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Process Industries Data Handover Guide - Part 2

Abstract:

This document contains guidelines for the types and formats of handover information. It forms Part 2 of the Process Industries Data Handover Guide.

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1 Handover Information

This section lists all of the information that may be created during a project and handed over to the owner/operator. The list is not exhaustive but should identify the most common information types. Each company and each project will have to carefully evaluate their own requirements to establish their own handover list.

The tables also include *suggested* lifecycle codes and information formats. These are as described in section 4.6.6 and section 4.5 of part 1 of this guide.

NOTE: These are suggested codes and should be regarded as a starting point only. Each user of the guide should re-assess their own requirements and edit as necessary.

In the following tables, reference is made to information handed over in structured data form. Section 2 of this part of the guide contains further details about the characteristics of information to be handed over in this form.

In the following tables, S/D is an abbreviation for Structured Data.

A Contract Management Documents

Code	Information	Description	Lifecycle code	Format
A01	Contractor Information Schedule	Schedule of information to be supplied	4	S/D
A02	Organisation Charts/Key Personnel Assignment Résumés	Contractor organisation charts and résumés of key personnel	4	Native
A03	Document Registers		2	Native
A04	Contractor's Information Management Procedure	Procedures for the management of information throughout the project	4	Native
A05	Contractor Proposed Financing Plan	Plan for financing contractors work, including stage payments	4	Native
A06	Local Content	Statement as to the local content of the contract works	4	Native
A07	Bonds	Any bonds required by the contractor to carry out the works	4	Hard Copy
A08	Certificates of Insurance	Certificates of insurance for policies required by the law of the relevant states and by the contract	4	Hard Copy
A09	Insurance Policies and Guarantees	Insurance policies and guarantees required by the law of the relevant state and by the contract	4	Hard Copy
A10	Guarantee of Labour Payment Affidavit	Arrangements for paying labour as required to meet local law	4	Hard Copy
A11	Variation Order (VO) Procedure	Procedures for issue approval and execution of variation orders	4	Native
A12	Contractor's Valuation Invoices & Payment		4	Hard Copy
A13	Schedule of Rates & Pricing	Schedule of rates for variations	4	Native
A13	Subcontracting Plan	Plan for subcontracting works including co-ordination procedures	4	Native

B Planning/Schedule/Progress/Cost Control

Code	Information	Description	Lifecycle code	Format
B01	Contractor's Project Schedule	Schedule for the completion of the works	4	Native
B02	Contractor's Planning/Schedule/Procedures	Procedures for planning the project and monitoring progress	4	Native
B03	Contractor's Control Program/Revision	Baseline for control of project	4	Native
B04	Reporting Formats	Formats and procedures for issuing reports	4	Native
B05	Daily Reports	Reports issued daily in accordance with agreed reporting formats	4	Native
B06	Weekly Reports	Reports issued weekly in accordance with agreed reporting formats	4	Native
B07	Monthly Progress Reports	Reports issued monthly in accordance with agreed reporting formats	4	Native
B08	Contractor's Cost Control Procedure	Procedures for monitoring, controlling and reporting expenditures	4	Native
B09	Cost Report Format	Format for regular cost reports	4	Native
B10	Monthly Cost Report	Monthly report of costs in accordance with agreed reporting format	4	Native
B11	Contractor's Cash Flow Curve	Curve updated on a regular basis (typically monthly) to show accumulative costs	4	Native
B12	Variation Orders	Variation orders, completed and approved in accordance with agreed procedures	4	Native
B13	Variation Register	Register of variation orders, to be updated with current status of each order at regular (typically monthly) intervals	4	Native
B14	Statement of Final Account	Final account to be submitted for final payment	4	Native
B15	Manpower Histograms	Histograms to show current and predicted manpower on-site, broken down by trade/profession	4	Native

C Material Management

Code	Information	Description	Lifecycle code	Format
C01	Purchasing Plan/Procurement Procedures	Plan and procedure for the purchase of bulk materials, equipment and services	4	Native
C02	Contractor's Proposed Supplier List	List of proposed suppliers for bulk materials, equipment and services	4	Native
C03	Contractor's List of Subcontracted Work	List of work to be subcontracted, including subcontractor, scope and value	4	Native
C04	Material Management Procedures	Procedures for the management of materials (including Packing, Shipping, Handling and Storage)	4	Native
C05	Material Status Reporting	Regular reports of the status of materials on order, delivered and installed	4	Native
C06	Material Releases	Certificates for the release of materials for construction	4	Native
C07	Surplus Material Reports	Reports for surplus material	4	Native
C08	Scrap Disposal Requisition	Certificate for disposal of scrap material	4	Native
C09	Material Final Reconciliation List	Final reconciliation for material delivered, installed, scrapped and surplus	4	Native
C10	Contractor's Form Formats		4	Native
C11	Material Movement Ticket (MMT)	Certificate for the movement of materials	4	Native
C12	Material Receiving Report (MRR)	Report of materials received onto site	4	Native
C13	Over Short & Damaged Report (OSD)	Report showing problems in delivered materials	4	Native
C14	Material Movement Request (MMR)	Request for the movement of materials on site	4	Native
C15	Off-Site Transfer Authorisation (OST)	Authorisation to move materials off site	4	Native
C16	Procurement Inspection – Surveillance Plan	Plan for the inspection of delivered materials and equipment	4	Native
C17	Unpriced Copy of Purchase Orders (As Issued)	Copies of orders for materials and equipment	4	Hard Copy
C18	Unpriced Copy of Subcontracts (As Issued)	Copies of orders for sub-contracts	4	Hard Copy

D Construction Management

Code	Information	Description	Lifecycle code	Format
D01	Construction Permits/License/Permit Plan	Permits and licences issued to allow construction to take place	4	Hard Copy
D02	Minutes of all Contractor's meetings	Minutes of contractors meetings as requested in contract procedures	4	Native
D03	Security Plan	Plan for the security of the site, including personnel, materials and equipment	4	Native
D04	Transportation Program	Program showing transport of major equipment to site (including Video and Pictures - Road Conditions, Before and After)	4	
D05	Office & Construction Camp Plan	Plan of any temporary facilities to be constructed	4	Native
D06	Work Change Proposal	Proposed procedures for change to the works	4	Native

