




Fachtechnik **FUNCTIONAL SPECIFICATION**
Anlage **646 001**
Teilanlage **039**

Lieferant SIAD MI
Titel FUNCTIONAL SPECIFICATION FOR TRUCK LOADING BAY
 CONTROL SYSTEM (CONTROL NARRATIVE)
 FUNKTIONSSPEZIFIKATION FÜR DAS STEUERSYSTEM FÜR
 LKW-LADESTATIONEN (STEUERBESCHREIBUNG)
Bestell.-Nr. 4510272370

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	Datum		Name											
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Ursprung:					SSI-SW286 Rev.0A					Ers. f.:				
										Ers. d.				

BIOPLUS LNG GmbH - GERMANY

SMART TB-LNG 140

FUNCTIONAL SPECIFICATION FOR TRUCK LOADING BAY CONTROL SYSTEM (CONTROL NARRATIVE)


00	09-May-2024	PRELIMINARY ISSUE	BAM	SOF								
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DESCRIPTION		REFERENCE	L43374									
TB-LNG 140 FUNCTIONAL SPECIFICATION FOR TRUCK LOADING BAY CONTROL SYSTEM (CONTROL NARRATIVE)		No.		S	S	I	-	S	W	2	8	6
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DESCRIPTION

BIOPLUS LNG GmbH - GERMANY
 FUNCTIONAL SPECIFICATION FOR TRUCK
 LOADING BAY CONTROL SYSTEM (CONTROL
 NARRATIVE)

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1 INTRODUCTION

1.1 GENERAL INFORMATION

This specification is used to implement the truck loading bay sequence of LNG liquefaction plant 140 TPD, type SMART TB-LNG to be installed in Renzenhof, Germany.

1.2 ABBREVIATIONS

TERM	DESCRIPTION
ArbStättV	Workplace Ordinance
ASR	Technical rules for workplaces
ATEX	Rules for Explosive Atmosphere
AV	Antivirus
AwSV	Ordinance on Facilities for Handling Substances Hazardous to Water
BayBo	Bavarian building code
BImSchG	Federal Immission Control Act (Germany)
BImSchV	Federal Immission Control Ordinance (Germany)
BOG	Boil of Gas
CFC	Continuous Function Chart
DCE	Data Communication Equipment
DGUV	German Statutory Accident Insurance
DOL	Direct On Line
DTE	Data Terminal Equipment
DVGW	German Association of the Gas and Water Industry
EMC	Electromagnetic compatibility
EnEV	Energy Saving Ordinance
EPCC	CONTRACTOR for Engineering, Procurement, Construction and Commissioning
ES	Engineering Station
ESD	Emergency Shut Down
F&G	Fire & Gas
GDRM	gas metering and pressure reduction system
HAZOP	Risk analysis for HAZard and Operability
HMI	Human machine interface
IBN	Commissioning
ICS	Integrated Control System
KVM	Keyboard Video Mouse
LNG	Liquefied Natural Gas
LVSG	Low Voltage Switch Gear
MCC	Motor Control Cabinet or Mechanical Completion Certificate
MCS	Main Control Room
M-LVSG	Main Low Voltage Switch Gear
MOP	Maximum Operating Pressure
MT	Magnetic Testing
MVSG	Medium Voltage Switch Gear
NDT	Non destructive Testing

DESCRIPTION

BIOPLUS LNG GmbH - GERMANY
FUNCTIONAL SPECIFICATION FOR TRUCK
LOADING BAY CONTROL SYSTEM (CONTROL
NARRATIVE)

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TERM	DESCRIPTION
NPT	National Pipe Thread
OT	Operational Technology
OS	Operator Station
OGE	Open Grid Europe GmbH
PDN	Process Data Network
PFD	Process Flow Diagram
PGC	Process Gas Chromatograph
PID	Piping and Instrumentation Diagram
ProdSG	Product Safety Act
ProdSV	Product Safety Ordinance
RIO	Remote I/O
RCS	Remote Control System (central dispatching in Essen)
RN	OGE standard/works standard
RT	Radiographic Testing
SCS	Station Control System
SFC	Sequential Function Chart
SIL	Safety Integrity Level
TA Lärm	Technical Instructions for Protection against Noise
TA Luft	Technical Instructions on Air Quality Control
UCS	Unit Control System
U-LVSG	Unit Low Voltage Switch Gear
UPS	Uninterruptable Power Supply
UT	Ultrasonic Testing
VDI	Association of German Engineers
VFD	Variable Frequency Drive
VGT	Viergas Transport GmbH
VSD	Variable Speed Drive
WHG	Water Resources Act

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1.3 REFERENCE DOCUMENTS


ID	CLIENT Document Number/ CONTRACTOR Document Number	Document Title
1	900REZH000301100USP00101	TECHNICAL SPECIFICATION FOR BIO GAS LIQUEFACTION PLANT
2	520REZH700001000SRI00201+/ I20784	P&I DIAGRAM
3	140REZH690010001LMK00101+/ SWDS271/1	ALARM AND TRIP LIST
4	140REZH690010001PFS00101+/ SWDS271/5	CAUSE & EFFECT MATRIX
5	140REZH690001001USP00101+/ SSI-SW271	FUNCTIONAL SPECIFICATION FOR CONTROL SYSTEM (CONTROL NARRATIVE)
6	520REZH600001000RVB00101+/ GTS19/818	PROCEDURE FOR ANALYSIS
7	520REZH646001035RVB00101+/ GTS19/819	PROCEDURE FOR LNG TRUCK LOADING
8	140REZH690001001XDT00101+/ SWDS271/2	SET POINT LIST
9	140REZH646001001LIV00101+/ AL1216	TP* - TRUCK LOADING BAY I/O LIST WITH PLC ADDRESS
10	HOLD/ AL1406	TP* - TRUCK LOADING BAY EXCHANGE LIST
11	HOLD/ EST117612	PLANT ANALYSIS AND TRUCK LOADING MANAGEMENT - EXCHANGE LIST

1.4 DEFINITIONS

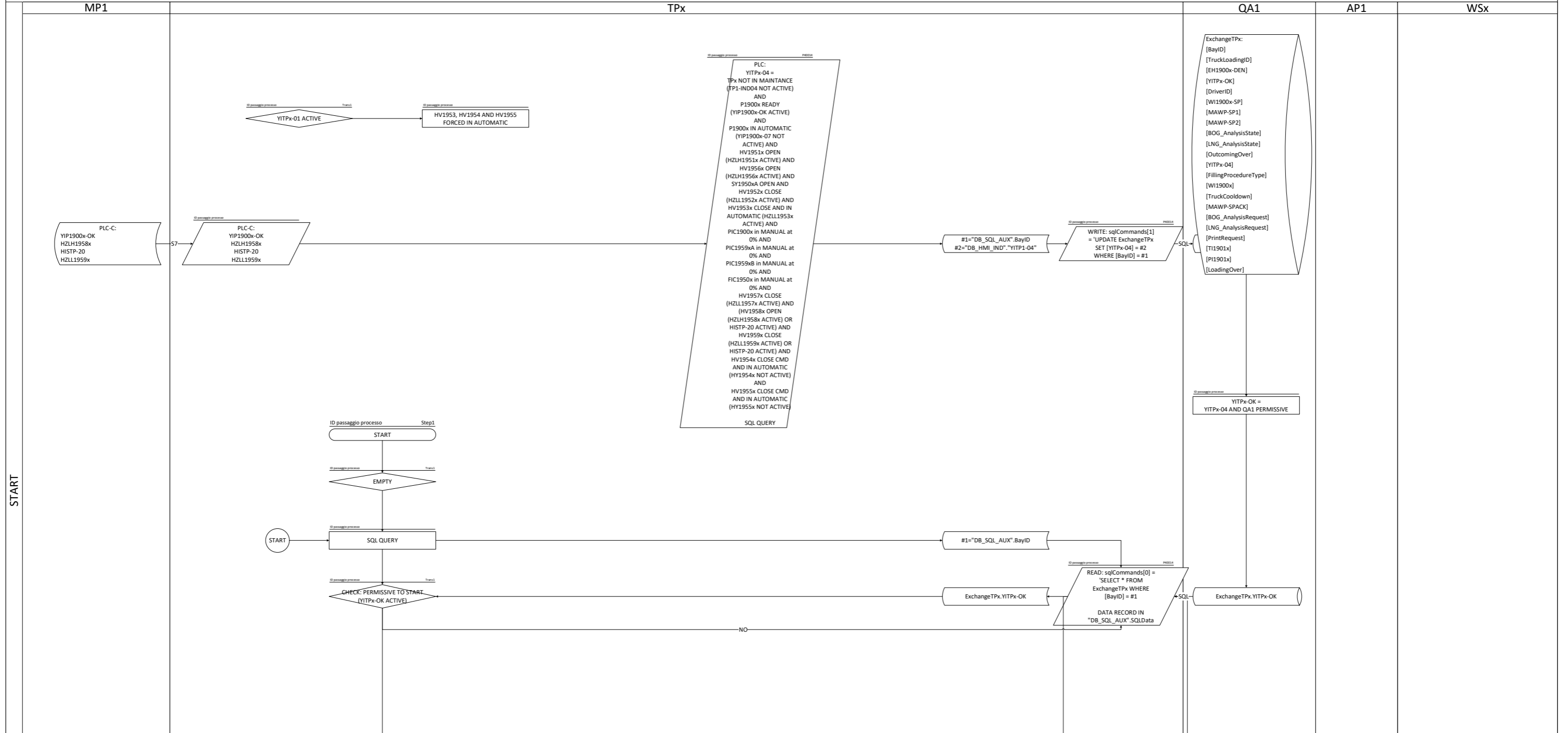
This section contains definitions for terms and acronyms used in this document:

