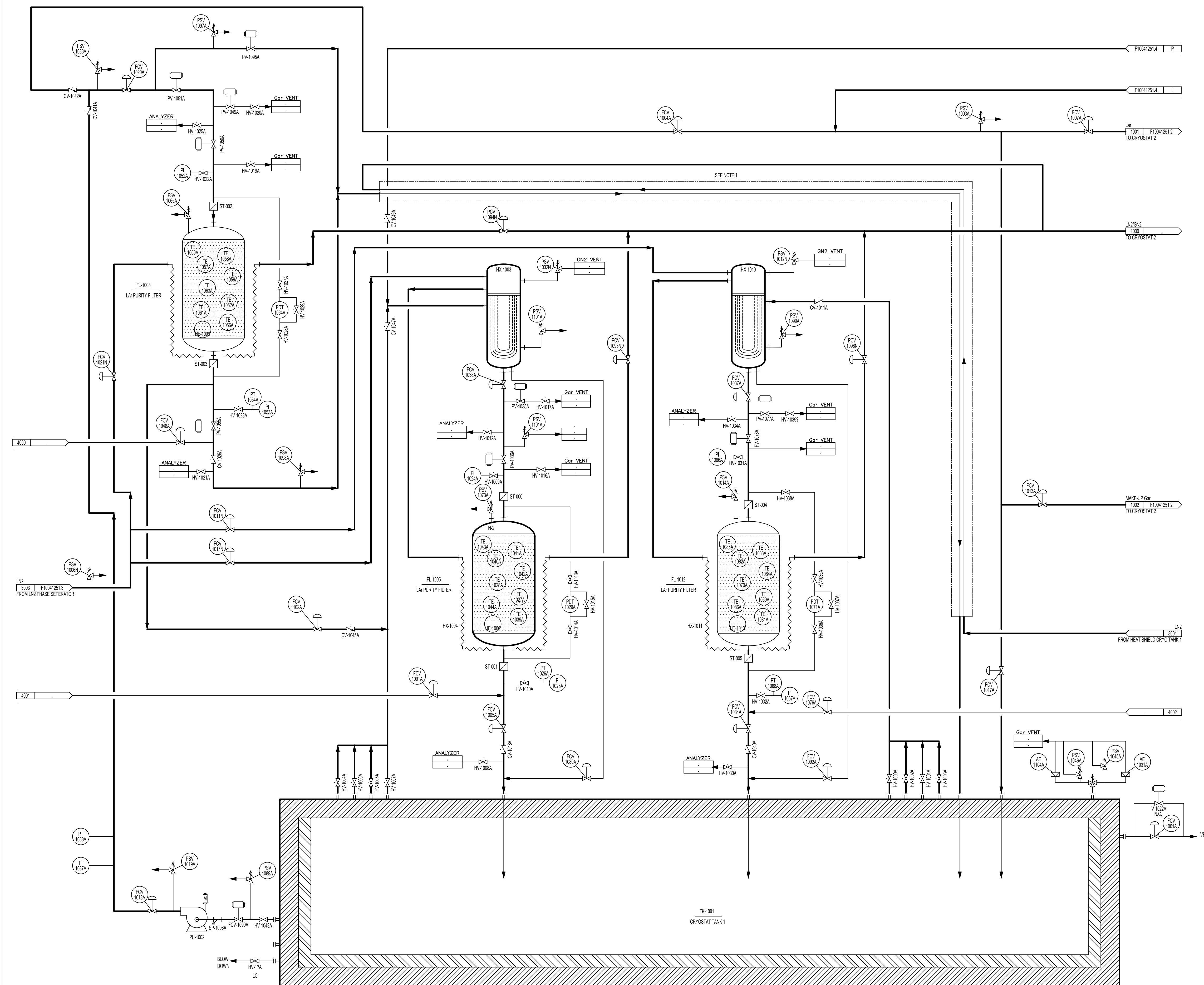


NOTES

- 1. DENOTES LN2/GN2 COIL WRAPPED AROUND LN2 PROCESS LINE, INDICATING TRACING.
-



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UNDER DEVELOPMENT

04/14/15

LEGEND

— DENOTES VACUUM JACKETED PIPE

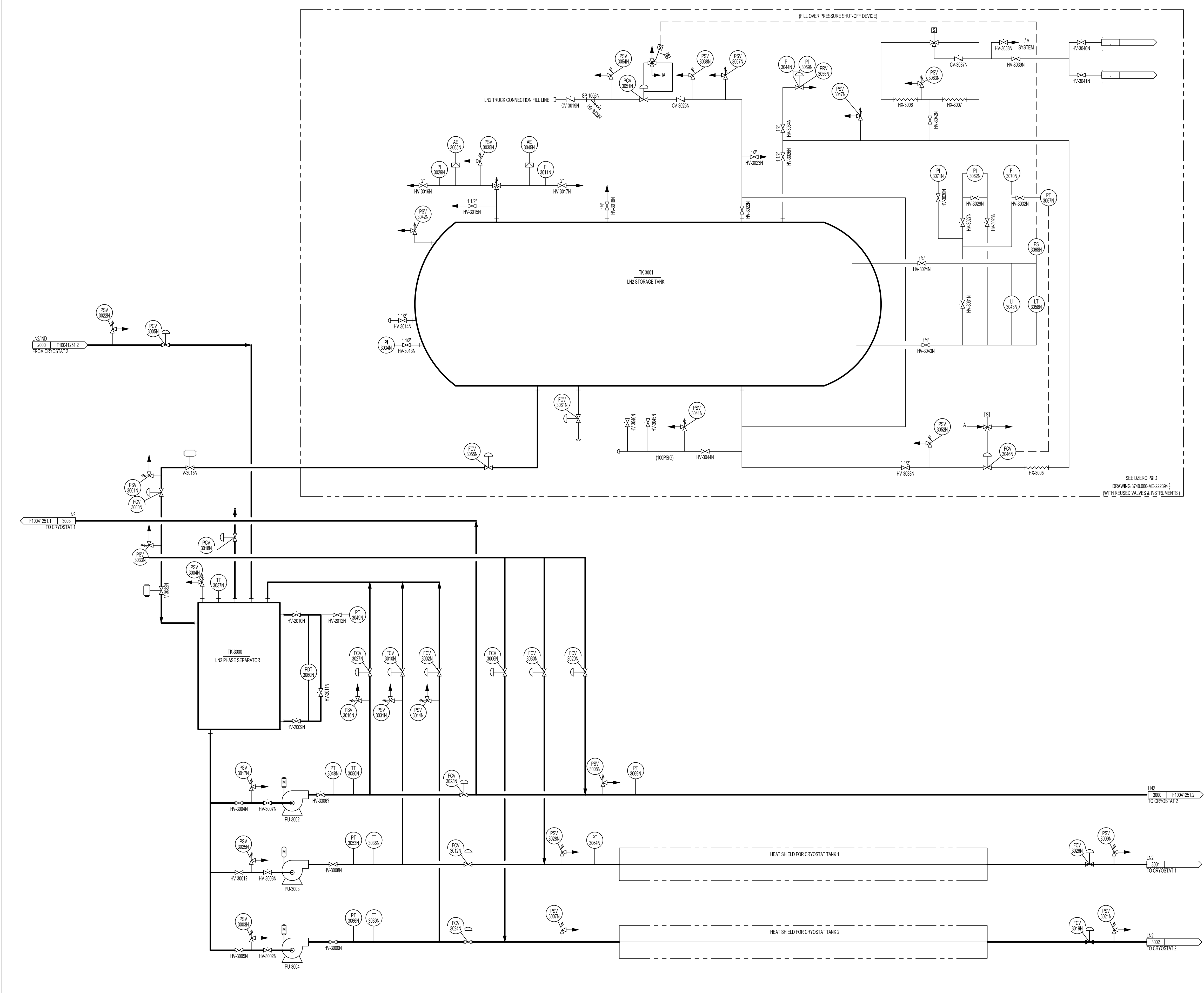
— DENOTES PROCESS PIPE

FERMI NATIONAL ACCELERATOR LABORATORY
UNITED STATES DEPARTMENT OF ENERGY

MECHANICAL/ENG. DESIGN LAYOUTS
SBN-FD
PIPING & INSTRUMENTATION DIAGRAM

ORIGINATED BY	DRAWN BY	CHECKED BY	APPROVED BY	REVISION NO.	DOCUMENT NO.	REVISION STATE	DATE	BY	REVISION DESCRIPTION	PROJECT ID	CONTRACTOR	ENGR	REFR	BY	REV	NO.	DOCUMENT NO.	