E QA/QC/Certification

Code	Information	Description	Lifecycle code	Format
E01	Quality Manual/Quality System Program	Reference to contractor quality program	4	Native
E02	Quality Plan	Plan for the management of quality through the project	4	Native
E03	QA/QC Group Organisation Charts	Organisation and responsibility for QA/QC	4	Native
E04	Quality System Certificate	Certificate of compliance within recognised quality standard	3	Hard Copy
E05	Construction Inspection & Test Plan	Inspection and test plan for all construction work	4	Native
E06	Inspection Manning Levels-MH by Job Function/Location	Numbers and roles of inspection staff	4	Native
E07	Quality Audit Schedule	Schedule for carrying out project quality audits	4	Native
E08	Quality Audit Reports	Reports on scheduled quality audits	4	Native
E09	Surveillance Plans	Plans for surveillance of quality issues throughout project	4	Native
E10	Equipment Criticality Rating Sheets	Shows criticality rating of equipment and hence inspection requirements	2	S/D

F Health/Safety/Environment Programs

Code	Information	Description	Lifecycle code	Format
F01	Safety/Health Program	Program to ensure health and safety throughout project	3	Native
F02	Health/Safety/Environment Procedures	Procedures to ensure HSE performance	3	Native
F03	Community Affairs Plan	Plan for the management of community affairs	3	Native
F04	Waste Material Management Plan	Plan for management and safe disposal of all waste	3	Native
F05	List of Proposed Disposal Sites	Disposal sites for waste material in accordance with all necessary laws and regulations	3	Native
F06	Accident Reports	Reports of all accidents occurring during the projects, including on-site, in contractors offices, etc.	3	Hard Copy
F07	Monthly Report - Health & Safety	Monthly report on HSE	3	Native
F08	Environmental Management Plan	Plan for management of environmental issue	3	Native
F09	HAZOP Review and Report	Review and report for all project HAZOP studies	2	Native

G Process

Code	Information	Description	Lifecycle code	Format
G01	Facility Block Diagram	Schematic representation of main systems	2	S/D
G02	Process Flow Diagrams	Details major items of equipment, primary lines and valves, operating temperatures, pressures and mass flows.	2	S/D
G03	Utility Flow Diagrams	Details major items of equipment, primary lines and valves, operating temperatures, pressures and mass flows.	2	S/D
G04	Process and Instrument Diagrams	Showing in schematic form the equipment, piping, valves, tagged instruments, piping specification (& breaks) and line numbering for the process, utilities and loss control systems.	2	S/D
G05	Principal Equipment List	List of major process equipment items	2	S/D
G06	Power and Utility Summary	List of power and utility loads and requirement	2	S/D
G07	All Project Philosophies	Self-explanatory	3	Native
G08	All Project Studies (Generated in the EPC phase and later)	Self-explanatory	3	Native
G09	Cause and Effect Charts	Process cause and effort charts	2	S/D
G10	Process Calculations	Design calculations for all process conditions and process equipment selection	2	Native
G11	System Design Basis Reports	Document outlining the basis for the design of the facility and comprising all process design philosophies i.e. environmental philosophy, drainage philosophy, ventilation philosophy, spading/isolation philosophy, plant availability/down time assessment and relief/blowdown philosophy etc. The philosophies detail the reasoning and assumptions made in plant design and are required as reference documents for the optimisation/modification of plant.	2	Native
G12	Tie-In Schedules	Schedule of interfaces between Project Stages, Contractors and Systems,	2	S/D
G13	Supervisory Level Operating Procedures for all Process/Utility System(s). (Shall include Steady State, Start-Up, Shutdown & transient Operations)	Comprises operating information and procedures needed for the safe and efficient operation of the process plant and utilities	2	Native
G14	Mass Balance	Chart summarising mass flowrates at key points within the process and utility systems	2	Native
G15	Fluid and substance data	Details the composition/makeup of process and produced fluids.	2	Native
G16	Relief & blowdown data	Sizing data for the relief and blowdown systems	2	Native
G17	Surge and dynamic analysis data	Details and results of any analysis carried out to verify design of process plant.	2	Native
G18	HL/LP interface details	Set of calculations verifying plant and equipment protection downstream of pressure letdown locations (the register of safety related devices refers to it).	2	Native
G19	Process simulation model	Computer based process flow model used in the design	2	Native
G20	Criticality Resume	Assumptions and reasoning behind the allocation of criticality ratings to plant and equipment. Needed for reference to support modifications	2	Native
G21	Process Safeguarding drawings	Diagrams showing pressure and temperature trips, blow down, pressure relief, isolation, emergency shutdown valves and HP/LP interfaces	2	Native
G22	Process Data Sheets	Describe the operating parameters (temperatures, pressure, service conditions and operating fluid characteristics) of the equipment in the form of sketches and tables and are the basis of the performance specification for the equipment.	2	S/D
G23	System Isometrics	Fabrication isometrics combined to represent a complete system. Required for system familiarisation and as a training aid.	3	Native

H Instrumentation

Code	Information	Description	Lifecycle code	Format
H01	Instrument Data	See Appendix B	2	S/D
H02	Critical Instrument and Design Specifications	Design specifications of Control valves, Shut Off Valves, & MOV's	2	Native
H03	Instrument and Design Specifications	Design specifications of instrument Items not in line above	3	Native
H04	Installation and Mounting Standards	Standard drawings and specification for mounting instruments	3	Native
H05	Loop Drawing format	For explanation of loop drawings see below	3	
H06	Loop Drawings	Details the interconnection and relationships between all elements of a control loop, from sensing element through to controlling element, and cabling and wiring details for the associated instruments. Includes junction box, marshalling cabinet and control panel terminations and power supply details. The drawing enables maintenance persons to function test, maintain and find instrument loops without needing to refer to numerous related wiring diagrams.	2	S/D
H07	Room Layout	Layout of all field equipment rooms and control rooms showing position of equipment in relation to building details	2	Native
H08	Interface Drawings	Diagrams showing Interface terminations and hook ups between Contractors	2	S/D
H09	Termination Drawings	For equipment, panels, junction boxes, etc. identifies all connections and cable terminations at input/output rails. Required for removal/hook up purposes and modifications. To include vendor interfaces.	2	S/D
H10	Hook-up drawings	Shows the instrument impulse, pneumatic and electronic connections and pipework including valves, fittings, flanges and support details with associated material take-off list. Used for removal/hook up purposes and modifications.	2	S/D
H11	Critical Instrument Calculations	Control Valves, Shut Off Valves, ESD	2	Native
H12	Instrument Calculations	Items not in H11	3	Native
H13	Fiscal Metering Design Calculations	These are calculations to demonstrate the conformity of the fiscal metering station to the relevant standards.	2	Native
H14	Cause and Effect Diagrams	The logic of alarm and trip systems shown in matrix form detailing the relationships between input variations on the output. Required for an understanding of the alarm and protection systems and for fault finding and modifications.	2	S/D
H15	Shutdown Logic Drawings	Provides an overview in graphic form of the "and", "or" and other logic functions of the shutdown systems and the sequence in which initiation events occur. Required for trip testing, system fault finding, maintenance testing and modifications	2	S/D
H16	Instrument/Control System Power Distribution, Grounding Interconnects Drawing	Schematic diagram of instrument power supplies and earthing arrangements	2	S/D
H17	Alarm/Trip Schedule	Schedule of all alarms and trip settings including those in vendor packages	2	S/D
H18	Cable Schedule	See Appendix B	2	S/D
H19	Cable Routing Drawings	Details the routing of cables throughout the facility between the plant and equipment, modules etc. including transit locations.	2	Native
H20	Testing and Commissioning Procedures	Includes procedures for each type of equipment to be tested and commissioned	3	Native
H21	Overall Control System Block Diagrams, I/O Loading & Cabinet Layouts	Self-explanatory	2	S/D
H22	Detailed Procedures for Control and Shutdown System FAT	Self-explanatory	3	Native
H23	Failure Modes Effects Analysis for Shutdown Systems	Self-explanatory	2	Native
H24	Standard Instrument Details	Dimensioned drawings of instruments and supplier technical and installation details	3	Native
H25	Instrument location drawing	Shows the physical location of all equipment	2	Native

