

## **APPENDIX D**

**Attachment D1:** Guyana Base Buildout – 1 pager

**Attachment D2:** Guyana Base Buildout – Scope of Work

**Attachment D3** – ChampionX – CT - Guyana Warehouse Operations

**APPENDICES** – ChampionX Application Form for Environmental Authorisation  
Environmental Protection Agency, Guyana

March 13, 2025

**Attachment D1:** Guyana Base Buildout – 1 pager



**CHAMPIONX**

**New Guyana Base Buildout**

# Project – Guyana Base Buildout



- **Key Business Driver: Compliance** - Required due to US sanctions placed on previous base ownership which forced us to move out into temporary operations. Construction of a new base in Georgetown, Guyana to support the demand for the 3 FPSOs (Destiny+ Prosperity + Yellowtail) ChampionX is contracted to service with ExxonMobil, with room to expand for future contract awards.
- **Project Description**
  - New 5 yr. build to suit lease agreement for land and improvements to support the 3 FPSOs with room for expansion.
  - Base buildout will provide supply chain with a platform to service ExxonMobil's growing FPSO investment in Guyana
    - Provide operating footprint to service all three FPSOs plus expansion capability
    - Yellowtail first fill expected to take place in Q1 2025.
- **Key Elements**
  - Build to suit on 5.5 acres of land ~3km (2miles) for Exxon shore base
  - Site design and specs mirror previous base
  - Built to accommodate Yellowtail and future growth
  - Office space and additional lab for offshore support
- **Project Timeline**
  - Estimate 5 months from commercial lease agreement sign off for construction completion.
    - LOI fully executed and commercial lease agreement is in progress
  - Estimated handover to be May/June 2025

# New Base



★ Viera (Primary)

• 5 acres

★ Exxon Shore base

★ Old CHX Base



**APPENDICES** – ChampionX Application Form for Environmental Authorisation  
Environmental Protection Agency, Guyana

March 13, 2025

**Attachment D2:** Guyana Base Buildout – Scope of Work

CHAMPIONX

# Guyana Base Buildout

---

## Scope of Work Document

Philip Niche

10/31/2024



**TABLE OF CONTENTS**

<b>1.0</b>	<b>INTRODUCTION AND GENERAL DESCRIPTION .....</b>	<b>2</b>
<b>1.1</b>	<b>OVERVIEW OF INSTALLATION.....</b>	<b>2</b>
<b>1.2</b>	<b>SCHEDULE .....</b>	<b>2</b>
<b>2.0</b>	<b>LAYOUT DESCRIPTION.....</b>	<b>2</b>
<b>2.1</b>	<b>SOILS STUDY (BORE ANALYSIS) .....</b>	<b>2</b>
<b>2.2</b>	<b>ROADWAYS.....</b>	<b>2</b>
<b>2.3</b>	<b>COVERED STORAGE.....</b>	<b>3</b>
<b>2.4</b>	<b>CIVIL.....</b>	<b>3</b>
<b>2.5</b>	<b>MODULAR OFFICES .....</b>	<b>4</b>
<b>2.6</b>	<b>QA/QC LAB.....</b>	<b>4</b>
<b>2.7</b>	<b>UTILITY SHED.....</b>	<b>4</b>
<b>2.8</b>	<b>LANDSCAPING AND FENCING .....</b>	<b>4</b>
<b>3.0</b>	<b>PERMITS .....</b>	<b>4</b>
<b>3.1</b>	<b>SPILL CONTAINMENT AND CONTROL (SPCC).....</b>	<b>4</b>
<b>3.3</b>	<b>SWPPP .....</b>	<b>5</b>
<b>3.4</b>	<b>CONSTRUCTION .....</b>	<b>5</b>
<b>3.5</b>	<b>ENVIRONMENTAL (AIR, WATER &amp; SOLIDS) .....</b>	<b>5</b>
<b>3.7</b>	<b>CHPA – ZONING AND CONSTRUCTION PERMITS.....</b>	<b>5</b>
<b>4.0</b>	<b>SAFETY AND ENVIRONMENTAL .....</b>	<b>5</b>
<b>4.1</b>	<b>CONTAINMENT.....</b>	<b>5</b>
<b>4.2</b>	<b>FIRE PROTECTION, SUPPRESSION, AND FIRE EXTINGUISHERS.....</b>	<b>5</b>
<b>4.3</b>	<b>SAFETY SHOWER AND EYEWASH STATIONS .....</b>	<b>6</b>
<b>4.4</b>	<b>SECURITY MEASURES.....</b>	<b>6</b>
<b>4.5</b>	<b>PIPING, VALVES, HOSES, AND FITTINGS .....</b>	<b>6</b>
<b>5.0</b>	<b>UTILITY AND SERVICE REQUIREMENTS .....</b>	<b>7</b>
<b>5.1</b>	<b>ELECTRICAL .....</b>	<b>7</b>
<b>5.2</b>	<b>AIR (INSTRUMENTATION/UTILITY AND BREATHING) .....</b>	<b>7</b>
<b>5.3</b>	<b>WATER.....</b>	<b>7</b>
<b>5.4</b>	<b>SEPTIC.....</b>	<b>7</b>
<b>5.5</b>	<b>COMMUNICATIONS .....</b>	<b>8</b>
<b>5.6</b>	<b>INTERCOM AND ALARM SYSTEM.....</b>	<b>8</b>
<b>5.7</b>	<b>LIGHTING AND EMERGENCY LIGHTING .....</b>	<b>8</b>
<b>5.8</b>	<b>GROUNDING AND BONDING .....</b>	<b>8</b>
<b>7.0</b>	<b>ATTACHMENTS.....</b>	<b>11</b>
<b>7.1</b>	<b>DRAWINGS/PICTURES .....</b>	<b>11</b>
<b>7.2</b>	<b>SPECIFICATIONS AND STANDARDS .....</b>	<b>14</b>

## 1.0 INTRODUCTION AND GENERAL DESCRIPTION

### 1.1 OVERVIEW OF INSTALLATION

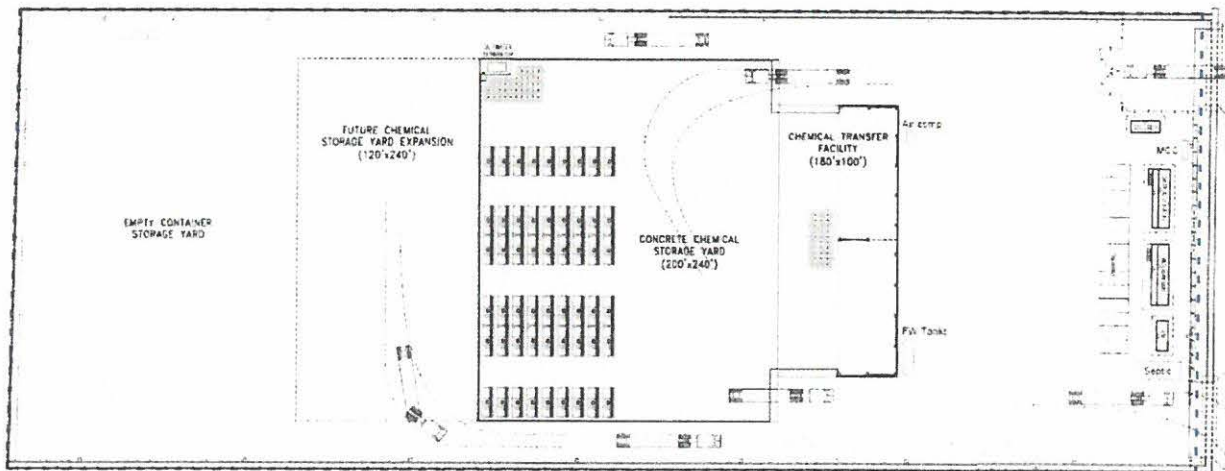
The purpose of this project is to buildout a Chemical Storage and Transfer Facility in Georgetown to service Guyana offshore energy projects.

The facility shall be designed and constructed for ChampionX per the requirements in the scope of work in this document.

Provide the design, plot plans, drawings, all necessary work and required permits, cost and schedule for all items within this Scope of Work.

Proposal to be submitted in USD.

The proposed layout is shown below and is attached to in section 7.1. Actual layout will vary based on site layout and design.



### 1.2 SCHEDULE

ChampionX requires construction to be completed and site ready for occupancy ideally by March 1, 2025

## 2.0 LAYOUT DESCRIPTION

### 2.1 SOILS STUDY (BORE ANALYSIS)

A Geotechnical study will be required to determine site civil requirements

### 2.2 ROADWAYS

Facility access roads must be two lanes wide and built to accommodate movement of heavy equipment up to 80,000 lb gross weight

## 2.3 COVERED STORAGE

A metal canopy will be required for the "Chemical Transfer" area. A summary of the canopy requirements are as follows:

- 30 meters wide and 55 meters long (can be modified to fit site footprint)
- The steel structure will be carbon steel painted with epoxy primer and epoxy paint to withstand highest level of exposure to salt air
- Column spacing will be no less than 5 meters in the longer direction in the North side while on the south side there will be only one column in the center. There shall be no internal columns.
- 2-meter-wide roof overhand will be included on the South Side.
- Design should be for prevailing area wind speed of 120 miles per hour.
- Roof sheeting will consist of Chromadeck or equivalent factory painted sheets
- Side cladding will be provided on 3 sides only, South, East and West Side). South side kept open.
- Side cladding will consist of Chromadeck or equivalent factory painted sheets.
- Rainwater gutter and down pipes shall be provided
- Translucent sheeting will be included inside cladding to provide day light
- East and West Side cladding should extend to within 4 meters of bunded wall

## 2.4 CIVIL

Clearing and grading of property as necessary.

Drainage for the entire site to be considered for current and future site expansion.

Approximately 5,800 of concrete will be needed for the "Chemical Storage Yard" and "Chemical Transfer" areas.

Provide reinforced, double mesh, concrete slab a minimum of 20 cm in thickness. Reference ChampionX concrete specification (CX-56-001)

The entire developed area must have a containment curb. Height of curb must be sufficient to contain 110% of the largest container (6,600 gallons) stored plus 24-hour rainfall event.

The "Chemical Storage Yard" will be graded to direct rainwater to an oil water separator (see section 7.1 for details) with outlet valves to drainage canals so that spillage will be contained or collected. Rainwater can be checked and tested before release from the site.

Additional "Chemical Transfer" area requirements are as follows:

- A separate curbed area on 4 sides sloped to form containment sufficient in height to contain spill. The contained volume should be 110% of the capacity of the largest primary vessel + 24-hour rainfall event.
- Forklift ramp enough in size to accommodate up to a 45-ton lift provided on the south side of the concrete area. Spec of lift to be provided.
- The covered area will Slope the section in two directions to a grated 4'x4' by 2' deep sump also under cover. Location of drainage to be detailed in drawings. Drains will have shut off valves to isolate care in the event of chemical spill.

## 2.5 MODULAR OFFICES

Three (3) modular office units, approximately 8' x 40', will be supplied by ChampionX. Two (2) of the units will be stacked with locking corner casters.

Contractor requirements are as follows:

- Provide Electrical, Water Utility & IT/communications
- Provide septic sewer connection
- Provide concrete slab or concrete beams of enough size to support stacked trailers for utility tie in and occupancy
- Provide staircase to access stacked office trailer

## 2.6 QA/QC LAB

Two (2) modular lab units (stacked), approximately 8' x 20', will be supplied by ChampionX

Contractor requirements are as follows:

- Provide Electrical, Water Utility & IT
- Provide concrete slab or concrete beams of enough size to support stacked trailers for utility tie in and occupancy
- Provide staircase to access stacked unit

## 2.7 UTILITY SHED

Allow room for 1 40 ft. converted shipping container, with an access man door on the side (provided by ChampionX).

Container to be set on housekeeping pads to prevent rainwater corrosion.

## 2.8 LANDSCAPING AND FENCING

Security fencing will be 2.5m high overall above ground formed of 90mm diameter capped posts at 3m center to center complete with strands of razor wire and covered with 50x50x2.5mm chain link mesh 1.8m high fixed to posts with straining wire.

An entry and exit gate shall be included along the southern boundary. The entry gate shall be designed to allow trucks to pull up to the gate and be fully removed from the main road.

## 3.0 PERMITS

### 3.1 SPILL CONTAINMENT AND CONTROL (SPCC)

ChampionX to provide

### 3.2 ENVIRONMENTAL SITE ANALYSIS (ESA)

ChampionX to schedule and write.

Phase I and possible phase II ESA will need to be conducted

Environmental plan written and submitted to Guyana EPA

### **3.3 SWPPP**

Storm water Pollution Prevention Plan needs to be checked, it may be covered under the site.

### **3.4 CONSTRUCTION**

All required site development and building permits for the facility will be obtained. They will be the responsibility of the design engineering firm, the construction contractor, or both.

Construction permits will be the responsibility of the construction contractor

### **3.5 ENVIRONMENTAL (AIR, WATER & SOLIDS)**

ChampionX to provide

Any required environmental permits for the facility need to be verified. ChampionX SH&E department will review and approve plan.

### **3.6 PTCCB – ESTABLISHMENT REGISTRATION**

ChampionX to provide

### **3.7 CHPA – ZONING AND CONSTRUCTION PERMITS**

Construction Contractor to provide

## **4.0 SAFETY AND ENVIRONMENTAL**

### **4.1 CONTAINMENT**

The “Chemical Storage Yard” and “Chemical Transfer” areas will have a containment curb to meet local requirements or 110% of the largest tank volume in the containment area plus allowance for a 25-year 24-hour event rain fall whichever is more stringent.

### **4.2 FIRE PROTECTION, SUPPRESSION, AND FIRE EXTINGUISHERS**

Provide infrastructure for, ChampionX provided, fire water protection equipment consisting of:

- 2 -6,600 gallon ISO tanks
- 20 HP fire Pump (no electrical required)
- AFF Foam Cart

- Trans-fill kit to interconnect 2 - 6,600-gallon iso tanks

Information	Spec	Units
Static Capacity	13,000	GAL *
Pump Output 4" I x 3" O	375	GPM
Foam Run Time @ 3%	20	Min. **
Total Fire Fighting Time	35	Min.

Tanks Refillable via trench pumps and process water. Backup Drums of Foam

A 1" CPVC water pipe connection to the fire water tanks will need to be provided.

Backup Drums will be stocked to increased foam cart capacity and will be provided to fire department

A housekeeping pad will be required for the firewater ISO tanks

#### 4.3 SAFETY SHOWER AND EYEWASH STATIONS

Safety shower and eyewash stations will be needed throughout the storage and process areas. ChampionX will supply safety shower/eyewash stations, installed by contractor.

Location and number of shower/eyewash stations will be determined by following OSHA guidelines.

Piping should be CPVC if above ground or PVC if below grade galvanized pipe for the safety shower water piping to avoid rust in the pipe.

#### 4.4 SECURITY MEASURES

Security cameras should be placed to monitor the entrance way and truck entrance and exit. Cameras should be placed to monitor the pumping stations.

Cameras should be placed in such a way that the safety showers are visible.

Provide a guard shack at the entrance. Security shack to include TV's to display security camera feed

Exit sliding gate is to be automatic open/close

#### 4.5 PIPING, VALVES, HOSES, AND FITTINGS

Per ChampionX Specs.

## 5.0 UTILITY AND SERVICE REQUIREMENTS

### 5.1 ELECTRICAL

Class I, Div. I is required for chemical transfer area

MCC & Electrical Requirements are as follows:

- Needs to have 480 V, 3 phase power and starters for up to 5 pumps. Transformer to step power down to either 120/240 volts required
- Should have enough 110 V single phase power (transformer) for the buildings, lights, controls, etc.
- Located outside of Class 1 area
- Should be sized for ~ 20% expansion
- Configured to accept 200 KVA generator power to run electric pumps, lab, office and change room. Generator provided by ChampionX.

Equipment:	Estimated Electrical Service Requirement (KVA)
Lab and office trailer, both with 200 amp service for 120V / 240 V distribution panel	72
Viking Gear Pumps 240-3 phase 60 hertz (15 KVA * 4)	60
High Volume low pressure Gear Pumps 240-3 phase 60 hertz (15 KVA * 4)	60

### 5.2 AIR (INSTRUMENTATION/UTILITY AND BREATHING)

Plant air will be provided by ChampionX via diesel-powered air compressor. No accommodations required

### 5.3 WATER

Site water must be tied into a water distribution system

- If not possible, water well dug on site will be required
- Installation of a 5,000-gallon black PE potable water tank elevated for providing water pressure is required.