REVISION STATE	DATE	BY	REVISION DESCRIPTION	PROJECT ID	CONTRACTOR	ENGR	REFR	BY	REV	NO.	DOCUMENT NO.	REVISION STATE	DATE	BY	REVISION DESCRIPTION	
D. MONTANARI	M. DELANEY	D. MONTANARI	D. MONTANARI	A	F10041251.1	IFR&C	04/15/15	MD	ISSUED FOR REVIEW AND COMMENT	XXXX	FERMI	DM	DM																					

UNIT: 01 SCALE: NONE STATE: UD
DRAWN: MD DATE: 4/14/15 SHEET NO: 1 OF 5
CHECKED: DM DRAWING NO: F10041251.1
ENGR: DM REV: A



SEE OTHER P&ID
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(WITH REUSED VALVES & INSTRUMENTS)

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 - - - - - DEVOTES VACUUM JACKETED PIPE
 _____ DEVOTES PROCESS PIPE

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UNITED STATES DEPARTMENT OF ENERGY

MECHANICAL/ENG. DESIGN LAYOUTS
ICARUS WA104
PIPING & INSTRUMENTATION DIAGRAM

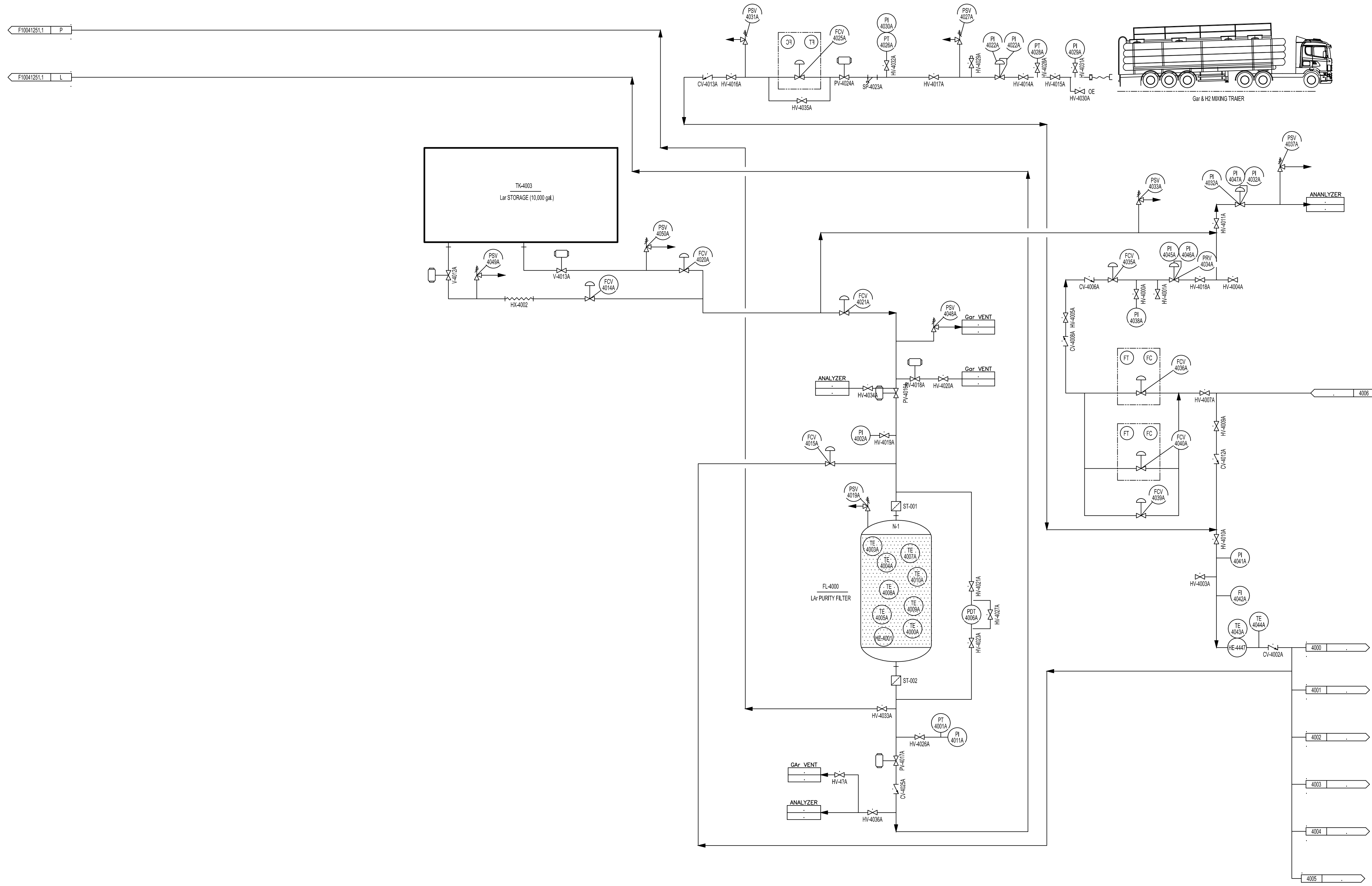
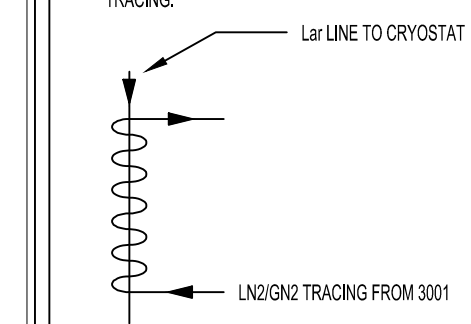
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DRAWN BY	M. DELANEY																			
CHECKED BY	D. MONTANARI																			
APPROVED BY	D. MONTANARI	A	F10041251.3	IFR&C	04/15/15	MD	ISSUED FOR REVIEW AND COMMENT	XXXX	FERMI	DM	DM									
(CURRENT REVISION ONLY)	REV	DESCRIPTION	DATE	BY	DESCRIPTION	PROJECT ID	CONTRACTOR	ENGR	REV	DATE	BY	DESCRIPTION	PROJECT ID	CONTRACTOR	ENGR	REV	DATE	BY	DESCRIPTION	