Code	Information	Description	Lifecycle code	Format
H26	General arrangement drawings	Shows general arrangement and locations of instrumentation and associated items on skids and within panels and cabinets. Annunciator panel GA's shall include front fascia details along with full alarm text and tag numbering	2	Native
H27	Control schematic	Gives a pictorial representation of the main elements and functions of a control circuit/system with input/output sources (switches, relays etc.) and their relationships. Details logic functions of the circuit/system	2	S/D
H28	SCADA/PLC/DCS Details	This documents the SCADA/PLC/DCS implementation philosophy including configuration details of inputs, outputs, logic and screen graphics, and software revision status. This will include hard copy software documentation where the software system is not self documenting.	2	Native

I Fire and Gas

Code	Information	Description	Lifecycle code	Format
I01	F&G equipment Data	see Appendix B	2	S/D
I02	Installation and Mounting Standards		3	Native
I03	Loop Drawing format	For explanation of loop drawings see below	3	
I04	Loop Drawings	Details the interconnection and relationships between all elements of a control loop, from sensing element through to controlling element, and cabling and wiring details for the associated instruments. Includes junction box, marshalling cabinet and control panel terminations and power supply details. The drawing enables maintenance persons to maintain and fault find instrument loops without needing to refer to numerous related wiring diagrams.	2	S/D
I05	Interface Drawings	Diagrams showing Interface terminations and hook ups between Contractors	2	S/D
I06	Termination Drawings	For equipment, panels, junction boxes, etc. identifies all connections and cable terminations at input/output rails. Required for removal/hook up purposes and modifications.	2	S/D
I07	Hook-up drawings	Shows the instrument impulse, pneumatic and electronic connections and pipework including valves, fittings, flanges and support details with associated material take-off list. Used for removal/hook up purposes and modifications.	2	S/D
I08	Cause and Effect Diagrams	The logic of alarm and trip systems shown in matrix form detailing the relationships between input variations on the output. Required for an understanding of the alarm and protection systems and for fault finding and modifications .	2	S/D
I09	F&G Logic Drawings	Provides an overview in graphic form of the "and", "or" and other logic functions of the shutdown systems and the sequence in which initiation events occur. Required for system fault finding, maintenance testing and modifications	2	S/D
I10	F&G System Power Distribution, Grounding Interconnects Drawing	Schematic diagram of instrument power supplies and earthing arrangements	2	S/D
I11	Cable Schedule	see Appendix B	2	S/D
I12	Cable Routing Drawings	Details the routing of cables throughout the facility between the plant and equipment, modules etc. including transit locations.	2	Native
I13	Testing and Commissioning Procedures	Includes procedures for each type of equipment to be tested and commissioned	3	Native
I14	Overall F&G System Block Diagrams, I/O Loading & Cabinet Layouts	Self-explanatory	2	S/D
I15	Detailed Procedures for F&G System FAT	Self-explanatory	3	Native
I16	Failure Modes Effects Analysis for F&G Systems	Self-explanatory	2	Native
I17	Standard Fire/Gas Details	Dimensioned drawings of instruments and supplier technical and installation details	3	Native
I18	F&G location drawing	Shows the physical location of all equipment. Shows the exact position of detectors/alarms and for detectors, shows their orientation and fire area covered.	2	Native
I19	General arrangement drawings (instruments, field mounting arrangements, panels)	Shows general arrangement and locations of instrumentation and associated items on skids and within panels and cabinets. Annunciator panel GA's shall include from fascia details along with full alarm text and tag numbering.	2	Native
I20	F&G schematic	Gives a pictorial representation of the main elements and functions of a control circuit/system with input/output sources (switches, relays etc.) and their relationships	2	S/D

J Telecommunications

Code	Information	Description	Lifecycle code	Format
J01	Telecommunications equipment data	see appendix B	2	S/D
J02	Loudspeaker Loop Drawings	Details the loudspeaker connection and information on the designated loop. Required for automated PA interrogation system fault finding.	2	S/D
J03	Cable Schedule	see appendix B	2	S/D
J04	Cable Routing Drawings	Details the routing of cables throughout the facility between the plant and equipment, modules etc. including transit locations.	2	Native
J05	Testing and Commissioning Procedures		3	Native
J06	Overall System Block Diagrams, I/O Loading & Cabinet Layouts		2	S/D
J07	System drawings	Details the telecommunications system and how it interconnects into the overall communications network	2	S/D
J08	Single Line diagram	Details how equipment is connected into a system to include comprehensive data thread and telephone trunk records.	2	S/D
J09	Block and Level Drawing	Details transmission levels within systems and through networks	2	S/D
J10	Termination drawing	For equipment, panels, junction boxes, etc. identifies all connections and cable terminations at input/output rails. Required for removal/hook up purposes and modifications	2	S/D
J11	Wiring Diagrams	Details all points of interconnecting wiring showing cable numbers, core colours and termination points.	2	S/D
J12	Telemetry ID listing	Database model listing input and output points of plant instrumentation interconnections to telemetry systems.	2	S/D
J13	IDF Records	Details intermediate distribution frame connections in tabular form to show the origin and destination of individual system channels i.e. cable head and jumpering terminations.	2	S/D
J14	Radio licence	Statutory requirement for radio operation for display on facility.	3	Hard Copy

