



THAIOIL PUBLIC COMPANY LIMITED

TERM OF REFERENCE

TOP LLTE TAS modification

01/11/2021

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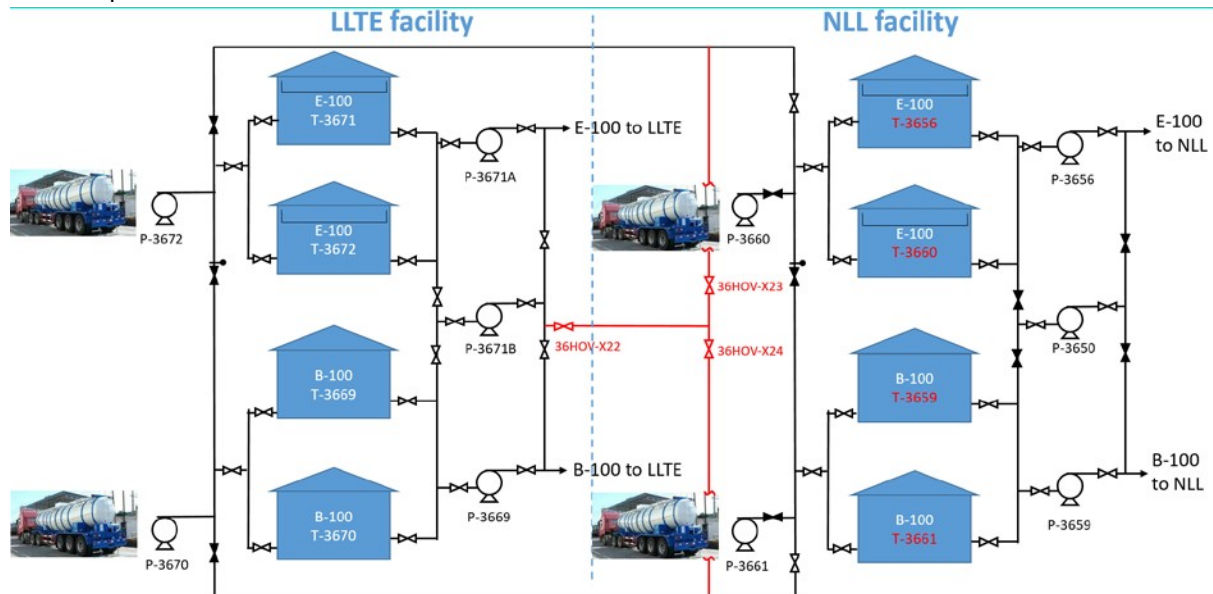
Document History

Date	Version	Reason for change	Author	Approved
01/11/2021	0	Initial version	ADPE-IM-Supawech	

Background

Tank E100 (2 tanks) and B100 (2 tanks) of NLL shall MTA by Jun:

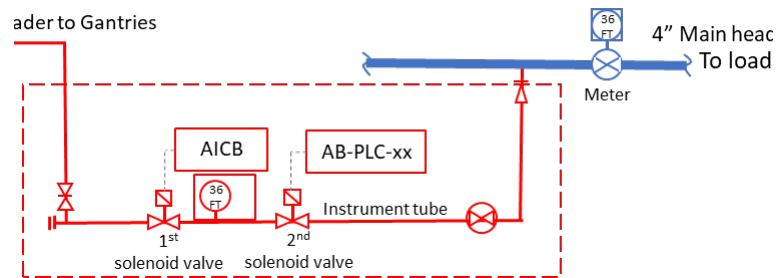
It has two tanks of E100 and B100 in both NLL and LLTE area, one tank in NLL can be free up for MTA. However, only one tank in NLL cannot use for unloading from truck and injection to NLL lorry in the same time due to it require tank static during unloading product from truck to tank. Hence, tank in LLTE will be used for unloading product from truck. Once one tank in LLTE unloading product from truck, another tank in LLTE will be injection to LLTE lorry by P-3671A or P-3669 and also transfer to NLL tank by P- 3671B in the same time. With this concept, it require crossover line between NLL and LLTE as picture



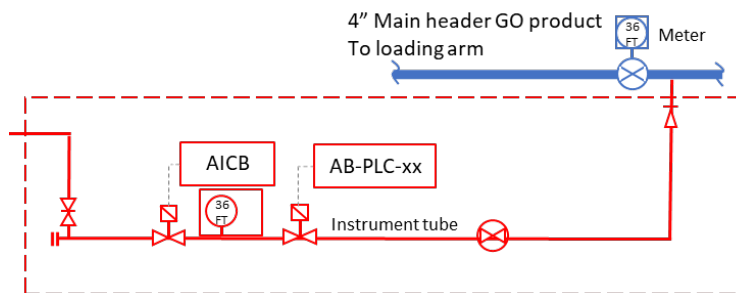
Additional to install 9 sets Auto injection for gantry 11-15

Scope of Work

1. Add 3 HOV on TAS system for permissive to transfer product from LLTE to NLL tank via P-3671A/B and P-3669
2. Auto injection
 - 2.1 Auto purple dye injection system for HSD-B10(total 5 set)
 - 2.1.1 Facility Requirement per 1 injection point include solenoid valve 2 sets, flow transmitter, and isolation valve at tube as picture 8 below
 - 2.1.2 PLC Programming for mapping the existing injection skid at NLL to LLTE and TAM/TAS modification to create the B10 product as listed below for gantry 11-15.



- 2.2 Auto marker injection system for HSD-B0(Total 4 set)
 - 2.2.1 Facility Requirement per 1 injection point include solenoid valve 2 sets, flow transmitter, and isolation valve at tube as picture 9 below.
 - 2.2.2 PLC Programming for mapping the existing injection skid at NLL to LLTE and TAM/TAS modification to create the B10 product as listed below for gantry 11-12.



Time frame

Start: Jan 2021

End:

Phase#1 Pump interlock by May 2022

Phase#2 Auto injection by Dec 2022

Warranty

1 year after Commissioning.