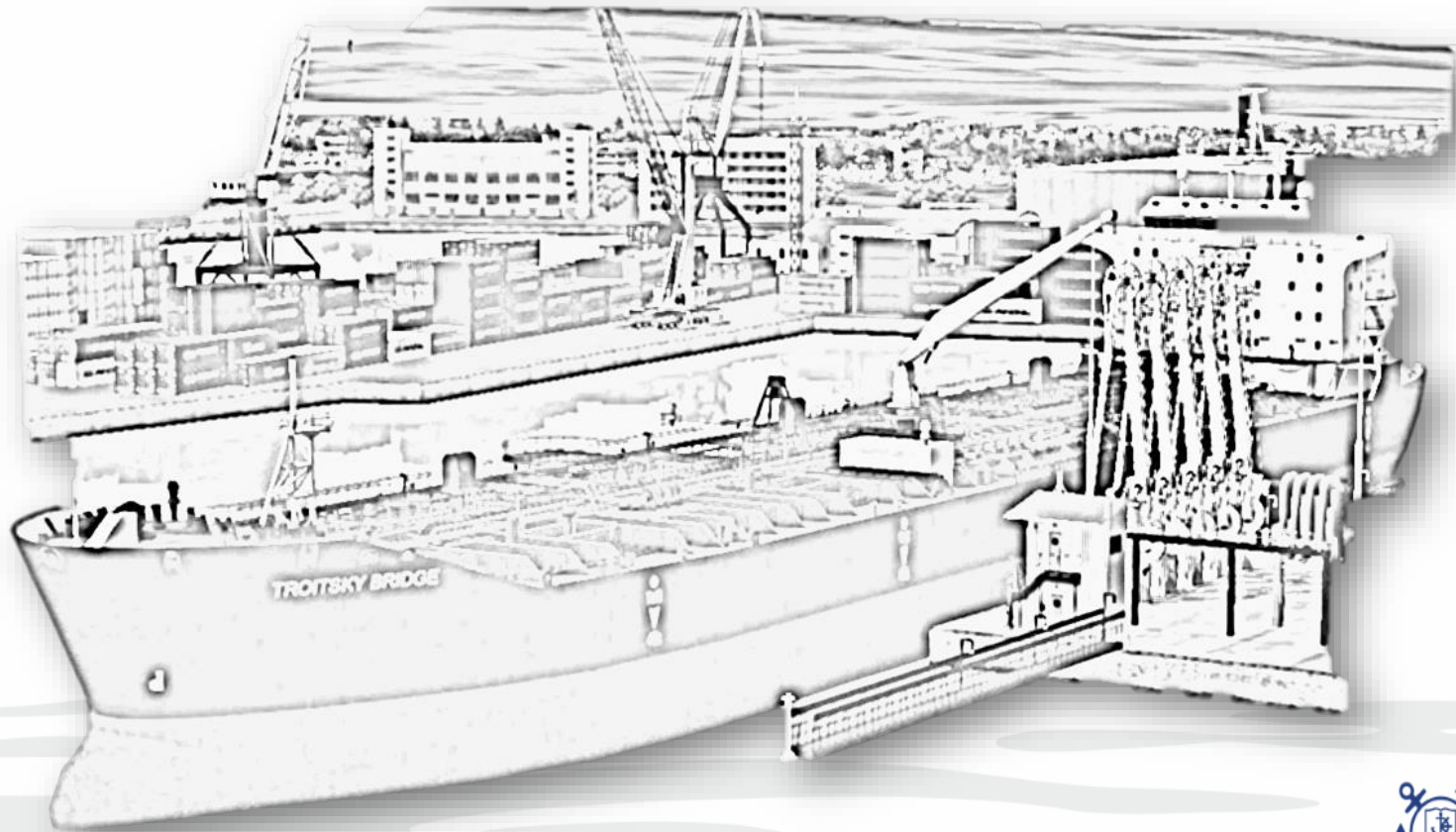


# PREPARING TO LOAD SINGLE CARGO

## Tutorial



Port Side Mooring

Starboard Mooring

Ship Speed  knots

**GENERAL CHECKLIST FOR ALL TRANSFERS**

<input type="checkbox"/>	Is the Ship securely moored?	<input type="checkbox"/>	Has the emergency signal to be used by the ship and shore been explained and understood?	<input type="checkbox"/>	Are cargo hoses/arms in good condition , properly rigged and appropriate for the service intended?
<input type="checkbox"/>	Are emergency towing wires correctly positioned?	<input type="checkbox"/>	Have the safety procedures for cargo, bunker and ballast handling operations been agreed?	<input type="checkbox"/>	Are scuppers effectively plugged and drip trays in position?
<input type="checkbox"/>	Is there safe access between ship and shore?	<input type="checkbox"/>	Have the hazards associated with toxic substances in the cargo being handled been Identified and understood?	<input type="checkbox"/>	Are unused cargo and bunker connections properly secured with blank flanges fully bolted?
<input type="checkbox"/>	Is there an effective deck watch on board and adequate supervision on the terminal arranged?	<input type="checkbox"/>	Has the emergency shutdown procedure been agreed?		
<input type="checkbox"/>	Is the agreed ship/shore communication system operative?	<input type="checkbox"/>	Are fire hoses and fire-fighting equipment on board and ashore positioned and ready for immediate use?		

- Submerged Cargo Pumping System
- Cargo Pumps Control Panel
- ODME System Control Unit
- Gas Detection System Control Unit
- IGG Control Unit
- Deckwash Fire Pumps
- High Level Alarms
- Basic Alarm Panel
- ✓ Mooring and Checklist
- Manifolds State

CCR ER CMS SYS DECK CCTV

We are preparing to load cargo of Kerosene. All cargo tanks and slop tanks are inerted. Please go to the "CCR - Mooring and Checklist" and make sure the ship is moored port side, in position and ready to receive terminal personnel.



Port Side Mooring

Product Terminal: Terminal

Not moored

Product Terminal: Terminal

Starboard Mooring

Not moored

Ship Speed

knots

#### GENERAL CHECKLIST FOR ALL TRANSFERS

Is the Ship securely moored?

Are emergency towing wires correctly positioned?

Is there safe access between ship and shore?

Is there an effective deck watch on board and adequate supervision on the terminal arranged?

Is the agreed ship/shore communication system operative?

Has the emergency signal to be used by the ship and shore been explained and understood?

Have the safety procedures for cargo, bunker and ballast handling operations been agreed?

Have the hazards associated with toxic substances in the cargo being handled been identified and understood?

Has the emergency shutdown procedure been agreed?

Are fire hoses and fire-fighting equipment on board and ashore positioned and ready for immediate use?

Are cargo hoses/arms in good condition, properly rigged and appropriate for the service intended?

Are scuppers effectively plugged and drip trays in position?

Are unused cargo and bunker connections properly secured with blank flanges fully bolted?

CCR

ER

CMS

SYS

DECK

CCTV



Specify mooring position „port side“ to the terminal pier.



LIETUVOS  
AUKŠTOJI  
JŪRŲ MOKYKLA



Make sure the ship is moored port side, in position and ready to receive terminal personnel.

Port Side Mooring

Product Terminal: Terminal ▼

Starboard Mooring

Not moored ▼

Ship Speed  knots

#### GENERAL CHECKLIST FOR ALL TRANSFERS



Is the Ship securely moored?



Are emergency towing wires correctly positioned?



Is there safe access between ship and shore?



Is there an effective deck watch on board and adequate supervision on the terminal arranged?



Is the agreed ship/shore communication system operative?



Has the emergency signal to be used by the ship and shore been explained and understood?



Have the safety procedures for cargo, bunker and ballast handling operations been agreed?



Have the hazards associated with toxic substances in the cargo being handled been identified and understood?



Has the emergency shutdown procedure been agreed?



Are fire hoses and fire-fighting equipment on board and ashore positioned and ready for immediate use?



Are cargo hoses/arms in good condition, properly rigged and appropriate for the service intended?



Are scuppers effectively plugged and drip trays in position?



Are unused cargo and bunker connections properly secured with blank flanges fully bolted?

