will be issued to **Supplier** by **FMCTI**.

7 Document Management

7.1 Introduction

The purpose of this paragraph is to specify **FMCTI** requirements for handling of documentation including methods of planning and tracking, document submission, transmittal and technical format requirements. **FMCTI** requirements are based on NORSOK Z-018 *Supplier's documentation of equipment*.

7.2 Identification of Documentation Requirements

Documentation requirements for part numbers issued by **FMCTI** are defined in the Part Report.

In the Part Reports there are two methods used:

1) Summarized in the Documentation Requirement List (DRL) linked to the Part Report.
2) Available via radio buttons for SDR or MIR in the Part Report.

7.3 Supplier Master Document Register (SMDR)

Whenever the **Agreement** requires an SMDR, **Supplier** shall populate the SMDR to identify the documents required by **FMCTI** for review, and it serves as **Supplier**'s schedule for submission.

Suppliers that have been trained in the use of the web based eSMDR shall use this.

Otherwise, the manual SMDR shall be used, as defined and described in LIST-0000023456. The manual SMDR itself is a revision controlled document required for **FMCTI**'s review and acceptance. The template and instruction is available on www.fmctechnologies.com/**subsea**suppliers.

7.4 General Document Management

7.4.1 Document Numbering, Revision and Title

All documents shall be identified by a unique document number with maximum 25 alphanumeric characters. Page number and revision shall not be a part of the document number.

All documents shall have a revision status (max. 4 characters).

Suppliers own document number and revision number system shall be used. No duplication allowed, and one document shall always have the same document number through all revisions.

All documents shall be given meaningful titles, minimum the document type and application.

7.4.2 Language

The English language shall be used, unless otherwise agreed upon in writing with **FMCTI**.

On the Norwegian continental shelf user documentation such as Transport and Handling instructions, Preservation, Storage and Maintenance Manuals and Operation and Maintenance Manuals/Procedures shall be delivered in both English and Norwegian language according to Norwegian laws and regulations for relevant equipment.

7.4.3 Document Format and File Characteristics

Unless otherwise specified in the **Agreement**, documents/drawings shall not reference a project number or project name as part of the document title or within the document/drawing.

Documents shall be delivered in electronic format. Paper copies may be required for documents that accompany the goods.

Unless otherwise specified by **FMCTI**, the file format shall be PDF/A.
Native format of documentation may be requested for all or some documents/drawings until end of warranty period after final delivery to **Company**. When required, **Company** title block or sufficient space, as specified by **FMCTI**, shall be applied on native documents/drawings.

There shall be one document per file.

PDF files shall:

- Be produced with Adobe Acrobat higher than version 5.0.
- Be produced from the native drawing or document file.
- Be fully compatible with the standard Adobe Acrobat Reader as unlocked files.
- Not include any unknown file compression software.
- Embed all text fonts used (no external references to text fonts are allowed).
- Be prepared for full text search.
- Have pages orientated for viewing without need for rotation.
- Include 'bookmarks' and bookmark index when the document exceeds 10 pages.
- Have document initial view options set to 'Bookmarks and page'.
- Have bookmarks destination action 'Fit page'.
- Be issued in 'Flatten field' status. Flatten fields and Comments feature shall be used.

The Acrobat X Flatten Fields and Comments Action moves the data from editable form fields and annotations into the main (non-editable) layer of the document preserving the appearance of form fields, highlights, stamps, and other annotations.

7.4.4 Document Version Management and Change Control

When changes are implemented, regardless of whether initiated by **Supplier** or by **FMCTI**, the revision status shall be stepped up, and the updated document shall be re-issued with the changes documented.

Supplier shall issue 'As Built' documentation when **Deliverables** have been manufactured, checked and successfully tested**.** Documents requiring 'As Built' status will be identified in the SMDR during the review phase. At handover, 'As Built' drawings shall not contain any revision clouds or revision markers.

Last revision of documents/drawings shall be transmitted with status 'Final Issue' or 'As Built' on front page or title block.

In text documents, changes shall be electronically marked/identified adjacent to the actual text in the document, using a vertical line at the left border. The change can in addition be described under 'Summary of Change' in the document.

7.4.5 Changes to Supplier Documentation

Changes (clarifications, changes in terminology or nomenclature and similar) shall be handled by revision of the existing document. Changes influencing *form*, *fit* and *function* shall lead to new document number.

After acceptance and first release, any changed documents issued to **FMCTI**, shall include a section or reference to separate document describing in detail changes implemented.

When changes are implemented, initiated either by **Supplier** or by **FMCTI**, the updated documentation shall be re-issued with the changes documented and the SMDR updated.

7.4.6 Transmission of Documents (Transmittals)

Supplier shall submit documents to the email address specified in the **PO**, or, when agreed due to file size, via FTP (File Transfer Protocol) or CD/DVD.