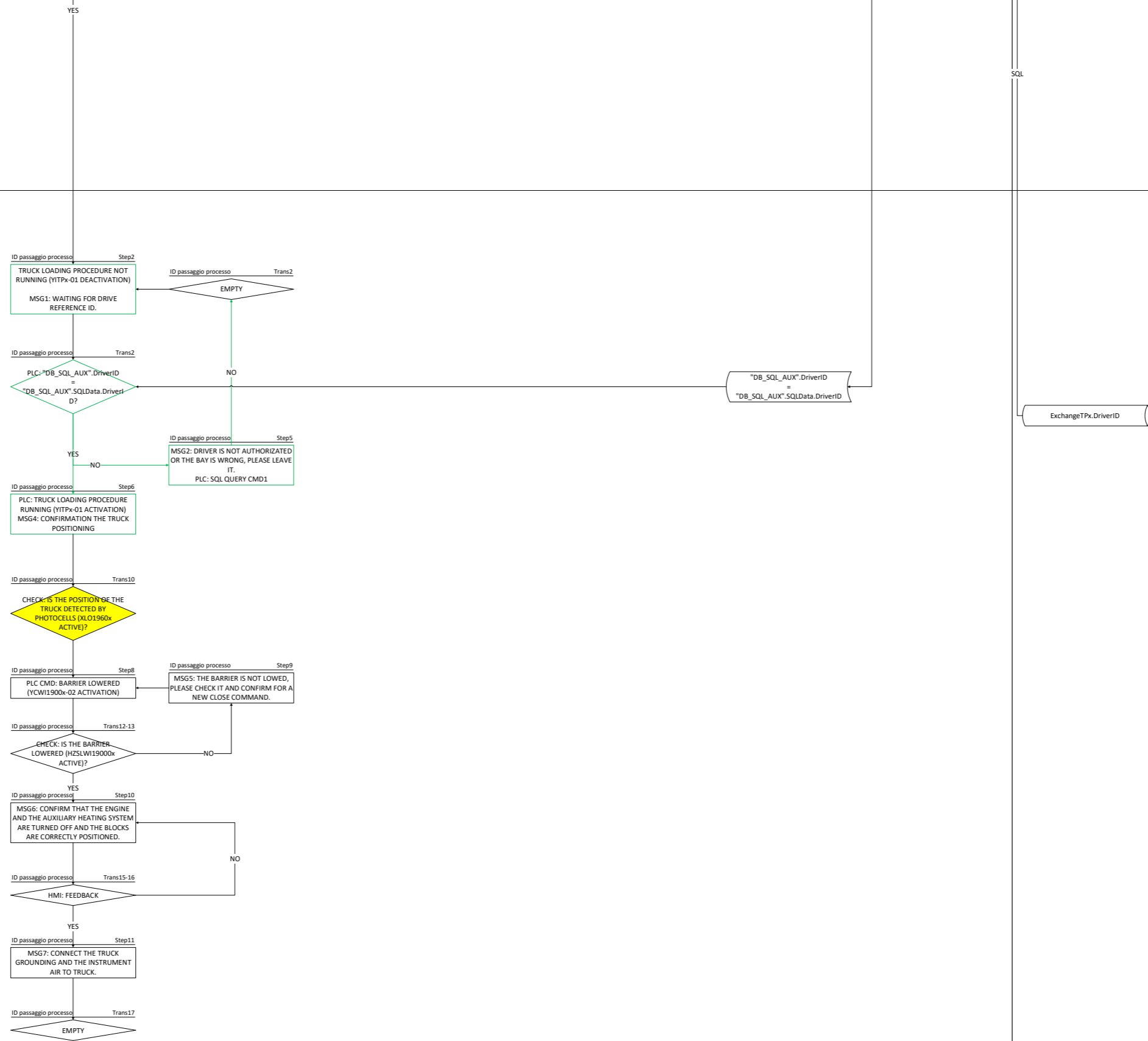
- CLIENT is Viergas and Gascom (Joint Venture will be founded during Bid phase)
- CLIENT ENGINEER is Open Grid Europe GmbH Kallenbergstraße 5 D-45141 Essen
- CONTRACTOR is SIAD Macchine Impianti S.p.A.

