



## **Transport and Storage of Propellants: Procedure 3**

### **Mexichem Fluor Design Checklist for the planning of a new bulk storage installation**

#### **General**

As part of Mexichem Fluor's overall package for the supply of ZEPHEX® propellants, advice and assistance can be provided concerning the design and installation of bulk storage installations.

Typically this will involve a visit of a Mexichem Fluor Transport Engineer to the customer site. Using the detailed checklist presented below all pertinent issues are assessed. In this way confidence is generated for both Mexichem Fluor and the ZEPHEX® customer that that a robust, safe and appropriate installation will be designed and built.

**Checklist:**

**MEXICHEM FLUOR DESIGN CHECKLIST FOR THE PLANNING OF A NEW BULK STORAGE INSTALLATION**

**Mexichem Fluor Representative(s):**

**Date of visit:**

**1 GENERAL DETAILS**

(a)	Customer Details
	Customer Address  Phone Number Fax Number Customer Contact Name Customer Contact Title Product Product use

(b)	Consumption Data		
	Estimate annual usage Estimate peak usage		
	Delivery acceptance: • Monday - Thursday • Friday • Saturday • Sunday		
	Can customer take delivery 24 hours a day?	Y	N
	Customer product order contact • Name • Phone number • Fax number		
	Order quantity		
	Will customer accept a Certificate of Conformance?	Y	N
	Will delivery vehicle be check weighed in/out?	Y	N

(c)	General Information		
	Has approval for the installation been obtained from relevant authorities?	Y	N
	Has customer been sent Mexichem Fluor product data?	Y	N
	Would the storage tank be taken into account in the planning of any future site changes in its vicinity (change control)?	Y	N

## 2. INSTALLATION DETAILS

(a)	Tank Details		
	Capacity		
	Shape	H	V
	Temperature rating		
	Pressure rating		
	Vacuum rating		
	Tank lining		
	Approval authority for tank		
	Relief should be designed for		
	• Fire	Y	N
	• Pump over pressure	Y	N
	• Thermal expansion	Y	N
	Is tank earthed?	Y	N
	Contents indicator required		
	Telemetry:		
	• Is telemetry being considered?	Y	N
	• Re-order level		
(b)	Services Required		
	Electrical supply available		
	Standards for electrical equipment to be used		
	Earthing requirements		
	• Storage Tank		
	• Tanker off-loading		
	• Process pipework		
	Compressed air supply for actuated valves	Y	N
(c)	Process Pipework		
	What equipment does the installation supply product to?		
	• Manufacturer's name		
	• Charge size		
	Required delivery rate and pressure		
	Run details		
	Return to tank or single feed pipework	R	S
	Backflow protection		
	Emergency Shut Off valve		

### 3. PROPOSED LOCATION

(a) Location			
	Is the tank located outside?	Y	N
	If tank is located inside or below ground level, has consideration been given to:		
	• Ventilation?	Y	N
	• Access controls and procedures?	Y	N
	• Alarms?	Y	N
	Is a site plan available?	Y	N
(b) Adjacent Facilities			
	Is location near to any air intakes for boilers, air compressors/conditioning units?	Y	N
	Is it near to any opening windows?	Y	N
	Is it adjacent to any hazardous products or to areas classified for flammables?	Y	N
	Is the location in an existing bund?	Y	N
(c) General			
	Are there any surface water drains near to the proposed location?	Y	N
	Is ground loading satisfactory for both tank and crane for installation?	Y	N
	Are there any underground services etc.?	Y	N
	Is the ground level?	Y	N
	Is bunding required	Y	N
	Is there adequate lighting?	Y	N

### 4. ACCESS DETAILS

(a) Access for Tank Installation			
	Access to site		
	Access for crane etc.		
	Overhead wires etc.		
(b) Access for deliveries			
	Are there any complications on public road access to gate		
	Are there any complication son site route to/from the off-loading point?	Y	N
	Type and power rating of any electrical outlet	Y	N

## 5. SAFETY

	Has the customer received a CSDS?	Y	N
	Is the customer aware of the hazards?	Y	N
	Does the site have a safety policy and plan?	Y	N
	Is PPE specified and available?	Y	N
	Is there an eye wash station?	Y	N
	Are there trained first aiders on the site?	Y	N
	If the tank is to be located inside or below ground level are there relevant safety procedures?	Y	N

## 6. OFFLOADING

(a)	Location		
	Is the off-loading point in a restricted area?	Y	N
	If not, • are controls in place to limit access during deliveries ?	Y	N
	• are controls in place to avoid tampering with valves etc.?	Y	N
	Is the off-loading point on level ground?	Y	N
	Is the off-loading point on or off the road?	On	Off
	Is the vehicle on or off the road at the off-loading point?	On	Off
	Is access to the off-loading point difficult?	Y	N
	Is the off-loading point a drive through, an enter or reverse in?	D, F or R	
	Is access to other traffic restricted during the off-loading (e.g. barriers)?	Y	N
	Is the off-loading point in a classified area (e.g. Zone 1 or Zone 2)?	Y	N
	Is there an earthing point for tanker offloading?	Y	N
	Are there adjacent off-loading points with the possibility of wrong connection?	Y	N
	Is there adequate artificial lighting at the off-loading point?	Y	N

(c)	Connections		
	• Will off-loading make use of trailer mounted pump?	Y	N
	• Distance from vehicle to liquid connection (will standard 6m hose reach?)	Y	N
	• Distance from vehicle to vapour connection (will standard 6m hose reach?)	Y	N
	• Will pipework be protected against vehicle damage?	Y	N



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