CCR

ER

CMS

SYS

DECK

CCTV

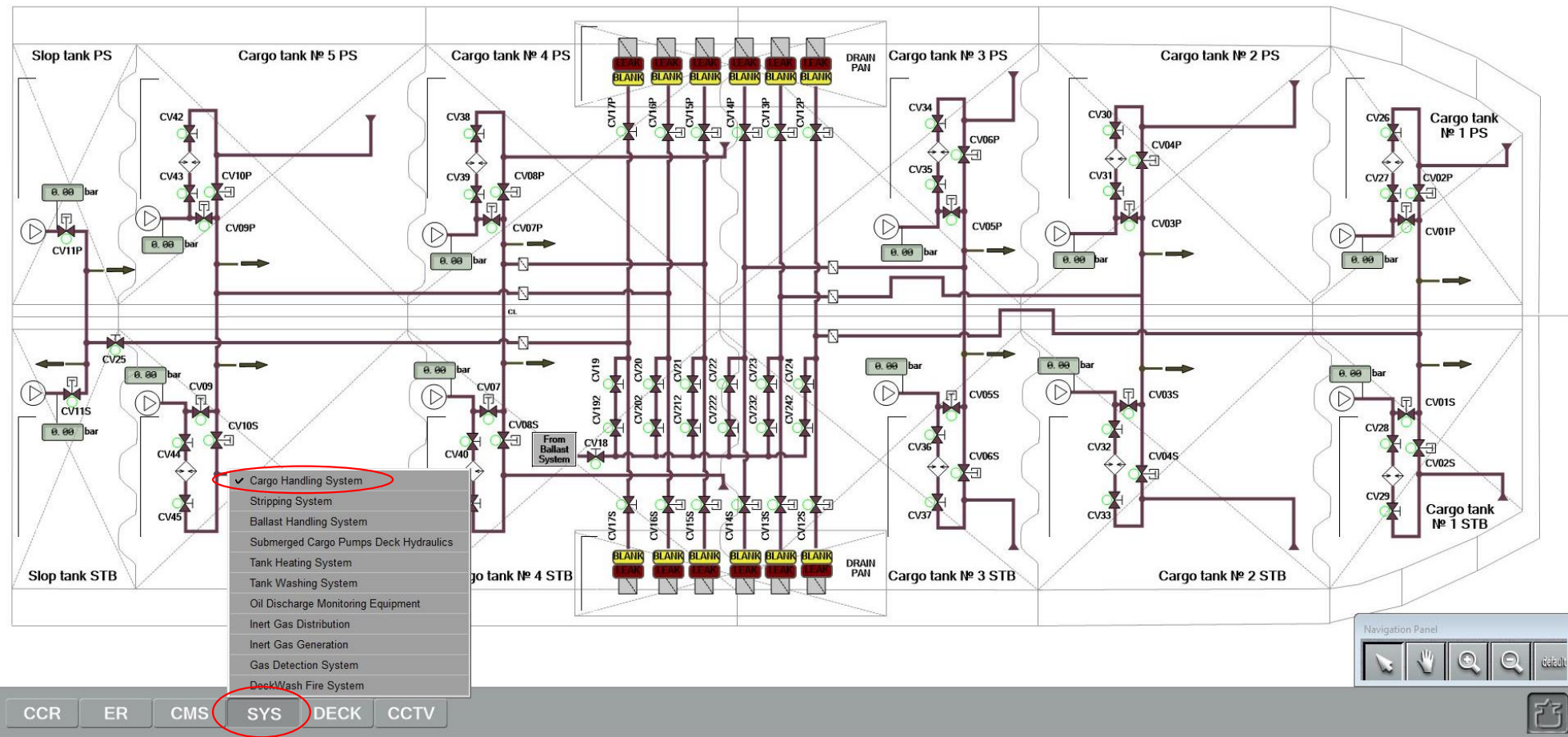


Fill in the Pre-Transfer Checklist with the Terminal Staff



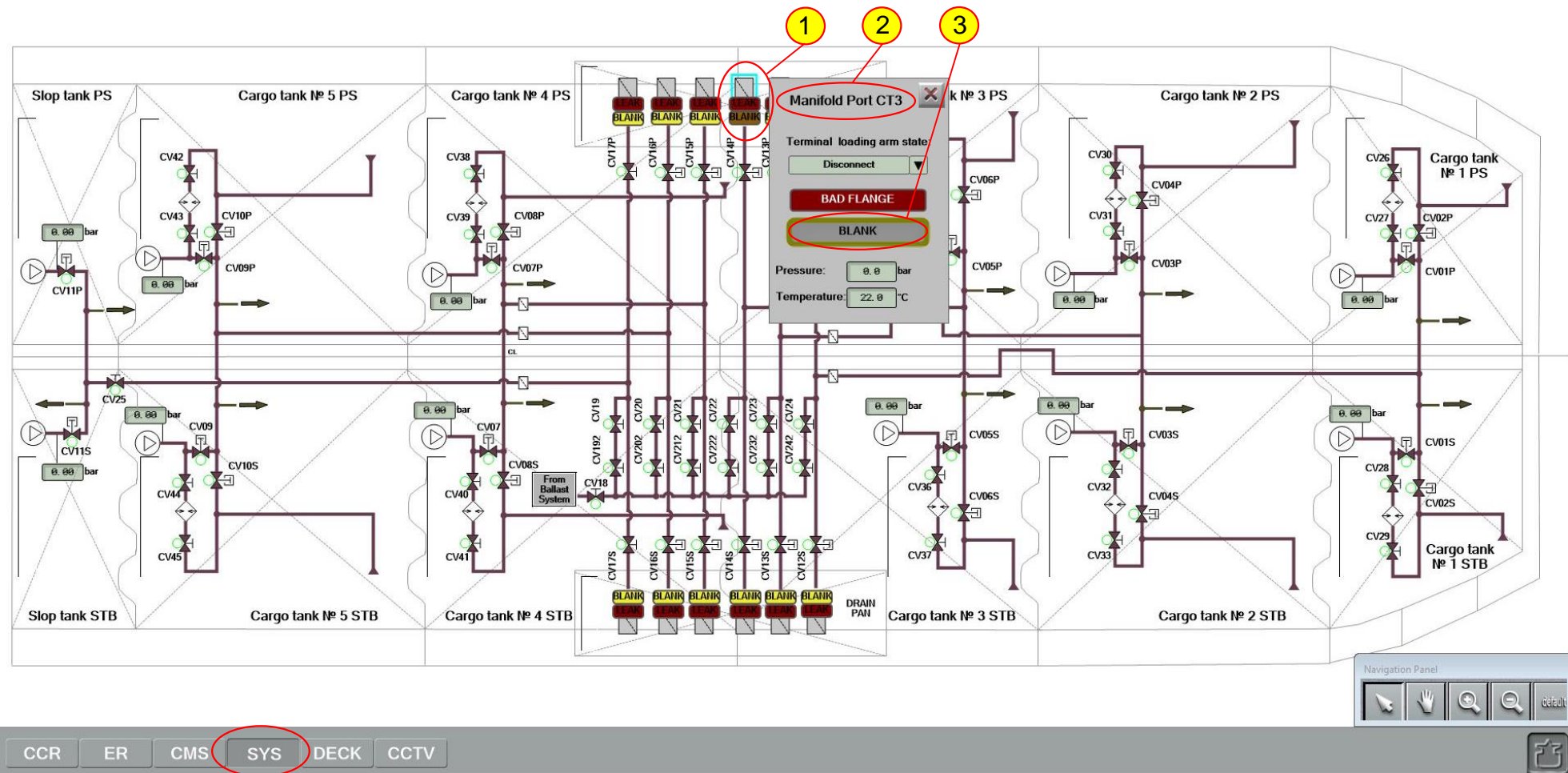
LIETUVOS  
AUKŠTOJI  
JŪRŲ MOKYKLA

# Cargo Handling System



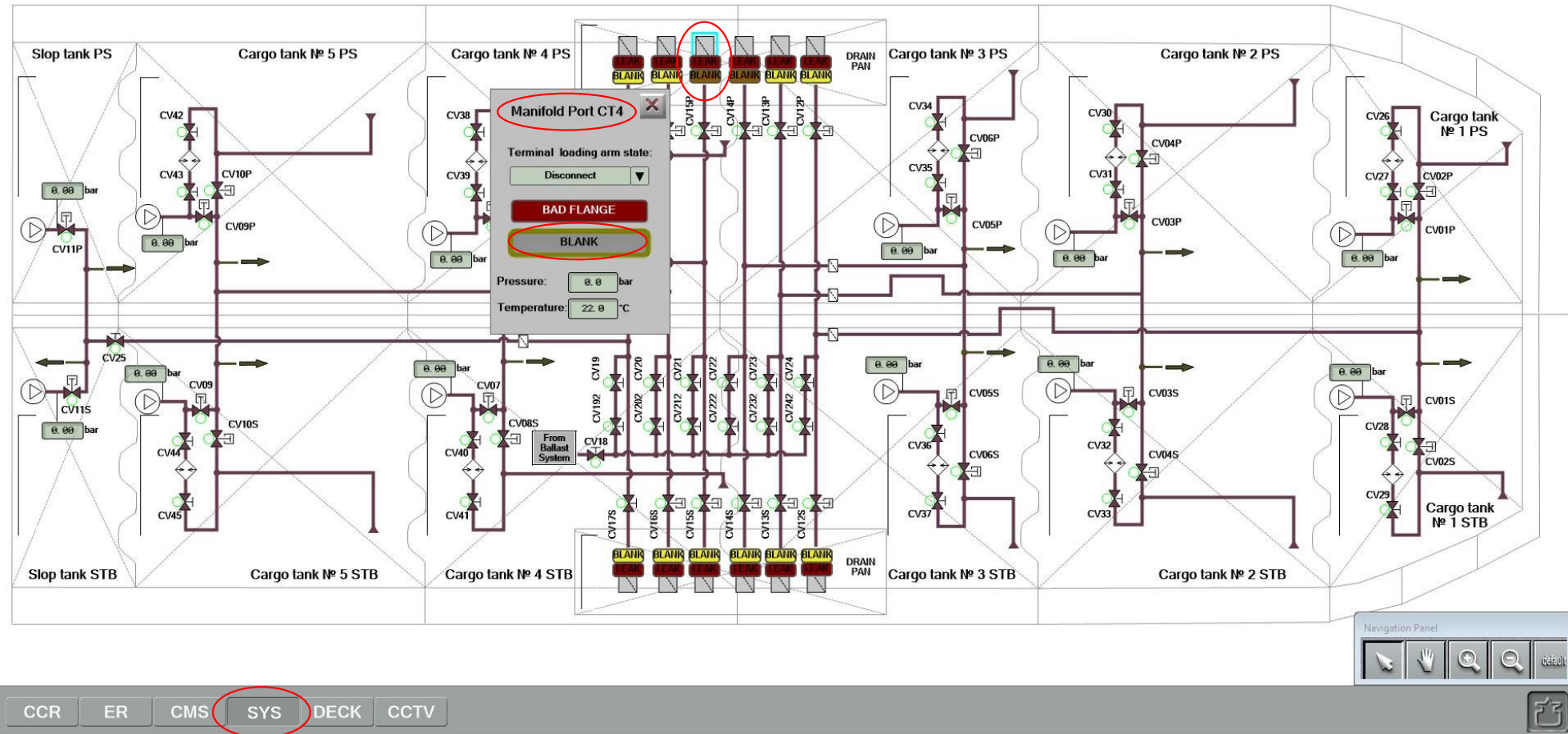
The Terminal has indicated that the checklist is complete.  
On "SYS - Cargo Handling System" page and remove the blanks from manifolds #3 and #4 portside.

# Cargo Handling System



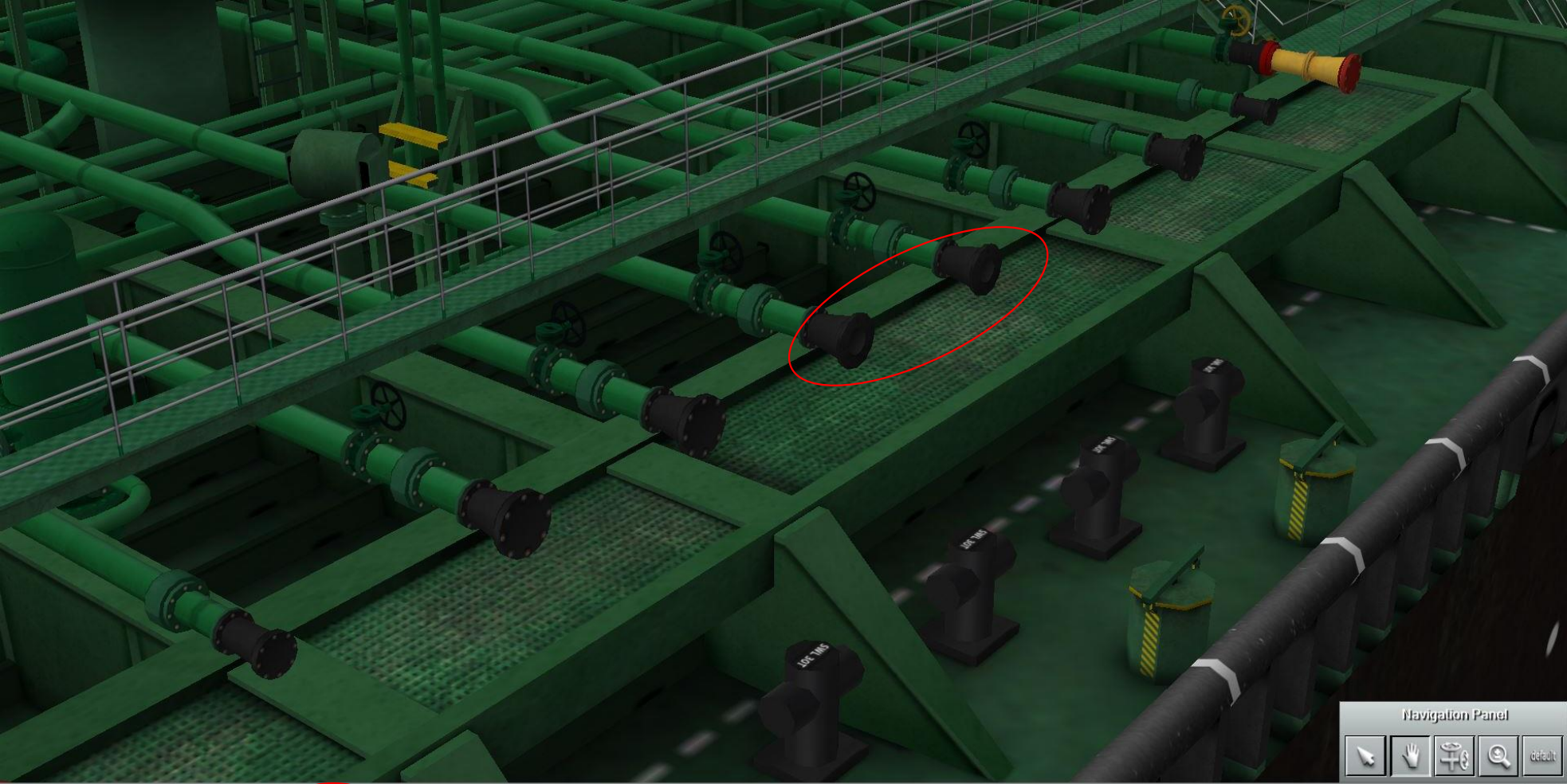
Click at the manifold CT3 to bring up the popup window, and in that window press yellow button "BLANK" and it will turn grey.