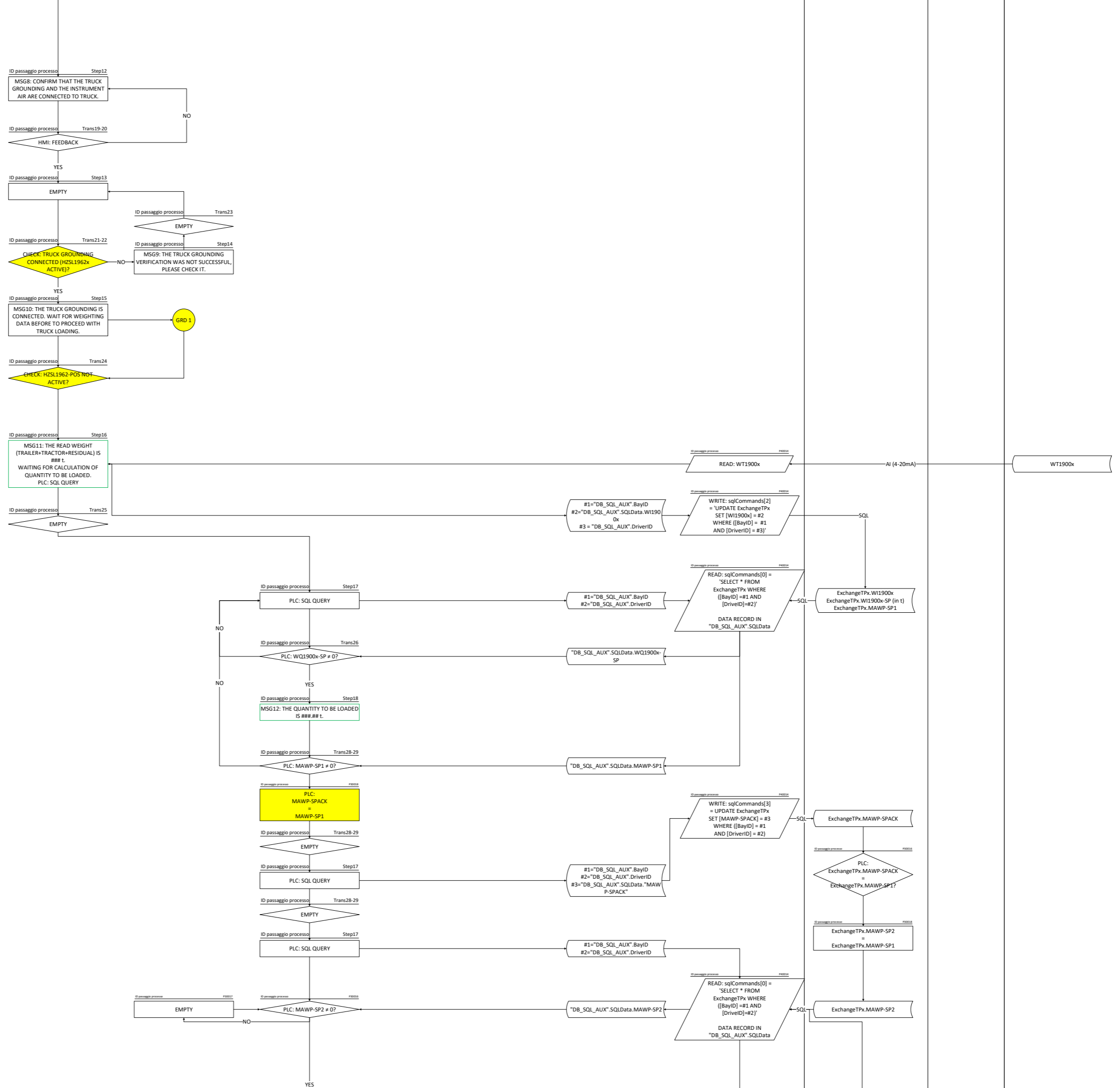
2 TRUCK LOADING BAY SEQUENCE

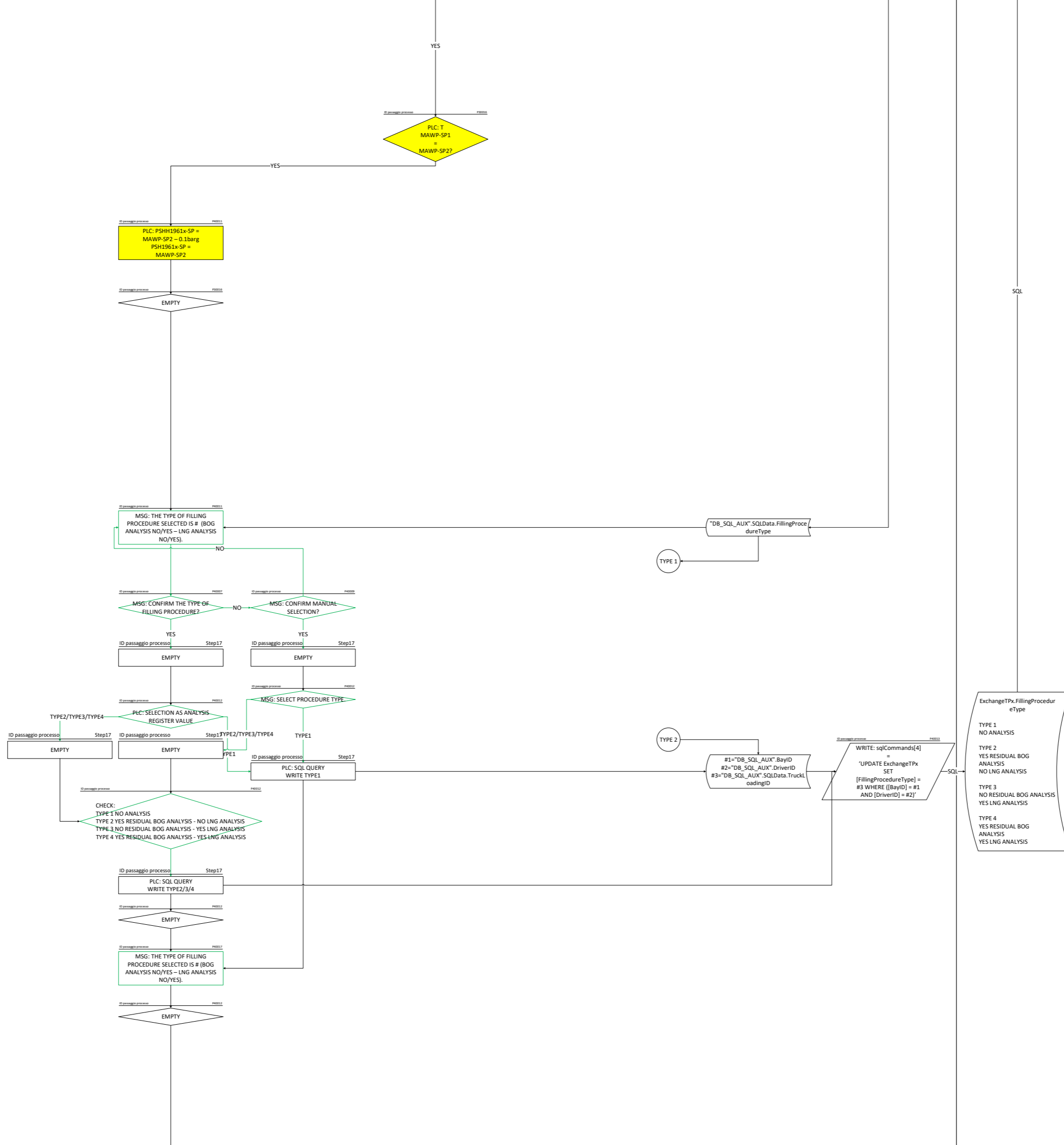
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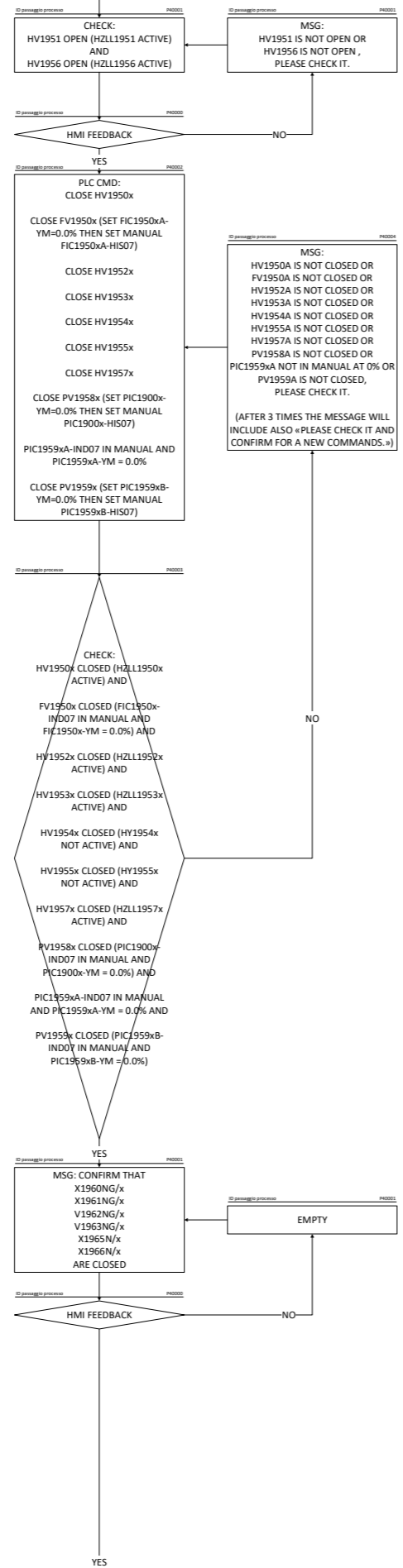
SSI-SW286 - FUNCTIONAL SPECIFICATION FOR TRUCK LOADING BAY CONTROL SYSTEM (CONTROL NARRATIVE)



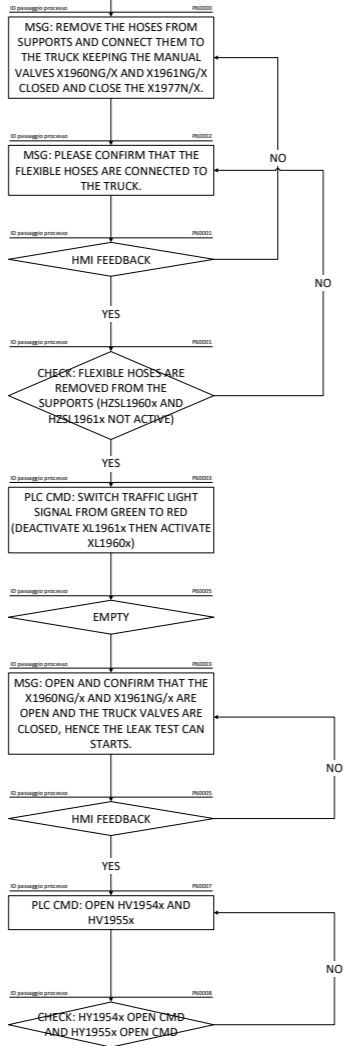
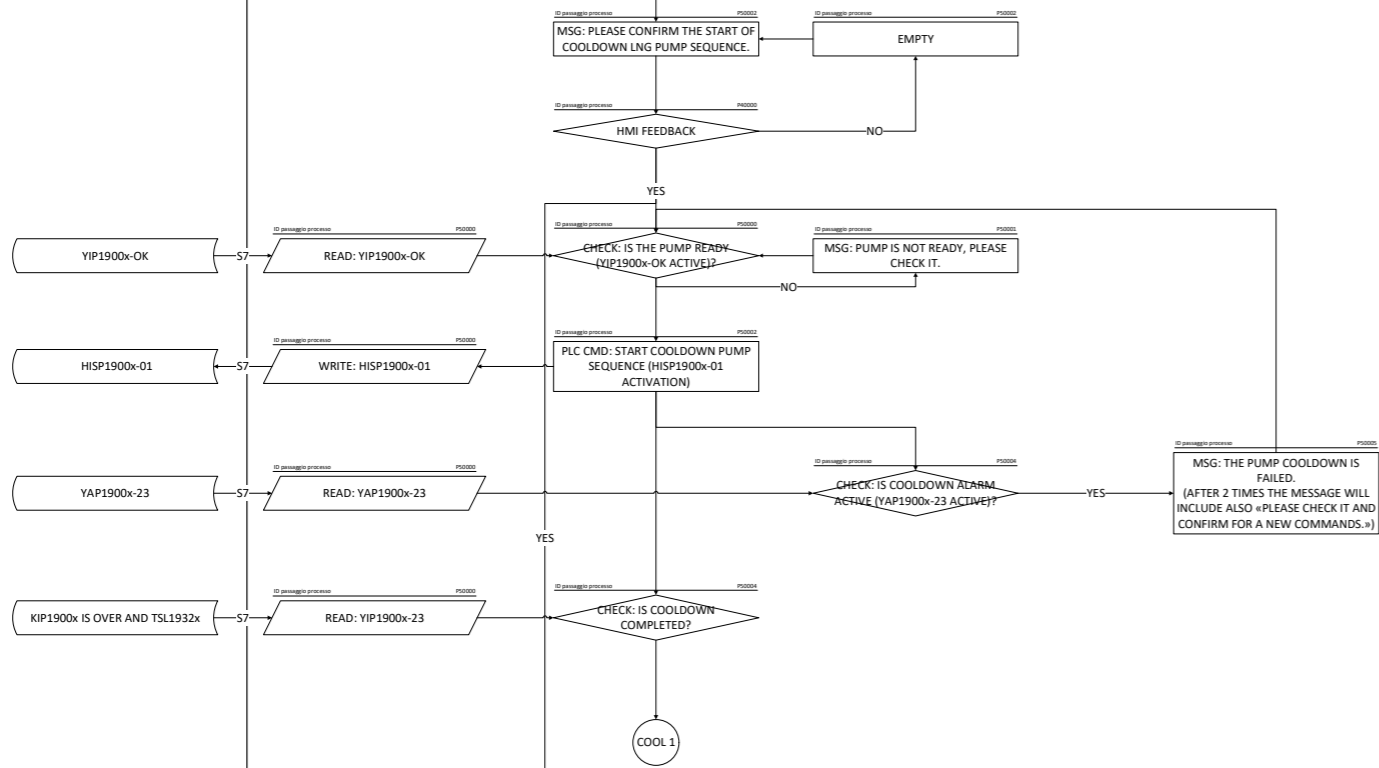