Include bypasses, automatic shut off valves, bleed valves

Water tie-in supply required for safety showers, office and QA/QC trailers

### 5.4 SEPTIC

Sewage system for the facility shall consist of installation of a sewage treatment unit designed for maximum of 20 persons.

Other drainage from the facility will be connected to open storm water drainage system

Septic system tie-in is required to be near modular trailers

Septic system to be built to meet local code.

## **5.5 COMMUNICATIONS**

All new IT (fiber) and phone communications infrastructure/systems will be needed in the office and lab units. Equipment to be provided by ChampionX

## **5.6 INTERCOM AND ALARM SYSTEM**

ChampionX provided radios will be used for communication. No accommodations required

## **5.7 LIGHTING AND EMERGENCY LIGHTING**

External yard lighting will be by means of high masts placed along the perimeter of the plot and light fittings installed on the warehouse eaves.

The external yard lighting will be designed for the average lighting level of 50 lux in the external yard.

Lighting will be provided inside the covered processing area and will be required to meet Class I Div II standards and will be designed for the average lighting level of 400 lux

All lighting will be LED lights only.

## **5.8 GROUNDING AND BONDING**

Grounding system details will be confirmed upon receipt of site geotechnical survey. Grounding system must be less than 10 OHMs

Grounding system shall be installed and verified during slab construction (before concrete is poured)

Grounding and bonding will be needed in all unloading, loading and repack and packaging areas. All pumps must be grounded (and have less than 10 ohms resistance). All buildings & steel columns in covered areas shall be grounded.

## **6.0 CONTRACTOR'S RESPONSIBILITY**

### **6.1 GENERAL**

- Supply of all materials, tools, equipment, and labor necessary to complete the scope of work described herein.
- Engineering and design services required to complete the work described in the following sections.
- Delivery of all project documentation in native format.

## 6.2 ENGINEERING REQUIREMENTS

- Contractor to develop an engineered design for ChampionX's approval which meets the purpose and intent of this scope document.
- The Contractor is responsible for providing the following as part of the Engineering scope of work:
  - Equipment Plot Plan
  - Equipment data & specification sheets
  - Firewater Plan
  - Provide a facilitated HAZOP review of the project. The HAZOP review will be facilitated by a person with expertise in the HAZOP review methodology.
- The Contractor is responsible to ensure the design and installation meets applicable codes and standards and performs the engineering required to meet those standards.
- ChampionX specifications prevail. In the case where standards are not specified, the Contractor will suggest applicable and suitable industry standards.
- Engineering units shall be in US customary units.

## 6.3 DESIGN REQUIREMENTS

- Detail design of the items described in this document.
- Use ChampionX pipe specs and standards.
- Prepare project drawings

## 6.4 REPORTING

Provide ChampionX with progress reports, which shall include the following to report overall performance of engineering/construction activities and schedule.

- Weekly progress reports of activities completed
- 3 week look-ahead

## 6.5 DESIGN AND MECHANICAL COMPLETION (ACCEPTANCE OF THE WORK)

### 6.5.1 Acceptance Criteria

6.5.1.1 The Contractor shall provide the complete construction and installation of the Facilities per design and the Mechanical Completion checklist.

6.5.1.1.1 The Documentation required in the Approved Quality Plan will be submitted and ChampionX will acknowledge if all conditions have been met.

6.5.1.1.2 The Mechanical Completion checklist must be completed as part of the Scope of Work so that the contractor understands the requirements of completion.

6.5.2 Contractor is responsible to develop and coordinate a schedule for the acceptance of the work by coordinating with and taking into account available inspection personnel.

6.5.3 The work will be accepted when the Contractor demonstrates full compliance with quality control specifications and installation details.

## 6.6 COMMISSIONING/INTEGRITY TESTING

- 6.6.1 The contractor is responsible for a commissioning plan which must include at least the following:
  - 6.6.1.1 Contractor and ChampionX to review and approve as final the Project Quality Control as defined by the Quality Plan.
  - 6.6.1.2 Demonstrating cleanliness of equipment, pipes and closed raceways.
  - 6.6.1.3 Pipe cleanliness will be demonstrated by flushing air, water or steam through the system prior to operating.
  - 6.6.1.4 Equipment capability to operate will be verified.
  - 6.6.1.5 Start-up screens will be installed upstream of all rotating equipment and removed after the commissioning process if instructed by ChampionX.
  - 6.6.1.6 Rotary equipment will be spun tested and bump tested as allowed by equipment design.
  - 6.6.1.7 Hand and automatic valves will be fully stroked and expected operation verified.
  - 6.6.1.8 Continuity checks for control wiring from the point of termination to the final control device will be performed prior to final closure of the termination point.
  - 6.6.1.9 Lubrication filling
    - 6.6.1.9.1 Verification reservoirs are empty and clean.
    - 6.6.1.9.2 Fill with appropriate fluids.
    - 6.6.1.9.3 Lubrication lines are purged of air and ready to operate.
  - 6.6.1.10 Piping system ready for operation.
    - 6.6.1.10.1 Temporary piping supports are removed.
    - 6.6.1.10.2 Pipe hanger locks are removed

## 6.7 INSTALLATION WALK DOWN

- 6.7.1 Field-walk down on a system-by-system or item by item basis divided by areas which support the construction sequence.
  - 6.7.1.1 Signature for completion of walk down does not relieve the Contractor of any contractual or warranty requirements.
  - 6.7.1.2 The Contractor will notify ChampionX Project Representative when a System or portion of a system is ready for walk down verification. The system will then be walked down by appropriate ChampionX personnel or ChampionX inspection contractor to verify the completeness of the installation.
  - 6.7.1.3 The Contractor will notify readiness for walk down in look ahead weekly meetings. These walk downs are to be performed when the system is complete. The walk down may be utilized to develop punch list items to be completed by the Contractor prior to final acceptance of the work.
- 6.7.2 ChampionX and the Contractor will develop a final Punchlist.
  - 6.7.2.1 All Items must be completed before payment of the Final Invoice
  - 6.7.2.2 The contractor is responsible for maintaining the Checklist and holding Weekly Updates on the status of the Punch list Items.

## 6.8 TURNOVER DOCUMENTATION

- 6.8.1 Before project closeout (and any final payment) A Final Turnover Package will be completed with the following:

- 6.8.1.1 The completed Quality Plan and all documentation supporting the successful adherence to the plan i.e.: Test Results (MTR's Concrete, etc...), sign-off sheets
- 6.8.1.2 Warrantee information assignable to ChampionX
- 6.8.1.3 "As-built" Documentation. The Contractor shall provide three sets of "Record Drawings" reflecting "as-built" conditions, hard copy, electronic, and native format for record for all affected, changed, and executed drawings. This includes but is not limited to P&ID's, ISO's, Electrical drawings(CAD files), loop diagrams, General Arrangement, Civil details, Structural details.
- 6.8.1.4 Vendor documentation including O&M manuals, data sheets, catalogue cut sheets, test certifications and spare parts lists for all vendor purchase specialties

## 7.0 ATTACHMENTS

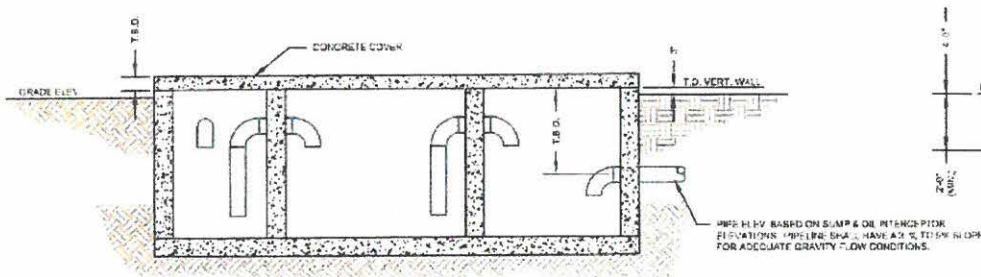
### 7.1 DRAWINGS/PICTURES

- Proposed Site Layout

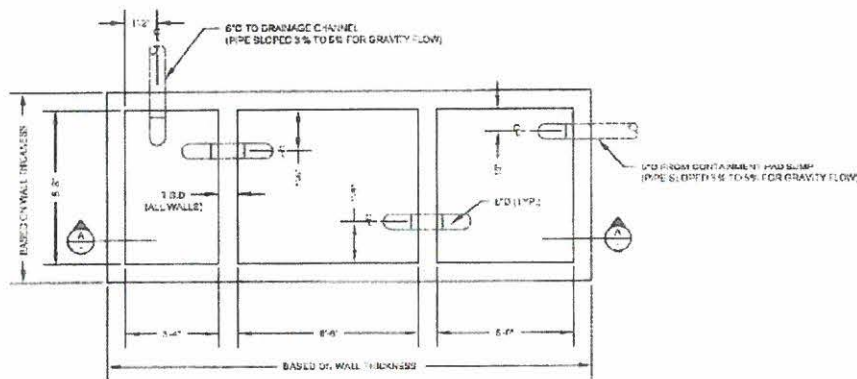


P2408-02-0001  
(Proposed Site Layout)

- Oil Water Separator Details

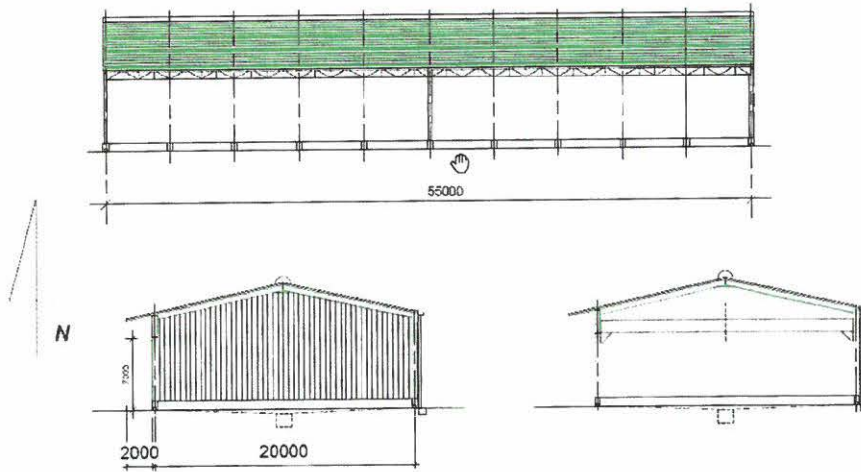


SECTION "A-A" - OIL INTERCEPTOR



PLAN VIEW - OIL INTERCEPTOR  
(CONCRETE COVER NOT SHOWN THIS VIEW)

- ChampionX Warehouse Covered Area (Shed) Example. Actual dimensions to be tailored to site.

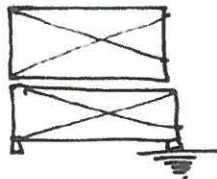


Picture Example (preference is to minimize # of columns within the structure).



- Concrete Punching Shear Calculation for reference. To be verified in Engineering Phase

IMB TANKS STACKED UPON BONDED SLAB.



SINGLE LEG LOAD TO BE CHECKED FOR PUNCHING SHEAR.

$$\text{TOTAL LOADING} = 3500 \text{ kg/m}^2$$

$$\text{LEG LOAD} \Rightarrow \frac{2.438 \text{ m} \times 6.058 \times 3500}{4} =$$

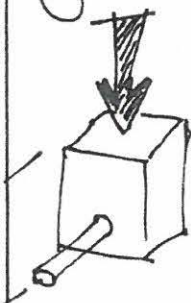
$$12928 \text{ kg}$$

$$12923 \times \frac{9.81}{1000} = 127 \text{ kN}$$

$$\text{factor of safety } 1.4 \Rightarrow 1.4 \times 127 =$$

$$177.8 \text{ kN}$$

Say contact area  $150 \text{ mm} \times 150 \text{ mm}$ .



Applied shear force =  $177.8 \text{ kN}$ .

$$v = \frac{V}{ud} = \frac{177.8 \times 10^3}{150 \times 150 \times 207} = 0.03 \text{ N/mm}^2$$

$$0.03 < 0.8 \sqrt{f_{cu}} \text{ Ok.}$$

Tile @ 150 will give a shear strength  $v_c$

$$= 0.79 \left\{ \frac{100 \times 1340}{1000 \times 207} \right\}^{\frac{1}{3}} \left( \frac{400}{207} \right)^{\frac{1}{4}} / 1.25.$$

$$= 0.64 \text{ N/mm}^2.$$

Therefore Ok.

**7.2 SPECIFICATIONS AND STANDARDS**

- CX-01-004 General Conditions
- CX-01-005 Special Conditions
- CX-01-007 General Conditions for Equipment Vendors
- CX-01-008 Vessel Fastener Specification
- CX-01-010 General Condition for PAF Fabricators
- CX-09-001 Specifications for Atmospheric Storage Tanks
- CX-09-002 Specifications for Vertical Above Ground FRP Tanks
- CX-13-001 General Specifications for Pressure Vessels
- CX-13-002 General Specifications for Welding
- CX-13-003 General Specifications for Welding PAFs
- CX-13-004 General Conditions for Combination Vent for PAFs
- CX-13-005 220 F2 WELDING INSTRUCTIONS INSPECTION DATA
- CX-34-001 Specifications for Truck Scales
- CX-36-001 Specifications for Railcar Loading Unloading Arms
- CX-39-002 Specifications for Bldg Fire Protection
- CX-40-002 Specifications for Noise Level
- CX-40-003 Specifications for Membrane Roofing
- CX-40-005 Specifications for Built Up Roofing
- CX-52-001 Specifications for Excavation, Filling and Back Filling
- CX-52-002 Specifications for Clearing, Grubbing and Stripping
- CX-52-003 Specifications for In Place Lime Stabilization
- CX-52-004 Specifications for Crushed Limestone for Roads and Railroads
- CX-52-005 Specifications for Asphalt Concrete Surfacing of Roads
- CX-52-007 Specifications for Cement Stabilized Sand or Limestone Base Coarse for Roads
- CX-54-001 General Specification for Timber Piling
- CX-56-001 Specifications for Concrete and Finishing
- CX-56-002 Specifications for Levelling and Grouting
- CX-56-003 Specifications for Concrete Reinforcement
- CX-58-001 General Specification for Structural Steel
- CX-58-002 General Specification for Non Composite Steel Form Deck
- CX-58-003 Specifications for Fiberglass Floor Plate
- CX-58-004 Specifications for Pre Engineered Metal Buildings
- CX-60-001 General Specifications for Fire Proofing
- CX-62-001 General Piping Specification
- CX-62-002 Piping Material and Design Specifications
- CX-62-002.1 Valve List
- CX-62-002.2 Approved Manufacturers List for Valve
- CX-62-002.3 Piping Specs and Valves Material List
- CX-62-004 Specification for Shop Fabricated Piping

- CX-62-005 Specifications for Underground Fire Protection Piping
- CX-62-010 Specifications for Plumbing Installation
- CX-63-001 General Specification for Insulation
- CX-64-003 Instrument Installation Specification
- CX-64-004 Instrument Calibration Specification
- CX-64-008 General Instrumentation Specification for Packaged Equipment
- CX-64-010 General Config Specification for Seimens Wonderware
- CX-65-001 Electrical Construction Specification - Normal Hazard
- CX-65-002 General Electrical Specification for Packaged Equipment
- CX-65-003 Electrical Inspection and Testing
- CX-65-004 Electrical Specifications for Hazardous Locations
- CX-65-005 General Electrical Specifications for Buildings
- CX-65-006 Specification for Power Transformers
- CX-65-008 Specification for 480 Volt Switchgear
- CX-65-009 Specification for 480 Volt Motor Control Center
- CX-65-014 AC Electric Motors 575 Volts and Under
- CX-65-020 Specification for Variable Frequency Drives
- CX-65-021 Electrical Spec for 460 Volt Reduced Voltage Motor Controller
- CX-66-001 General Spec for Field Painting and Protective Coatings
- CX-66-002 Specifications for Hot Dip Galvanizing
- CX-66-003 Specification for Identification Labeling and Color Coding
- CX-66-004 General Specs for PAF Units
- CX-66-005 Coating Application Specification
- CX-68-010 Spec for HVAC System Installation

**APPENDICES** – ChampionX Application Form for Environmental Authorisation  
Environmental Protection Agency, Guyana

March 13, 2025

**Attachment D3** – ChampionX – CT - Guyana Warehouse Operations



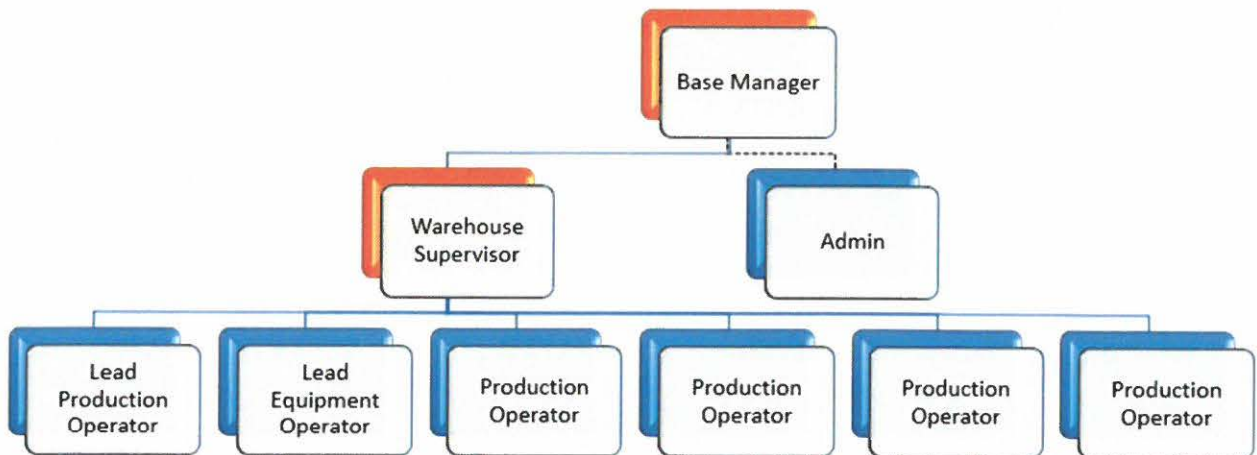
## Guyana Warehouse Operations Summary

### 1.0 Facility Overview

ChampionX is leasing an oilfield distribution facility in Rome, Georgetown, Guyana. The facility, an inland container yard and chemical distribution warehouse, will be constructed by Viera on its' property. The chemical distribution warehouse, located close to the resupply base for offshore operations, is required to supply oilfield chemicals to the *Destiny*, *Prosperity* and *1 Guyana* FPSOs.