# Cargo Handling System



Click at the manifold CT4 and repeat





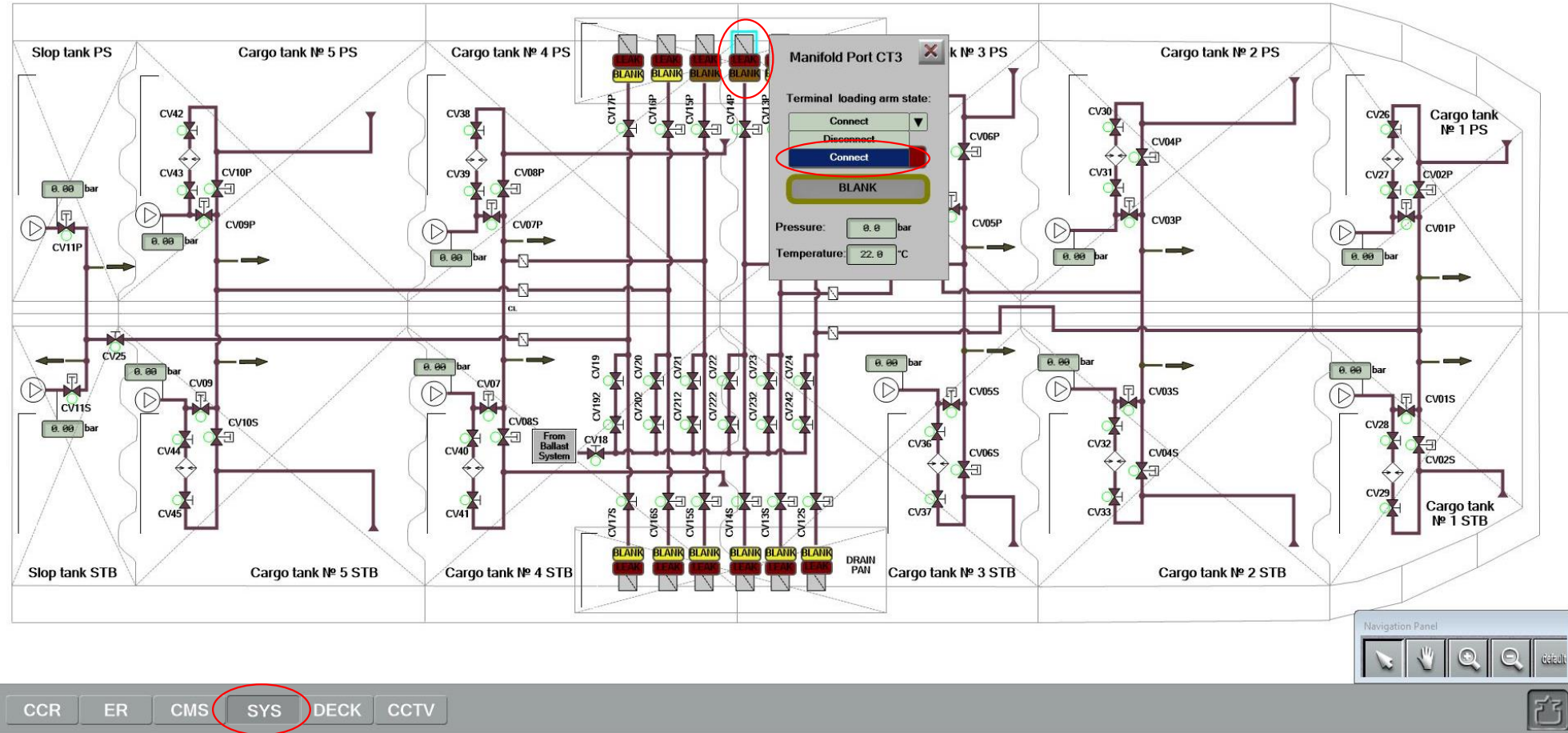
CCR ER CMS SYS **DECK** CCTV

Navigation Panel

default

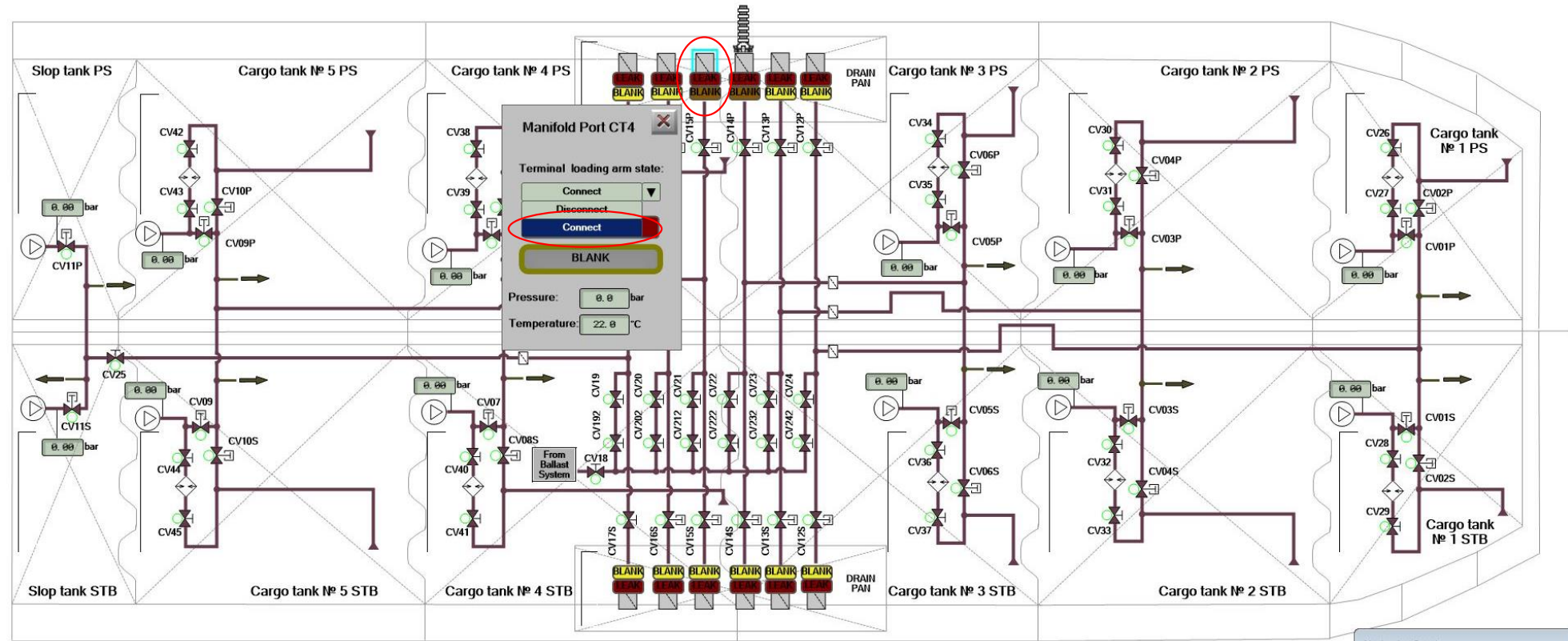
Check the condition of manifolds #3 and #4 portside – are the blanks off

# Cargo Handling System



On "SYS - Cargo Handling System" page select manifolds CT3, CT4 and change status to „Connect“.