K Architectural

Code	Information	Description	Lifecycle code	Format
K01	General Arrangement for Buildings and Structures	To include layouts of all rooms including equipment and accommodation details, external layouts and elevations	3	Native
K02	Intermediate Stage Architectural Drawings	General drawings for construction details of buildings (draft)	4	Native
K03	Completion Stage Architectural Drawings	General drawings for construction details of buildings (final)	3	Native
K04	Completion Stage Architectural Specification	Contains Contractor detail design based on initial specifications	3	Native
K05	Technical Interfaces	Drawings and documents describing interfaces between architectural and other Contractor scopes	3	Native

L Electrical

Code	Information	Description	Lifecycle code	Format
L01	Electrical equipment data	see Appendix B	2	S/D
L02	Electrical System Studies	Includes load flows, transient and dynamic stability	2	Native
L03	Power System and load transfer philosophy	Power system operation and the philosophy of load transfer	2	
L04	Short Circuit Studies	Self-explanatory	2	Native
L05	Protective Device Co-ordination	To include protective device settings with calculations for entire distribution system	2	Native
L06	Cable Size Calculations	Self-explanatory	3	Native
L07	Single Line Diagrams	Detail the main equipment items (switchboards, transformers etc.) and their relationships within the platform electrical distribution system including details of fault levels and current and voltage ratings.	2	S/D
L08	Block diagrams	Similar to the SLD above but detailing the relationships in single line form between items of equipment, control panels, distribution boards.	2	S/D
L09	Schematic Diagrams	Gives a pictorial representation of the main elements and functions of a control circuit for electrical equipment with input/output sources (switches, relays etc.) and their relationships. Details logic functions of the circuit	2	S/D
L10	Wiring Diagrams	Details electrical wiring on all plant, equipment, boards, boxes and panels including interconnection/termination details for interface and hook up	2	S/D
L11	Electrical Interconnection Diagrams	Details of cable numbers and terminations between vendor packages, equipment and particularly at Contractor interfaces	2	S/D
L12	Electrical Equipment Arrangement Layouts	GA's of main electrical equipment, including switchboards, transformers, large loads, etc.	2	Native
L13	Lighting and Grounding Layouts	Layout of lighting and grounding on facility	2	Native
L14	Cable Tray Layouts	Layout of main cable tray routes on facility	2	Native
L15	Power Layouts	Layout of main power distribution on facility	2	Native
L16	Electrical Layouts	Layout of main electrical loads on facility	2	Native
L17	Building Electrical Layouts	Layout of electrical equipment and lighting within buildings	2	Native
L18	Schedules and Lists	See Appendix B	2	S/D
L19	Lighting Fixture Schedule	Self-explanatory	2	S/D
L20	Panel Schedule	Self-explanatory	2	S/D
L21	Conduit Schedule	Self-explanatory	2	S/D
L22	Cable Schedule	see Appendix B	2	S/D
L23	Load List	Tabulation of electrical loads which the electrical system must accommodate including detail of individual distribution board loads.	2	S/D
L24	Legends and Symbol Lists	As used in all drawings	3	S/D
L25	Standard Power Details	Typical installation details	3	Native
L26	Standard Lighting Details	Typical installation details	3	Native
L27	Standard Ground Details	Typical installation details	3	Native
L28	Standard Cable Tray Details	Typical installation details	3	Native
L29	Cable Routing	Details the routing of cables throughout the facility between plant and equipment, modules etc. including transit locations.	2	Native
L30	Grounding Drawings	Detail grounding connections for plant and equipment and between modules and dissimilar structural elements	2	Native

M Mechanical

Code	Information	Description	Lifecycle code	Format
M01	Plot Plans	Plan view of a area showing exact location of main items of equipment.	2	Native
M02	Equipment Location Plan	Showing next level of detail from plot plan	2	Native
M03	General Arrangement	Dimensional drawing indicating overall extremities of plant or equipment in plan, elevation or sectional view.	2	Native
M04	Vessel Detail Drawing	Sectional or exploded view drawing detailing main fabrication/assembly information - design parameters (pressures, temperatures, manufacturing code etc.), materials, wall thicknesses, lining, internal fittings, test details of major process and utility vessels.	2	Native
M05	Vessel Design Calculations	Prepared in order to prove that the item of equipment or system selected meets the design criteria.	2	Native
M06	Critical Weld Procedures	Required for critical plant and equipment where non standard (exotic) materials and methods are used i.e. vessel lining, sour service. The procedures may not be industry standard or readily available thus resulting in significant costs (for procedure development/qualification and production loss) if repairs etc. required at short notice.	3	Native
M07	Standard weld procedure	Weld procedures not covered by the above	3	Native
M08	Performance Curves	These are charts detailing the design performance envelope and limits for major rotating machinery - turbines, crane/auxiliary diesels, compressors, transfer, fire and WI pumpsets.	3	Native
M09	Alignment Specifications	Manufacturers recommended alignment readings and tolerances needed for re-coupling of major rotating machinery following overhaul.	3	Native
M10	Start-up Logs for M/c's	Running logs taken on first start up/commissioning of major rotating machinery. Of particular importance are running hours for scheduling overspeed tests and initial oil changes.	3	Native
M11	Condition Monitoring Baselines	Set of vibration and SPL readings and oil/grease analysis results for first operation/run up of rotating machinery.	3	Native
M12	Lubrication Schedule	Details the lubrication requirements (oil, grease etc.) for all plant and machinery including detail of the lubricants (manufacturer's and BP equivalent), quantities used and recommended change frequency. The schedule will be a rationalisation of lubricant grades/types so as to minimise offshore stockholdings.	2	Native
M13	Access Manuals	Document detailing the methods and procedures for all mechanical handling activities that will take place during Operations. Details procedures for removing plant and equipment for maintenance purposes, lifting/handling equipment to used, load paths and laydown areas.	2	Native
M14	Pressure Vessel Certificate	Certificate issued by Certifying Authority is specific to pressure vessels and lists the salient data - manufacturer, type of construction, test pressure rating etc.	3	Hard Copy
M15	PSV Test Certificate	Records details of inspection of PSV and required to demonstrate they are fit for purpose	3	Hard Copy
M16	Lifting Equipment Certificate	Issued by competent third party inspector covering all portable and fixed lifting gear.	3	Hard Copy