ChampionX's 5.5 acre facility will occupy 1300 square meters of space for the process area and 4500 square meters for the storage area. The facility will treat approximately 570,000 barrels of crude oil per day in the Field and process over 7 million tons (575 kgs/month) of treatment chemicals per year. The facility will maintain a fleet of over 190 ISO tanks and receive delivery of 10 to 20 ISOs per month. Daily operations will include the transfer of materials and filtration of 10 to 40 ISO tanks per month.

The site will employ 8 GY and 1 Expat Supply Chain employees (see sample FPSO Supply Chain Organization Chart below:



The structures on the site will include:

- Modular work buildings including a laboratory, office, changing/showering/bathroom facility for workers and a mechanical equipment and parts storage building.
- A 1300 square meter concreted containment area to include a chemical transfer area, a storage area for sealed but partially full containers and a packaging area for chemical transfers from IBCs, ISOs and drums to offshore tanks designed to prevent accidental release of chemicals into the air, water or soil.
- A 4500 square meter concreted area for storage of sealed / unopened ISO Tanks, 1000 liter plastic IBCs, drums and pails, offshore tanks and frames.

Construction is expected to take 3 months with completion targeted for August of 2025. The facility will be constructed to meet ChampionX requirements for warehouse and chemical transfer operations as well as local building codes as stipulated in Guyana regulations.

## **2.0 Inventory and Stock Management**

ChampionX estimates that 1 to 2 mm kgs of specialty and commodity chemicals will be stored at the site. ChampionX has a strong safety and process safety management program and safe handling and storage of chemicals is the highest priority. All containers shipped to and within Guyana are properly labeled to identify the materials, communicate proper safety protocols for handling and storage, meet the 'Right to Know' hazard communication standards, communicate United Nations (UN) shipping descriptions and meet Guyana's requirements. ChampionX has identified the materials that require import licensing required by Guyana law and is implementing procedures to ensure all required licenses are applied for and obtained prior to the goods leaving the manufacturing plant / origination point.

## **3.0 Chemical Segregation**

ChampionX warehousing facilities are used to store a variety of chemicals with specific hazards. Proper management of where different types of chemicals are stored on site and in relation to one another is critical from a Safety, Health, Environmental & Security perspective. Great care is taken to implement a chemical segregation process as supported by ChampionX's Process Safety Standards, to minimize any risk associated with mixing of incompatible materials. For example, acids must always be segregated from basic / corrosive materials. Chemical segregation processes and plans are built based upon UN/IMDG guidelines.

**DANGEROUS GOODS & COMBUSTIBLE LIQUIDS STORAGE COMPATIBILITY CHART**

Class or Subsidiary Risk												
FLAMMABLE GASES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES
NON TOXIC NON FLAMMABLE GASES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES
TOXIC GAS	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	MAY NOT BE COMPATIBLE - CHECK MSDS AND NOTES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES
OXIDIZING GAS	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES
FLAMMABLE LIQUIDS - COMBUSTIBLE LIQUIDS	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES
FLAMMABLE SOLID	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	MAY NOT BE COMPATIBLE - CHECK MSDS AND NOTES
SPONTANEOUSLY COMBUSTIBLE	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES
DANGEROUS WHEN WET	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES
OXIDIZING AGENT	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES
ORGANIC PEROXIDE	ISOLATE	ISOLATE	ISOLATE	ISOLATE	ISOLATE	ISOLATE	ISOLATE	ISOLATE	ISOLATE	ISOLATE	ISOLATE	SEGRGATE AT ALL TIMES
TOXIC SUBSTANCES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES
CORROSIVE	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	MAY NOT BE COMPATIBLE - CHECK MSDS AND NOTES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	SEGRGATE AT ALL TIMES	MAY NOT BE COMPATIBLE - CHECK MSDS AND NOTES

ChampionX materials are tracked for quality and condition using a batch number system, which eliminates the risk of leaks spills from aged containers. The system provides an effective method for rotating shipments based on a 'first-in, first-out' system to manage stock rotation and ensure materials are utilized prior to shelf-life expiration.

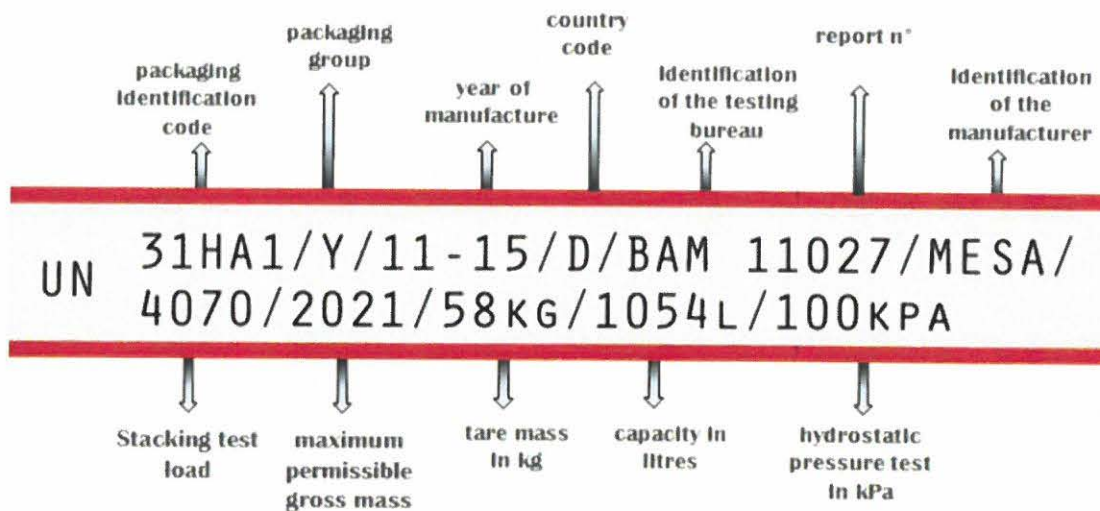
#### 4.0 Packaging and Storage

ChampionX complies with UN package performance standards to ensure compliance with international and Guyana laws and regulations. Material properties such as specific gravity, vapor pressure, temperature tolerance and flash point are some of the key elements which are considered in selection of containers with consideration for transport, storage and fill weight of the materials. Containers must not only be compatible, but must be robust and made of the proper materials of construction. All containers used on site will be stenciled or

embossed by the container manufacturer with the UN package performance standard. For example, an example of a performance package standard for a 10L plastic pail is as follows:

*10L plastic pails. UN specification 3H1/Y1.8/100. A screw-on cap is required.*

1000 liter plastic / composite containers will be marked with the UN package performance standard as demonstrated below:



*31HA1 indicates that the container is for liquids*

*'H' denotes IBC container type*

*'A' indicates that the container is a composite of HDPE within an aluminum cage frame on either a wooden or aluminum pallet.*

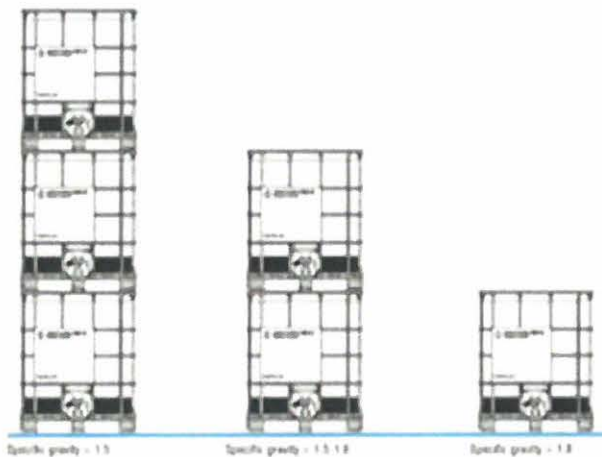
*'Y' indicates that the container is suitable for carrying non-hazardous materials and hazardous materials assigned Packing Groups II and III only.*

ChampionX uses best practices recommended by the container manufacturer along with corporate guidelines to determine how many containers can be vertically stacked. The following diagrams show the recommended stack heights based upon specific gravity of the materials held within. However, local regulation will take precedence (if more stringent) over corporate guidelines. Under ideal conditions (such as stable, concreted surfaces), plastic drums on pallets can be stacked four-high. However, other factors must be considered when decided stack heights such as ambient temperature, partially filled drums, exposure to direct sunlight, drums with pressure-relieving vents and density of the materials being stored. ChampionX considers all of these factors and generally limits stack heights

to 2 or 3 pallets. ISO tanks and offshore tanks are limited to a vertical stack height of 2.



**DYNAMIC LOAD**  
*As demonstrated below, stacking height for dynamic loads (loads exposed to motion) should not exceed 2-high and must be secured for transport.*



**STATIC LOAD**  
*Stacking on even flat surface at ambient temperature*

## 5.0 Environmental Management Summary

ChampionX – Chemical Technologies, a division of the publicly traded company, ChampionX Corporation, must ensure that appropriate oversight of environmental compliance activities and management of associated risks is a priority. This standard outlines the expectations set forth by ChampionX to ensure environmental compliance, with the goal of protecting the environment, ensuring effective operations, minimizing environmental liability for ChampionX and satisfying federal, state and local regulations. A strong environmental compliance program establishes the necessary tools (SOPs, policies, training, systems) to help the organization meet regulatory and governmental requirements. ChampionX is committed to transparent internal communications through regular compliance reviews and timely communication of potential, emerging and active compliance issues in order to ensure compliance with all applicable laws. This transparency

provides SHE, Supply Chain and Legal, as well as Executive Leadership with necessary oversight as well as a clear understanding of real and potential compliance risks within the organization. This standard sets forth the expectations of ChampionX' in the area of environmental compliance, with the goal of protecting the environment, ensuring effective operations, minimizing environmental liability for ChampionX and satisfying federal, state and local regulations.

The Corporate SHEQ / Regulatory Compliance Team based in Sugar Land, Texas, USA, is responsible for monitoring legal and company requirements for to ensure environmental compliance, providing guidance and support to business units and sites such as the Guyana Shore Base. The SHEQ Regulatory Compliance Team also has an oversight function of peer reviewing key environmental documents prior to submittal to government agencies. In addition to peer review, the SHE Regulatory Compliance Team is responsible for notifying Legal and Executive Leadership of emerging and existing compliance issues as well as enforcement activities as detailed in the Corporate Environmental Governance Standard. This function is supported through Corporate Standards such as the Global Environmental Governance Standard and the Global Waste Management Standard, as well as the ChampionX Integrated Management System. In addition, the Corporate SHEQ Regulatory Compliance Team tracks global regulatory activities such as inspections, violations and corrective actions in its' RAVINE module in Intelex to ensure risk is managed through visibility and continuous improvement of its global environmental (as well as safety, health, process safety, hazardous materials handling, etc..) performance.

## **APPENDIX E**

**Attachment E1:** Global Environmental Governance Standard


**Attachment E2:** Global Waste Management Standard

**Attachment E3** – Integrated Management System (Manual)

**APPENDICES** – ChampionX Application Form for Environmental Authorisation  
Environmental Protection Agency, Guyana

March 13, 2025

**Attachment E1:** Global Environmental Governance Standard

	<b>SHEQ Governance</b> <b>Global Environmental Standard</b>	Date	Page
	<b>WARNING</b> – If Printed this document becomes an UNCONTROLLED Copy!	11/21/2024	1 of 5
		Revision 2	
		Authored by: Regulatory Compliance Group Approved by: SHEQ & Legal	

## 1.0 Purpose


ChampionX – Chemical Technologies, a division of the publicly traded company, ChampionX Corporation, must ensure that appropriate oversight of environmental compliance activities and management of associated risks is a priority. This standard outlines the expectations set forth by ChampionX to ensure environmental compliance, with the goal of protecting the environment, ensuring effective operations, minimizing environmental liability for ChampionX and satisfying federal, state and local regulations. A strong environmental compliance program establishes the necessary tools (SOPs, policies, training, systems) to help the organization meet regulatory and governmental requirements. ChampionX is committed to transparent internal communications through regular compliance reviews and timely communication of potential, emerging and active compliance issues in order to ensure compliance with all applicable laws. This transparency provides SHE, Supply Chain and Legal, as well as Executive Leadership with necessary oversight as well as a clear understanding of real and potential compliance risks within the organization. This standard sets forth the expectations of ChampionX' in the area of environmental compliance, with the goal of protecting the environment, ensuring effective operations, minimizing environmental liability for ChampionX and satisfying federal, state and local regulations.

## 2.0 Scope

This standard supports ChampionX – Chemical Technologies' commitment to empower individuals at all levels of the organization to be accountable for compliance within their areas of influence and responsibility. This is a global policy and applies to all business units within ChampionX – Chemical Technologies Division including manufacturing, blending, warehousing, delivery, RDE, sales and service and the corporate headquarters.

## 3.0 Definitions & Acronyms

*Reportable Quantity ('RQ')* - a reportable chemical, noise or odor release which exceeds a legal limit by volume, concentration or some other stated measure as mandated by a regulatory body, jurisdiction, federal or local entity which requires verbal or written reporting to authorities.

	<p>SHEQ Governance</p> <p><b>Global Environmental Standard</b></p>	Date	Page
	<p><b>WARNING</b> – If Printed this document becomes an UNCONTROLLED Copy!</p>	11/21/2024	2 of 5
		Revision 2	
		Authored by: Regulatory Compliance Group Approved by: SHEQ & Legal	

*Violation* – Includes but is not limited to an exceedance of an RQ, a violation of a permit requirement or condition, a community complaint leading to a regulatory agency action.

*Fine* – A monetary penalty issued to a regulated entity by a regulatory body for a non-compliance of the law, a permit or violations of laws/rules or exceedances of allowed emission limits due to inadvertent emissions to air, soil or water. May also be issued due to violation of a local ordinance or complaint due to odor, noise or visible emissions.

*Inspection* – A planned or unplanned visit to a site by a regulatory / governmental agency for the purpose of evaluating compliance.

*Enforcement* – A state of compliance wherein a regulatory body pursues further action against the regulated entity as a result of a Violation.

*Permit Renewal or Amendment* – Action taken by the regulated entity to renew an expiring permit or amend a permit due to changes in regulatory requirements, changes in processes, equipment or chemicals handled, addition of pollution control equipment or other material changes.


*Certified Submittal* – Any submittal to a regulatory agency that must be signed, notarized, or certified prior to a required submittal such as an annual emissions report, a permit amendment or periodic regulatory report.