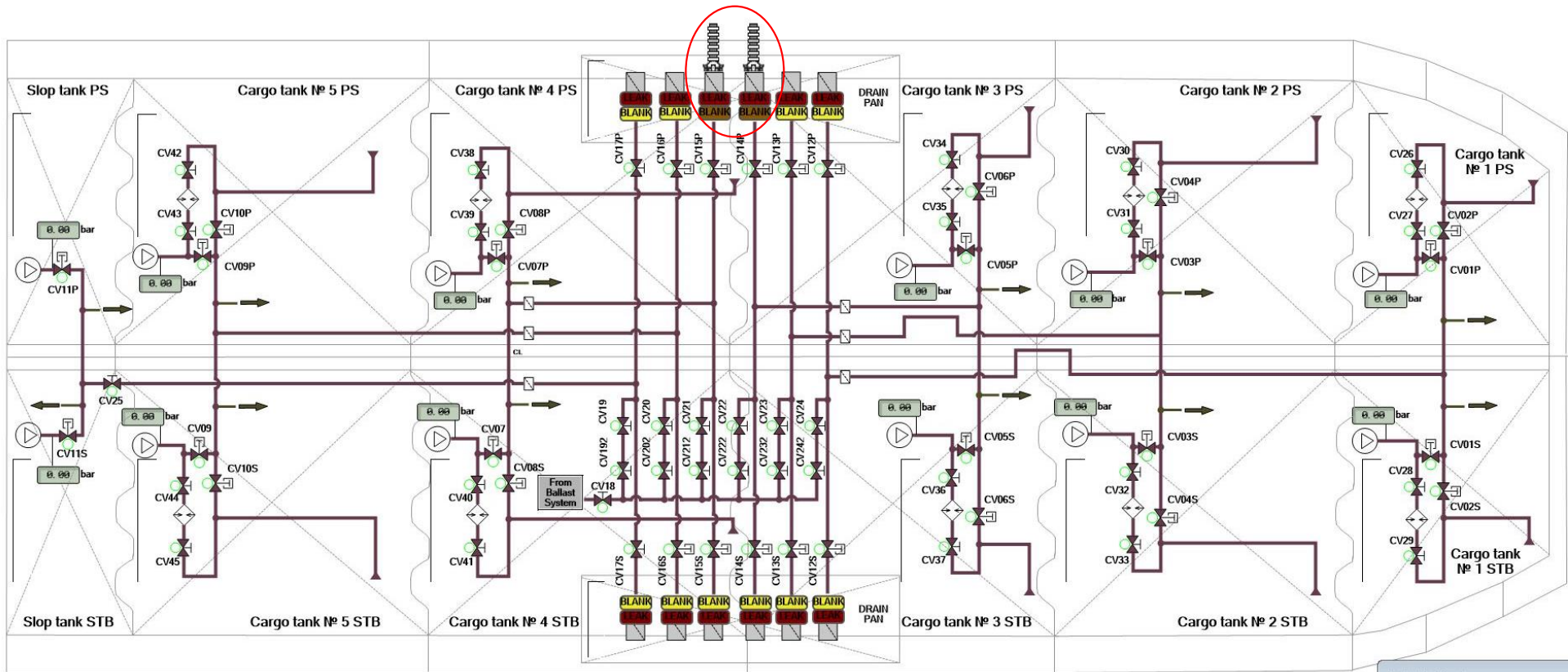
# Cargo Handling System



Navigation Panel

CCR ER CMS **SYS** DECK CCTV

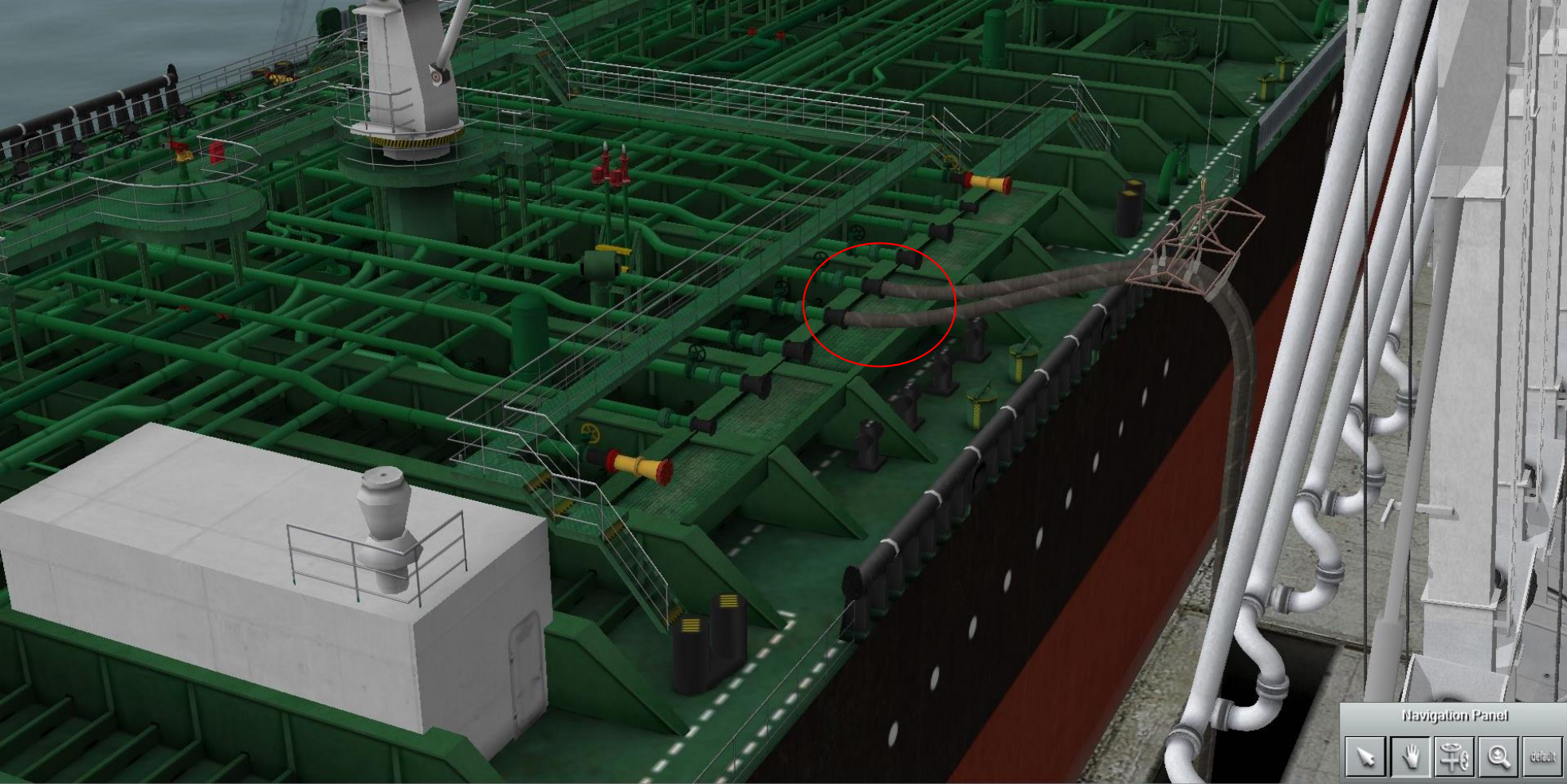
# Cargo Handling System



Navigation Panel

Navigation icons: mouse cursor, hand, zoom in, zoom out, default.

CCR ER CMS **SYS** DECK CCTV



Navigation Panel

Navigation Panel controls including: mouse cursor, hand icon, home icon, magnifying glass icon, and a 'default' button.

CCR ER CMS SYS **DECK** CCTV

### MANIFOLDS STATE

PORT SIDE	IG AFT	SlopTankP SlopTankS	CT5P CT5S	CT4P CT4S	CT3P CT3S	CT2P CT2S	CT1P CT1S	IG FWD
Manifold State	Disconnect ▼	Disconnected ▼	Disconnected ▼	Disconnected ▼	Disconnected ▼	Disconnected ▼	Disconnected ▼	Disconnect ▼
Cargo Type	N/A ▼		N/A ▼	N/A ▼	N/A ▼	N/A ▼	N/A ▼	
Temperature	22.0 ▲▼ °C	22.0 ▲▼ °C	22.0 ▲▼ °C	22.0 ▲▼ °C	22.0 ▲▼ °C	22.0 ▲▼ °C	22.0 ▲▼ °C	22.0 ▲▼ °C
Cargo Flow	0 ▲▼ m3/h	0 ▲▼ m3/h	0 ▲▼ m3/h	0 ▲▼ m3/h	0 ▲▼ m3/h	0 ▲▼ m3/h	0 ▲▼ m3/h	0 ▲▼ m3/h
UNLOADING WRONG TYPE OF CARGO								
STARBOARD	IG AFT	SlopTankP SlopTankS	CT5P CT5S	CT4P CT4S	CT3P CT3S	CT2P CT2S	CT1P CT1S	IG FWD
Manifold State	Disconnect ▼	Disconnected ▼	Disconnected ▼	Disconnected ▼	Disconnected ▼	Disconnected ▼	Disconnected ▼	Disconnect ▼
Cargo Type	N/A ▼		N/A ▼	N/A ▼	N/A ▼	N/A ▼	N/A ▼	
Temperature	22.0 ▲▼ °C	22.0 ▲▼ °C	22.0 ▲▼ °C	22.0 ▲▼ °C	22.0 ▲▼ °C	22.0 ▲▼ °C	22.0 ▲▼ °C	22.0 ▲▼ °C
Cargo Flow	0 ▲▼ m3/h	0 ▲▼ m3/h	0 ▲▼ m3/h	0 ▲▼ m3/h	0 ▲▼ m3/h	0 ▲▼ m3/h	0 ▲▼ m3/h	0 ▲▼ m3/h

- Submerged Cargo Pumping System
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- ✓ Manifolds State

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Back to "CCR - Manifolds state" and ask the terminal to prepare loading arms for loading.  
 (for manifolds "CT3P CT3S" and "CT4P CT4S" select Manifold State "Loading")



### MANIFOLDS STATE

PORT SIDE	IG AFT	SlopTankP SlopTankS	CT5P CT5S	CT4P CT4S	CT3P CT3S	CT2P CT2S	CT1P CT1S	IG FWD
Manifold State	Disconnect ▼	Disconnected ▼	Disconnected ▼	Disconnected ▼	Loading ▼ Disconnected ▼	Disconnected ▼	Disconnected ▼	Disconnect ▼
Cargo Type		N/A ▼	N/A ▼	N/A ▼	Loading ▼ Unloading ▼	N/A ▼	N/A ▼	
Temperature	22.0 ▲▼ °C	22.0 ▲▼ °C	22.0 ▲▼ °C	22.0 ▲▼ °C	22.0 ▲▼ °C	22.0 ▲▼ °C	22.0 ▲▼ °C	22.0 ▲▼ °C
Cargo Flow	0 ▲▼ m3/h	0 ▲▼ m3/h	0 ▲▼ m3/h	0 ▲▼ m3/h	0 ▲▼ m3/h	0 ▲▼ m3/h	0 ▲▼ m3/h	0 ▲▼ m3/h

UNLOADING WRONG TYPE OF CARGO

STARBOARD	IG AFT	SlopTankP SlopTankS	CT5P CT5S	CT4P CT4S	CT3P CT3S	CT2P CT2S	CT1P CT1S	IG FWD
Manifold State	Disconnect ▼	Disconnected ▼	Disconnected ▼	Disconnected ▼	Disconnected ▼	Disconnected ▼	Disconnected ▼	Disconnect ▼
Cargo Type		N/A ▼	N/A ▼	N/A ▼	N/A ▼	N/A ▼	N/A ▼	
Temperature	22.0 ▲▼ °C	22.0 ▲▼ °C	22.0 ▲▼ °C	22.0 ▲▼ °C	22.0 ▲▼ °C	22.0 ▲▼ °C	22.0 ▲▼ °C	22.0 ▲▼ °C
Cargo Flow	0 ▲▼ m3/h	0 ▲▼ m3/h	0 ▲▼ m3/h	0 ▲▼ m3/h	0 ▲▼ m3/h	0 ▲▼ m3/h	0 ▲▼ m3/h	0 ▲▼ m3/h

CCR ER CMS SYS DECK CCTV



### MANIFOLDS STATE

PORT SIDE	IG AFT	SlopTankP SlopTankS	CT5P CT5S	CT4P CT4S	CT3P CT3S	CT2P CT2S	CT1P CT1S	IG FWD
Manifold State	Disconnect ▼	Disconnected ▼	Disconnected ▼	Loading ▼ Disconnected ▼	Loading ▼	Disconnected ▼	Disconnected ▼	Disconnect ▼
Cargo Type		N/A ▼	N/A ▼	Loading ▼ Unloading ▼	Sea Water ▼	N/A ▼	N/A ▼	
Temperature	22.0 ▲▼ °C	22.0 ▲▼ °C	22.0 ▲▼ °C	22.0 ▲▼ °C	22.0 ▲▼ °C	22.0 ▲▼ °C	22.0 ▲▼ °C	22.0 ▲▼ °C
Cargo Flow	0 ▲▼ m3/h	0 ▲▼ m3/h	0 ▲▼ m3/h	0 ▲▼ m3/h	0 ▲▼ m3/h	0 ▲▼ m3/h	0 ▲▼ m3/h	0 ▲▼ m3/h
UNLOADING WRONG TYPE OF CARGO								
STARBOARD	IG AFT	SlopTankP SlopTankS	CT5P CT5S	CT4P CT4S	CT3P CT3S	CT2P CT2S	CT1P CT1S	IG FWD
Manifold State	Disconnect ▼	Disconnected ▼	Disconnected ▼	Disconnected ▼	Disconnected ▼	Disconnected ▼	Disconnected ▼	Disconnect ▼
Cargo Type		N/A ▼	N/A ▼	N/A ▼	N/A ▼	N/A ▼	N/A ▼	
Temperature	22.0 ▲▼ °C	22.0 ▲▼ °C	22.0 ▲▼ °C	22.0 ▲▼ °C	22.0 ▲▼ °C	22.0 ▲▼ °C	22.0 ▲▼ °C	22.0 ▲▼ °C
Cargo Flow	0 ▲▼ m3/h	0 ▲▼ m3/h	0 ▲▼ m3/h	0 ▲▼ m3/h	0 ▲▼ m3/h	0 ▲▼ m3/h	0 ▲▼ m3/h	0 ▲▼ m3/h





### MANIFOLDS STATE

PORT SIDE	IG AFT	SlopTankP SlopTankS	CT5P CT5S	CT4P CT4S	CT3P CT3S	CT2P CT2S	CT1P CT1S	IG FWD
Manifold State	Disconnect	Disconnected	Disconnected	Loading	Loading	Disconnected	Disconnected	Disconnect
Cargo Type	N/A	N/A	Sea Water	Kerosene	N/A	N/A		
Temperature	22.0 °C	22.0 °C	22.0 °C	22.0 °C	22.0 °C	22.0 °C	22.0 °C	22.0 °C
Cargo Flow	0 m3/h	0 m3/h	0 m3/h	0 m3/h	0 m3/h	0 m3/h	0 m3/h	0 m3/h
UNLOADING WRONG TYPE								
STARBOARD	IG AFT	SlopTankP SlopTankS	CT5P CT5S	CT4P CT4S	CT2P CT2S	CT1P CT1S	IG FWD	
Manifold State	Disconnect	Disconnected	Disconnected	Disconnected	Disconnected	Disconnected	Disconnect	
Cargo Type	N/A	N/A	N/A	N/A	N/A	N/A		
Temperature	22.0 °C	22.0 °C	22.0 °C	22.0 °C	22.0 °C	22.0 °C	22.0 °C	22.0 °C
Cargo Flow	0 m3/h	0 m3/h	0 m3/h	0 m3/h	0 m3/h	0 m3/h	0 m3/h	0 m3/h

N/A  
 Mixed  
 Sea Water  
 Fresh Water  
 Crude Oil REBCO  
 Diesel Oil  
 Lubricating Oil  
**Kerosene**  
 Crude Oil Angola  
 Crude Oil Mexican  
 Industrial Oil  
 Fuel Oil  
 Naphta  
 Crude Oil Texas  
 Hexane  
 Benzene  
 Gas Oil  
 Crude Oil Primorsk  
 Heavy Marine DO  
 Heavy Fuel Oil

CCR ER CMS SYS DECK CCTV

For CT3P CT3S manifold select Manifold State "Loading", then select Cargo Type "Kerosene" and then set Cargo Flow to 200 m3/h.



**MANIFOLDS STATE**

	IG AFT	SlopTankP SlopTankS	CT5P CT5S	CT4P CT4S	CT3P CT3S	CT2P CT2S	CT1P CT1S	IG FWD
Manifold State	Disconnect	Disconnected	Disconnected	Loading	Loading	Disconnected	Disconnected	Disconnect
Cargo Type	N/A	N/A	N/A	Kerosene	Kerosene	N/A	N/A	
Temperature	22.0 °C	22.0 °C	22.0 °C		22.0 °C	22.0 °C	22.0 °C	22.0 °C
Cargo Flow	0 m3/h	0 m3/h	0 m3/h		0 m3/h	0 m3/h	0 m3/h	0 m3/h
TYPE OF CARGO								
				Kerosene				
				Crude Oil Angola				
				Crude Oil Mexican				
				Industrial Oil				
				Fuel Oil				
				Naphtha				
				Crude Oil Texas				
				Hexane				
				Benzene				
				Gas Oil				
				Crude Oil Primorsk				
				Heavy Marine DO				
				Heavy Fuel Oil				

CCR ER CMS SYS DECK CCTV

For CT4P CT4S manifold select Manifold State "Loading", then select Cargo Type "Kerosene" and then set Cargo Flow to 200 m3/h.

