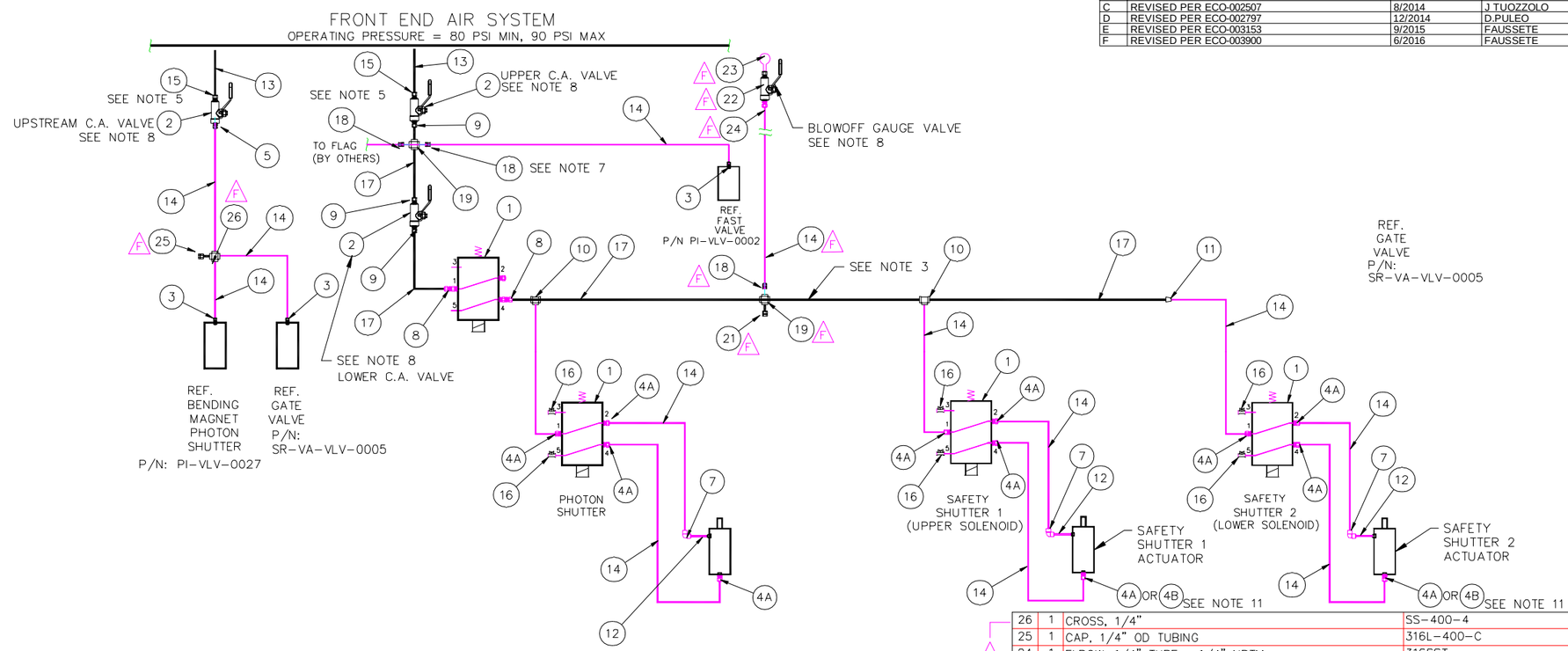
REVISION HISTORY					
REV	DESCRIPTION	DATE	DESIGNER	CHECKED BY	ENGINEER
A	RELEASE PER ECO-001380	4/2013	Y. KOH	C.AMARITO	LEWIS DOOM
B	RELEASE PER ECO-001593	8/2013	FAUSSETE	C.AMARITO	LEWIS DOOM
C	REVISED PER ECO-002507	8/2014	J.TUOZZOLO	C.AMARITO	C AMUNDSEN
D	REVISED PER ECO-002797	12/2014	D.PULEO	C.AMARITO	C AMUNDSEN
E	REVISED PER ECO-003153	9/2015	FAUSSETE	C.AMARITO	BREITFELLER
F	REVISED PER ECO-003900	6/2016	FAUSSETE	CA/CS	BREITFELLER



NOTES:

1. USE TWO PART THREAD SEALANT ON NPT FITTING.
   P/N: PRIMER 7471 P/N: LOCKTITE SEALANT 545
2. INSTALL ALL COMPRESSION FITTING PER SWAGELOK AN INSTALLER'S POCKET GUIDE FOR SWAGELOK TUBE FITTINGS, MS-13-151.
3. MOUNT AIR MANIFOLD TO VERTICAL UNISTRUTS ON FRONT END STANDS.
4. ALL SOLENOIDS ARE SHOWN IN DE'ENERGIZED STATE.
5. BALL VALVE MUST BE INSTALLED WITH VENT PORT ON DOWN STREAM SIDE.
6. SEE SHEET 2 FOR PICTURE OF AIR COMPONENTS.
7. LEAK TEST SYSTEM AT 100 PSI, PER ASME B31.3 USE A PRESSURE GAUGE CALIBRATED TO N.I.S.T. SPECIFICATIONS WITH CERTIFICATION THAT IS CURRENT. ISOLATE FAST VALVE BRANCH FROM THE REST OF THE SYSTEM, BY TEMPORARILY PLUGGING AT ITEM 18 AND REDUCER. APPLY THIN FILM BUBBLE SOLUTION TO ALL FITTINGS AND INSPECT. AFTER SYSTEM TEST, RE-INSTALL FAST VALVE BRANCH, AND LEAK TEST BRANCH AT OPERATING PRESSURE.
8. (F) AFFIX IDENTITY LABELS TO COMPRESSED AIR VALVES. ON THE IDENTIFICATION LABELS, RECORD VALVE NAME, AS PER DWG LEADER LABEL, AND CELL NUMBER FORMAT XX-YY, EXAMPLE: UPPER C.A. VALVE-12-ID
9. (F) APPLY DIRECTIONAL COMPRESSED AIR PIPE LABELS TO BRANCHES.
10. (F) BLOWOFF PRESSURE GAUGE TO BE TESTED PER MAINTANANCE PROCEDURE PS-C-XFD-PRC-023, CALIBRATION OF GAUGE NOT REQUIRED.
11. (F) FOR FRONT ENDS USING ACTUATOR P/N PI-ACTR-0067, USE ITEM NUMBER 4A.
    FOR FRONT ENDS USING ACTUATOR P/N PI-ACTR-0034, USE ITEM NUMBER 4B.

ITEM	QTY	NAME	MATERIAL/PART NUMBER	VENDOR
26	1	CROSS, 1/4"	SS-400-4	SWAGELOK
25	1	CAP, 1/4" OD TUBING	316L-400-C	SWAGELOK
24	1	ELBOW, 1/4" TUBE x 1/4" NPTM	316SST	SWAGELOK
23	1	PRESSURE GAUGE	4053K15	McMASTER
22	1	BALL VALVE	SS-43GEF4-LL	SWAGELOK
21	1	CAP, 1/2" OD TUBING	316L-810-C	SWAGELOK
19	2	CROSS 1/2"	SS-810-4	SWAGELOK
18	3	REDUCER 1/2" TO 1/4"	SS-400-R-8	SWAGELOK
17	6	TUBE, 1/2" OD X .049" WALL	STAINLESS STEEL	BNL
16	6	MUFFLER / SPEED CONTROL	AS3200-F02-ST	SMC
15	2	ADAPTER, MALE, 1/2' SWEAT X 1/2" NPTM	COPPER, #5520K11	McMASTER
14	15	TUBE, 1/4 " OD X .035" WALL	STAINLESS STEEL	BNL
13	2	TUBE, 1/2" OD X .049" WALL	COPPER	BNL
12	3	NIPPLE, 1/4" X 1-1/2" LG	BRASS, 4757T58	McMASTER
11	1	REDUCING UNION, 1/2" TUBE X 1/4" TUBE	316 SST, SS-810-6-4	SWAGELOK
10	2	REDUCING TEE, 1/2" X 1/4" X 1/2"	316 SST, SS-810-3-8-4	SWAGELOK
9	3	CONNECTOR, MALE, 1/2" TUBE X 1/2 NPTM	316 SST, SS-810-1-8	SWAGELOK
8	2	CONNECTOR, MALE, 1/2" TUBE X 1/4" NPTM	316 SST, SS-810-1-4	SWAGELOK
7	3	ELBOW, 1/4" TUBE X 1/4" NPTF	316 SST, SS-400-8-4	SWAGELOK
5	1	CONNECTOR, MALE, 1/2" NPTM X 1/4" TUBE OD	316 SST, SS-400-1-8	SWAGELOK
4B	2	CONNECTOR, MALE 1/4" TUBE x 3/8" NPT	316 SST, SS-400-1-6	SWAGELOK
4A	12	CONNECTOR, MALE, 1/4" TUBE X 1/4" NPTM	316 SST, SS-400-1-4	SWAGELOK
3	3	ADAPTER, MALE, 1/4" TUBE X 1/8" BST	316 SST, SS-400-1-2 RT	SWAGELOK
2	3	BALL VALVE, 1/2" NPT X 1/2" NPT	PI-VLV-0060	APOLLO VALVE
1	4	VALVE, LOW PWR SOLENOID	PI-VLV-0017	ASCO

Parts List

UNLESS OTHERWISE SPECIFIED
ALL DIMENSIONS ARE IN INCHES
DIMENSIONS IN BRACKETS [xx.x] (WHERE PRESENT) ARE MILLIMETERS AND ARE FOR REFERENCE ONLY
INTERPRET DRAWING AS PER ANSI Y14.5-1994 OR Y32.2-1976

DIMENSIONAL TOLERANCE: X. ± 0.060, .X ± 0.030, .XX ± 0.015, .XXX ± 0.005
ANGULAR TOLERANCE: ±.5°
FINISH: 125
BREAK EDGES & SHARP CORNERS 0.020 MIN. TO 0.030 MAX.