#### 4.0 Reference Documents

- ChampionX SHEQ Operating Policy
- Intelix Job Aid for Intelix Application 'RAVINE'
- Global Waste Management Policy
- 

#### 5.0 Roles and Responsibilities

The **Corporate SHEQ / Regulatory Compliance Team** is responsible for obtaining information regarding environmental compliance, providing guidance and support to business units on environmental compliance, producing

	<b>SHEQ Governance</b> <b>Global Environmental Standard</b>	Date 11/21/2024	Page 3 of 5
	<b>WARNING</b> – If Printed this document becomes an UNCONTROLLED Copy!	Revision 2	
		Authored by: Regulatory Compliance Group  Approved by: SHEQ & Legal	

environmental performance metrics and periodically reporting to SHE, Operations and Legal Leadership on the environmental compliance health of ChampionX – Chemical Technologies Division. The SHEQ Regulatory Compliance Team also has an oversight function of peer reviewing key environmental documents prior to submittal to government agencies. In addition to peer review, the SHE Regulatory Compliance Team is responsible for notifying SHE, Legal and Supply Chain Leadership of emerging and existing compliance issues as well as enforcement activities as detailed in Section 6.0 of this standard.

**Regional SHEQ Managers** are responsible for ensuring that business units they support understand the requirements herein and facilitate reporting by sites/ business units when needed. This requirement applies to not only Environmental issues (the subject of this standard) but also Safety, Health, Security / Homeland Security, Rail / Road / Air Transportation and any other federal, state / provincial or local regulatory agency activities.


**Site Managers and/ or Local SHE Representatives** are responsible for reporting to the Regional SHE Managers and/ or the SHE Regulatory Compliance Team, any occurrence of items in Section 6.0 and entering them into RAVINE as appropriate.

**Regional Directors, Manufacturing and Field Operations Leaders and Business Unit Managers** are responsible to ensure that employees are trained in their responsibilities as outlined in this standard.

## 6.0 Notification, Documentation and Peer Review Requirements

The following circumstances and/ or compliance concerns require immediate notification by the Site Operations Manager, SHE Representative and/ or the Regional SHE Representative to the Regulatory Compliance Team for review and guidance:

1. Inspections by Regulatory Bodies or notification of impending inspections by Regulatory Bodies

	<p>SHEQ Governance</p> <p><b>Global Environmental Standard</b></p>	Date	Page
	<p><b>WARNING</b> – If Printed this document becomes an UNCONTROLLED Copy!</p>	11/21/2024	4 of 5
		Revision 2	
		Authored by: Regulatory Compliance Group Approved by: SHEQ & Legal	

2. Receipt or notification of a pending enforcement, potential noncompliance or violation from a regulatory body or agency
3. Knowledge of a potential compliance issue
4. Receipt or notification of regulatory fines
5. Missed or delinquent compliance deadlines related to items that must be submitted to a regulatory body or agency
6. Pending submittal of a revised or amended environmental permit (provide at least 10 business days for review with compliance for permitting)
7. Pending submittal of a document that requires certification by site manager or an officer of the Company (example includes a compliance deviation report) (for review)
8. Pending formal communications to a regulatory agency (for review)


**NOTE:** In addition to the initial notification requirements listed above, all regulatory / governmental inspections, violations / enforcement actions and fines must be entered into the Intelex RAVINE Application. This includes not only environmental activities but also safety, health, transportation, security, or any such actions by a governmental body.

Site Managers / SHE Representatives must notify, as early as practicable, the Corporate SHE – Regulatory Compliance Team, of the occurrence of any of the items listed above in Section 6.0 – Notification Requirements. Notifications can be made to either of the following:

- Melinda White – SHEQ Director – Regulatory Compliance – [mawhite@championx.com](mailto:mawhite@championx.com) / 832-795-4427
- Harry Chen – Technical Compliance Lead – [harry.chen@championx.com](mailto:harry.chen@championx.com) / 832-370-7032

## 6.2 Other Environmental Liability Considerations

Other processes are in place to ensure minimization of environmental liability for ChampionX. The following processes are mentioned for awareness:

	<b>SHEQ Governance</b>  <b>Global Environmental Standard</b>	Date	Page
	<b>WARNING</b> – If Printed this document becomes an UNCONTROLLED Copy!	11/21/2024	5 of 5
		Revision 2	
		Authorized by: Regulatory Compliance Group  Approved by: SHEQ & Legal	

**Property Transactions** - As outlined in the ChampionX Environmental Site Assessments Policy, business units must reach out to Facilities and the SHEQ Regulatory Compliance Team to initiate the environmental site assessment process (as applicable) for property sales, leases and purchases well in advance of closing dates for property transactions. This is included in this standard for awareness.

**Qualification of waste contractors and environmental consultants** – All contractors conducting environmental work on behalf of ChampionX must have a Master Service Agreement in place and must be evaluated in Avetta. SHEQ, Procurement and Legal are involved in approvals of Master Service Agreements.

**Attachment E2:** Global Waste Management Standard

# Standard

---

**Chemical Technologies**

**Global Waste Management**

**Document No. WM-SD-001**

# CONTENTS

1	PURPOSE	1
2	SCOPE	1
3	RESPONSIBILITIES	1
4	DEFINITIONS	2
5	REQUIREMENTS	2
6	TRAINING	5
7	RECORDS	5
8	Appendix	5
9	REVISION LOGS	5

## 1 PURPOSE

This standard is to establish minimum waste management requirements and to ensure responsible and compliance practices while managing the risk to Chemical Technologies.

## 2 SCOPE

This standard applies to Chemical Technologies employees and locations that generate, store, offer for transport or disposal, or handle waste materials. In the event this standard conflicts with government or local standards, codes, or regulations, then the most stringent requirements apply.

## 3 RESPONSIBILITIES

### **Global Safety, Health & Environment (SHEQ)**

Provide regulatory advice and consultation to divisions, regions, and functions on waste management and, ensure the qualification of waste disposal facilities and maintain a current list of approved disposal facilities with valid MSAs and audit reports. Periodically review this standard and update, as necessary.

### **Division, Region, Function Management**

Develop and implement site specific policies and standards pertaining to the return of unused, off-spec or recalled products from customers and distributors for the area. Ensure that employees involved in product returns and waste management training as appropriate for their job function. Ensure compliance with this standard and provide support as needed for waste vendors.

### **Employees**

Attend the applicable local government waste regulation trainings on the generation, handling, storage, transportation (to include labelling and shipping documentation), inspection of waste accumulation areas, as necessary. Become competent in recognizing waste profiles and executing shipping documents. Understand and comply with this standard.

#### **On-Site Contractors**

Ensure their employees receive applicable local government waste regulation training and are competent on the handling, storage, transportation (to include labelling and shipping documentation), inspection of waste accumulation areas, as necessary. Understand and comply with this standard.

## **4 DEFINITIONS**

**Waste** - a material (solid, liquid or gas) that is intended for disposal and that may be subject to government regulation or has the potential to cause harm to human health or the environment. Types of waste may include, but are not limited to, hazardous (may also be referred to as industrial, special, or contaminated waste), non-hazardous, universal (e.g., bulbs and batteries), recyclable or otherwise regulated (e.g., asbestos, used oil, polychlorinated biphenyls (PCBs)).

## **5 REQUIREMENTS**

1. All Facilities and employees comply with all applicable country, regional and local waste laws and regulations.
2. Facilities adhere to a waste management hierarchy that minimizes the impact of waste generation on the environment and includes the following (in order of most to least desired):

- a. Elimination or minimization of waste with the use of engineering controls and plant processes.
  - b. Recycling and reuse of materials whenever possible and practicable; and
  - c. Selection of approved treatment and disposal methods.
3. All hazardous waste generated onsite (In some special cases Chemical Technologies may be deemed 'generator of record' for waste at customer sites. Please consult with SHE representative to ensure proper management.) must be properly identified, segregated, and characterized. Hazardous waste should be sent for disposal within 90 days of the waste being generated or according to local regulatory requirements to ensure proper storage, management, and timely disposal.
4. Waste containers and tanks are in good condition with no evidence of damage (e.g., rusting/ corrosion, leaks, or cracking); and compatible with the materials that are stored within. All waste containers are labeled with the contents of the container and dated in accordance with applicable regulations.
5. Primary waste storage areas must have emergency response equipment nearby (examples shall include eye wash, fire extinguishers, spill kits); and must be kept clean with adequate aisle space for storage, proper segregation and with labels visible for inspection. Waste containers and tanks must be stored in adequate secondary containment.
6. Inspections of waste containers, waste tanks, and associated storage and secondary containment areas are to be performed at least monthly or more frequently if required by government regulation.
7. Facilities must develop their own method of tracking the amounts, storage time, and types of waste generated on-site or may adopt the attached "Waste Disposal Tracking" sheet.
8. Divisions will establish protocols that include the minimum requirements for the return of unused, off-spec or recalled materials from Customers. If the returned product cannot be reused, the receiving facility will make a waste determination within 90 days

of receipt and ensure that all wastes are disposed in accordance with government regulations, this policy, applicable procedures, and current contracts with waste vendors.

9. Each facility must have a process in place to manage off-spec, expired, and discontinued products. If the material is not acceptable for use or re-work, it must be prepared for off-site disposal as required by governmental regulation.
10. Disposal of product samples, water samples and test reagents at customer locations must be managed with the approval of the customer based on specific knowledge of the material, or by an approved waste vendor.
11. Products, raw materials, hazardous wastes, or off-spec materials must not be discharged into a septic system or disposed of with municipal solid waste.
12. All wastes must be shipped using transporters who are approved or licensed according to applicable governmental regulation.
13. Disposal sites must have appropriate authorizations required by local government agencies. In addition, all waste disposal facilities must be individually approved for use by Global SHEQ and procurement as described below.
  - a. Waste disposal sites will be audited every three to five years for compliance with environmental, health and safety regulations and company policies based on actual and potential risk. Audits may be performed by qualified internal personnel, outside environmental consulting firms, or through our membership with CHWMEG organization ([www.chwmeg.org](http://www.chwmeg.org)).
  - b. Facilities will establish Master Service Agreements (MSAs) with companies who own and/or operate waste treatment, storage, recycling, and disposal facilities, or waste brokers. Any changes to MSAs must be approved by the Global SHEQ and authorized by the Indirect Procurement Department.
  - c. The best management practice is to minimize the number of waste vendors required for provision of services, to reduce the company environmental liability. Therefore, consultation with Indirect Procurement is required when requesting

to contract with new vendors, change existing vendors, or negotiate lower rates. Facilities review their waste vendor qualification annually and consolidate as appropriate. The approved vendor list is maintained by Procurement and SHEQ.

- d. If the requirements above cannot be met within the local regulatory scheme, contact SHEQ Global Regulatory Compliance – Central Services or Regional SHEQ for assistance.

## **6 TRAINING**

All employees who generate, handle, store, inspect or ship wastes must receive required training for their job function and in accordance with all applicable country, regional and local laws and regulations. This may include Transportation of Dangerous Goods / Shipping Documents training as well as Waste Management training per local regulatory entities.

## **7 RECORDS**

Master Service Agreements and certificates of insurance must be retained per the Procurement work processes and policies. Waste manifests, waste profiles, waste inspections, waste reports, waste facility audits and government correspondence shall be kept for a minimum of 10 years or longer if required by local government regulation or Chemical Technologies' Records Retention Standard.

## **8 Appendix**

- A. Example Waste Disposal Tracking Sheet

## **9 REVISION LOGS**

Revision No	Date	Revision Description	Prepared By	Approved By
0	7/31/2018	Initial Release	Global SHEQ Policy Team	
1	3/20/2020	Rebranding	X. Mu	
2	6/01/2021	Convert from a policy to global standard	Policy Harmonization team	
3	5/1/2024	Convert from policy to standard	SHE Team / L.Micklitz	Melinda White

## **Appendix A**

### **EXAMPLE WASTE DISPOSAL TRACKING SHEET**



## WASTE DISPOSAL TRACKING SHEET

Plant Name and Address:

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Plant Manager:  
 SHE Manager:  
 Waste Coordinator:

Waste Disposal Facility Name	Disposal Facility Owner	Disposal Facility Address	Waste Stream(s)	Disposal Method(s)	Amount of Waste / Month (in kilograms)
<b>Hazardous Waste</b>					
EXAMPLE: Clean Harbors Deer Park	Clean Harbors	2027 Independence Parkway LaPorte, TX 77571	Waste Flammable Liquids (Benzene, Naphthene)	Incineration	34,227 (75,300 pounds)
<b>Non-Hazardous Waste</b>					
EXAMPLE: US Ecology Texas	US Ecology	3277 County Road 69 Robstown, TX 78380	Non-Regulated Liquids Empty Containers	Landfill	5,009 (11,020 pounds)
<b>Universal</b>					
EXAMPLE: Waste Management Texas	Waste Management		Used Bulbs	Recycle	25 (50 pounds)
<b>Reuse/Recycle</b>					
EXAMPLE: Bodin Oil	Triad Recycling	18101 West LA Highway 330 Abbeville, Louisiana, USA 70510	Used Oil	Energy Recovery	227 (500 pounds)

**Attachment E3** – Integrated Management System (Manual)

# **Global Integrated Management System Manual**

---

**IMS-MN-01**

**Safety, Health, Environment, Quality and  
Security**

## Contents

<b>Section</b>	<b>Page</b>
PART I - OVERVIEW .....	6
A. INTRODUCTION .....	7
B. WHAT THIS DOCUMENT IS ABOUT .....	7
C. WHY IS IT IMPORTANT? .....	7
D. WHO NEEDS TO READ AND USE IT? .....	8
E. WHERE DOES IT APPLY? .....	8
F. HOW TO USE THIS DOCUMENT .....	8
G. THE GLOBAL IMS SUITE OF DOCUMENTS .....	9
G.1 Global IMS Manual .....	9
G.2 Global IMS Elements .....	9
G.3 Global IMS Standards .....	10
H. HOW WE NUMBER THE IMS SUITE OF DOCUMENTS .....	10
I. HOW WE MAKE SURE THE INFORMATION IN THE GLOBAL IMS SUITE OF DOCUMENTS IS ACCURATE AND UP-TO-DATE .....	10
J. HOW THE GLOBAL IMS PROCESS WORKS .....	11
K. ABOUT CHAMPIONX .....	12
L. CORE PROCESSES, INTERACTIONS, AND CONTEXT .....	13
M. OUR GLOBAL SAFETY, HEALTH AND ENVIRONMENT POLICY .....	14
N. OUR GLOBAL QUALITY POLICY .....	15
PART II - THE ELEMENTS .....	16
1 ELEMENT 01: LEADERSHIP, COMMITMENT AND RESPONSIBILITIES .....	17
1.1 Visible and Active Leadership .....	17
1.2 Organizational Resources, Roles and Responsibilities .....	17
2 ELEMENT 02: GOALS, OBJECTIVES AND PLANS .....	18
2.1 Goals and Objectives .....	18

---

2.2	Plans .....	18
<b>3</b>	<b>ELEMENT 03: RISK MANAGEMENT .....</b>	<b>19</b>
3.1	Risk Management Process .....	19
3.2	Hazard Identification, Risk & Impact Assessment and Risk Control .....	20
3.3	Risk & Impacts Register .....	20
<b>4</b>	<b>ELEMENT 04: PEOPLE, TRAINING AND COMPETENCE .....</b>	<b>21</b>
4.1	People.....	21
4.2	Training and Assessment.....	21
4.3	Competency Management.....	21
<b>5</b>	<b>ELEMENT 05: OPERATIONAL CONTROL.....</b>	<b>22</b>
5.1	Safe Work Practices.....	22
5.2	Occupational Health.....	22
5.3	Environmental Practices.....	22
5.4	Product Hazard Communication and Evaluation .....	22
5.5	Security.....	23
5.6	Operations and Maintenance.....	23
5.7	Facility Design and Construction .....	23
5.8	Process Safety .....	23
<b>6</b>	<b>ELEMENT 06: THIRD-PARTY PROVIDERS .....</b>	<b>24</b>
6.1	Procurement .....	24
6.2	Services.....	25
6.3	Contractors.....	25
<b>7</b>	<b>ELEMENT 07: CUSTOMER FOCUS.....</b>	<b>26</b>
7.1	Product Design and Development.....	26
7.2	Contract Review .....	26
7.3	Customer Order Planning and Processing.....	27
7.4	Control of Customer Property.....	27
7.5	Customer Satisfaction .....	27
<b>8</b>	<b>ELEMENT 08: QUALITY PLANNING .....</b>	<b>28</b>
8.1	Realization Planning .....	28

---

8.2	Quality Assurance and Quality Control .....	28
8.3	Product Identification, Traceability and Preservation .....	29
8.4	Control of Monitoring and Measuring Equipment .....	29
8.5	Product Release .....	30
8.6	Control of Non-Conforming Products .....	30
9	<b>ELEMENT 09: LEGAL, BUSINESS AND CUSTOMER REQUIREMENTS .....</b>	<b>32</b>
9.1	Legal Requirements .....	32
9.2	Business Requirements .....	32
9.3	Customer Requirements .....	32
10	<b>ELEMENT 10: MANAGEMENT OF CHANGE .....</b>	<b>33</b>
10.1	Chemical Selection, Equipment, Systems and Processes .....	33
10.2	Workforce Assignments .....	33
11	<b>ELEMENT 11: INCIDENT MANAGEMENT .....</b>	<b>34</b>
11.1	Incident Reporting, Investigation and Communication .....	34
11.2	Emergency Preparedness and Response .....	34
11.3	Business Continuity .....	35
12	<b>ELEMENT 12: KNOWLEDGE MANAGEMENT .....</b>	<b>36</b>
12.1	Document Control .....	36
12.2	Record Retention .....	36
13	<b>ELEMENT 13: STAKEHOLDER RELATIONSHIPS .....</b>	<b>37</b>
13.1	Internal Communications .....	37
13.2	Customer Communications & Community .....	37
14	<b>ELEMENT 14: ASSURANCE AND REVIEW .....</b>	<b>38</b>
14.1	Monitoring, Measuring and Analysis .....	38
14.2	Auditing .....	38
14.3	Corrective and Preventive Action .....	39
14.4	Management Review .....	39

---

15 WHAT THE TERMS USED IN THIS DOCUMENT MEAN .....40

16 HOW THE GLOBAL IMS RELATES TO INTERNATIONAL STANDARDS.....42

17 REVISION STATUS.....44

## PART I - OVERVIEW

---

## A. INTRODUCTION

## B. WHAT THIS DOCUMENT IS ABOUT

This manual describes the ChampionX Global Integrated Management System (IMS) which helps ChampionX Businesses meet its vision and values.