The email system will support an electronic receipt as an acceptance of receipt. It is the responsibility of **Supplier** to set up their email system in a similar way, allowing the same mechanism to be used for emails sent to **Supplier** from **FMCTI**.

Maximum file size for electronic delivery is 25-30 MB (in the email system). Files exceeding this limit must be split in several files identified by the same filename extended with sequence numbers i.e. <filename>-1.pdf, <filename>-2.pdf etc. Divided files must include cross reference info which enables tracking within the file cluster. Details must be agreed upon for such issues, normally handled during the review of SMDR, if the file size exceeds the limit.

Documents referred to in SMDR, shall be sent under cover of a data transmittal note when transmitted between **Supplier** and **FMCTI**. The recipient shall sign the data transmittal note and return one copy to the sender. Signatures can be issued electronically / automated if and when relevant.

If documentation is delivered on CD/DVD, the transmittals shall in parallel be submitted with an info post to the applicable SD email address. These are the only transmittals which may be signed and returned from **FMCTI** (alternatively electronically as a scanned document).

7.4.7 Document Review

Documents submitted for **FMCTI**'s review will be returned to **Supplier** using the 'DR4' Form, including status code and, when applicable, comments for incorporation.

The following status codes will be used for all documents in the SMDR (ref. LIST-0000023456):

Code	Description
1	Accepted with no comments.
2	Accepted with the given comments incorporated. Revise and resubmit.
2x	Document returned before the **Company**'s final approval/comments. Hold next revision of the document until receipt of **FMCTI**'s comments or code 1.
3	Not accepted. Revise and resubmit.
4	Information.

The following time limits apply unless other limits have been agreed:

- **FMCTI** will review and return documents to **Supplier** within twenty (20) **Business Days**.
- **Supplier** shall re-submit updated documents within five (5) **Business Days**.

7.4.8 Tag Index and Numbering

Supplier shall implement tag numbers as allocated by **FMCTI** on relevant drawings and documents. When applicable **FMCTI** will define and advise **Supplier** on the content and delivery method of digital tag indices and cross reference indices.

7.4.9 Malware

Supplier shall ensure that all computer systems, disks, software and data files utilized for or created in connection with this **Agreement**, by or on behalf of **Supplier**, are verified free of computer malware (e.g. viruses).

7.4.10 Retention and Storage of Records and Documents

All required documentation/information according to the requirements of the **Agreement**, including complete manufacturing records, shall be retained at **Supplier**'s premises for a minimum of 25 years or the required design life if this exceeds 25 years. The storage conditions shall ensure its safety and integrity over this period; records must remain legible, readily identifiable and retrievable.

Radiographs shall be stored in dedicated area, protected from contamination and physical deterioration or damage for the specified storage period. The processed radiographs shall be subjected to residual thiosulphate testing and long term viability shall be proven.

Digital Examination Data shall be recorded and stored on video tape, magnetic disc or optical disc. Mandatory radioscopic examination records and associated radioscopic images shall be stored in a proper repository at **Supplier** and/or **Subcontractor**'s facility.

If **Supplier** is unable to meet these requirements, all records and documents shall be transferred to **FMCTI**.

Supplier shall upon **FMCTI** request make available documents for review or issue to **FMCTI** extracts from the manufacturing documents as required.

Prior to permanent disposal of documentation/information after this period of time, **FMCTI** shall be notified in writing. This information should be given to **FMCTI** Commercial Point of Contact, and the Archive which will do the required clarifications.

7.5 Supplier Drawings

7.5.1 Drawing Frames

The drawing shall have a drawing frame with outer dimensions according to ISO 5457, ISO 7200, ISO 9431 or equivalent British, US and/or ISO standard. Also the drawing frame should have a margin between drafting area and outer edge. See LST60095137 for details.

Drawings indicated in the SMDR as being issued to **Company**, should have reserved space for implementing a **Company** title block above **Supplier**'s title block.

The information and title block shall have size and placement as defined in ISO 9431.
A separate attachment will be/ may be provided as the project title block that is required by **FMCTI**, which shall be placed in addition to **Supplier**'s title block. If not, the needed information is to be incorporated into **Suppliers** title block.

Typical size; width = 200 mm, height = 175 mm.

The actual size and position of **Company** title block have to be clarified in the beginning of each project.

7.5.2 General AutoCAD Requirements

No elements should reside outside the frame. There shall be only one drawing sheet in each file. The drawing frame shall be placed with lower left corner in coordinate 0,0,0.
Multi sheet drawings may have different requirements from project to project which has to be settled per project. The general rule is:

- ACAD Limits shall be set to the outer edge of the drawing frame and UCS shall be set to 'world'.
- In general **FMCTI** does not accept features that are not a part of standard ACAD or Genius or AutoCAD Mechanical unless they have been provided by **FMCTI**.
- Xref shall not be used. As a minimum 'bind' command shall be performed on these before delivery.