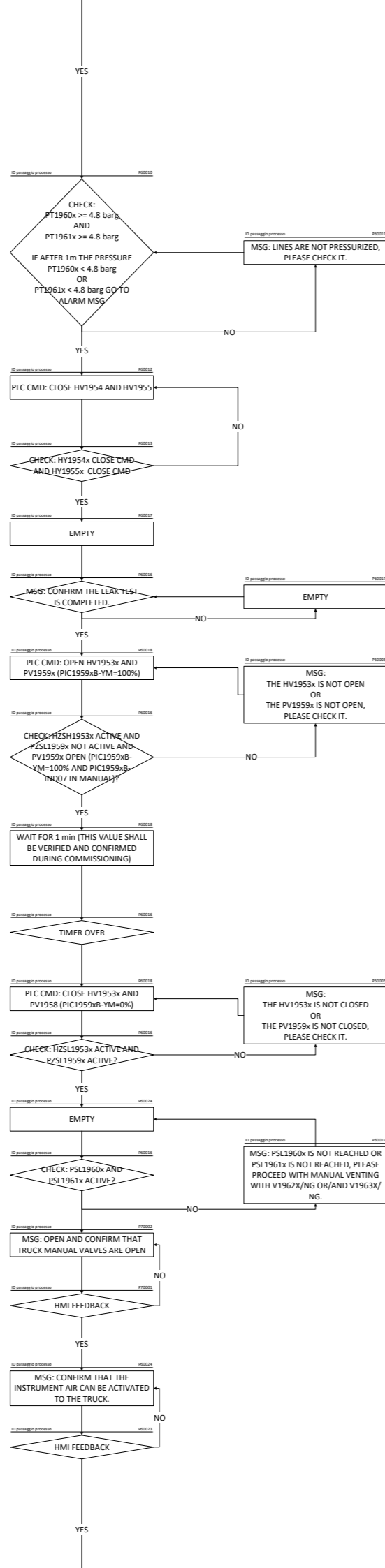


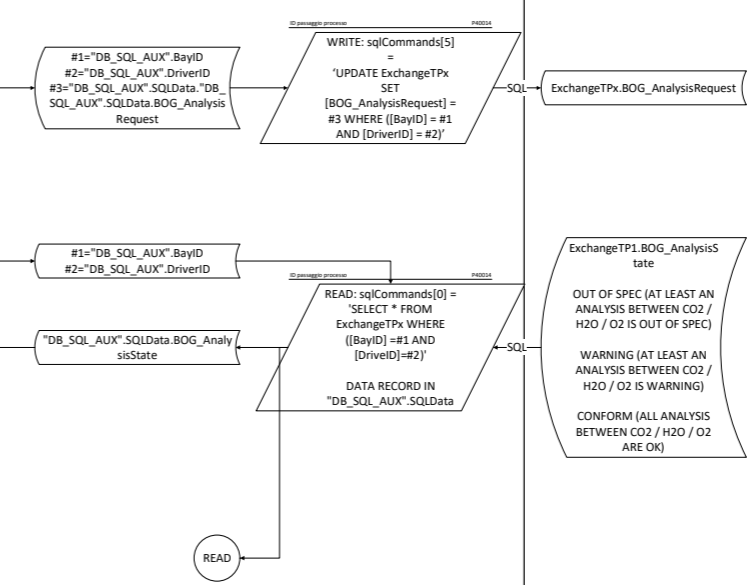
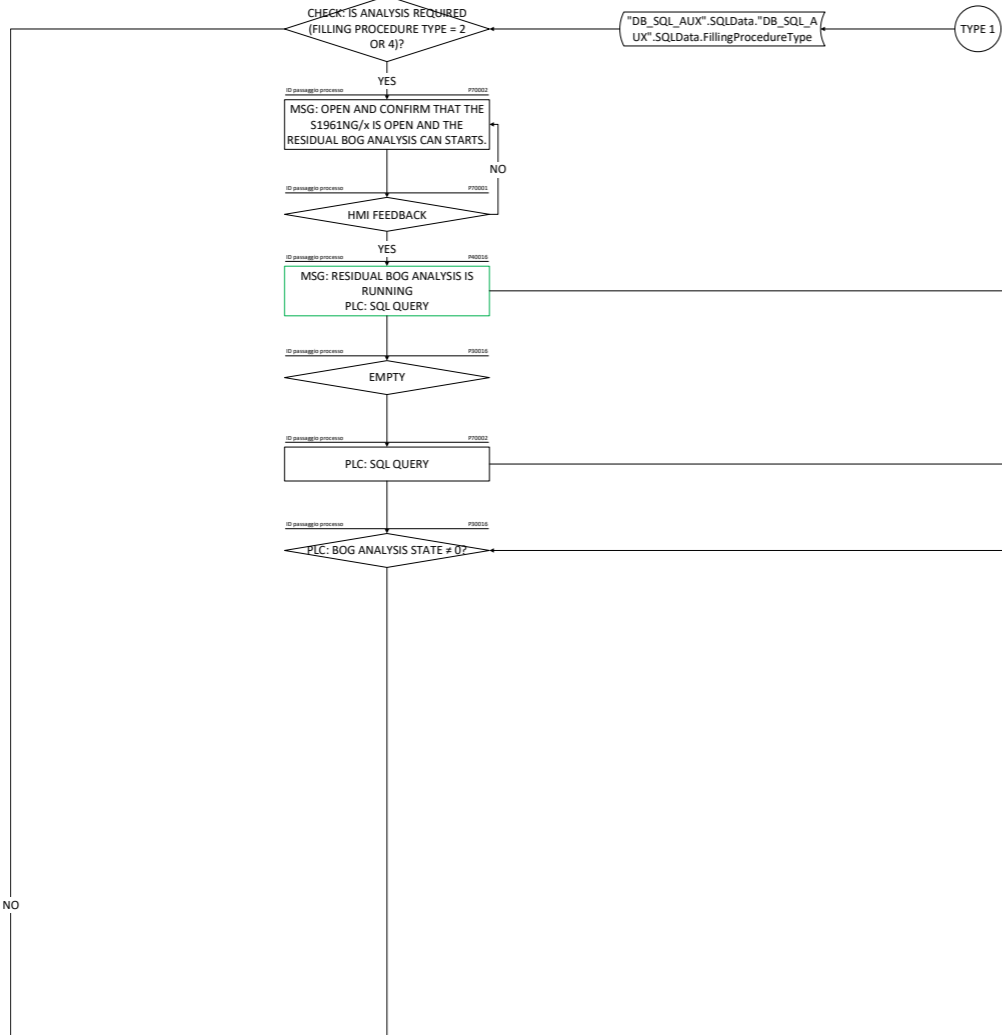
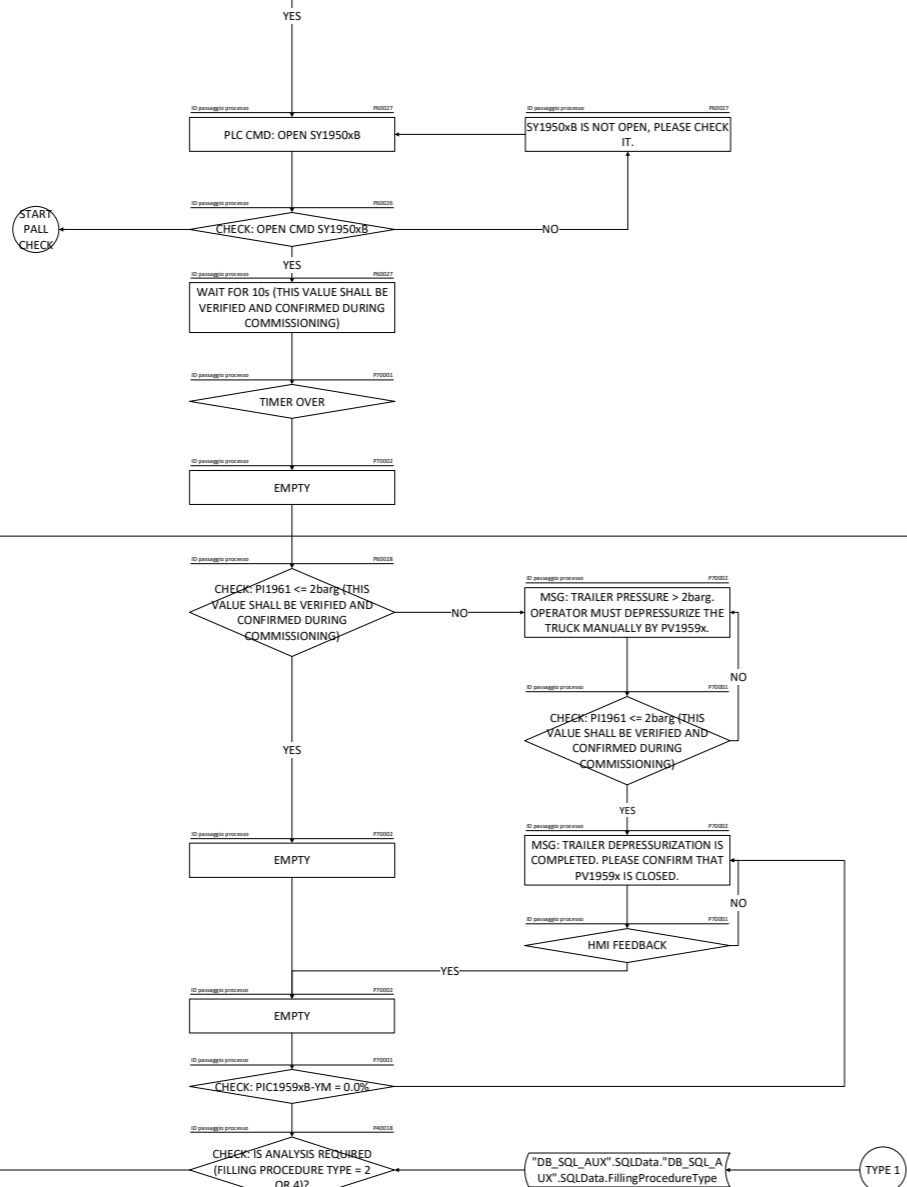