It details the principles, policies, and the 14 Elements, which make up the Global IMS suite of documents to provide a process approach for managing safety, health, environmental, quality and security at all ChampionX locations in a unified and proactive fashion.

## C. WHY IS IT IMPORTANT?

ChampionX has a history of technology leadership and dedicated customer service that allows us to help solve the oil and gas industry's toughest challenges. We develop unique, targeted products and solutions to meet customer needs and to optimize oil and gas production around the globe.

We do this while following the principles that guide how we conduct business every day. We work hard to manage our global operations with care for the health, safety and prosperity of our personnel, customers, communities and the environment. Safety and quality matter everywhere we work.

The Global Integrated Management System (IMS) is our framework for putting our safety, quality, health, security and environmental stewardship principles into action. The intended outcome of the IMS is to enhance performance, fulfil compliance obligations, and achieve objectives.

This Global IMS helps ChampionX Businesses to:

- Implement processes to achieve policy commitments and take the required action to address risks and improve performance.
- Demonstrate ongoing conformance to ChampionX core values for SHEQ.
- Commit to a productive, safe and healthy working environment for all personnel and contractors and instills a safety culture that protects everyone involved in our business.
- Enable effective risk management of our operations so we can protect our personnel, contractors, customers and communities.
- Encourage proactive environmental efforts by preventing waste and pollution at the source and supporting work that is socially responsible.
- Assure conformity of goods and services provided and customer satisfaction by anticipating their needs through the provision of superior service and added value while never compromising safety or protection of the environment.
- Conform to internal and Customer requirements, and voluntary obligations.

- Meet industry and international standards in the areas of Health and Safety (ISO 45001), Environmental (ISO 14001) and Quality (ISO 9001).

The Global IMS is designed to drive improvement and risk management through a 'Plan-Do-Check-Act' process approach and methodology across ChampionX business.

#### D. WHO NEEDS TO READ AND USE IT?

This Global IMS shall be made available, used and complied with by all ChampionX personnel, Contractors and Third Parties working on ChampionX Chemical Technologies business.

#### E. WHERE DOES IT APPLY?

This document applies to ChampionX Chemical Technologies businesses. All ChampionX Chemical Technologies businesses shall develop and be covered by plans and programs that describe the respective arrangements and actions required to implement and meet the requirements of the IMS.

This document serves as the base requirement for sites with management system certifications. Additional details on the scope of management system certification can be found in the document "IMS Appendix A – Certification Scope".

The IMS supports ChampionX in its efforts to comply with legal, business and customer requirements and are developed with the intention to:

- Set and formalize expectations for the development and implementation of specific requirements within ChampionX Business Units.
- Provide auditable criteria against which the IMS can be measured.
- Provide a basis from which to drive continual improvement.

The Global IMS are aligned with the requirements of:

- ChampionX Quality Policy and SH&E Policy.
- Recognized international and national standards including ISO 14001, ISO 45001 and ISO 9001.
- Other voluntary obligations.

#### F. HOW TO USE THIS DOCUMENT

The Global IMS allows requirements to be met by adopting a flexible approach that best suits individual business needs while maintaining consistency across ChampionX.

The IMS is hierarchical and forms part of the Global IMS suite of documents. The suite consists of this Global IMS Manual, its IMS Elements and Global Standards. The IMS suite of documents mandate what must be achieved rather than how to achieve it

The Suite of Documents may be adopted directly to form the basis of the business unit or site management system. They can also be formalized in each business unit or site through Business Unit Procedures or Site Operational Procedures that will exclusively or specifically apply to complement or support the requirements of the IMS.

This flexibility is provided in consideration of the level of detail and complexity needed, the extent of the documentation and resources required of the nature, and the scale of each individual Business activities, products and services.

## G. THE GLOBAL IMS SUITE OF DOCUMENTS



Figure 1 Global IMS Document Hierarchies

### G.1 Global IMS Manual

The manual describes our global principles, policies, and an overview of the 14 Elements. The Global SH&E Policy and the Global Quality Policy established a framework for common practices and expectations across all levels of ChampionX.

### G.2 Global IMS Elements

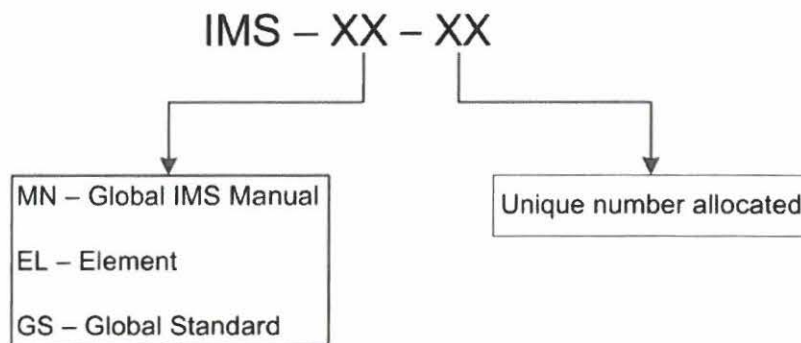
Each Global IMS Element provides high level principal directives and requirements that interpret, support and detail the requirements of the IMS Policies.

**G.3 Global IMS Standards**

The Global IMS Standards mandates the requirements that ChampionX Chemical Technologies Businesses need to meet and form the basis for the development and application of programs and plans across all levels in ChampionX.

**H. HOW WE NUMBER THE IMS SUITE OF DOCUMENTS**

Global IMS Suite documents each have a unique document number allocated as shown in Figure 1.



**Figure 2 IMS Global Suite Document Numbering System**

For instance, this Global IMS Manual is document number IMS-MN-01 and IMS Element 3 Risk Management is document number IMS-EL-03.

**I. HOW WE MAKE SURE THE INFORMATION IN THE GLOBAL IMS SUITE OF DOCUMENTS IS ACCURATE AND UP-TO-DATE**

This document is updated and reviewed regularly to ensure accuracy.

If using a printed version, confirm that you are using the latest version by referencing the source document in a formal electronic document control system.

## J. HOW THE GLOBAL IMS PROCESS WORKS

The Global IMS drives improvement through a Plan, Do, Check and Act process.

- **Plan:**  
We establish measurable objectives and processes necessary to deliver results in accordance with Customer requirements and internal policies.
- **Do:**  
We implement plans that support the objectives and execute the processes.
- **Check:**  
We monitor and measure processes, products, services and performance against policies, objectives and requirements, and report results.
- **Act:**  
We take actions to improve process performance.

The methodology of how the 14 Elements of the Global IMS align with this process is shown in Figure 3 below.



**Figure 3 Global IMS Continual Improvement Cycle**

---

## K. ABOUT CHAMPIONX

ChampionX provides safe, sustainable chemistry programs and services to the upstream oil and gas industry. Through onsite problem solving and the application of innovative technologies, we maximize production, optimize water use and overcome complex changes in the world's toughest energy frontiers.

We align our business practices to support the sustainable production of energy for the world with products, services and technology designed to help our customers produce and refine oil and gas in a more efficient and responsible manner than ever before. We partner with Customers to develop customized solutions and supply chain support with our enhanced Research and Development capability to develop unique, targeted products and solutions to meet Customer needs, and to optimize production, reducing total cost of operations. From risk management to performance optimization, we help our customers do more with less.

Our principles guide how we conduct business every day. We work hard to manage our global operations with care for the health, safety and prosperity of our personnel, customers, communities and the environment. One of our core values is to take care in all we do, putting safety first. ChampionX shares a strong commitment to safety excellence, and we want to make sure this strong aspect of our culture continues and is an integral part of who we are and how we conduct business.

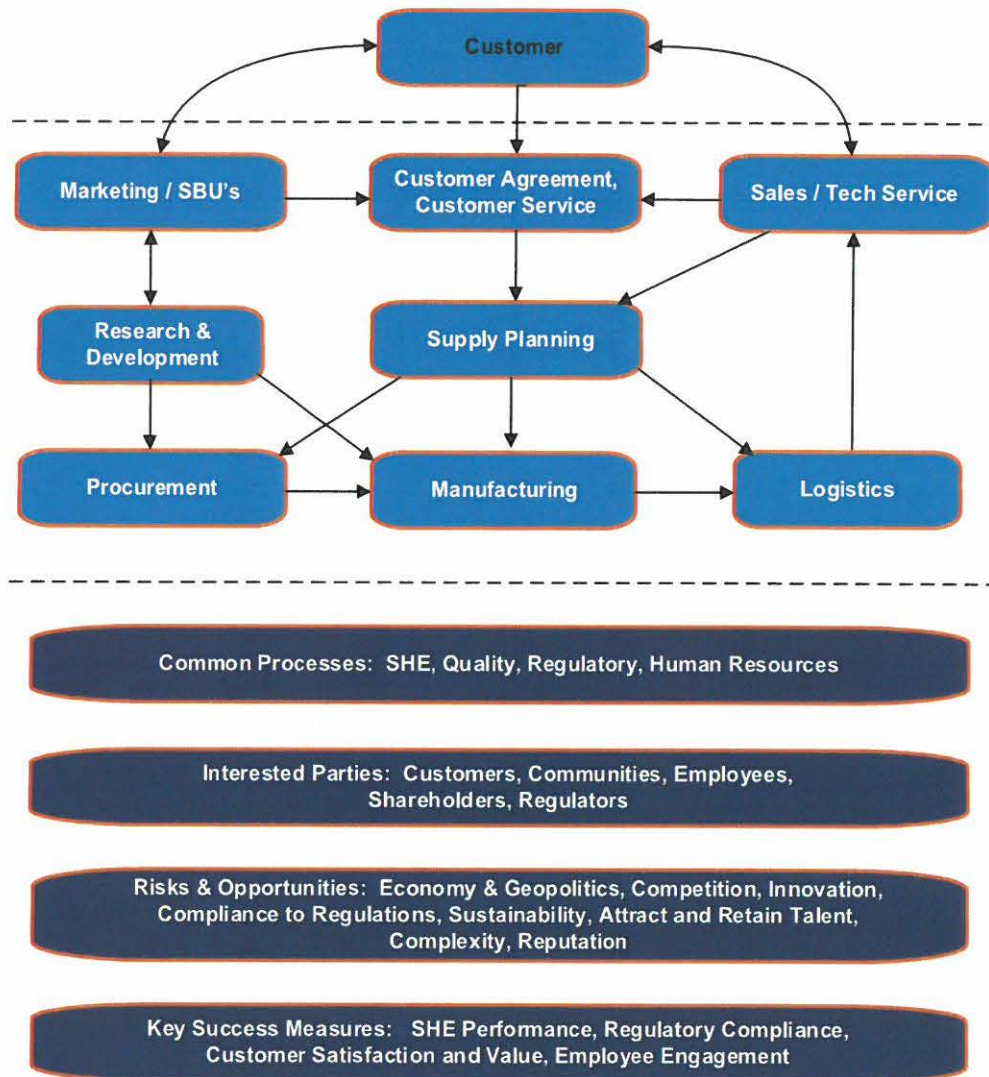
Protecting the health and safety of our employees, customers, communities and environment are among our highest priorities. We take a holistic view of the environmental, economic and social impact of our operations, considering how each increases efficiency, minimizes use of natural resources and improves safety. Our sustainability strategy focuses on the innovation, service and results we provide, because our greatest impact comes through the exponential savings our solutions achieve.

Embedded in ChampionX services are worldwide product design and technical development capabilities. ChampionX technology base is network integrated, facilitating excellence in chemical design, development, manufacturing and field application. ChampionX markets its proprietary products, which are designed in the Research and Development Laboratories and made from produced chemicals and purchased materials. ChampionX services include chemical selection, verification, supply management, logistics, and performance monitoring.

ChampionX facilities for production, blending, storage, handling and delivering chemicals, performance monitoring and chemical management services are in areas where major oil and gas industries operate worldwide. Operations are coordinated from the corporate office in Sugar Land, Texas (USA).

Relevant external and internal issues impacting the organization are considered during development and review of the IMS scope. ChampionX core processes, interactions and high-level context of the organization are illustrated in Figure 4. Additional information about the context of each major process is found in the document "IMS Appendix B – Business Process Context".

**L. CORE PROCESSES, INTERACTIONS, AND CONTEXT**



**Figure 4 ChampionX Core Processes, Interactions and Context of the Organization**

**M. OUR GLOBAL SAFETY, HEALTH AND ENVIRONMENT POLICY**

# Global Health, Safety and Environmental Policy

ChampionX’s Health, Safety and Environmental (HSE) policy is to conduct business in a manner that protects people, assets, and the environment. We believe all incidents are preventable. All employees will embody our safety culture and sustainability journey through personal leadership, engagement, and empowerment.

This commitment is integrated into our business activities, sustained by establishing plans and achieving goals for continual improvement, verified through management systems, and openly communicated to interested parties.

**ChampionX is committed to improving lives of customers, employees, shareholders and communities.**

**To meet this commitment, we will:**

- Strive for a Goal Zero mindset and performance.
- Empower employees to exercise Stop Work Authority and to take responsibility for their safety and the safety of those around them.
- Manage the risk of safety and environmental incidents, security and illnesses to a level that is as low as reasonably practicable.
- Reduce our environmental footprint and effectively manage the life cycle of our products.
- Promote healthy living.
- Collaborate and consult with employees, customers, regulators, contractors, suppliers, and communities to improve results.
- Comply with applicable regulatory requirements, customer, and industry standards and voluntary obligations.




**Soma Somasundaram**  
President and  
Chief Executive Officer



**Deric Bryant**  
Chief Operating Officer and  
President, Chemical Technologies



**Ali Raza**  
Senior Vice President and  
Chief Digital Officer



**Paul Mahoney**  
President, Production &  
Automation Technologies



**Rob Galloway**  
President, Drilling Technologies

---

## N. OUR GLOBAL QUALITY POLICY

championx.com

POLICY | CHAMPIONX

### GLOBAL QUALITY POLICY – Chemical Technologies

ChampionX Chemical Technologies is committed to providing unrivaled value to the oil and gas industry through the unique chemistry of our people, technologies and quality of our products and services. We believe this will help us deliver the energy required for people, prosperity, and the planet.

Our commitments are to:

- Meet or exceed our customer expectations
- Comply with requirements of regulations and standards applicable to our products and services.
- Continuously improve our products, services, systems, and capabilities.

To achieve this, we will:

- Adopt and promote a culture of excellence in everything we do
- Empower employees to achieve our quality objectives, prevent quality incidents and eliminate defects
- Innovate and deliver industry-leading technologies and practices to improve outcomes for our customers
- Continually improve the effectiveness of the quality management system to reduce our risk and enhance our opportunities

We will do this by driving a culture of continuous improvement to create a competitive advantage.