N Pipelines

Code	Information	Description	Lifecycle code	Format
N01	Water Analysis - Cert. Test Report	For pressure testing	3	Native
N02	Pressure Test Records	Showing test equipment calibration reports, test reports and results	3	Native
N03	General Arrangement	Of pipeline equipment e.g. valves, pig launchers	2	Native
N04	Alignment sheets	Showing pipeline routes, road crossings, elevations	2	Native
N05	As built data	Based on actual field installation and survey	2	Native
N06	Cathodic Protection drawing	Showing locations of cathodic protection and schematic diagrams	2	S/D
N07	Design, Fabrication & Installation Specifications	Self-explanatory	3	Native
N08	Design Calculations	Self-explanatory	3	Native
N09	Fabrication Records	For pre-fabricated sections, including test reports	3	Native
N10	Installation Procedures	Including safety compliance	3	Native
N11	Compliance Documents	Test records, reports, etc.	3	Native
N12	Emergency P/L Valve Certificate	Self-explanatory	3	Hard Copy

O Piping

Code	Information	Description	Lifecycle code	Format
O01	Pipe and piping equipment data	see Appendix B	2	S/D
O02	Line schedule data	see Appendix B	2	S/D
O03	Piping Support Standards	Self-explanatory	3	Native
O04	Pipe Support Details	Self-explanatory	3	Native
O05	Pipe Support Schedule	Tables defining special/critical support type (static, pre-loaded etc.) and tag number.	3	S/D
O06	Piping GA Drawings	Drawings which provide plan and/or sectional views, highlighting the routing of dimensioned pipework. To include general arrangements of special pipe supports.	2	Native
O07	Fabrication Isometric Drawing	Isometric view of pipe run detailing configuration, orientation and necessary details (dimensions, material requirements) for manufacture and assembly.	2	Native
O08	Piping Specification	Provides piping materials definition, design pressures and temperatures, pipe nominal bores and wall thicknesses, fitting types and applications and material test criteria.	3	S/D
O09	Piping Special Items Specifications	Definition as per the piping specification but for non standard items not included in piping specification.	3	Native
O10	Design Calculations	Prepared in order to prove that the item of equipment or system selected meets the design criteria. For special pipe support will include details of load settings.	3	Native
O11	Pipe Stress Pack	Reports containing pipe stress evaluation results and recommendations (including calculations, stress isometrics, support type and acceptable load criteria) for specific critical piping configurations.	3	Native
O12	Valve Specification	Provides valve type, material definitions design pressures and temperatures, operating service conditions actuation type, end connection and dimensional details.	3	S/D
O13	Insulation Specification	Provides equipment application information (pipe, vessel etc.) material type, thickness requirements, services conditions, personnel protection and fireproofing.	3	Native

P Corrosion Control-Coatings/Painting/Insulation

Code	Information	Description	Lifecycle code	Format
P01	Cathodic Protection Field Testing Reports	Including test methodology and results	3	
P02	Coatings Test Reports	Including test methodology and results	3	
P03	Material Selection Drawings	Schematics showing material selection on process	2	Native
P04	Material Selection Philosophy	Details reasons and assumptions made in the choice of materials for construction of structure, plant and equipment. Essential reference document should modifications be necessary due to change in process conditions (increased H2O etc.).	3	Native
P05	Corrosion Control Philosophy	Forecast of plant condition based on hazards, operability and corrosion effects. Must be in place before start up and is basis for corrosion monitoring programme.	3	Native
P06	Painting Specifications	Details protective coatings/paint systems, application methods (including preparation) and where applied. Required to support fabric maintenance programme	3	Native
P07	Baseline Corrosion Readings	Required for critical process pipework and vessels and are base readings for corrosion monitoring records	3	Native

Q HVAC

Code	Information	Description	Lifecycle code	Format
	Equipment data	see Appendix B	2	S/D
Q01	Cooling, Heating, Ventilation Load Calculations	Report on studies done to verify and demonstrate the adequacy of ventilation. Required for modifications to HVAC systems.	2	Native
Q02	HVAC Duct and Instrument Diagrams	Single line drawings providing an overview of the HVAC system including all main components and instruments and duct sizes, flowrates, velocities	2	S/D
Q03	Drawings (GA, Equipment, Ductwork, Piping & Accessories)	Drawings including plans and sections, giving details required for installation of HVAC ducts, dampers and screens etc.	2	Native
Q04	Equipment Schedule with Capacities	Self-explanatory	2	S/D
Q05	Control Logic Diagrams	Self-explanatory	2	S/D
Q06	Control Schematic Diagrams	Self-explanatory	2	S/D
Q07	Control Termination Diagrams	Self-explanatory	2	S/D
Q08	All HVAC Related Construction Specifications	Self-explanatory	3	Native
Q09	All Certified Equipment and Accessories Drawings	Self-explanatory	2	Native
Q10	Ductwork – Material Specification	Self-explanatory	3	Native
Q11	Grilles, Registers and Diffuser Performance Data	Self-explanatory	3	Native
Q12	Insulation Details	Self-explanatory	3	Native
Q13	Filters and Retainer Frames Data	Self-explanatory	2	S/D
Q14	Piping System Valves, Fittings & Accessories Drawing Details	Self-explanatory	2	Native
Q15	Performance Data and Operational Curves	Self-explanatory	2	Native
Q16	Test Procedures	Self-explanatory	3	Native

