Vapour Return Valve (VRL)

Command	Effect
Auto	Puts valves in vapour line to Auto control (V51 and V54)
Manual	Puts valves in vapour line to Manual control (V51 and V54)
Activate	Will open VRL dicharge valve (V51)
Deactivate	Will close VRL dicharge valve (V51)
Inert	Will operate inert valve (V04) and vent valve (V54)
Inert from Supplier	Will operate VRL discharge valve (V51) and vent valve (V54)
Inert to Supplier	Will operate inert valve (V04) and VRL discharge valve (V51)
Depressurize	Will open vent valve (V54). Note! Must be manually closed.
Select Bunker station 1	The valves (above listed) connected to VRL at bunker station 1 are controlled by the control system
Select Bunker station 2	The valves (above listed) connected to VRL at bunker station 2 are controlled by the control system

Liquid Inerconnection Line (LIL)

Command	Effect
Auto	Puts valves in LIL to Auto control (inert valve V55, vent valve V05, spray tank valve V02 and LIL supply valve V01
Manual	Puts valves in LIL to Manual control (inert valve V55, vent valve V05, spray tank valve V02 and LIL supply valve V01
Inert	Operates vent valve V05 and inert valve V55
Activate	Will open LIL supply valve V01.
Drain	Will operate LNG spray valve (V01) and inert valve (V55)
Select Tank 1	The valves (above listed) connected to LIL and tank 1 are controlled by the control system
Select Tank 2	The valves (above listed) connected to LIL and tank 2 are controlled by the control system
Select Both Tanks	The valves (above listed) connected to LIL and both tanks are controlled by the control system
Spray Control Auto	Top spray valve V02 is controlled by tank pressure
Open Top/Spray Valve	Manual opening of top spray valve V02

Note! The bottom connection must be activated before LIL supply valve (V01) can be activated.

Liquid Bunker Line (LBL)

Command	Effect
Auto	Valves connected to bunker line are controlled by the control system.
Manual	Valves connected to bunker line are manually controlled
Activate ESD Com	ESD communication with the supplier is established
Deactivate ESD Com	ESD communication is deactivated
Inert	Operates inert valve V55, bunkering valve V36 and vent valve V38
Cool	Will open LNG spray valve (V01), LBL stripping valve (V36) and LBL supply valve (V37) to cool down bunker line
Drain	Operates inert valve (V35) and bunker line valve (V36)
Start	Will open LBL supply valve (V57)
Stop	Will close LBL supply valve (V57)
Activate	Will open LBL supply valve (V37)
Deactivate	Will close LBL supply valve (V37)
Emergency Stop	Will close LBL main supply valve (V57)
Control Reset	Reset LBL trip

Note! Bunkering is not possible until ESD communication is established.
Note! Spray valve (V02) must be open to enable drain.
Note! Bunker line must be in “Cooled” state before drain is possible.

Pressure Build Up Evaporator (PBE)

Command	Effect
Auto	Valves connected to PBE are controlled by the control system
Manual	Valves connected to PBE are manually controlled
Activate	The PBE Outlet Gas return valve (V16) will be controlled by the control system and open/close depending on tank pressure
Close	Will close the PBE Outlet Gas return valve (V16)
Emergency Stop	Will close PBE Outlet Gas return valve (V16)
Reset	Resets tripped PBE (PBE has to be reactivated)

Bottom Connection (BC)

Command	Effect
Auto	Valves connected to BC are controlled by the control system
Manual	Valves connected to BC are manually controlled
Inert	Control Inert valve V21 and Vent valve V18
Activate	Will open tank BC valve (V20)
Close	Will close tank BC valve (V20)
Emergency Stop	Will shut down BC, MGE, EL and Storage Tank
Reset	Reset trips and shutdowns

Main Gas Evaporator (MGE)

Command	Effect
Auto	Valves connected to MGE are controlled by the control system
Manual	Valves connected to MGE are manually controlled
Inert	Operates inert valve (V23) and EL vent valve (V26)
Activate	Will open Main Gas Evaporator valve (V22)
Close	Will close Main Gas Evaporator valve (V22)
Emergency Stop	Will shut down BC, MGE, EL and Storage Tank
Reset	Reset trips and shutdowns

Note! The Engine Line ventilation valve (V26) is also pressure controlled; opens at 7 bar and close at 6.5 bar.

Engine Line (EL)

Command	Effect
Auto	Valves connected to EL are controlled by the control system
Manual	Valves connected to EL are manually controlled
Inert	Operate engine line inerting valve (V30) and vent valves GV1, GV2 and GV3.
Activate	Opens engine line gas valve (V27)
Close	Closing engine line gas valve (V27)
Emergency Stop	Will shut down BC, MGE, EL and Storage Tank
Reset	Reset trips and shutdowns

Gas Interconnection Line (GIL)

Command	Effect
Auto	Valves connected to GIL are controlled by the control system
Manual	Valves connected to GIL are manually controlled
Inert	Operate GIL inert valve (V29) and GIL ventilation valve (V25)
Activate	Will open GIL valve (V28) in both Pacs
Close	Will close GIL valve (V28) in both Pacs
Emergency Stop	Will shut down BC, MGE, EL and Storage Tank
Reset	Reset trips and shutdowns

Note! It's not possible to activate GIL if both engine lines (EL) are active. This may cause a change over to DO/H
the LNG Pac that is going to be closed down. Both EL and MGE have to be Closed before GIL activation is enabled