**Deric Bryant**

Chief Operating Officer and President, Chemical Technologies  
ChampionX

*Effective date: 14-February-2022*

# PART II - THE ELEMENTS

## 1 ELEMENT 01: LEADERSHIP, COMMITMENT AND RESPONSIBILITIES

Management provides the perspective, establishes the framework, sets the expectations, promotes risk-based thinking, and provides the resources for successful operations. This requires visible and active leadership and commitment, accountability at all levels and a clearly defined set of objectives. ChampionX manages its Legal, Business and Customer requirements by setting standards and by delegating responsibility, authority and accountability throughout the organization.

### 1.1 Visible and Active Leadership

Managers demonstrate visible and active leadership by addressing, pursuing and reinforcing Safety, Health and Environment (SH&E), Quality and Security excellence with the same priority as all key areas of business performance.

The safety culture of an organization depends not only upon published management, individual and group values, but more important on perceptions, patterns of behavior and demonstrated commitment of its leaders.

Management shall lead by example at all levels of the organization by demonstrating visible involvement and commitment. This allows personnel to perform their responsibilities with a thorough understanding of Managements' expectations and within Safety, Health and Environment (SH&E), Quality and Security with clearly articulated guidance.

### 1.2 Organizational Resources, Roles and Responsibilities

Management shall allocate resources and assign responsibilities for relevant roles to ensure the implementation of the IMS. Personnel and Contractors have clearly defined SH&E, Quality and Security accountabilities, roles and responsibilities.

The SHEQ director has the responsibility of managing the Global IMS with requisite activities delegated to appropriate personnel.

The resources and infrastructure necessary to achieve product and service requirements is provided for through the annual operating expense budget and capital expenditure plan. The infrastructure includes process equipment (hardware and software), buildings, workplace, associated utilities and supporting services and associated maintenance activities. The infrastructure needed to meet regulatory, product, and service requirements for new products is determined and provided for during our product introduction processes

ChampionX provides a work environment that enables its employees to carry out their responsibilities at a level that conforms to customer, product, and service requirements. Management has overall responsibility for identifying, implementing, managing and maintaining the systems, processes and controls in a manner suitable to achieve the company's goals and objectives. Top management is accountable for the effectiveness of the Global IMS.

---

## 2 ELEMENT 02: GOALS, OBJECTIVES AND PLANS

### 2.1 Goals and Objectives

Management at ChampionX shall establish goals and objectives and plan, organize, direct, motivate, control and review work of personnel. These goals are evaluated on a regular basis by Management where the accountability for achieving these goals and objectives is integrated into annual employee performance reviews.

Goals, objectives and targets shall be appropriate to the business, addressing risks and opportunities, considering viewpoints of interested parties, and meeting legal, business and customer requirements. These are to be determined for the whole of the company, or for individual units, departments or functions.

Goals and objectives shall be specific, and targets shall be measurable wherever practicable, and where appropriate preventive and risk mitigation measures shall be considered.

### 2.2 Plans

All businesses and its activities must be covered by relevant SH&E, Quality and Security action plans that describe the management arrangements required in the implementation of IMS.

These plans, derived from the ChampionX goals and objectives, shall be developed, implemented, maintained, in alignment to the IMS elements and allocated to responsible owners.

These plans shall also define the key activities, deliverables, risks and opportunities, and the performance measures on which compliance with the Global Integrated Management System (IMS) can be evaluated.

Progress reports on the implementation of goals and objectives, and plans targeted at continuous improvement in overall Safety, Health and Environment (SH&E), Quality and Security performance are submitted to management for review and discussion.

Action plans are cascaded so that personnel have individual plans directly linked to and aligned with the ChampionX goals and objectives.

### 3 ELEMENT 03: RISK MANAGEMENT

Activities and outcomes that have the potential to affect IMS effectiveness shall be identified and risk assessed. These include risks from SH&E, Quality, Security and relevant business risks.

ChampionX empowers all employees to exercise Stop Work Authority. This authority is the right and responsibility of every ChampionX employee and contractor to stop any work, product, services or related activity perceived to present an unacceptable risk to the safety or health of any persons, an unacceptable impact on the environment or assets, or an unacceptable risk to product quality.

#### 3.1 Risk Management Process

Risk Management identifies hazards and assesses risks associated with all activities and ensures appropriate control measures are in place.

The process of identifying, assessing, prioritizing and mitigating risks and impacts shall be driven by:

- ChampionX Principles, Safety, Health and Environment (SH&E), Quality and Security Policies
- Safety, health, security and environmental regulations.
- Industry best practices.
- Customer requirements and voluntary compliance obligations.
- Requirements, needs and expectations of interested parties
- The desire for positive community relations.

The process of evaluating risks should consider context and situational impacts, such as:

- Criticality of the products and service being provided
- Complexity of the processes
- Frequency of task being performed
- Frequency of change to personnel and level of competency

The process also considers the adequacy of any existing controls and deciding whether the risk(s) is acceptable.

The process shall utilize the following hierarchy of risk control measures:

- Elimination
- Substitution
- Engineering and process controls
- Administrative controls or management strategies
- The use of Personal Protective Equipment (PPE) for Safety and Health risks

---

Action plans must be developed and documented to treat and control risks which are deemed unacceptable.

### **3.2 Hazard Identification, Risk & Impact Assessment and Risk Control**

Hazard identification and risk assessment is critical to ChampionX achieving its business goals and objectives.

Hazards and environmental aspects shall be identified, and steps taken so that risks and impacts associated with the hazard and aspect are mitigated to below ChampionX acceptable criteria.

Risk and impact assessments provide understanding of the potential threats to people, the environment, quality, business and assets and set the foundation for setting priorities for allocating resources to eliminate or control these threats.

Risks and impacts are identified, assessed and managed to ensure that activities are not carried out unless the risk has been reduced to the ChampionX acceptable risk level criteria.

### **3.3 Risk & Impacts Register**

All identified risks and impacts are documented in a Risk & Impacts Register and to be communicated to appropriate parties. A significant Aspects and Impacts Register may be used as a site Risk Register.

The Risk & Impacts Register shall be formally reviewed no less than once per year. Reviews may also occur as a result of any significant change that may affect risk such as legislation, process, facility, materials handled, personnel or location.

## 4 ELEMENT 04: PEOPLE, TRAINING AND COMPETENCE

Training and monitoring are required to ensure personnel are competent to manage the risks associated with their activities. Contractors shall provide competent workers and regularly assess and monitor their performance.

Documented job criteria and competencies for all positions are used for the selection and placement of personnel. Criteria are in place to ensure that the level of experience and knowledge is maintained when personnel changes are made.

### 4.1 People

Recruitment, selection and placement processes shall result in the appointment of personnel that are not only qualified and competent but physically fit and able to perform the tasks in their role.

ChampionX uses the Global Job Map for defining high-level requirements within each area of discipline. The Global Job Map includes career bands (based on scope, level of responsibility, complexity, internal hierarchy and external market) and career paths (within or vertical advancement of the function or discipline).

Specific job titles and job descriptions are used locally to communicate responsibilities to personnel, as well as to recruit new personnel. Hiring and line managers are responsible to validate the content of job descriptions

### 4.2 Training and Assessment

All ChampionX or Contract personnel shall undergo assessments and on-going training to ensure they possess the skills needed to conduct safe and effective operations in compliance with ChampionX, Customer and regulatory requirements. Training and Assessment shall provide development opportunities and attract and retain quality personnel.

### 4.3 Competency Management

All personnel shall exhibit the skills, knowledge, and experience necessary to perform their duties safely and in accordance with all ChampionX, Customer and regulatory requirements. These attributes shall be clearly documented and measured against defined duties needed for the job and working conditions.

Specific competency and development programs are used in applicable areas of ChampionX, such as sales, field technical service, chemical plant workers and laboratories. These programs are customized for the function, business unit, and role. This assures that required training is completed prior to personnel performing certain tasks and encourages personal career advancement through demonstration of skills in addition to experience. Plans are developed and continually assessed to ensure that a competent and engaged workforce is positioned in the right roles at the right times.

## 5 ELEMENT 05: OPERATIONAL CONTROL

Operating and maintaining facilities and equipment within established standards, best practices and in accordance with applicable regulations is an integral part of the ChampionX business.

Operational Controls are always in place to ensure safe, efficient operations and to ensure that risks are reduced to low and reasonably practicable levels.

### 5.1 Safe Work Practices

ChampionX has established safe work practices, policies and procedures that provide instructions and guidance to reduce risk and eliminate incidents. These processes ensure that all necessary aspects of a job are controlled by defined authorities, responsibilities, documentation, checks and balances, equipment, tools and the measures necessary to protect people, facilities and the environment from harm.

### 5.2 Occupational Health

All personnel shall be protected from harm in accordance with ChampionX, Customer and regulatory requirements. These protections shall be an integral part of all policies and procedures.

### 5.3 Environmental Practices

ChampionX shall manage all their activities so that environmental oversight is an integral part of everything we do and adverse environmental impact is avoided. Compliance with regulatory requirements as well as sound operating practices and competent personnel and Contractors are an integral part of this goal.

### 5.4 Product Hazard Communication and Evaluation

The principles of product hazard and risk evaluation are applied to research and development, raw materials procurement, manufacturing, sales, distribution, handling, use, disposal and recycling of chemicals.

Product hazard risk characterization begins when a new chemical is created and is continually updated as the chemical moves to production. Characterizations comply with applicable regulations and are communicated to all affected external Customers as well as personnel handling the products.

The hazard and risk evaluation provide clear and understandable information about the identities and hazards of the products and chemicals used

The communication of product risk and hazard information is essential to those in the value chain who will design, buy, handle, sell, use, store and dispose of chemicals. Effective communication provides the necessary information for safe chemical handling and environmental protection. There is a variety of risk communication mechanisms available (such as SDS, product labels, training and education) made available across the value chain.

---

## 5.5 Security

The protection and security assurance of our personnel, assets and intellectual property are managed through controls and measures that have been designed to reduce and mitigate identified vulnerabilities, and the security risks associated with ChampionX operations.

This protection addresses both internal and external risks and includes physical security, personnel surety, material movement, information security and access control. The appropriate controls measures are put in place to deter, detect, delay, assess, and respond to security threats and risks.

## 5.6 Operations and Maintenance

Procedures are developed and in place to operate, monitor and maintain equipment and facilities to avoid incidents or business interruptions. Special emphasis is given to activities that may involve the potential for higher risks to Customer satisfaction, personnel safety and environmental aspects.

Preventive and predictive maintenance programs are put in place to ensure continuous operations.

## 5.7 Facility Design and Construction

Industry, regulatory and ChampionX facility design standards are followed when the ChampionX adds a new facility or modifies existing facilities.

## 5.8 Process Safety

Every facility engaged in handling, storing or processing hazardous chemicals shall have in place a program designed to prevent the unintentional releases of chemicals, energy or other potentially dangerous materials or substances that could have a serious impact on facilities or the environment. The program should include preventing leaks, spills, equipment malfunctions, exceeding process control limits, corrosion, material fatigue and similar conditions.

## **6 ELEMENT 06: THIRD-PARTY PROVIDERS**

ChampionX systematically manages all Third-Party Providers to ensure they meet contractual, Customer and ChampionX requirements. The providers and their products, equipment, personnel and services undergo the vetting process that reviews

- The quality of the services or products they provide
- An evaluation of their compliance with ChampionX and regulatory requirements
- Their history with competitors or associated industries
- Their safety, health and environmental record
- The competence of their personnel
- Their financial solvency
- Their ability to provide insurance as required

Third Party Providers performance non-conformances are identified, reported, tracked and resolved using ChampionX Intalex system. In addition to that formal global system, various solutions are used on location to track and resolve issues locally prior to registering a formal case in the global system.

Proper care is exercised with all Third-Party Providers' property (physical and intellectual property) that is under the control of or being used by ChampionX. The Third-Party Providers' property is identified, verified, protected, and safeguarded. Properties that are lost, damaged, or unsuitable for use is recorded and reported to the Third-Party Provider and the necessary records are maintained

### **6.1 Procurement**

A requisition and purchase control system are used to administer purchases. The processes of purchasing control and verification of purchased materials are to be described in procedures that contain the minimum requirements based on ChampionX criteria.

The requirements on the purchasing document, in conjunction with other documents including contracts and specifications provided to the supplier, adequately describe the material or service being procured. This information is made available to the supplier before the material is purchased and where applicable, include the requirements for approval of product, procedures, processes and equipment, the requirements for qualification of personnel, and the IMS requirements. Procurement information are reviewed and approved before issue to ensure all requirements are met.

Risk management practices in procurement are focused primarily on commercial risks and continuity of supply risks. These risks are identified through procurement strategy and goal setting, centralized supply chain planning, and on-going review and refresh through ChampionX Sales and Operations Planning process.

All purchased products delivered to a facility shall be checked in accordance with ChampionX receiving procedures and receiving documents. Where required, products are sampled and tested in accordance with written procedures. Otherwise, products are verified by reception

---

and review of Certificate of Analysis or Certificate of Compliance. Records of inspection activities on purchased products are maintained

Purchased products that have not been verified may be released for production through respective management authority and under traceable conditions.

Non-conforming purchased product shall be returned to the Supplier or held in quarantine unless evaluated and approved for use by appropriate internal subject matter experts.

## **6.2 Services**

Service Providers are assessed, qualified and selected based on their capability to meet ChampionX requirements before they provide a service. Procedures shall be in place to provide guidance, information and training to Service Providers on the risk and hazards of ChampionX products and processes.

## **6.3 Contractors**

Contractors, Contract Manufacturers, and Sub-Contractors, working for or in the name of ChampionX, shall comply with ChampionX SH&E, Quality and Security standards and requirements in accordance with contract specifications. The qualification process includes applicable elements that correspond to the IMS and applicable international standards and are based on financial stability, technical capability and depth of management systems and specifies requirements for contractor management of change notifications.

## 7 ELEMENT 07: CUSTOMER FOCUS

ChampionX is committed to delivering products and services that meet Customer and marketplace requirements and to continually improving to achieve exceptional levels of Customer satisfaction.

### 7.1 Product Design and Development

Product design and development is defined as *the activities undertaken to develop or improve product formulations to meet specified requirements*. Requirements plus any other input from customers and possible contributions from suppliers will be assessed as part of the review of design requirements.

Product design and development projects assess risks during the Research and Development Stage Gate process. Activities undertaken to develop or improve products, are assessed along with legal, regulatory, industry, Customer, ChampionX and other requirements as part of the review of design requirements. Projects are reviewed at appropriate stages of development to verify that products meet the requirements as specified.

Formulations for new or revised products are tested for stability, reviewed for compliance with applicable requirements intending to minimize health, safety and environmental risks in the production, distribution and final use. Specifications and manufacturing processes for the new or revised products are developed to meet customer requirements and provide manufacturing consistency. Qualifications of any new raw material are agreed upon with approved Third-Party Providers.

The connection between product design, product testing and product performance validation is a combination of generations of experience and expertise in our industry as well as laboratory simulation testing and customer field trials. Furthermore, ongoing validation of products and verification of production controls is accomplished through continual field evaluation of product performance by sales and technical service.

Projects are completed and reviewed when all elements of the development process, including after-market evaluations, have been completed, and when the product application and performance has been validated by the customer.

### 7.2 Contract Review

All ChampionX contracts shall be clearly written and easily understood. Contracts between the ChampionX and Customers shall describe and contain agreed upon conditions and specifications that ensure Customer satisfaction.

Where no formal contract exists, an order and the customer requirements contained in it constitute a contract. The order may include applicable requirements on:

- Product requirements specified by the customer including availability, delivery and support
- Product requirements not specified by the customer but necessary for intended or specified use
- Obligations related to product, including regulatory and legal requirements

---

ChampionX shall deliver products and services detailed in the contract to the Customer in accordance to the applicable and agreed requirements, conditions and specifications.

### **7.3 Customer Order Planning and Processing**

Customer order and planning processes are in place and ensure that:

- Orders are understood
- ChampionX has the capacity to fill the orders as required
- Contract requirements are met
- All regulatory and ChampionX requirements are satisfied.

The processes are used to forecast demand, assess supply capability, and develop contingency plans while ensuring that identified discrepancies are managed to the Customer's satisfaction. In the event of any supply disruptions, supply chain operations move to secondary supply options

Accurate forecasting of Customer requirements from production to warehousing and final delivery is critical to ensuring their supply is maintained without business interruptions.