### MANIFOLDS STATE

PORT SIDE	IG AFT	SlopTankP SlopTankS	CT5P CT5S	CT4P CT4S	CT3P CT3S	CT2P CT2S	CT1P CT1S	IG FWD
Manifold State	Disconnect ▼	Disconnected ▼	Disconnected ▼	Loading ▼	Loading ▼	Disconnected ▼	Disconnected ▼	Disconnect ▼
Cargo Type		N/A ▼	N/A ▼	Kerosene ▼	Kerosene ▼	N/A ▼	N/A ▼	
Temperature	22.0 ▲▼ °C	22.0 ▲▼ °C	22.0 ▲▼ °C	22.0 ▲▼ °C	22.0 ▲▼ °C	22.0 ▲▼ °C	22.0 ▲▼ °C	22.0 ▲▼ °C
Cargo Flow	0 ▲▼ m3/h	0 ▲▼ m3/h	0 ▲▼ m3/h	200 ▲▼ m3/h	200 ▲▼ m3/h	0 ▲▼ m3/h	0 ▲▼ m3/h	0 ▲▼ m3/h

UNLOADING WRONG TYPE OF CARGO

STARBOARD	IG AFT	SlopTankP SlopTankS	CT5P CT5S	CT4P CT4S	CT3P CT3S	CT2P CT2S	CT1P CT1S	IG FWD
Manifold State	Disconnect ▼	Disconnected ▼	Disconnected ▼	Disconnected ▼	Disconnected ▼	Disconnected ▼	Disconnected ▼	Disconnect ▼
Cargo Type		N/A ▼	N/A ▼	N/A ▼	N/A ▼	N/A ▼	N/A ▼	
Temperature	22.0 ▲▼ °C	22.0 ▲▼ °C	22.0 ▲▼ °C	22.0 ▲▼ °C	22.0 ▲▼ °C	22.0 ▲▼ °C	22.0 ▲▼ °C	22.0 ▲▼ °C
Cargo Flow	0 ▲▼ m3/h	0 ▲▼ m3/h	0 ▲▼ m3/h	0 ▲▼ m3/h	0 ▲▼ m3/h	0 ▲▼ m3/h	0 ▲▼ m3/h	0 ▲▼ m3/h

CCR

ER

CMS

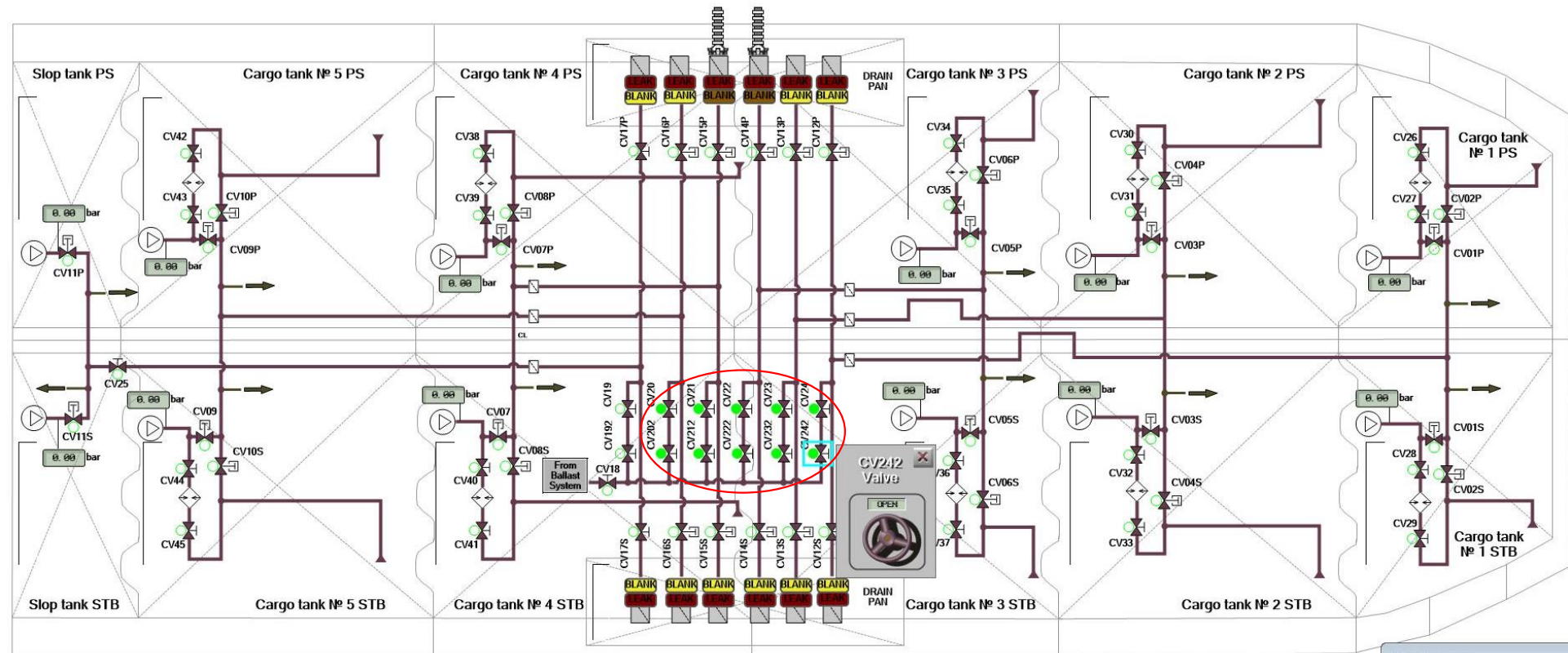
SYS

DECK

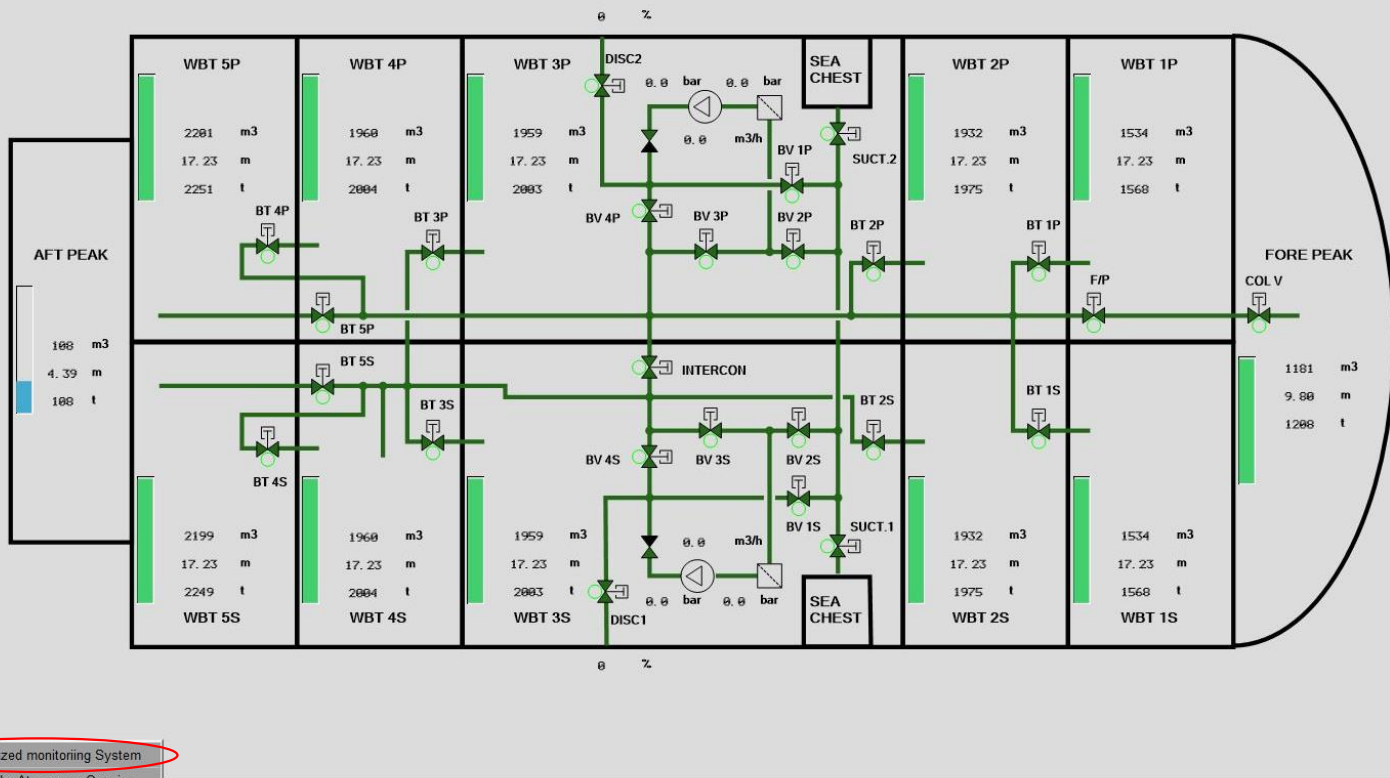
CCTV



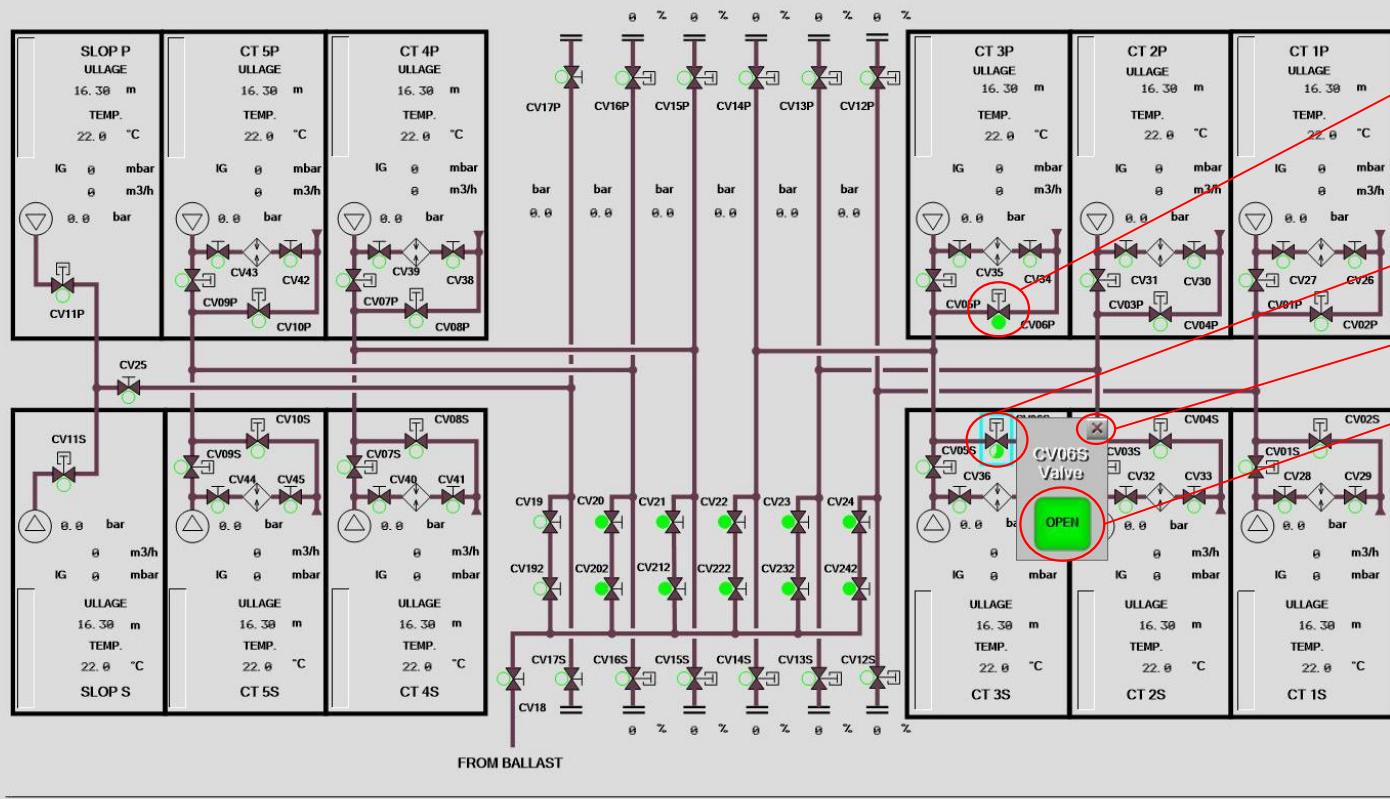
# Cargo Handling System



To prepare cargo system for loading single cargo, proceed to "SYS - Cargo Handling System" and open all crossover valves between cargo lines:  
**CV20, CV21, CV22, CV23, CV24 and CV202, CV212, CV222, CV232, CV242**