UNIT:	03	SCALE:	NONE	STATE:	UD
DRAWN:	DM	DATE:	4/14/15	SHEET NO.:	3 OF 5
CHECKED:	DM	DRAWING NO.:	F10041251.3	REV.:	A
ENGR:	DM	REFERENCE DRAWINGS:			

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NOTES

1. DENOTES LN2/GN2 COIL WRAPPED AROUND LN2 PROCESS LINE, INDICATING TRACING.



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UNDER DEVELOPMENT

04/14/15

LEGEND

— DENOTES VACUUM JACKETED PIPE

— DENOTES PROCESS PIPE

Fermi National Accelerator Laboratory
 UNITED STATES DEPARTMENT OF ENERGY

MECHANICAL/ENG. DESIGN LAYOUTS
 SBN-FD

PIPING & INSTRUMENTATION DIAGRAM

ORIGINATED BY	D. MONTANARI	PROJECT NO.	CONTRACTOR	ENCN. BY	REV. BY	REV. NO.	DOCUMENT NO.	REVISION STATE	DATE	BY	REVISION DESCRIPTION	PROJECT ID	CONTRACTOR	ENCN. BY	REV. BY	REV. NO.	DOCUMENT NO.	REVISION STATE	DATE	BY	REVISION DESCRIPTION	PROJECT ID	CONTRACTOR	ENCN. BY	REV. BY	REV. NO.	DRAWING NO.	REFERENCE DRAWINGS
DRAWN BY	M. DELANEY																											
CHECKED BY	D. MONTANARI																											
APPROVED BY	D. MONTANARI	A	F10041251.1	IFR&C	04/15/15	MD					ISSUED FOR REVIEW AND COMMENT	XXXX	FERMI	DM	DM													
(CURRENT REVISION ONLY)		REV																										

UNIT: 04 SCALE: NONE STATE: UD
 DRAWN: MD DATE: 4/14/15 SHEET NO: 4 OF 5
 CHECKED: DM DRAWING NO: F10041251.4
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