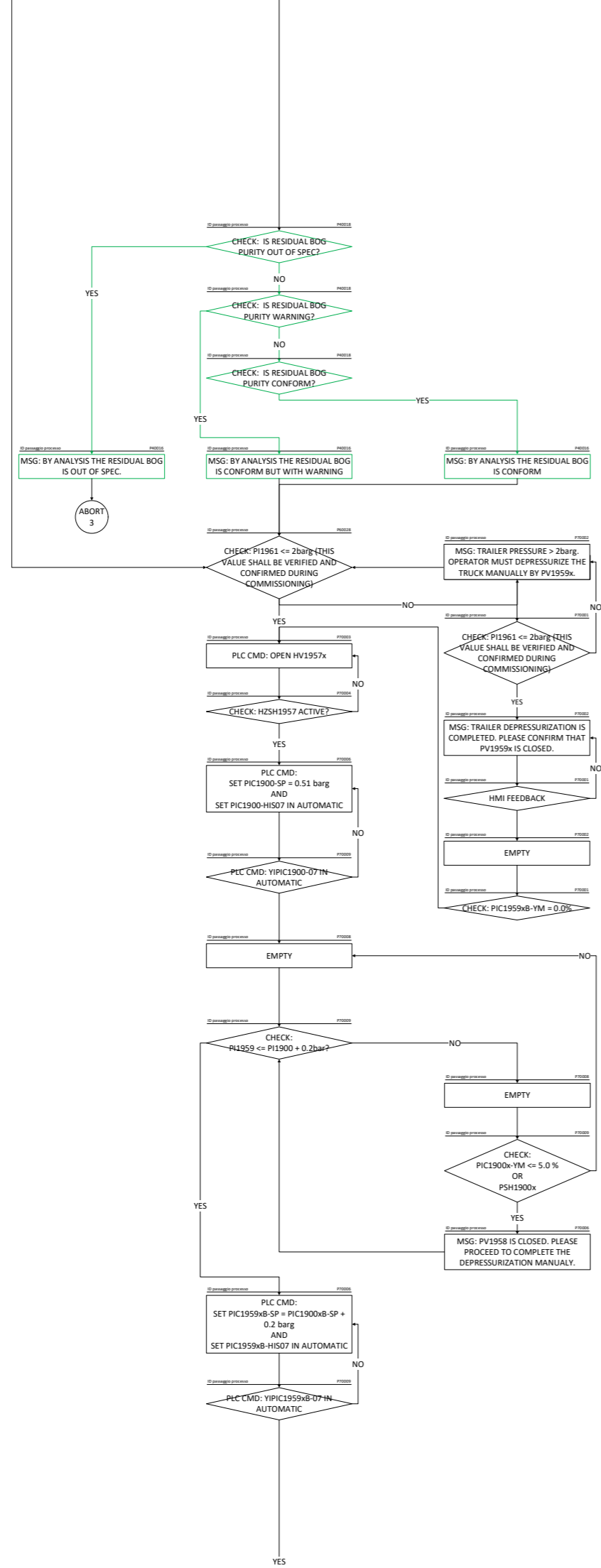
3 - LNG PUMP COOLDOWN



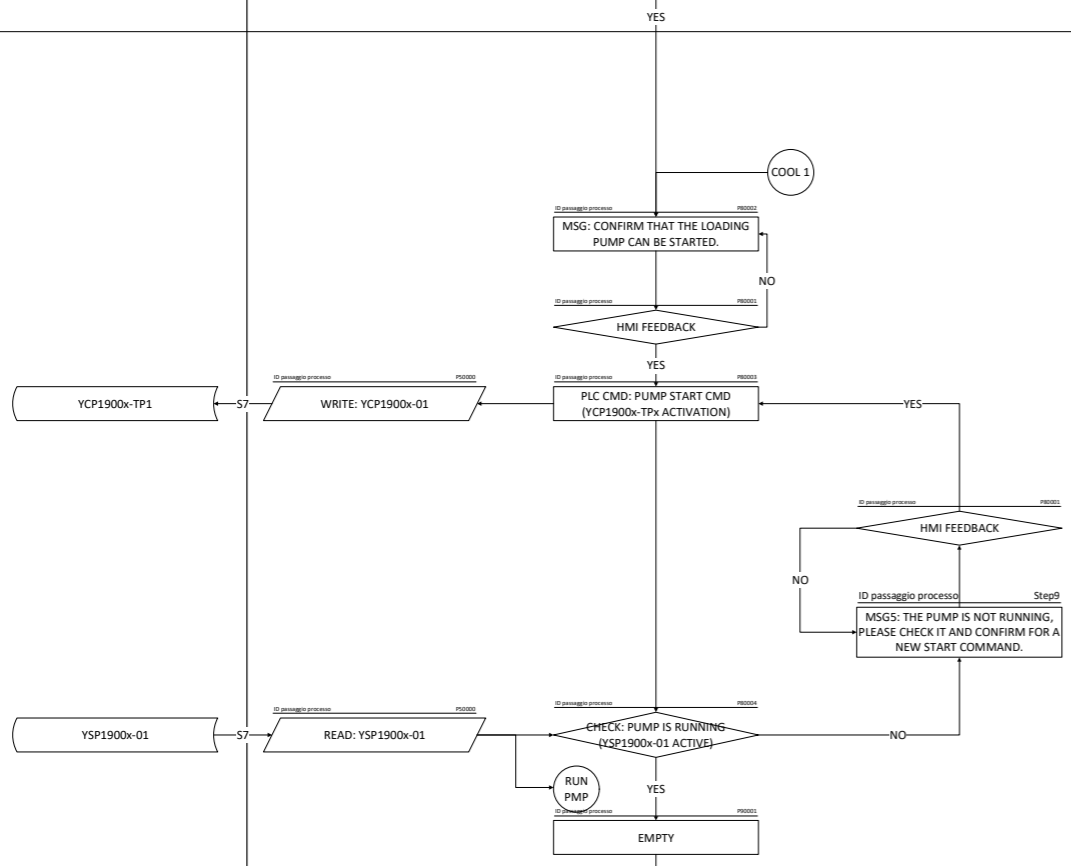




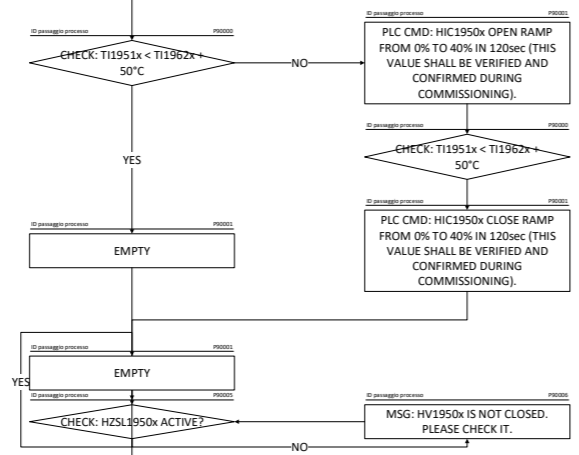
ExchangeTP1.BOG_AnalysisState
 OUT OF SPEC (AT LEAST AN ANALYSIS BETWEEN CO2 / H2O / O2 IS OUT OF SPEC)
 WARNING (AT LEAST AN ANALYSIS BETWEEN CO2 / H2O / O2 IS WARNING)
 CONFORM (ALL ANALYSIS BETWEEN CO2 / H2O / O2 ARE OK)