### **7.4 Control of Customer Property**

Proper care is exercised with all customer property (physical and intellectual property) that is under the control of or being used by ChampionX. The customer property is identified, verified, protected, and safeguarded. Customer property that is lost damaged or unsuitable for use is recorded and reported to the customer and the necessary documented information is maintained.

### **7.5 Customer Satisfaction**

ChampionX is committed to meet or exceed the expectations of its Customers and takes Customer feedback on quality and performance of products and services delivered seriously. This principle is vital to the continued development and success of ChampionX.

Customer feedback systems, including surveys, face-to-face meetings and electronic communications are in place to measure, and monitor Customer satisfaction and Customer complaints. The customer satisfaction surveys are to assess how well the requirements of internal and external the customers are being met, and to determine what improvements can be made in ChampionX key business process to better meet and exceed customers' expectations

Customer complaints are identified, reported, tracked and resolved using ChampionX Intalex system. In addition to that formal global system, various solutions are used on location to track and resolve issues locally prior to registering a formal case in the global system. Customer complaint data is used to identify risk mitigation and process improvement opportunities.

Customer-facing performance metrics are key performance indicators within the ChampionX overall IMS. These results and how these are being managed, are communicated during management reviews and to relevant stakeholders

---

## 8 ELEMENT 08: QUALITY PLANNING

### 8.1 Realization Planning

Product and service realization is planned, documented and resourced to ensure consistency with all applicable customer, statutory and legal requirements, as well as meeting specifications stated in contracts.

Processes and systems have been developed to meet those requirements and activity is monitored and measured to ensure that the outputs achieve the desired results.

The outputs of realization planning include the specific people, facilities, equipment, procedures, materials and support processes needed to achieve desired results for a particular product, service, or contract.

Realization planning also includes the identification of verification and validation activities, the criteria for acceptability, and the records necessary to provide confidence of product conformance.

Realization planning systems are supported and improved as needed to reduce variation, eliminate waste and enhance customer satisfaction through any of the following continuous improvement techniques:

- Process improvement to optimize existing processes, document possible sources of variability, and assist in identifying the root causes of non-conformances in the event of their occurrence
- Statistical techniques
- Corrective action to remediate problems after they occur
- Preventive action to prevent problems before they occur
- Continual evaluation of product performance in the field by sales and technical service.

### 8.2 Quality Assurance and Quality Control

ChampionX recognizes the importance of the quality control function as a vital safeguard against the inadvertent supply of non-conforming products to our customers.

Through the implementation of processes and procedures, product quality assurance and quality control are managed throughout production. These processes ensure systematic measurement, monitoring and comparison to defined criteria. These criteria include management of raw material quality, production and inspection activities.

Inspection and testing activities are performed on in-process samples as required by the manufacturing instructions, based on Customer and ChampionX requirements.

All completed batches of products are inspected and tested to determine conformance required for physical and chemical property specifications, as defined in the appropriate product instructions and acceptance criteria.

Products that do not conform to requirements may be adjusted to meet the acceptance criteria, as authorized by the appropriate Product Development personnel and/or Quality Control.

Inspection results for all chemical tests used for receiving, in-process, and final testing are recorded as Quality Control records. Retained samples shall be kept for defined periods to demonstrate quality product, continued product stability, and for use in investigating product problems.

### 8.3 Product Identification, Traceability and Preservation

Product identification is maintained during storage, delivery, use and disposal, where such control is applicable.

ChampionX products are identified by labels that indicate the chemical or proprietary name of the product. The chemical composition of each product can be established from the specification sheets held in the product master database.

Identification is maintained during storage, delivery, use and disposal, where such control is applicable. When required, traceability is established through a records system that facilitates identification and retrieval. Traceability of materials is accomplished by use of SAP batch management and / or local quality procedures.

Documented information and procedures are in place to allow traceability of the products back to the supply source.

Integrity of incoming product material is ensured through internal processing to final customer shipments. Processes are established for handling and packaging of products to prevent contamination, damage, deterioration, and loss of product identification.

Inventory assessments of all products are conducted and documented to determine not only amounts of inventory but to detect and correct damage or deterioration.

### 8.4 Control of Monitoring and Measuring Equipment

ChampionX has a system in place to ensure that equipment which is critical to product quality conformance and regulatory compliance and is used for measuring, testing, and inspection is identified, maintained and calibrated.

Calibration schedules are maintained for regular review, indicating calibration due dates for the equipment items. The frequency of calibration and maintenance on each item is determined by the nature of the instrument, condition of use, frequency of use and, where applicable, the manufacturer's recommendations. Where appropriate the manufacturer or an external laboratory undertakes the calibration and provides an appropriate certificate. All critical equipment is checked and calibrated to defined standards on a regularly scheduled basis.

Normal operating environmental conditions are established and maintained, suitable for equipment operations to be carried out for handling, storage and preservation of calibrated equipment and to safeguard the equipment so unauthorized adjustments can be prevented.

Each calibrated item of equipment is tagged with a unique identification number, and the calibration status of each instrument is clearly identified for all instrument operators. In instances where a calibrated instrument cannot be labelled to clearly identify the calibration status, due to the environmental or exposure conditions, the calibration status of the instrument will be communicated to all instrument operators.

If during calibration, an instrument is found to be out of the defined accuracy tolerance, the scope of the documented records of previous testing will be assessed to determine the negative effect on Product Conformance.

Any computer software used in the monitoring or measuring of specific requirements is selected because of its ability to meet the needs of the application and is verified that it performs the intended application prior to its implementation, and again with each software revision.

Personnel performing calibrations are competent in their duties and calibrations are carried out in accordance with documented procedures that are guided by recognized industry standards.

## 8.5 Product Release

Products sold by ChampionX are inspected to ensure they meet product specifications. The inspection will include the identification of hazards that may impair the safety of personnel or the environment.

Inspection status is tracked and managed so final inspections are done before products are shipped to storage or to the Customer.

Records supporting inspection activities and results, both in process and final inspections are maintained and products that exceed the defined shelf life requirements shall not be shipped to a customer.

## 8.6 Control of Non-Conforming Products

Any batch or blend of product that cannot be adjusted to conform to the defined acceptance criteria is designated and handled as Non-Conforming Product, unless the customer agrees to accept the product as is.

Non-conforming materials including raw materials, product intermediates, and finished products are segregated and controlled to ensure the materials are not inadvertently used or shipped. These materials may be:

- Reworked or worked-off to eliminate the nonconformity
- Waived for use
- Disposed of as waste
- Precluded from its original intended use or application (e.g. downgraded)

---

If any finished product is determined to be non-conforming after being shipped to a Customer, the Customer is contacted by the appropriate Business Manager to discuss a mutually agreed-upon corrective action, including a potential product recall for affected Customers.

Non-Conforming Products are identified, reported, tracked and resolved using ChampionX Intelex system. In addition to that formal global system, various solutions are used on location to track and resolve issues locally prior to registering a formal case in the global system

---

## **9 ELEMENT 09: LEGAL, BUSINESS AND CUSTOMER REQUIREMENTS**

The identification of evaluation for compliance and staying current with the applicable requirements are essential activities undertaken by each location or facility to ensure all ChampionX operations are compliant

ChampionX manages its Legal, Business and Customer requirements by setting standards and by delegating responsibility, authority and accountability throughout the organization. Knowing these requirements helps us meet or exceed all applicable laws, regulations and voluntary obligations, apply responsible standards where they do not exist and satisfy our Customer's expectations.

The applicable requirements, managed through a Compliance Register, are identified, evaluated, made accessible, and complied with for all ChampionX operations and activities where any changes or updates are communicated to the relevant stakeholders.

### **9.1 Legal Requirements**

Legal and regulatory requirements applicable to specific ChampionX operations are identified and documented in the Compliance Register.

Audit protocols are used to systematically analyze compliance with applicable legal requirements. Action plans are developed to ensure deficiencies are addressed and corrected. Information for these protocols is derived from available government, industry and private sources.

### **9.2 Business Requirements**

Business requirements can include but are not limited to:

- ChampionX Principles & Policies
- ChampionX IMS
- Operational Controls
- Voluntary obligations to which the ChampionX subscribes

ChampionX shall in regard provide the same level of diligence of compliance to its voluntary obligations as it will do to the legal, business and customer requirements.

### **9.3 Customer Requirements**

ChampionX is committed to delivering product and services that meet Customer requirements and continually improving to achieve exceptional levels of Customer satisfaction. Customer requirements are identified, analyzed and evaluated to meet this commitment.

## 10 ELEMENT 10: MANAGEMENT OF CHANGE

A change is defined as any alteration that is other than replacement in kind and therefore could affect the control or integrity of a process, system or product which goes beyond the established specifications or safe operating range.

ChampionX has established formal processes and documented procedures for the effective assessment and management of risks associated with planned or unplanned, permanent, temporary or incremental changes. The process includes the recording and tracking of any change which has the potential to affect the affect health safety and security of the people, the environment, and the quality of products and services that ChampionX provides.

The risk assessments of a change are developed to be appropriate to the nature of the change and the potential impacts associated with it. The risks and impacts arising from these changes are communicated, monitored and managed to the relevant personnel, contractors and stakeholders, including customers as applicable.

The process for managing change addresses the authority for approval of changes, while complying with all relevant regulations, applicable standards and permits, license or authority requirements, with the appropriate documentation that includes reasons for the changes, the projected deadlines and identified training requirements.

The processes ensure change management actions have been completed, with the intended outcomes, relevant systems and documentation, validated and updated. Where required, customers are notified of applicable changes.

Any permanent or temporary changes to the original scope and duration that exceed original authorizations shall not proceed without formal review and approval.

### 10.1 Chemical Selection, Equipment, Systems and Processes

Prior to implementation, proposed temporary and permanent changes shall be systematically evaluated for their impact.

Modifications to chemical selection, equipment, systems or processes are reviewed or implemented by competent personnel who assess the risk, take the necessary actions to minimize the risk and establish processes to ensure the change functions as intended.

Processes, systems, equipment, procedures and personnel affected by the change shall be evaluated so that the impact of the change is defined and communicated.

### 10.2 Workforce Assignments

Changes to personnel assignments are effectively managed to ensure the workforce has the competency and location specific knowledge and experience for continued safe operations.

## **11 ELEMENT 11: INCIDENT MANAGEMENT**

### **11.1 Incident Reporting, Investigation and Communication**

ChampionX follows standard methods for conducting incident investigations, determining the causal factors and root causes, while assigning appropriate corrective actions and reporting investigation results.

All employees, who are involved in, or are a witness to any incident, must report the incident immediately to their direct Supervisor or as soon as reasonably practical.

Significant incidents involving personnel, equipment, or chemicals, shall be investigated to determine the root causes and to identify and corrective and preventive actions to prevent a recurrence.

Results of investigations with action plans for recommendations to eliminate the root causes are communicated throughout the ChampionX, as appropriate, to ensure that the incident does not reoccur. Outcomes from the investigation are communicated to appropriate personnel by the use of Safety Alerts, Lessons Learned and newsletters.

All injuries, illnesses, vehicle accidents and security incidents are reported, tracked and resolved using ChampionX Intelex system. In addition to that formal global system, various solutions are used on location to track and resolve issues locally prior to registering a formal entry into the global system.

### **11.2 Emergency Preparedness and Response**

Planning and preparing for an emergency protect people, environment, assets, reputation, and enables the continuation or timely restoration of operations. They address crisis communication, prevention of business interruption, and disaster recovery. The planning process includes

- Mitigation activities designed to reduce the impact(s) arising from each identified emergency response scenario.
- Preparedness activities associated with organizing and mobilizing essential emergency response resources.
- Response strategies and actions to be followed during the emergency.
- Recovery strategies and actions required post- emergency for the re-establishment of normal state.

The emergency preparedness and response plans shall be prepared for, where applicable, significant incidents involving personnel, equipment handling and transportation of chemicals. The plans will also address internal and external communications and integration with the community and governmental agencies.

Businesses and facilities conduct training for all personnel who have incident response roles and responsibilities and ensure that personnel possess the required capabilities for any positions they are tasked to fill.

---

Businesses and facilities, where applicable, will periodically conduct exercises that consist of a predefined and documented set of scheduled activities. These exercises represent a realistic rehearsal or simulation of an emergency that promote preparedness; improve the response capability of individuals; and validate plans, policies, and procedures.

Exercises may include a blend of tabletop exercises, functional exercises and full-scale exercises that focus on relevant issues for the facility and enhance the overall preparedness of facility employees. Actual incidents may also be counted as an exercise. After action reports will be completed after drills, exercises, or actual incidents

### **11.3 Business Continuity**

Business Continuity plans are developed maintained and, if necessary, implemented for the continued management of ChampionX business, and preservation of reputation in the event of an emergency or other business disruption.

The business continuity plan is risk-based and scaled according to ChampionX activities and associated hazards and applicable critical activities. This includes identifying the applicable critical activities where their losses as the result of a disruption beyond the emergency response phase, have the greatest impact in the shortest time and which need to be recovered most rapidly.

The measures will strive to reduce the likelihood, shorten the period or limit the impact of a disruption on key products and services.

## 12 ELEMENT 12: KNOWLEDGE MANAGEMENT

Knowledge management is achieved and reinforced:

- With historical libraries within the Research and Development functions
- Through instituted product formulas
- Through product specifications and product application case studies
- Through generation and use of documented information (policies, procedures, work instructions and records)
- With employee training and competency programs

Knowledge management activities are supplemented through various information sharing portals related to operations, product families, and company functional areas and include the use of the CORE (Connecting Resources) knowledge sharing platform across the company.

### 12.1 Document Control

IMS documents are controlled and show evidence of review and approval by authorized personnel. Such approval shall be obtained before a document is released. Documents are available in electronic form to appropriate personnel and protected from unauthorized access. Obsolete documents are appropriately managed to prevent unintended use.

Managers will ensure that the appropriate document is revised, and users are informed of all modifications, and if applicable, provide the resources for suitable training.

### 12.2 Record Retention

Records are prepared and retained to provide evidence of the effective operation of the IMS and conformity to requirements.

Record Retention Procedures are in place to ensure records are stored so they remain legible, identifiable, protected, and retrievable for the retention time. These procedures also describe the methods used to control the records that are kept providing evidence of conformity to requirements and the effectiveness of the IMS.

## **13 ELEMENT 13: STAKEHOLDER RELATIONSHIPS**

On-going dialogue is crucial to ensure personnel, Contractors, Customers and other stakeholders are aware of risks and requirements. Processes and plans are in place to ensure circulation of information throughout the organization.

The ChampionX Principles, Quality Policy and SH&E Policy are publicly available on the ChampionX website. By request of interested parties (including customers, contractors and visitors), appropriate information about the ChampionX SHEQ Management System content and performance is shared.

### **13.1 Internal Communications**

SHE, Quality and Security objectives and results are regularly communicated throughout the organization to demonstrate leadership commitment, build awareness and focus on continual improvement of the IMS.

Systems for communicating hazards and risks within ChampionX are in place and sustained to ensure affected personnel are notified.

These systems and processes may include local SH&E, Quality or Security Committee meetings, toolbox meetings and other site meetings that encourage employee and contractor participation and can be made up of individuals from all departments at the local business/site

A Safety Moment is routinely conducted at the start of meetings and includes briefings for sharing experiences, lessons learned or raising awareness about SH&E, Quality and Security risks.

Pre-job-briefings or tool-box meetings before any job tasks are carried out before work to pass on related SH&E, Quality or Security information, seek employee participation and encourage contributions

Opportunities exist for all personnel to comment on SH&E, Quality and Security matters and offer suggestions for improvement. Personnel are consulted, engaged and expected to embody our Goal Zero culture.

### **13.2 Customer Communications & Community**

Processes are in place to enable communications with Customers, so their requirements are understood and managed. Customers are made aware of the ChampionX efforts to identify and manage risks which may impact their business.

ChampionX is committed to appropriately provide timely and accurate information to the public, the media, the industry, our customers, and other interested parties.

Local, state, federal and national agencies that are or could be impacted by our operations are kept informed and partnered with to ensure seamless effective emergency response activities.

ChampionX will respond to inquiries with accurate, consistent and prompt information to the news media, government agencies and its neighbors. Such communications are designated to assigned spokespersons, competent in these activities.