R Loss Control & Safety

Code	Information	Description	Lifecycle code	Format
R01	Equipment data	see Appendix B	2	S/D
R02	Hazardous Area Classification		2	Native
R03	Register of Safety Devices	Listing and detailed description of integrity protection devices including relevant basis and design information and service conditions. All items on this register must be flagged in the Master Equipment List and on P & IDs.	2	S/D
R04	HAZOP Report and Project Response	Report on the findings of Hazard and Operability Studies for all hydrocarbon and main utilities system including Hazop team worksheets. Required as reference documents when modifying/optimising plant performance to support operations Safety Case submissions.	3	Native
R05	Active Fire Fighting Systems P&ID's	Details in schematic form the active fire fighting systems, equipment (fire pumps, deluge, monitor and halon skids) piping, valves, tagged instruments and their relationships.	2	S/D
R06	Fire Fighting Equip Layout Drawings	Drawing detailing the location of all portable/semi portable firefighting equipment (fire extinguishers, crash kits, hydrants & equipment, hoses, breathing apparatus).	2	Native
R07	Lifesaving Equip & Escape Route Drawing	Drawing detailing access routes and means of escape in emergency and the location of all lifesaving equipment (escape sets, first aid boxes, showers etc.).	2	Native
R08	Passive Fire Protection Drawings	Structural and module layout drawings detailing the passive fire protection i.e. firewall/boundary fire protection ratings.	2	Native
R09	Hazardous Source Data	Details all individual point sources for emissions, discharge inventories and corresponding zone classifications.	2	Native
R10	Passive & Active Fire Protection Philosophy	Philosophy summarising the means of fire protection both passive (firewalls) and active (manual, foam, monitor, deluge/sprinkler systems etc.)	2	Native
R11	Active Fire Protection System Data	Design data and information that forms the basis of the performance specification for the active fire fighting systems (manual, foam, monitor, deluge/sprinkler systems etc.).	2	Native
R12	PHSR Reports	Report on the findings and actions issued following the Project Safety Review exercises. Same justification as Hazop Reports.	3	Native
R13	Recommendation Monitoring System	An audit trail of recommendations from safety reviews, HAZOP's and incidents and status of actions.	3	Native
R14	Equipment Failure Information	Details of the design life, failure modes and causes for critical items of equipment within the hydrocarbon, main utilities and safety systems. Used in predicting plant availability and identifying critical equipment for maintenance monitoring purposes.	2	S/D
R15	Hazardous Substance Data Sheets	As defined by BP and external Regulations.	2	Native
R16	Emergency Procedures Manual	As defined for Facilities Operations and for Pipeline Operations.	2	Native
R17	Record of Survey	Report on survey of Firefighting and Lifesaving Equipment.	3	Native
R18	HIPS dossier	Reliability, availability and design dossier for all identified High Integrity Protection Systems	2	S/D
R19	Test Procedures	Self-explanatory	3	Native

S Civil/Structural

Code	Information	Description	Lifecycle code	Format
S01	Site Survey (Data & Information Report)	Self-explanatory	3	Native
S02	Underground Piping Layouts	Self-explanatory	2	Native
S03	Road and Drainage Layouts	Self-explanatory	2	Native
S04	Concrete and Structural Specifications	Self-explanatory	3	Native
S05	Building Plans	to include external and internal layouts and elevations	3	Native
S06	Concrete Mix Design	Self-explanatory	3	Native
S07	Concrete Test Results	Self-explanatory	3	Native
S08	Cement MTR's	Cement Material Take-offs	3	Native
S09	Sand Testing Reports	Self-explanatory	3	Native
S10	Aggregate Testing Reports	Self-explanatory	3	Native
S11	Concrete Application Procedure	Self-explanatory	3	Native
S12	Concrete Curing Procedure	Self-explanatory	3	Native
S13	Geotechnical & Geophysical Investigation Service Work Plan	Self-explanatory	3	Native
S14	Manufacturer's Certification for Bolts, Nuts, and Washers	For high tension bolts on steel work	3	Native
S15	Shop Detail Drawings	Self-explanatory	3	Native
S16	Structural Steel Calculations	Self-explanatory	3	Native
S17	Certified Mil Test Reports for Structural Steel	Self-explanatory	3	Native
S18	Compaction Tests for Earth Work	Self-explanatory	3	Native
S19	Topographic Drawing of Site	Self-explanatory	3	Native
S20	Fabrication Drawings	Fabrication drawings covering all welds and association fabrication details for the structures.	3	Native
S21	Fireproofing specification	Details all passive fire protection systems, application methods and where applied.	3	Native
S22	Design integrity documents	The final set of documentation - drawings, sketches, calculations - that demonstrates the design and structural integrity. Required for reference for carrying out structural repairs/modifications. Documentation relating to temporary fabrication and installation conditions are not required.	3	Native
S23	Foundation details		3	Native
S24	Structural steel drawings		2	Native
S25	General Arrangement Drawings	Drawings of the process, utilities, drilling and living areas in plan, elevation and sectional view.	2	Native

T Fabrication Control Requirements

Code	Information	Description	Lifecycle code	Format
T01	Welding Procedure Specifications (WPS)	Self-explanatory	3	Native
T02	Welding Procedure Qualification Records (PQR's)	Self-explanatory	3	Native
T03	Welder Qualification Program & Records	Self-explanatory	3	Native
T04	Pressure Testing Procedures	Self-explanatory	3	Native
T05	Material Traceability Report/Records	Self-explanatory	3	Native
T06	NDE Procedures	Self-explanatory	3	Native
T07	NDE Personnel Qualifications	Self-explanatory	3	Native
T08	Radiographic Qualification Procedures	Self-explanatory	3	Native
T09	Radiographic Film	Self-explanatory	3	Film
T10	Daily Radiographic Reports	Self-explanatory	3	Native
T11	Weld Maps (Location/Type/NDE Req.)	Self-explanatory	3	Native
T12	NDE Test Reports	Self-explanatory	3	Native
T13	Weld Repair Procedures	Self-explanatory	3	Native

W General

Code	Information	Description	Lifecycle code	Format
W01	Drafting Standards	Standards to be adopted for all drawings, including symbol library	3	Native
W02	Supplier Data Dossiers	Vendor information for all purchased equipment, including specifications, diagrams, drawings, maintenance procedures, etc.	2	Native S/D Native Image
W03	Engineering Reports & Calculation Packages	Independent consultant reports and calculations for critical plant and equipment	2	Native
W04	Contractor's Intention of Major Change	Notification that the Contractor intends a major design change	3	Native
W05	Design Change Control Procedures	Self-explanatory	3	Native
W06	Technical Query (TQ) Form	Self-explanatory	3	Native
W07	Advance Revision Notice (ARN)	Self-explanatory	3	Native
W08	Maintenance and Preservation Procedures	During project phase to include programme	3	Native
W09	Change control records	Audit trail summarising status and outstanding actions associated with all change to originally agreed design/statement of requirements. Will be referenced for completion of outstanding works post handover.	3	Native
W10	Design deviation reports	Audit report on variances from design found at the as built/post construction stage of the Project along with their justification and reasons for acceptance. Document to be referenced when modifications carried out.	3	Native
W11	Maintenance Information	Comprises equipment manufacturer's information necessary to specify and support maintenance (planned and breakdown) and inspection activities. To include manufacturer's recommendations for maintenance and inspection, fault finding guidance, drawings, procedures, parts lists, lubrication details, adjustments, settings and tolerances. Certain of this information may already be specified separately	2	Native
W12	Operating Information	Information in the form of instructions, procedures, drawings, tables, etc. for the operation stop, start, and the emergency shutdown of the equipment including details of operational limits, function testing, possible interruptions, corrective actions and potential hazards and corrective measures to be taken.	2	Native
W13	Spares Listings	Recommended holding of operating and insurance spares. The operating spares recommendation is a listing of spare parts required to support the day to day operation and maintenance of the equipment for a period of two years. Insurance spares are parts/complete units not normally required on a day to day basis but needing to be held as an insurance against breakdown/outage of critical utility and process plant. To be provided with relevant supporting documentation (equipment details, drawings, parts list etc.) to permit full evaluation of the recommendation.	2	Native