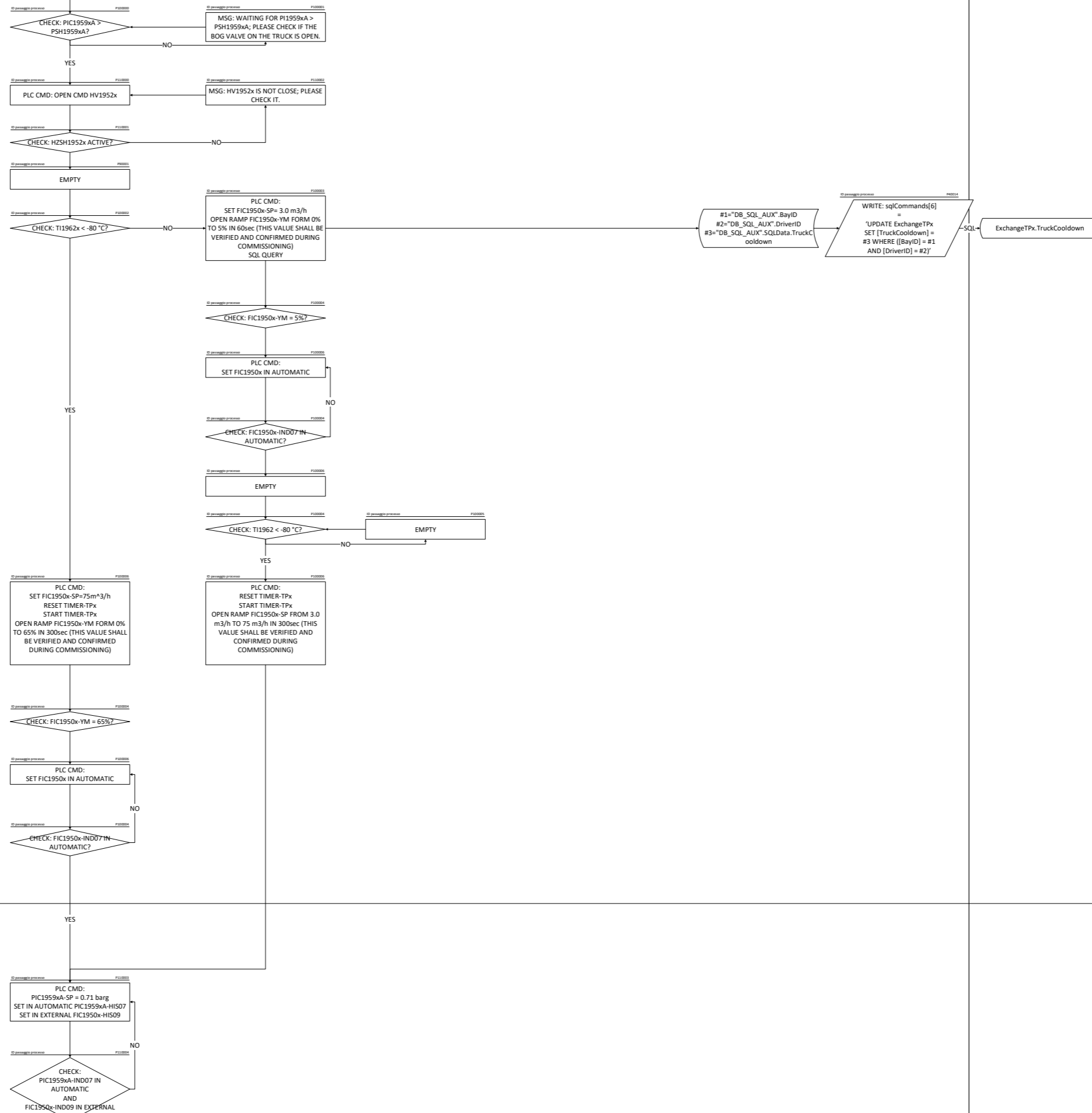


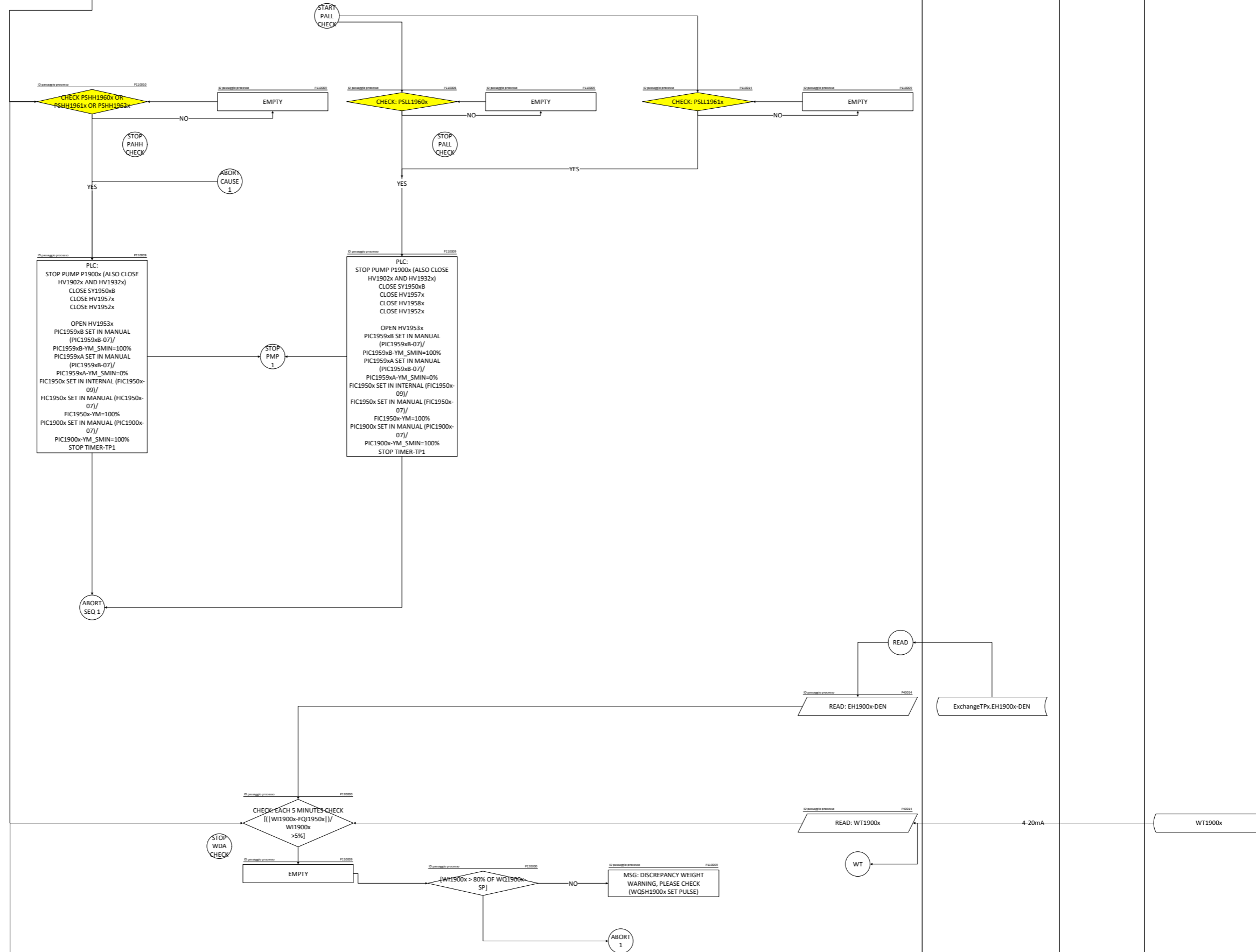
6 - LNG PUMP STARTUP

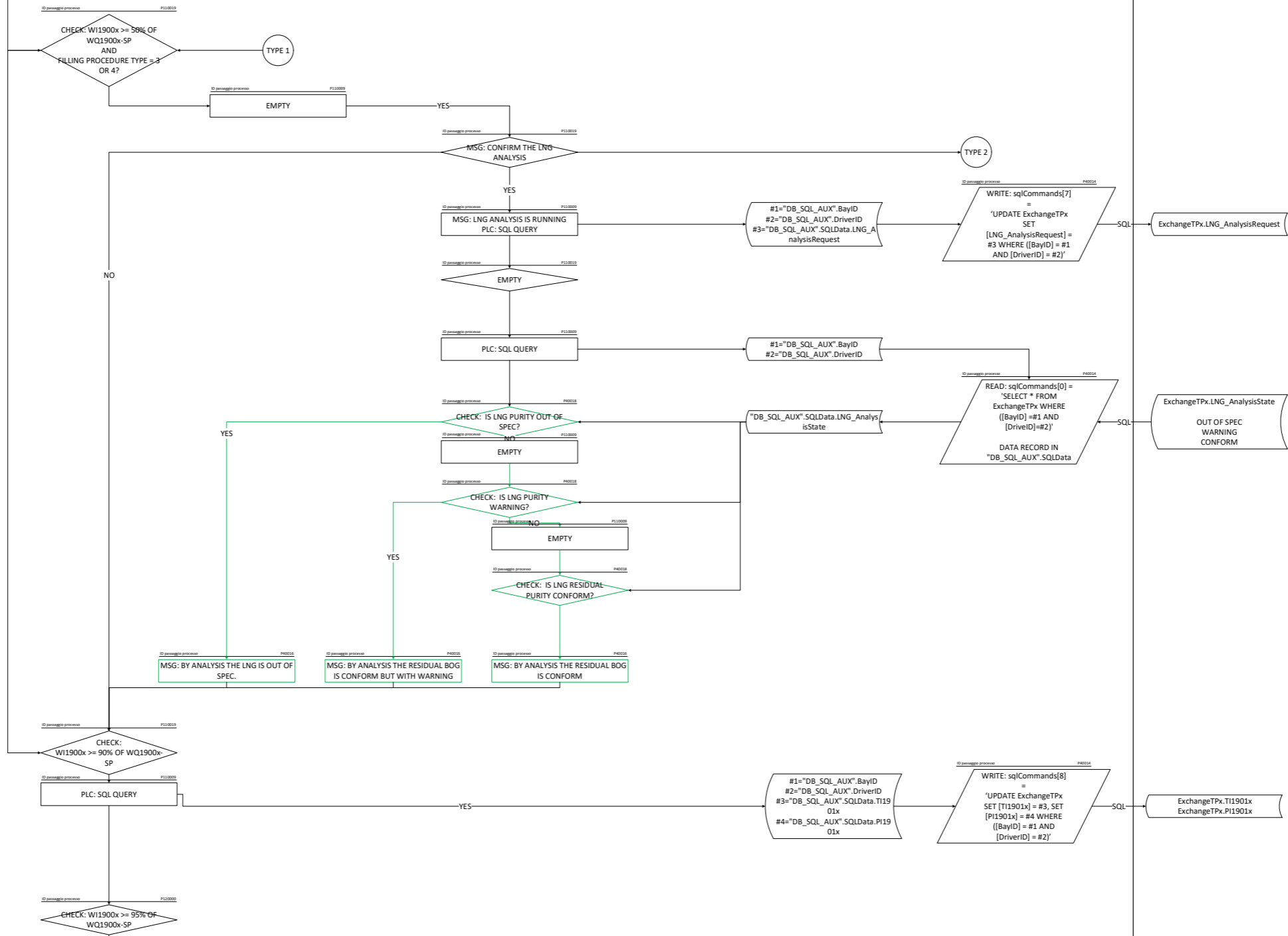


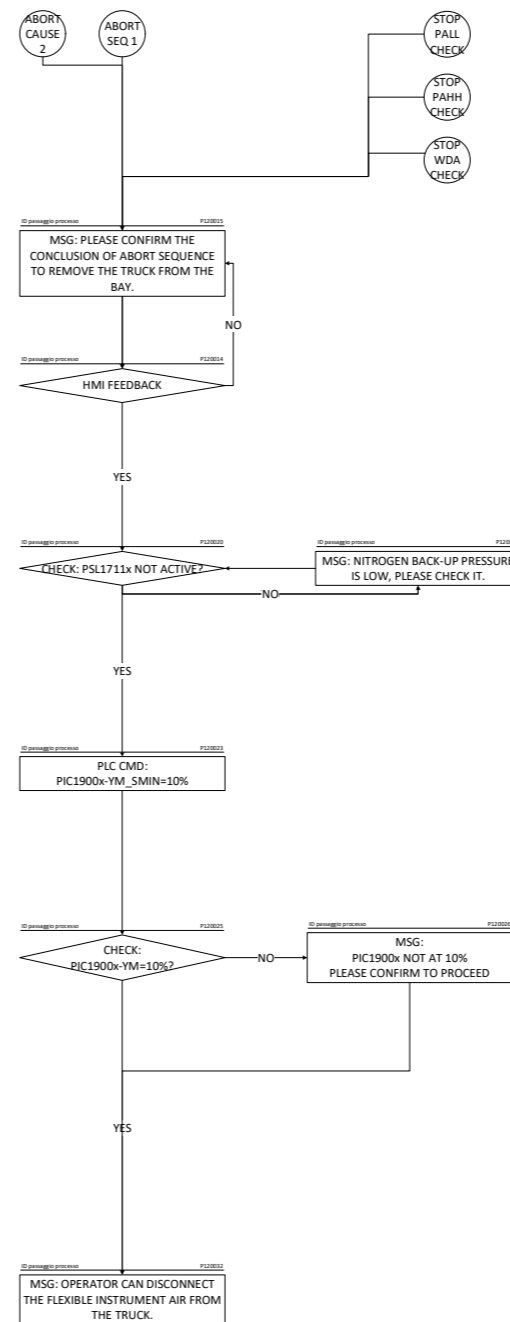
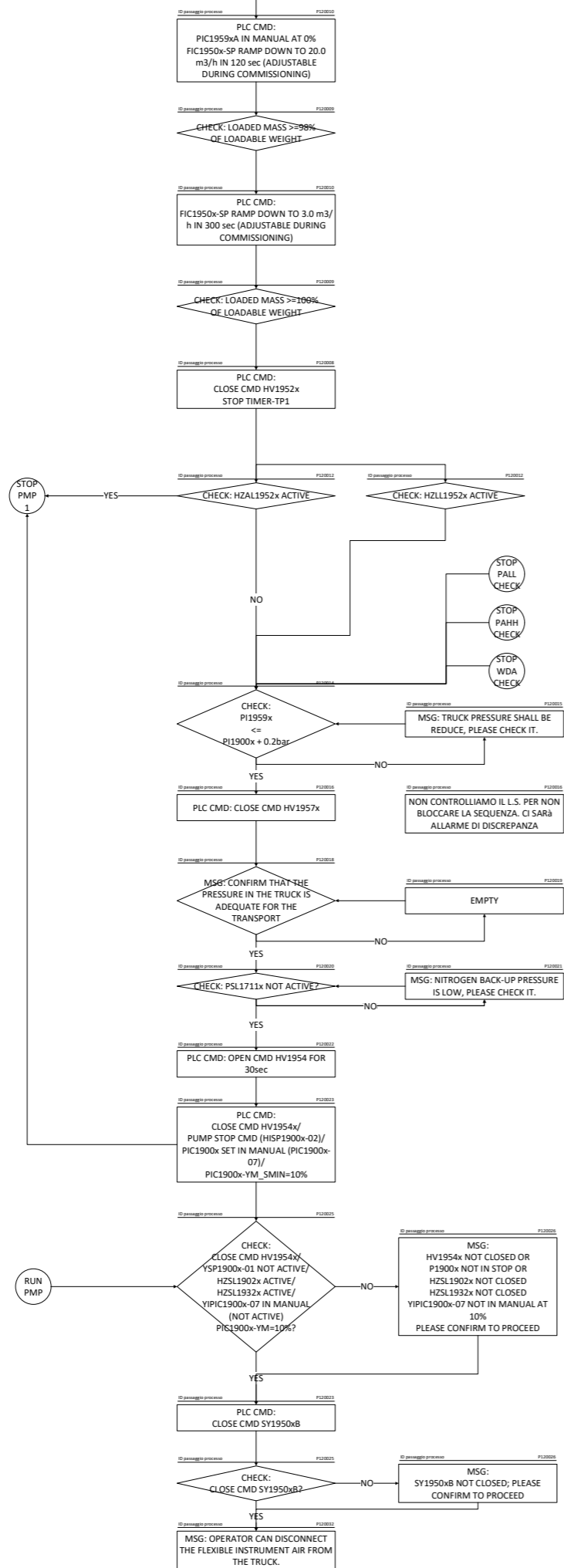