## **14 ELEMENT 14: ASSURANCE AND REVIEW**

Processes are in place to determine and improve the suitability, adequacy and effectiveness while maintaining the integrity of the Global IMS. These processes ensure that:

- Risks are minimized
- Performance consistently meets or exceeds the ChampionX, Customer and regulatory requirements
- Operational controls are effective
- Goals, objectives and plans achieve desired outcomes
- Causes of non-conformances are identified and corrective actions are implemented

### **14.1 Monitoring, Measuring and Analysis**

Monitoring and measuring provides important information to Management, personnel, Customers and other stakeholders about the ChampionX commitment to continually improve and achieve our goals.

Metrics are used to monitor and measure performance against Global IMS objectives, and identify improvement opportunities

Non-conformances from specified requirements or limits identified during the monitoring, measuring and analysis process must be recorded, investigated and reported back to the people or area involved

Performance against these metrics is analyzed and become part of the management review process.

### **14.2 Auditing**

Audits are conducted at planned frequencies to provide assurance in meeting goals, verify effectiveness and identify improvements of the IMS

Periodic evaluation of ChampionX businesses ensures compliance with applicable laws and regulations, corporate policies and standards, business and customer requirements and applicable voluntary obligations.

Information of audit results provides analysis of significant issues, trends and recommendations for process and continuous improvements to prevent recurrence and identification of best practices. Information from previous audits, changes in the organization, and criticality of processes in place to manage risks are considered when planning the internal audit program.

This information is provided to senior management and evaluated for the implementation of strategic decisions and ensuring that appropriate risk management processes are in place

Audit Programs assist to determine whether the IMS is effectively implemented, its integrity maintained and provide the processes for reporting audit results to management.

---

All audits, regular inspections and reviews are reported, with findings and action plans tracked and closed out according to approved timelines

### **14.3 Corrective and Preventive Action**

Controls are developed, implemented and maintained to ensure corrective and preventive actions are timely, are implemented and are effective in correcting non-conformances or potential non-conformances.

Appropriate actions shall be developed, followed up and closed out to ensure that the causes of non-conformances or potential non-conformances have been effectively identified and timely and agreed corrective actions implemented.

Actions shall be prioritized in accordance with the potential risks to personnel and business operations, including sharing and addressing findings across the network of locations.

### **14.4 Management Review**

Management shall commit to review the Global IMS at planned intervals to ensure its maintained integrity, continuing suitability, adequacy and effectiveness.

The Management Review process provides a forum for factual decision making and strategic planning and includes a formal evaluation of the IMS based on existing data that generates decisions, action plans, and updated goals and objectives intended to:

- Ensure the business or site's management system is efficient and effective in managing risk and achieving its intended outcomes of performance enhancement, compliance and goal achievement in its SH&E, Quality and Security performance
- Ensure the business or site's management system is meeting ChampionX business requirements, meeting customer requirements, meeting applicable voluntary obligations, and actively considering the needs and expectations of interested parties
- Drive improvement of the system

Reviews shall include assessing opportunities for improvement and the need for changes to the system including the policies, goals and objectives.

Visible and active leadership in this review process is critical in reviewing ChampionX successes and our drive towards continuous improvement. This commitment provides the perspective, establishes the framework, sets the expectations and provides the resources for successful operations and implementation of the Global IMS.

---

## 15 WHAT THE TERMS USED IN THIS DOCUMENT MEAN

**Assessment:** A process, done by ChampionX subject matter resources, or service providers, that evaluates people, activities, facilities, systems or equipment against ChampionX requirements and identifies opportunities for improvement.

**Audit:** Formal, independent evaluation of a process or management system to ensure compliance with legislation and ChampionX requirements.

**Business Continuity:** Continuation and management of ChampionX business in the event of an emergency or other business disruption.

**Competency:** Ability to apply knowledge and skills required to successfully meet a defined task or achieve an intended result. Competency includes applicable experience, training, certification and/or education.

**Corrective Action:** Action(s) taken to eliminate an identified deficiency or non-conformance.

**Customer:** Recipient of goods, services or products provided by ChampionX.

**Environmental Risk:** Actual or potential threat of adverse effects on living organisms and environment by effluents, emissions, wastes, resource depletion, etc., due to an organization's activities.

**Human Factors:** Evaluate how people interact physically and psychologically with tasks, equipment, the environment and other people to optimize safety and efficiency.

**IMS:** Integrated Management System. The ChampionX Global IMS describes how ChampionX does its business effectively and efficiently whilst protecting health, safety and the environment. It provides the means for making sure that the people, systems, processes and resources that deliver integrity are in place, in use and perform to meet ChampionX core values and vision.

**Inspection:** Examination, measurement and/or testing of ChampionX assets, systems and/or equipment.

**Management Review:** A formal review of ChampionX results by Senior Management to determine the effectiveness of the Global IMS.

**ChampionX Business:** A Business that ChampionX is responsible for the operation and management of that Business. It includes core disciplines for conduction ChampionX business such as Finance, Information Technology, Human Resources, Safety, Health and Environment, Marketing, Research, Development and Engineering, and Operations.

**Non-Conformance:** An observed situation where objective evidence indicates that a specified requirement has not been met.

**Permanent Change:** Any change that is expected to be in effect for the remaining life of an entity such as location, asset, system, equipment, management system, ChampionX, being changed.

---

**Personnel:** People who are either employees of the ChampionX, Contractor personnel, or others who are engaged in work for a ChampionX Business.

**Potential Non-Conformance:** A finding against a ChampionX requirement that could indicate of a future non-conformance.

**Preventive Action:** Action(s) taken to eliminate an identified potential deficiency or non-conformance.

**Quality Plan:** A plan produced to define how specified quality requirements shall be achieved, controlled, assured and managed for specific ChampionX business.

**RDE:** Research, Development and Engineering (Department).

**Risk:** The measure of the danger associated with a hazard. Risk is the combination of the likelihood of the release of a hazard and the potential severity of the consequences.

**Service Provider:** A ChampionX contracted to provide a service or perform work on behalf of ChampionX or our Customers.

**Supplier:** A ChampionX contracted by ChampionX or our Customers to provide parts, equipment, components or systems.

**Stop Work Authority:** The right and responsibility of every ChampionX employee and contractor to stop any work, product, services or related activity perceived to present an unacceptable risk to the safety or health of any persons or an unacceptable impact on the environment or assets.

## 16 HOW THE GLOBAL IMS RELATES TO INTERNATIONAL STANDARDS

ISO9001:2015	ISO14001:2015	ISO45001:2018	IMS
4. Context	4. Context	4. Context of the organization	Part I
4.1 Understand your organization and its unique context.	4.1 Understand your organization and its particular context.	4.1 Understand the organization and its context	K, L, M
4.2 Clarify the needs and expectations of interested parties.	4.2 Clarify the needs and expectations of your interested parties.	4.2 Understanding the needs and expectations of workers and other interested parties	M, App B
4.3 Define the scope of your quality management system.	4.3 Define the scope of your environmental management system.	4.3 Determining the scope of the OH&S management system	M, App A
4.4 Develop a QMS and establish documented information.	4.4 Establish and maintain an environmental management system.	4.4 OH &S management system	Part II
4.4.1 Establish a QMS that complies with this standard.			Part II
4.4.2 Maintain QMS documents and retain QMS records.			12
5. Leadership	5. Leadership	5. Leadership and worker participation	1
5.1 Provide leadership by focusing on quality and customers.	5.1 Provide leadership by accepting responsibility for the EMS.	5.1 Leadership and commitment	1.1
5.1.1 Provide leadership by encouraging a focus on quality.			1.1
5.1.2 Provide leadership by encouraging a focus on customers.			7
5.2 Provide leadership by establishing a suitable quality policy.	5.2 Provide leadership by establishing an environmental policy.	5.2 OH&S Policy	O, P
5.2.1 Consider leadership by formulating your quality policy.			O
5.2.2 Provide leadership by communicating your quality policy.			13
5.3 Provide leadership by defining roles and responsibilities.	5.3 Provide leadership by assigning EMS roles and responsibilities.	5.3 Organizational roles, responsibilities and authorities	1.2
6. Planning	6. Planning	6. Planning	2
6.1 Define actions to manage risks and address opportunities.	6.1 Formulate actions to address your risks and opportunities.	6.1 Actions to address risks and opportunities	2.1
6.1.1 Consider risks and opportunities when you plan your QMS.	6.1.1 Develop processes and prepare plans to establish EMS.	6.1.1 General	M, App B
6.1.2 Plan how you're going to manage risks and opportunities.	6.1.2 Identify significant environmental aspects and impacts.	6.1.2 Hazard identification and assessment of risks and opportunities	2.2, 3, 3.3
	6.1.3 Study environmental aspects and compliance obligations.	6.1.3 Determination of legal requirements and other requirements	3, 3, 9
	6.1.4 Address aspects, obligations, risks, and opportunities.	6.1.4 Planning action	2, 3, 9
6.2 Set quality objectives and develop plans to achieve them.	6.2 Set environmental objectives and make plans to achieve them.	6.2 OH&S objectives and planning to achieve them	2.1, 2.2
6.2.1 Establish quality objectives for all relevant areas.	6.2.1 Establish environmental objectives for all relevant areas.	6.2.1 OH&S Objectives	2.1
6.2.2 Develop plans to achieve objectives and evaluate results.	6.2.2 Establish plans to achieve objectives and evaluate results.	6.2.2 Planning to achieve OH&S objectives	2.2, 14
6.3 Plan changes to your quality management system.			2.2

## HOW THE GLOBAL IMS RELATES TO INTERNATIONAL STANDARDS

ISO9001:2015	ISO14001:2015	ISO45001:2018	IMS
7. Support	7. Support	7. Support	
7.1 Support your QMS by providing the necessary resources.	7.1 Support your EMS by providing the necessary resources.	7.1 Resources	1.2
7.1.1 Provide internal and external resources for your QMS.			1.2
7.1.2 Provide suitable people for your QMS and your processes.			4
7.1.3 Provide the infrastructure that your processes must have.			8
7.1.4 Provide the appropriate environment for your processes.			8
7.1.5 Provide monitoring, measuring, and traceability resources.			8.3, 8.4
7.1.6 Provide knowledge to facilitate process operations.			12
7.2 Support your QMS by ensuring that people are competent.	7.2 Support your EMS by ensuring that people are competent.	7.2 Competence	4
7.3 Support your QMS by explaining how people can help.	7.3 Support your EMS by making people aware of their duties.	7.3 Awareness	4.2, 12.1
7.4 Support your QMS by managing your communications.	7.4 Support your EMS by controlling your communications.	7.4 Communication	13
	7.4.1 Support your EMS by creating communications processes.	7.4.1 General	13
	7.4.2 Support your EMS by facilitating internal communications.	7.4.2 Internal communication	13.1
	7.4.3 Support your EMS by establishing external communications.	7.4.3 External communication	13.2
7.5 Support your QMS by controlling documented information.	7.5 Support your EMS by managing documented information.	7.5 Documented Information	12.1
7.5.1 Include the documented information that your QMS needs.	7.5.1 Support your EMS by using all necessary EMS documents.	7.5.1 General	12.1, 12.2
7.5.2 Manage the creation and revision of documented information.	7.5.2 Support your EMS by managing the use of EMS documents.	7.5.2 Creating and updating	12.1, 12.2
7.5.3 Control the management and use of documented information.	7.5.3 Support your EMS by controlling the use of EMS documents.	7.5.3 Control of documented information	12.1, 12.2
7.5.3.1 Control your organization's documents and records.			12.1, 12.2
7.5.3.2 Control how documents and records are controlled.			12.1, 12.2

## HOW THE GLOBAL IMS RELATES TO INTERNATIONAL STANDARDS

ISO9001:2015	ISO14001:2015	ISO45001:2018	IMS
8. Operations	8. Operations	8. Operations	
8.1 Develop, implement, and control your operational processes.	8.1 Establish your EMS processes and control how they operate.	8.1 Operational Control	5, 6, 8
8.2 Determine and document product and service requirements.	8.2 Establish your emergency preparedness and response processes.	8.1.1 General	8, 9.3, 11.2
8.2.1 Communicate with customers and manage customer property.			7.2, 7.3, 7.4
8.2.2 Clarify product and service requirements and capabilities.			7.2, 7.3
8.2.3 Review product and service requirements and record results.			7.2, 7.3
8.2.4 Amend documents if product or service requirements change.			10
8.3 Establish a process to design and develop products and services.		8.1.2 Eliminating hazards and reducing OH&S risks	7.1
8.3.1 Create an appropriate design and development process.			7.1
8.3.2 Plan product and service design and development activities.			7.1
8.3.3 Determine product and service design and development inputs.			7.1
8.3.4 Specify how design and development process is controlled.			7.1
8.3.5 Clarify how design and development outputs are produced.			7.1
8.3.6 Review and control all design and development changes.			7.1, 10
8.4 Monitor and control external processes, products, and services.		8.1.4 Procurement	6
8.4.1 Confirm that products and services meet requirements.			6
8.4.2 Establish controls for external products and services.			6
8.4.3 Discuss your requirements with external providers.			6
8.5 Manage and control production and service provision activities.			8
8.5.1 Establish controls for production and service provision.			8
8.5.2 Identify your outputs and control their unique identity.			8.3
8.5.3 Protect property owned by customers and external providers.			7.4
8.5.4 Preserve outputs during production and service provision.			8.3
8.5.5 Clarify and comply with all post-delivery requirements.			7.2, 9.3
8.5.6 Control changes for production and service provision.		8.1.3 Management of change	10
8.6 Implement arrangements to control product and service release.		8.2 Emergency preparedness and response	8.2
8.7 Control nonconforming outputs and document actions taken.			8.6, 14.3
8.7.1 Control nonconforming outputs to prevent unintended use.			8.6
8.7.2 Document nonconforming outputs and the actions taken.			14.3

## HOW THE GLOBAL IMS RELATES TO INTERNATIONAL STANDARDS

ISO9001:2015	ISO14001:2015	ISO45001:2018	IMS
9. Evaluation	9. Evaluation	9. Performance Evaluation	14
9.1 Monitor, measure, analyze, and evaluate QMS.	9.1 Determine your environmental performance and compliance.	9.1 Monitoring, measurement, analysis and performance evaluation	14.1
9.1.1 Plan how to monitor, measure, analyze, and evaluate.	9.1.1 Investigate your organization's environmental performance.	9.1.1 General	14.1
9.1.2 Find out how well customer expectations are being met.	9.1.2 Evaluate your organization's environmental compliance.	9.1.2 Evaluation of Compliance	7.5, 9, 14.2
9.1.3 Evaluate effectiveness, conformity, and satisfaction.			7.5, 14.1, 14.3
9.2 Use internal audits to examine conformance and performance.	9.2 Audit your organization's environmental management system.	9.2 Internal Audit	14.2
9.2.1 Audit your quality management system at planned intervals.	9.2.1 Conduct EMS conformance audits and document your results.	9.2.1 General	14.2
9.2.2 Develop an internal audit program for your organization.	9.2.2 Establish internal audit methods, schedules, and requirements.	9.2.2 Internal audit programme	14.2
9.3 Carry out management reviews and document your results.	9.3 Review your organization's environmental management system.	9.3 Management Review	14.4
9.3.1 Review suitability, adequacy, effectiveness, and direction.			14.4
9.3.2 Plan and perform management reviews at planned intervals.			14.4
9.3.3 Generate management review outputs and document results.			14.4
10. Improvement	10. Improvement	10 Improvement	14
10.1 Determine improvement opportunities and make improvements.	10.1 Take action to improve your EMS and achieve intended outcomes.	10.1 General	14
10.2 Control nonconformities and take appropriate corrective action.	10.2 Control nonconformities and take appropriate corrective action.	10.2 Incident, nonconformity and corrective action	11.1, 14.3
10.2.1 Correct nonconformities, causes, and consequences.			14.3
10.2.2 Document nonconformities and the actions that are taken.			14.3
10.3 Enhance the suitability, adequacy, and effectiveness of your QMS.	10.3 Enhance the suitability, adequacy, and effectiveness of your EMS.	10.3 Continual improvement	14

**17 REVISION STATUS**

Revision No	Date	Revision Description	Prepared By	Approved By
0	15 Jan 15	Initial issue of Nalco Champion IMS	S Senin / A Henny	J Alvarado / J Beaulieu
1	5 Dec 17	Revised for ISO 9001:2015, ISO 14001:2015, RC 14001:2015 (changes noted with dark blue text)	Jim Beaulieu, Juan Alvarado	Bo Rose, Eric Seip
2	19 May 20	Revised for ISO45001:2018 & ChampionX as a standalone company	Jim Beaulieu / Xinjun Fan	Juan Alvarado
3	23 Feb 22	Update company logo, scope and SHE/Quality policies& Remove RC standard	Jim Beaulieu / Xinjun Fan	Juan Alvarado