2 Equipment Data requirements

This section lists the information to be provided against specific types of equipment. The information will be part of the Structured Engineering Data set that describes the entire facility.

The information detailed in this Appendix will typically appear on data sheets created by the Contractor during design (with input on actual values from equipment suppliers). The information to be handed over at the completion of the contract should typically include *all* of the information found on Contractor's *standard* data sheets. This section identifies the typical *minimum* requirements. Thus, if Contractor's standard data sheet does not include a particular piece of information specified in this section, then that piece of information should be supplied as part of the Structured Engineering Data.

2.1 Common Data

The following is data required for all plant and equipment. This data will form the Master Equipment List which is required for the control and issue of tag numbers. The Master Equipment List should be available from the Structured Engineering Data set that describes the entire facility.

Information	Description
Tag Number	Location and functional identifier of item currently associated with equipment.
Service	Duty of item currently associated with equipment.
Description	General description of equipment.
Parent Tag	Associated main or major item currently associated with equipment.
Location	Area location.
Systems	Identifier of the process utility or other system of which the equipment forms part. Note, there may be multiple classification (e.g. a given heat exchanger can be part of a process facility and a utility facility). Also, required to associate facilities and materials with commissioning systems
Criticality Rating	Equipment criticality rating derived from the formal criticality assessment carried out by the Project in conjunction with the Operator.
Drawing and document References	References to all documents listed in Appendix A that are applicable for a given item. This will enable navigation from items in the database associated drawings and documents.
Serial Number	Manufacturer's unique identifier.
Vendor	Person/source upon whom order is placed.
Order Number	Number of purchase order placed on vendor.
Type/Model	Manufacturer's generic identifier of an item currently associated with equipment.
WIN Number	For plant identification currently associated with Equipment (sub class of Material)
Manufacturer	Source or origin of the item currently associated with equipment.

2.2 Engineering Lists

2.2.1 Overview

In addition to the Master Equipment List, there are a number of other lists of information that should be available from the Structured Engineering Data. Thus the Structured Engineering Data must include not only the necessary information but also the necessary associations to ensure that the list can be generated from the Structured Engineering Data.

The lists and their contents are given in the following sections.

2.2.2 Cable Schedule Information

The Cable Schedule is a list of all cables used in the construction of an operating plant. Each cable in the plant, whether for power, communications, or other purposes, must be included in the schedule. This listing is used during both start-up and commissioning and as a troubleshooting and maintenance tool. Refer to the Electrical and Telecommunications discipline sections for

descriptions of specific data items.

Information
Cable Number
Number of Cores
Cross Sectional Area
Estimated Length
Location
From Tag
From Location
From Gland
From Termination Drawing
To Tag
To Location
To Gland
To Termination Drawing
Intrinsically Safe (Y/N)
Type of signal carried
System that cable is part of

2.2.3 Line Schedule Information

The Line Schedule is a list of each “line” in an operating plant. All process and utility lines shall be included in the list. This list is used to plan construction, start-up, commissioning, and maintenance work and includes at a minimum the following:

Information
Line Number
Size
Service
Spec
From
To
Max Design Pressure
Design Pressure Normal
Max Design Temperature
Min Design Temperature
Max Operating Pressure
Min Operating Pressure
Max Operating Temperature
Min Operating Temperature
Normal Operating Pressure
Normal Operating Temperature
Insulation Thickness
Insulation Specification
Trace Heating (Min Temp)
P&ID Drawing Number
Isometric Drawing Number

2.2.4 Control System I/O List

The Control System I/O list referenced in this document is a list of input and output signals for the plant process control system and relevant control system configuration information stored in the database (the Control System I/O list with full system data will be available from the Control System itself). Each tagged instrument item which interfaces with the control system, whether a physical item or a software function used in control system configuration, must be included in the Control System I/O list. The Control System I/O list referenced in this document is an extract of data from the Structured Engineering Data.

2.2.5 Equipment Lists

The information stored in the Structured Engineering Data will contain the necessary information

and associations to enable suitable query tools to extract lists of particular types of information (e.g. the mechanical equipment list will include each piece of mechanical equipment in the facility). The Instrument List is a list of all instruments for an operating plant which includes all hardware and relevant software as detailed in the P&ID's).

2.2.6 Drawing and Document Lists

From the Structured Engineering Data it should be possible to extract lists of documents by;

- type
- location
- reference to facility or material

Drawing and document list will include the information in the following table.

Information	Description
Area	Module or area code associated with the document
Discipline	Discipline identifier, per the numbering system
Doc_no	Document number per numbering standards
Doc_type	Document type
Filename	Document's electronic filename
Other_doc_no	Supplier or contractor's document number
Other_rev	Supplier or contractor's revision number
Po_no	Purchase order number of most recent issue
Remarks	General remarks for the document
Rev_date	Date that this revision was issued
Revision	Revision
Seq_no	Sequence number portion of the document number
Sub_seq_no	Sheet number or subsequence number
System_no	Process system number
Title	Document title

2.3 Instruments

Each "tagged" instrument item, whether a physical item or a software function used in control system configuration, must be included in the Instrument database table. The instrument data is used in conjunction with other documentation during start-up and commissioning, and is also necessary for plant maintenance and operation.