7 - LNG LINE COOLDOWN



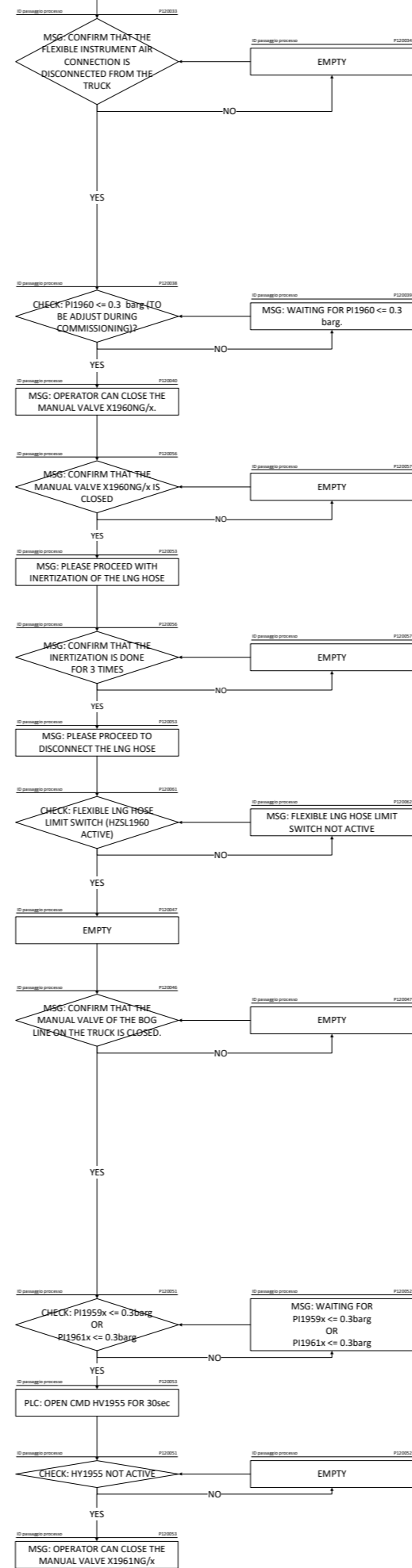
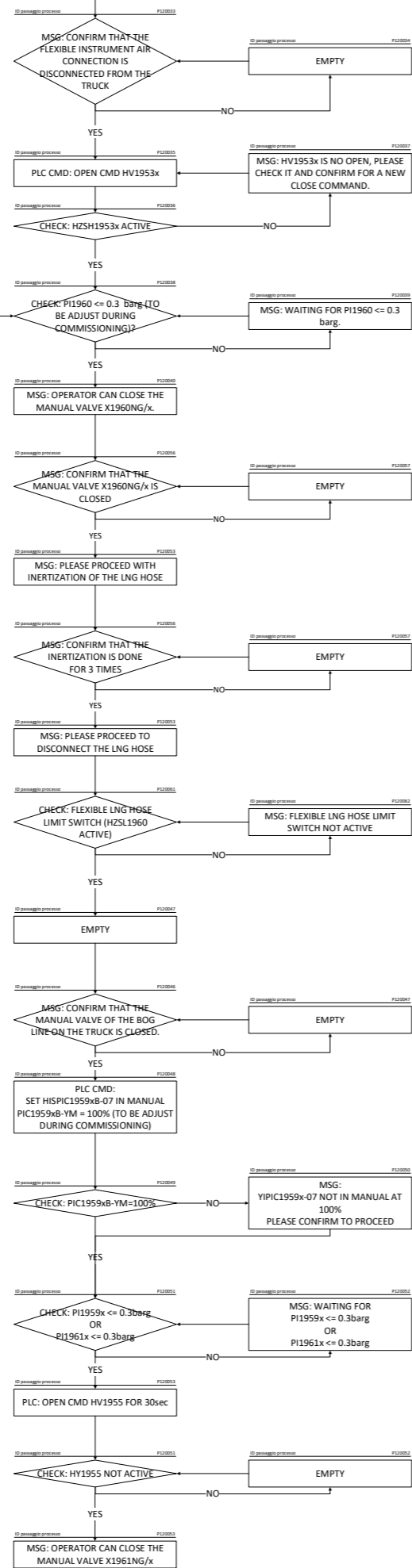


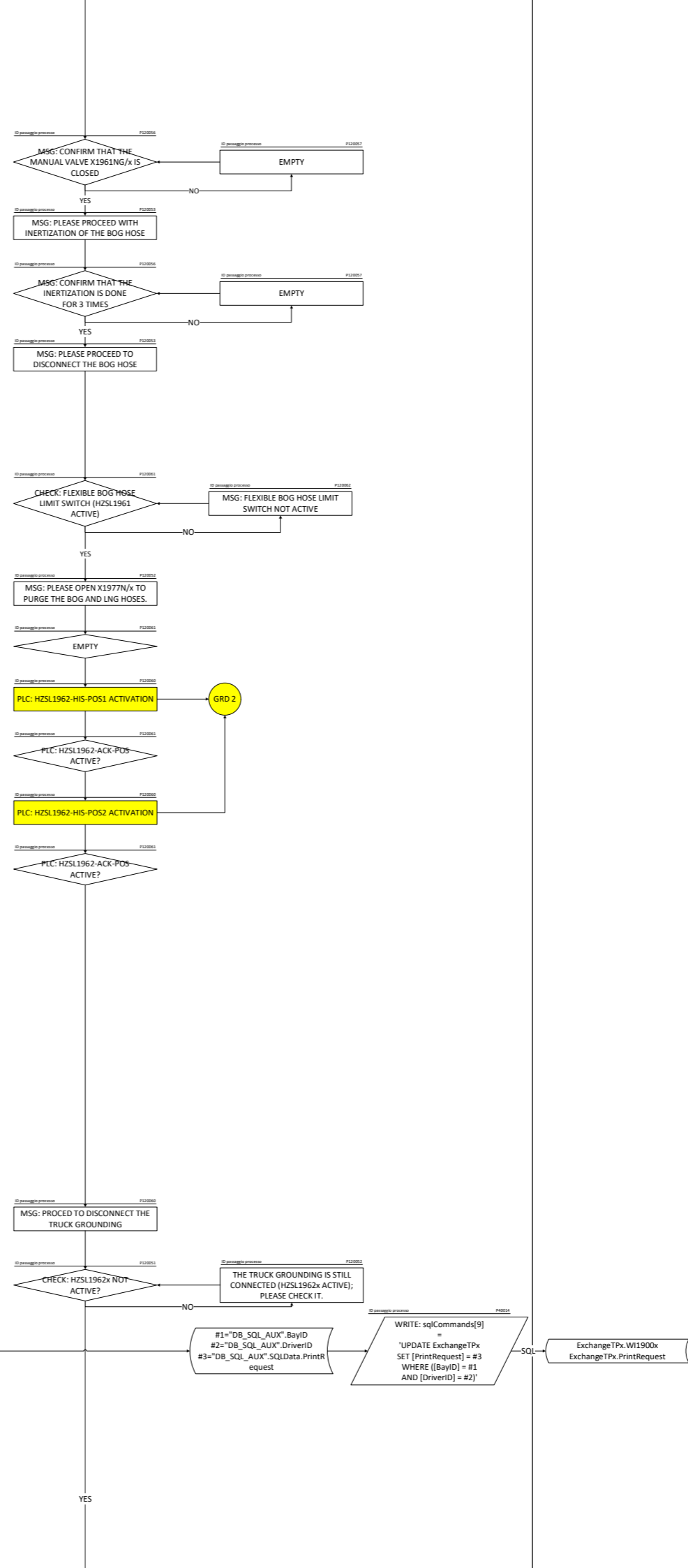
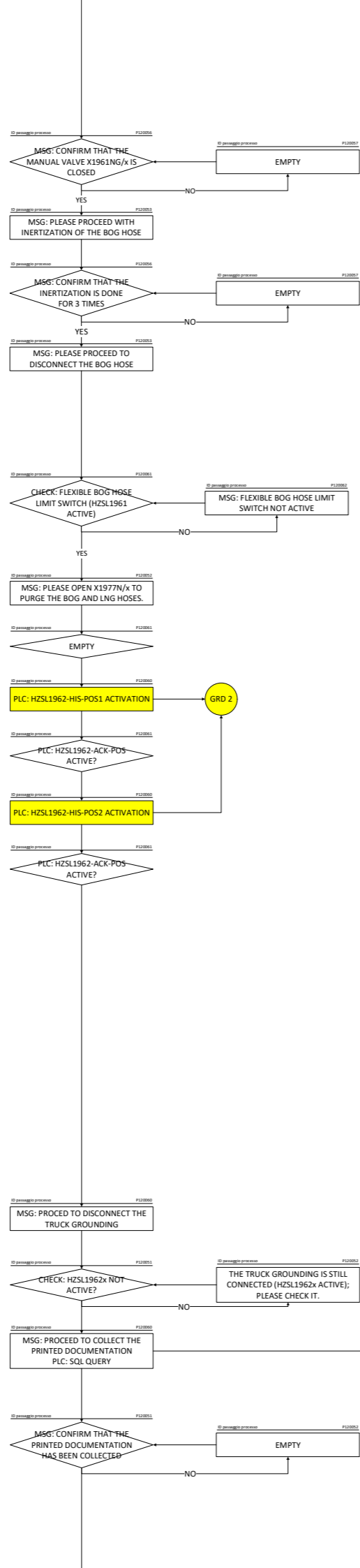