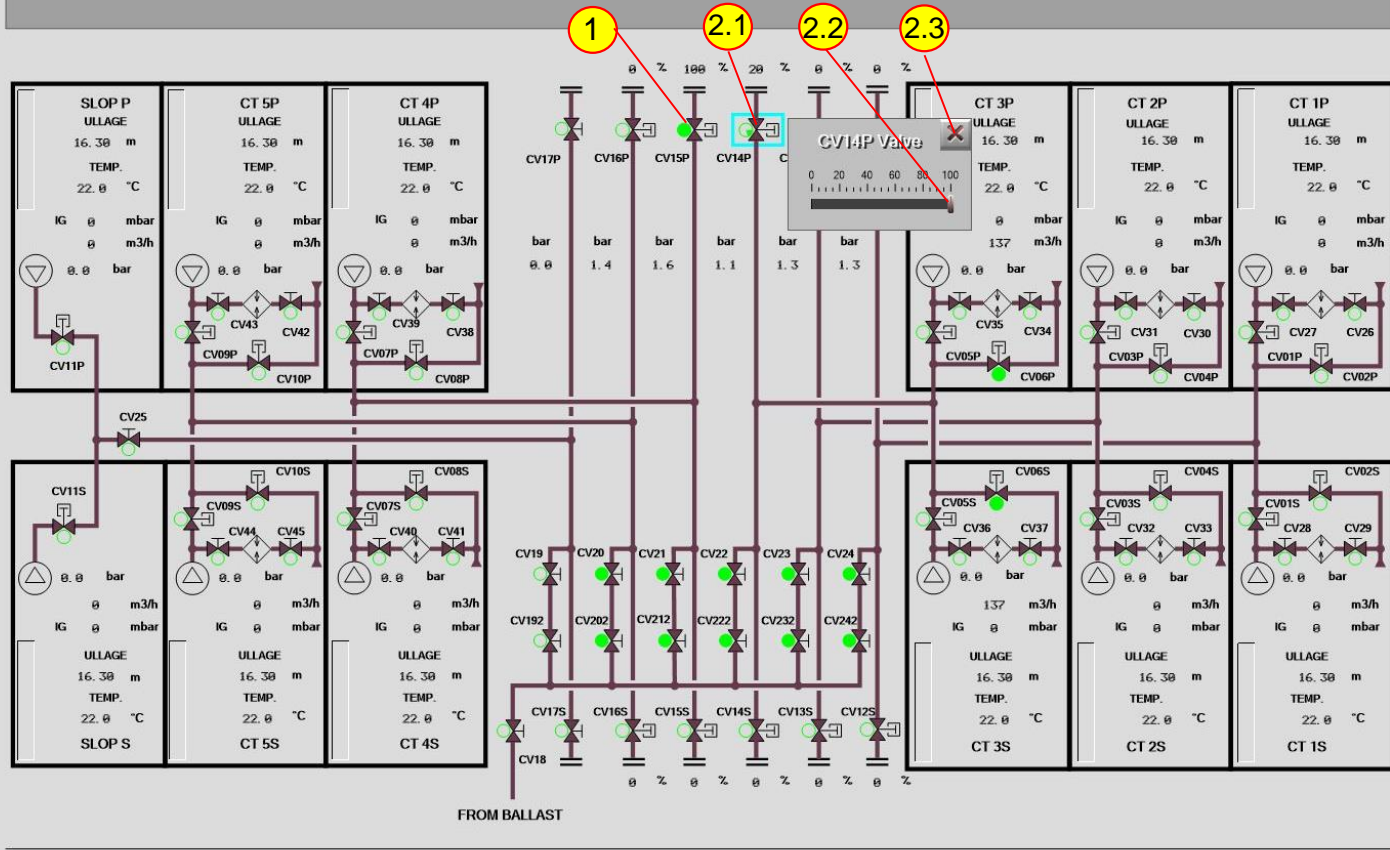


For open valves on drop line of cargo tanks # 3 P/S, you need to open valves on dropline in cargo tanks # 3 P/S. We are going to start loading into these tanks. Go back to the "CMS - Computerized Monitoring System - Cargo System" and open valves **CV06P** and **CV06S**.



- 1
- 2.1
- 2.3
- 2.2

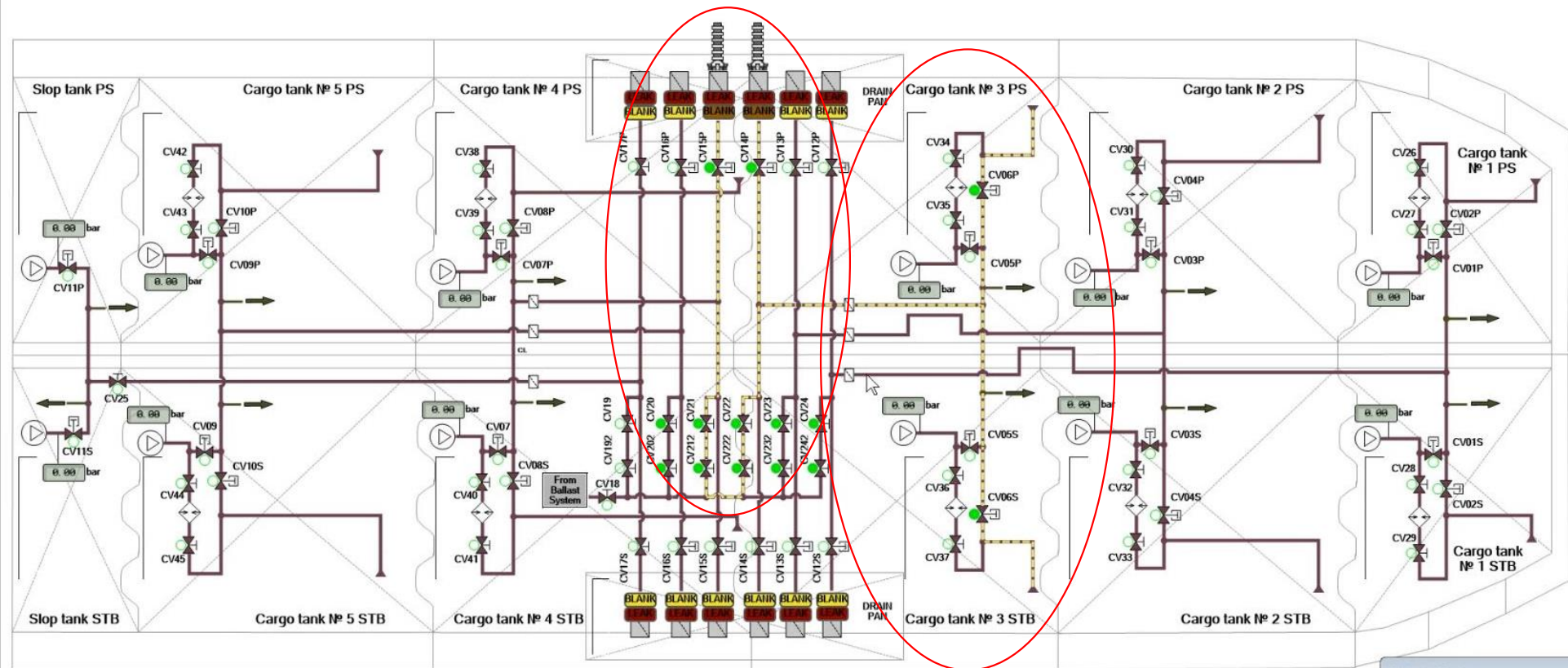
Open valves CV06P and CV06S. System is prepared. You need to inform shore terminal staff that we are ready for loading



Terminal representative confirmed that they are also ready for loading and we can open manifold valves.

Go to "CMS - Computerized Monitoring System - Cargo System" and open manifold valves **CV15P** and **CV14P**

# Cargo Handling System



Navigation Panel

default

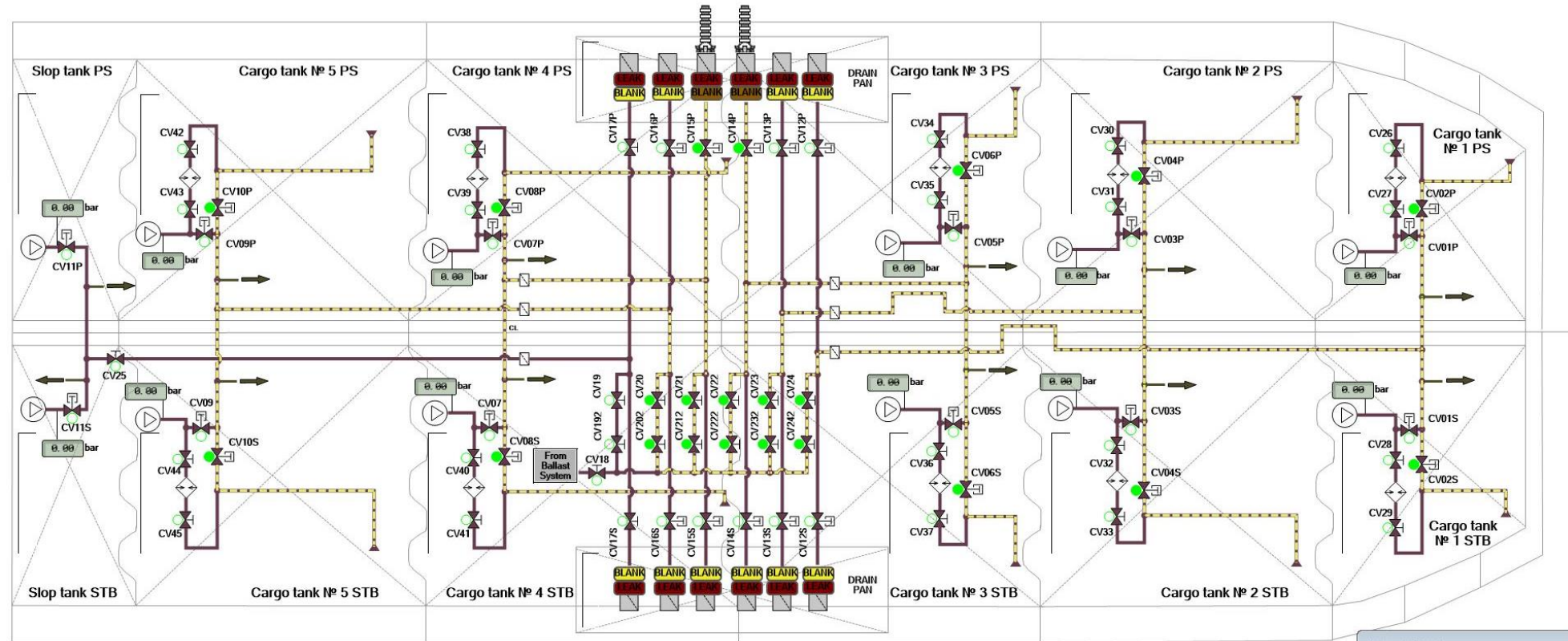
CCR ER CMS **SYS** DECK CCTV

Loading to cargo tank #3 has being started.