7.5.3 Drawing Colors

Standard AutoCAD colors shall be used as follows:

Line thickness according to ISO 128	AutoCAD color	AutoCAD color no.
0.18	Red	1
0.25	Yellow	2
0.35	Green	3
0.5	Cyan	4
0.7	Blue	5
0.5	Magenta	6
0.5	White	7
1.0	Grey	9

7.5.4 Drawing Text and Line Fonts

As a principle **FMCTI** accepts all standard AutoCAD text fonts and a number of additional fonts. The complete list is as follows:

Font name	Type	Font name	Type
amgdt.shx	Acad	italicc.shx	Acad
amgdtans.shx	Acad	italict.shx	Acad
Cdm.shx	Acad	ltypeshp.shx	Acad
Cdm_nc.shx	Acad	monotxt.shx	Acad
chineset.shx	Acad	Monotxt8.shx	Acad
eliso.shx	Acad	romanc.shx	Acad
g12f13.shx	Acad	romand.shx	Acad
g13f12d.shx	Acad	romans.shx	Acad
g13f12w.shx	Acad	romans.shx	Acad
gbcbig.shx	Acad	romant.shx	Acad
gdt.shx	Acad	scriptc.shx	Acad
Geniso.shx	Acad	scripts.shx	Acad
geniso12.shx	Acad	simplex.shx	Acad
Genltshp.shx	Acad	simplex.shx	Acad
Genprese.shx	Acad	Simplex8.shx	Acad
greeks.shx	Acad	syastro.shx	Acad
iges1001.shx	Acad	symap.shx	Acad
iges1002.shx	Acad	symath.shx	Acad
iges1003.shx	Acad	symeteo.shx	Acad
intliso.shx	Acad-Norsok	symusic.shx	Acad
intlisoe.shx	Acad-Norsok	txt.shx	Acad
ISO3098.SHX	Acad-Norsok	whgdtxt.shx	Acad
isocp.shx	Acad	whgtxt.shx	Acad
isocp.shx	Acad	whtgtxt.shx	Acad
Italic8.shx	Acad	whtmtxt.shx	Acad
isocp2.shx	Acad		
isocp3.shx	Acad		
isoct.shx	Acad	Garamond	win TT
isoct2.shx	Acad		
isoct3.shx	Acad		
italic.shx	Acad		

Other Windows True Type fonts may be used if agreed by **FMCTI**.

Only line fonts included in standard AutoCAD, the Genius application and AutoCAD Mechanical will be accepted. Complex line types based on shapes are not allowed, unless they are a part of standard AutoCAD, Genius, AutoCAD Mechanical, or have been provided by **FMCTI**.

Unless otherwise accepted by **FMCTI**, Capital fonts shall not be used.

7.6 Manufacturing Documentation

Manufacturing documentation proves that the delivered goods meet the requirements of the **Agreement**s. Such documentation is a key to successful maintenance of subsea installations during the operational phase.

The manufacturing documents shall be kept in specific quality files as soon as they are issued and shall remain easily retrievable and available for consultation at all times during the course of the **Work**. These records may be progressively reviewed and approved by **FMCTI** personnel assigned to or visiting **Supplier**'s locations.

7.6.1 MRB Index

MRB Index is an index of which manufacturing documents will be placed in MRB Dossier.

If MRB Index is required by the Part Report, the MRB Index shall be listed on the SMDR and submitted to **FMCTI** for review and acceptance for the first delivery of the part.

FMCTI's Master Document MRB Index (MRB-0000022883) shall be used when a MRB Index is required. This MRB Index shall also be used by **Subcontractors** when documentation shall be included in **Supplier**'s MRB.

The template and instruction is available on www.fmctechnologies.com/**subsea**suppliers.

7.6.2 Manufacturing Record Book (MRB)

FMCTI require, one MRB per **PO** line and delivery shall be according to the ATS process, ref. the **PO**'s Header Text. **FMCTI** may accept one MRB per system covering several part numbers. This shall be clarified on receipt of **PO**.

For Part Reports with no requirement for MRB and with Q03402 (batch management traceability) linked, Manufacturing Documents coded WED (With Each Delivery), shall be compiled and a WED document package per **PO** line and delivery, shall be delivered according to the ATS process, ref. the **PO**'s Header Text.

The MRB shall contain all manufacturing documentation as specified by the Part Report, the manufacturing document requirements are found as Manufacturing Information Requirements (MIR) and are shown through the link in the Part Report's header.

The MRB shall be compiled according to **FMCTI**'s Master Document MRB Index (MRB-0000022883). The MRB shall be submitted 'As Built'. If the Q-specification Q00145 is linked in the Part Report, this supersedes the use of MRB-0000022883 for MRB Index and compilation.

The MRB shall be possible to print in paper format with all pages in correct sequence.