Information	Description
Equipment/ Line Number	The tag number of the equipment or pipe line number that the instrument tag is associated with.
Mechanical Connections	The type of connection associated with the instrument.
Gasket Type	The type of gasket required for sealing the mechanical connections of the instrument.
Calibrated Span	The calibrated operating range (including minimum and maximum settings) for the instrument.
Output Range	The output range for the instrument.
Trip Category	The trip category as defined in BP recommended practice RP30-2 (formerly CP48).
Set Point High	The trip or alarm high setting.
Set Point Low	The trip or alarm low setting.
Proportional Band/Gain	The details of a controller setting.
Integral Action/Reset	The details of a controller setting.
Derivative Action	The details of a controller setting.
ANSI Leak Class	The leakage class for control valves for sealing/shut off requirements.
Maximum Leakage Rate (Valves)	The maximum valve leakage to determine seating/shut off requirements.
Maximum Test Pressure (Valves)	The maximum test pressure to determine seating shut off requirements.
Bench Setting	The valve stroke and related information for setting up a control valve.
Operating Time To Open	The time a control or ESD valve takes to open.
Operating Time To Close	The time a control or ESD valve takes to close.

Information	Description
Valve Travel	The total length of the valve stem travel. Valve Action on Failure
Valve Action On Failure	The final position of the control or ESD valve on loss of input signal.
Hazardous Area Classification	The certification, gas grouping and temperature rating for hazardous area equipment.
Certifying Authority	The Certifying Authority for hazardous area equipment.
Certifying Number	The number of certificate as issued by certifying authority.
Reference Document Number	The document number for reference information.

2.4 Fire And Gas

Information	Description
Set Point High	The trip or alarm high setting.
Set Point Low	The trip or alarm low setting.
Detector Range	The designed coverage envelope for a detector.
Detector Sensitivity	The sensitivity of a detector loop.
Hazardous Area Classification	The certification, gas grouping and temperature rating for hazardous area equipment.
Certifying Authority	The Certifying Authority for hazardous area equipment.
Certificate Number	The number of certificate as issued by certifying authority.
Reference Document Number	The document number for reference information.

2.5 Telecommunications

Information	Description
Loop Type	The power supply source from yellow, red or post-red distribution boards.
Loud Speaker Trip Settings	The loud speaker trip setting.
Power Rating	The operating power of the unit.
Voltage	The operating voltage of the unit.
Licensed RF	The licensed operating frequency range of the unit.
Licence Expiry Date	The licence expiry date for radio equipment.
Cable Type	The cable details (impedance/tolerances etc.) for specialised installations e.g. antenna and LAN.
Power Supply Type	The type of power supply - UPS, 240V, 110V etc.
Hazardous Area Classification	The certification, gas grouping and temperature rating for hazardous area equipment.
Certifying Authority	The Certifying Authority for hazardous area equipment.
Certificate Number	The number of certificate as issued by certifying authority.
Reference Document Number	The document number for reference information.

2.6 Electrical

Information	Description
Overload Rating and Type	The type and setting of overload device for motors.
Contactors Rating and Type	The type and setting for contactor.
Lubrication Details	The lubrication requirement for rotating equipment and actuators.
Bearing Details (Drive and Non Drive End)	The bearing type, size details for rotating equipment.
Fuse Type/Rating	The fuse type and current rating for equipment.
Actuator Detail	The type and size of valve actuator.
Torque Setting	The torque setting for actuators.
Voltage Rating	The maximum and minimum voltage rating for equipment.
kW Rating	The kW power rating for the equipment.
KVA Rating	The voltage ampere rating for the equipment.
Phase	The voltage/current relationship for the equipment.
Frequency	The operating frequency of the equipment.
Speed	The normal operating rotational speed of the equipment.
AH Rating	Capacity rating of a battery.
Voltage/Cell and Total	The voltage per cell and total voltage for a battery.
Full Load Current	The full load current for the equipment.
Anti-Condensation Heater Detail	The type and make of heater.
Weight Dry/Empty	The weight of an item when dry and empty.
Transformer Ratios	The input/output ratio for a transformer.
Frame Size	The class and frame size for motors.
Switchgear Protection Rating	The load protection level on the system equipment.
Ingress Protection Rating	Rating for protection against ingress of foreign bodies for safety and hazardous equipment.
Hazardous Area Classification	The certification, gas grouping and temperature rating for hazardous area equipment.
Certifying Authority	The Certifying Authority for hazardous area equipment.
Certificate Number	The number of certificate as issued by certifying authority.
Reference Document Number	The document number for reference information.

2.7 Mechanical

Information	Description
Design Code	The industry standard to which the equipment complies.
Design Pressure	The pressure to which the equipment has been designed.
Design Temperature	The temperature to which the equipment has been designed.
Hydrostatic Test Pressure	The pressure to which the equipment is to be hydraulically tested.
Shell Test Pressure	The pressure to which a heat exchanger shall be tested.
Tube Test Pressure	The pressure to which a heat exchanger tube bundle is to be tested.
SWL	The safe working load.
Test Load	The load to be used in proof load testing an item.
Test Requirements	Defines the description of test parameters for an item i.e. SWL X 1.5.
Certification Requirements	The test or certifying authority for an item.
Weight Dry/Empty	The weight of an item when dry and empty
Tube Bundle Weight	The weight of a heat exchanger tube bundle.
Material	The physical composition of material for an item.
Operating Pressure	The normal operating pressure for the equipment.
Operating Temperature	The normal operating temperature for the equipment.
Connection Size and Rating	The dimensions, type and pressure rating of mechanical connections.
Gasket Type	The gasket details for mechanical connections.
Bursting Pressure	The design pressure at which a bursting disc will rupture.
Cold Set Pressure	The pressure to which a pressure relief valve is set up on a test bed.
Design setting	Design set point for Pressure relief devices
Back Pressure	The normal process pressure condition into which a relief valve vents.
Speed	The normal operating rotational speed for equipment.
Rotation	The direction of rotation as viewed from the NDE or DE (specify which).
Peak Load	The maximum working load/output power of the equipment.
Capacity	The volume of fluid/medium held or capable of being moved in a given time.
Number of Stages	The number of pressure stages in the equipment.
Seal Details	The manufacturer, type and size of seal.
Driver Details	The prime mover description.
Coupling Detail	The manufacturer, type and size of the coupling.
Certification Date	The certification test date (load test, pressure test etc.) for lifting equipment, vessels and PSV's.
Element Detail	The manufacturer, type and size for filter elements.
Well Control Equipment Certificate of Conformity Number	The certificate number for an item.
Well Control Equipment Certificate of Conformity Date	The issue and expiry dates for a certificate of conformity.
Reference document numbers	The document numbers for reference information.

2.8 Piping

Information	Description
Type/Specification Number	The valve type/specification number as detailed in valve specification.
Line Number	The identifier of line in which a valve is located.
Size	Valve connection and bore size.