# Cargo Handling System



Navigation Panel

Navigation icons: mouse cursor, hand, magnifying glass, search, and a "default" button.

CCR ER CMS **SYS** DECK CCTV

Cargo is going into the all tanks. Check the level of ullage in tanks!



### MANIFOLDS STATE

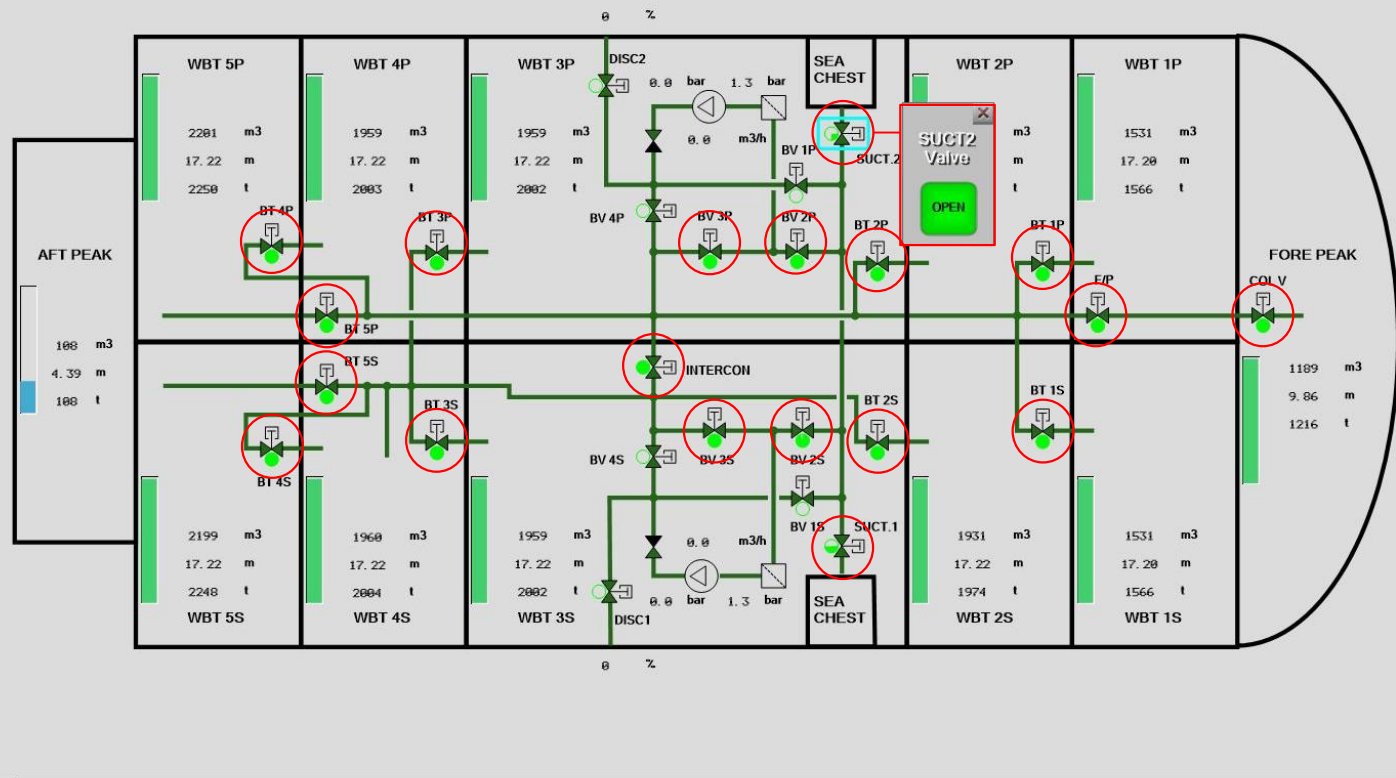
PORT SIDE	IG AFT	SlopTankP SlopTankS	CT5P CT5S	CT4P CT4S	CT3P CT3S	CT2P CT2S	CT1P CT1S	IG FWD
Manifold State	Disconnect	Disconnected	Disconnected	Loading	Loading	Disconnected	Disconnected	Disconnect
Cargo Type		N/A	N/A	Kerosene	Kerosene	N/A	N/A	
Temperature	22.0 °C	22.0 °C	22.0 °C	22.0 °C	22.0 °C	22.0 °C	22.0 °C	22.0 °C
Cargo Flow	0 m3/h	0 m3/h	0 m3/h	1000 m3/h	1000 m3/h	0 m3/h	0 m3/h	0 m3/h

UNLOADING WRONG TYPE OF CARGO

STARBOARD	IG AFT	SlopTankP SlopTankS	CT5P CT5S	CT4P CT4S	CT3P CT3S	CT2P CT2S	CT1P CT1S	IG FWD
Manifold State	Disconnect	Disconnected	Disconnected	Disconnected	Disconnected	Disconnected	Disconnected	Disconnect
Cargo Type		N/A	N/A	N/A	N/A	N/A	N/A	
Temperature	22.0 °C	22.0 °C	22.0 °C	22.0 °C	22.0 °C	22.0 °C	22.0 °C	22.0 °C
Cargo Flow	0 m3/h	0 m3/h	0 m3/h	0 m3/h	0 m3/h	0 m3/h	0 m3/h	0 m3/h

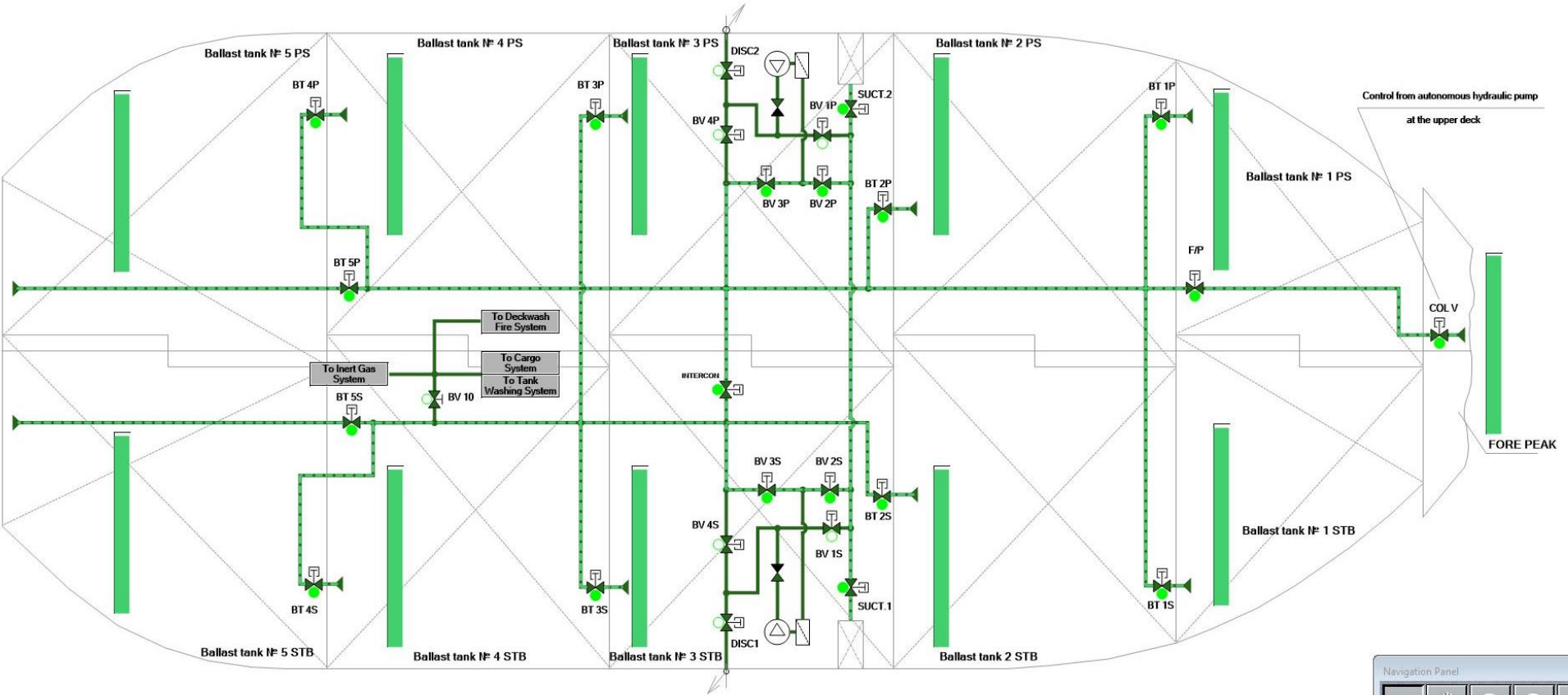
CCR ER **CMS** SYS DECK CCTV

We need to do is to increase loading rate of loading to the maximum.  
Go back to "CCR - Manifolds state" and set Cargo Flow to 1000 m3/h for the manifolds #3 and #4.



We need to start discharging the ballast water by gravity. Go to "CMS - Ballast System" and open the following valves:  
**COL V, F/P, BT1P, BT1S, BT2P, BT2S, BT3P, BT3S, BT4P, BT4S, BT5P, BT5S, INTERCON, BV3P, BV3S, BV2P, BV2S, SUCT1 and SUCT2.**