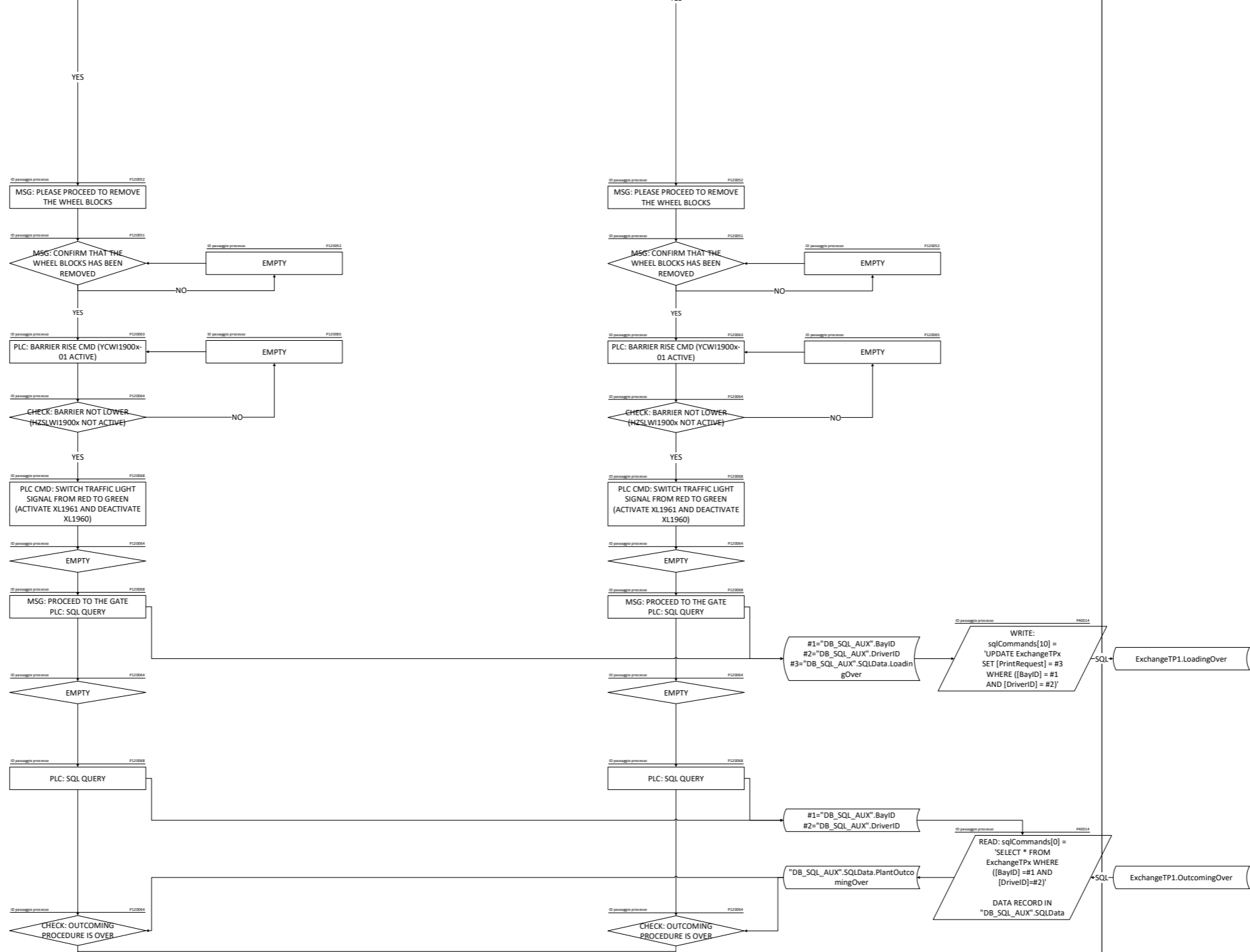


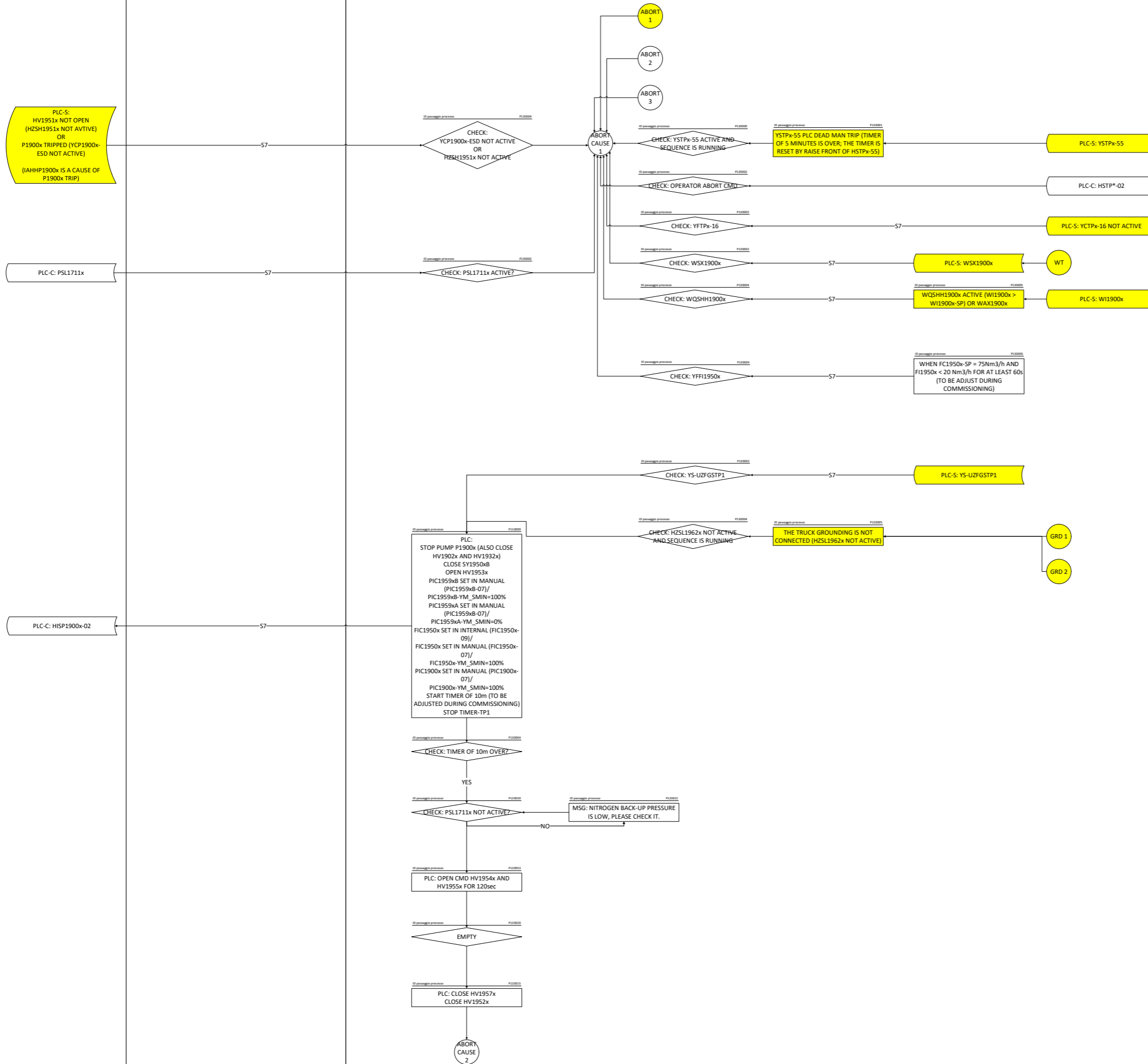


PLC-S: P11960x









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