# Ballast Handling System

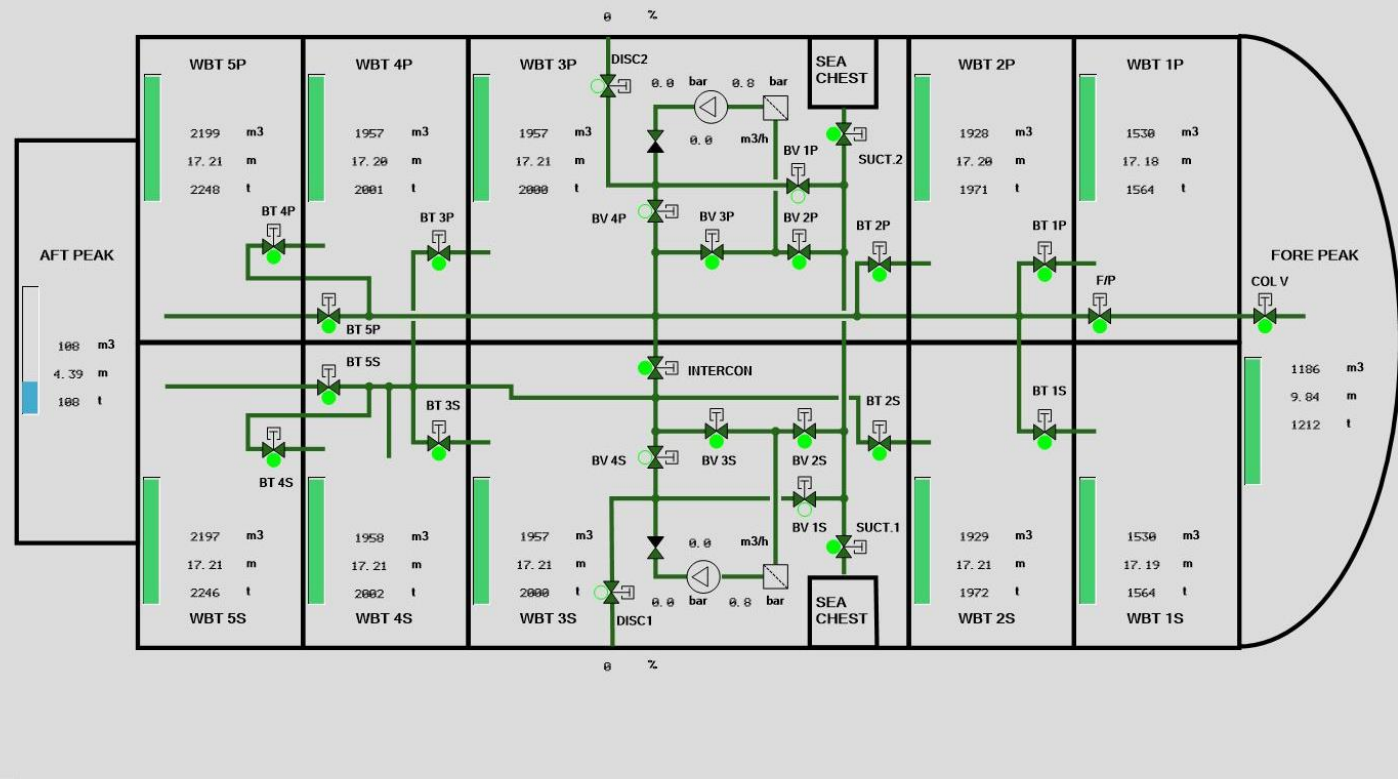


Navigation Panel

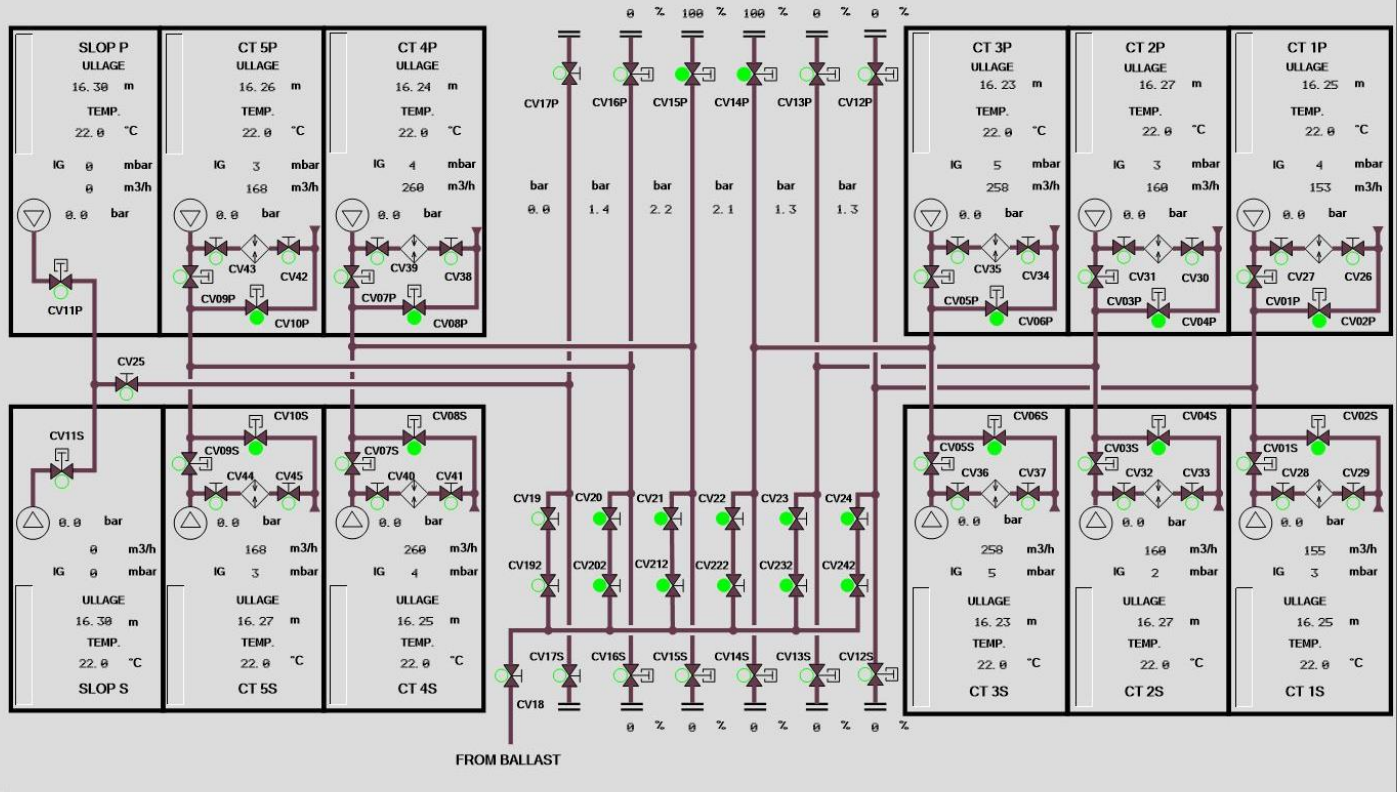
Navigation icons: mouse cursor, hand, zoom in, zoom out, default.

CCR | ER | CMS | **SYS** | DECK | CCTV

Check the conditions - ballast is discharging by gravity!



Check the conditions - ballast is discharging by gravity!



SLOP P	CT 5P	CT 4P	CT 3P	CT 2P	CT 1P
<input checked="" type="checkbox"/> 95% <input checked="" type="checkbox"/> 98% <input checked="" type="checkbox"/> IG   0 mbar	<input checked="" type="checkbox"/> 95% <input checked="" type="checkbox"/> 98% <input checked="" type="checkbox"/> IG   3 mbar	<input checked="" type="checkbox"/> 95% <input checked="" type="checkbox"/> 98% <input checked="" type="checkbox"/> IG   4 mbar	<input checked="" type="checkbox"/> 95% <input checked="" type="checkbox"/> 98% <input checked="" type="checkbox"/> IG   5 mbar	<input checked="" type="checkbox"/> 95% <input checked="" type="checkbox"/> 98% <input checked="" type="checkbox"/> IG   3 mbar	<input checked="" type="checkbox"/> 95% <input checked="" type="checkbox"/> 98% <input checked="" type="checkbox"/> IG   4 mbar
TEMP. 22.00 °C ULL. 16.300 m CAP. 630.75 m <sup>3</sup> VOL. 0.00 m <sup>3</sup> MASS. 0.0 t INN. 0.000 m RATE 0.0 m <sup>3</sup> /h	TEMP. 22.00 °C ULL. 16.260 m CAP. 5568.02 m <sup>3</sup> VOL. 13.77 m <sup>3</sup> MASS. 11.1 t INN. 0.040 m RATE 167.5 m <sup>3</sup> /h	TEMP. 22.00 °C ULL. 16.240 m CAP. 5735.66 m <sup>3</sup> VOL. 20.31 m <sup>3</sup> MASS. 16.4 t INN. 0.060 m RATE 259.6 m <sup>3</sup> /h	TEMP. 22.00 °C ULL. 16.230 m CAP. 5733.22 m <sup>3</sup> VOL. 25.03 m <sup>3</sup> MASS. 20.2 t INN. 0.070 m RATE 257.7 m <sup>3</sup> /h	TEMP. 22.00 °C ULL. 16.270 m CAP. 5609.43 m <sup>3</sup> VOL. 12.22 m <sup>3</sup> MASS. 9.9 t INN. 0.030 m RATE 159.6 m <sup>3</sup> /h	TEMP. 22.00 °C ULL. 16.250 m CAP. 3759.01 m <sup>3</sup> VOL. 11.54 m <sup>3</sup> MASS. 9.3 t INN. 0.050 m RATE 152.6 m <sup>3</sup> /h
SLOP S	CT 5S	CT 4S	CT 3S	CT 2S	CT 1S
<input checked="" type="checkbox"/> 95% <input checked="" type="checkbox"/> 98% <input checked="" type="checkbox"/> IG   0 mbar	<input checked="" type="checkbox"/> 95% <input checked="" type="checkbox"/> 98% <input checked="" type="checkbox"/> IG   3 mbar	<input checked="" type="checkbox"/> 95% <input checked="" type="checkbox"/> 98% <input checked="" type="checkbox"/> IG   4 mbar	<input checked="" type="checkbox"/> 95% <input checked="" type="checkbox"/> 98% <input checked="" type="checkbox"/> IG   5 mbar	<input checked="" type="checkbox"/> 95% <input checked="" type="checkbox"/> 98% <input checked="" type="checkbox"/> IG   2 mbar	<input checked="" type="checkbox"/> 95% <input checked="" type="checkbox"/> 98% <input checked="" type="checkbox"/> IG   3 mbar
TEMP. 22.00 °C ULL. 16.300 m CAP. 630.75 m <sup>3</sup> VOL. 0.00 m <sup>3</sup> MASS. 0.0 t INN. 0.000 m RATE 0.0 m <sup>3</sup> /h	TEMP. 22.00 °C ULL. 16.270 m CAP. 5568.02 m <sup>3</sup> VOL. 11.96 m <sup>3</sup> MASS. 9.6 t INN. 0.030 m RATE 167.5 m <sup>3</sup> /h	TEMP. 22.00 °C ULL. 16.250 m CAP. 5735.66 m <sup>3</sup> VOL. 18.57 m <sup>3</sup> MASS. 15.0 t INN. 0.050 m RATE 259.8 m <sup>3</sup> /h	TEMP. 22.00 °C ULL. 16.230 m CAP. 5733.22 m <sup>3</sup> VOL. 25.03 m <sup>3</sup> MASS. 20.2 t INN. 0.070 m RATE 257.7 m <sup>3</sup> /h	TEMP. 22.00 °C ULL. 16.270 m CAP. 5609.43 m <sup>3</sup> VOL. 11.57 m <sup>3</sup> MASS. 9.3 t INN. 0.030 m RATE 159.7 m <sup>3</sup> /h	TEMP. 22.00 °C ULL. 16.250 m CAP. 3759.01 m <sup>3</sup> VOL. 11.29 m <sup>3</sup> MASS. 9.1 t INN. 0.050 m RATE 154.5 m <sup>3</sup> /h



Check the conditions - Cargo is loading into all cargo tanks. Ullages in tanks are reducing.



SLOP P		CT 5P		CT 4P		CT 3P		CT 2P		CT 1P	
Gas Type	Conc	Gas Type	Conc	Gas Type	Conc	Gas Type	Conc	Gas Type	Conc	Gas Type	Conc
Nitrogen	78.860	Nitrogen	78.828	Nitrogen	78.828	Nitrogen	78.819	Nitrogen	78.829	Nitrogen	78.829
Oxygen	4.1397	Oxygen	4.1380	Oxygen	4.1380	Oxygen	4.1376	Oxygen	4.1381	Oxygen	4.1381
CO2	17.000	CO2	16.993	CO2	16.993	CO2	16.991	CO2	16.993	CO2	16.993
		CH Vapour	0.0410	CH Vapour	0.0407	CH Vapour	0.0513	CH Vapour	0.0396	CH Vapour	0.0394
Cargo Type	Conc	Cargo Type	Conc	Cargo Type	Conc	Cargo Type	Conc	Cargo Type	Conc	Cargo Type	Conc
		Kerosene	100.00	Kerosene	100.00	Kerosene	100.00	Kerosene	100.00	Kerosene	100.00

SLOP S		CT 5S		CT 4S		CT 3S		CT 2S		CT 1S	
Gas Type	Conc	Gas Type	Conc	Gas Type	Conc	Gas Type	Conc	Gas Type	Conc	Gas Type	Conc
Nitrogen	78.860	Nitrogen	78.832	Nitrogen	78.832	Nitrogen	78.819	Nitrogen	78.832	Nitrogen	78.831
Oxygen	4.1397	Oxygen	4.1383	Oxygen	4.1382	Oxygen	4.1376	Oxygen	4.1382	Oxygen	4.1382
CO2	17.000	CO2	16.994	CO2	16.994	CO2	16.991	CO2	16.993	CO2	16.993
		CH Vapour	0.0348	CH Vapour	0.0352	CH Vapour	0.0513	CH Vapour	0.0357	CH Vapour	0.0367
Cargo Type	Conc	Cargo Type	Conc	Cargo Type	Conc	Cargo Type	Conc	Cargo Type	Conc	Cargo Type	Conc
		Kerosene	100.00	Kerosene	100.00	Kerosene	100.00	Kerosene	100.00	Kerosene	100.00

Check the conditions – single cargo “Kerosene” is loading into all cargo tanks. We can observe the level of vapour, the concentration of nitrogen, oxygen, and CO2