THIRD ANGLE PROJECTION
SCALE: NONE

NEXT ASSY:
PROJECT:

BROOKHAVEN NATIONAL LABORATORY
BROOKHAVEN NATIONAL LABORATORY
BROOKHAVEN SCIENCE ASSOCIATES
UPTON, NEW YORK 11973
Exploring Life's Mysteries, Protecting its Future

DRAWN BY	Y. KOH	4/2013
CHECKED BY	C. AMARITO	4/2013
VACUUM APPROVAL	N/A	N/A
ENGINEER APPROVAL	LEWIS DOOM	4/2013
SUPERVISOR APPROVAL	S. SHAMA	4/2013
ES&H APPROVAL	A. ACKERMAN	4/2013
QA APPROVAL	E. CHESWICK	4/2013

WBS# 1.03.04.07.03

NSLSII NATIONAL SYNCHROTRON LIGHT SOURCE II

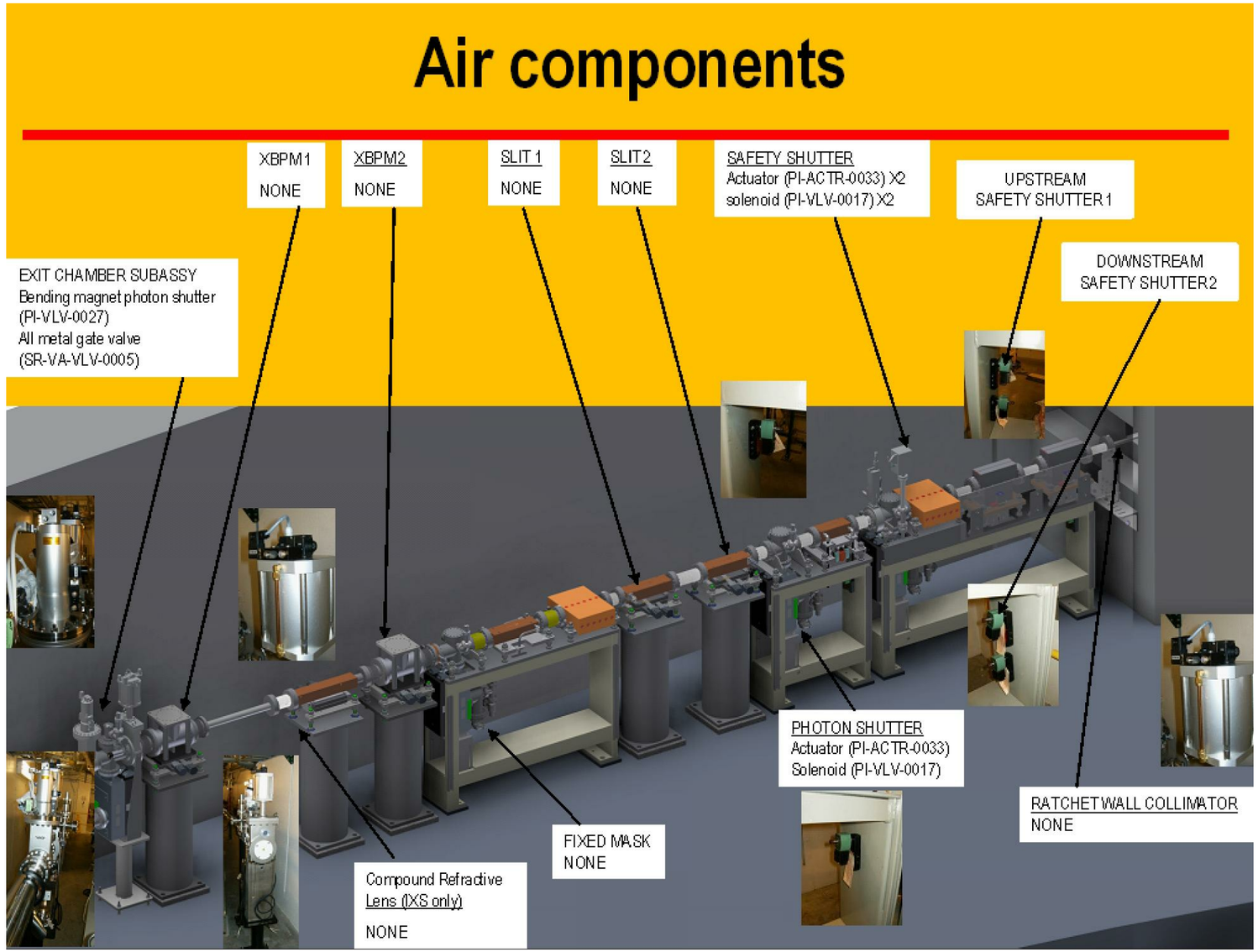
STORAGE RING
FRONT END, UTILITIES
AIR SCHEMATIC

SHEET SIZE: D
DRAWING/PART NUMBER: SR-FE-UT-0001
REVISION: F
ESH&Q RISK LEVEL: A-2
SHEET 1 OF 2

SR-FE-UT-0001

RELEASED – EFFECTIVE

Air components



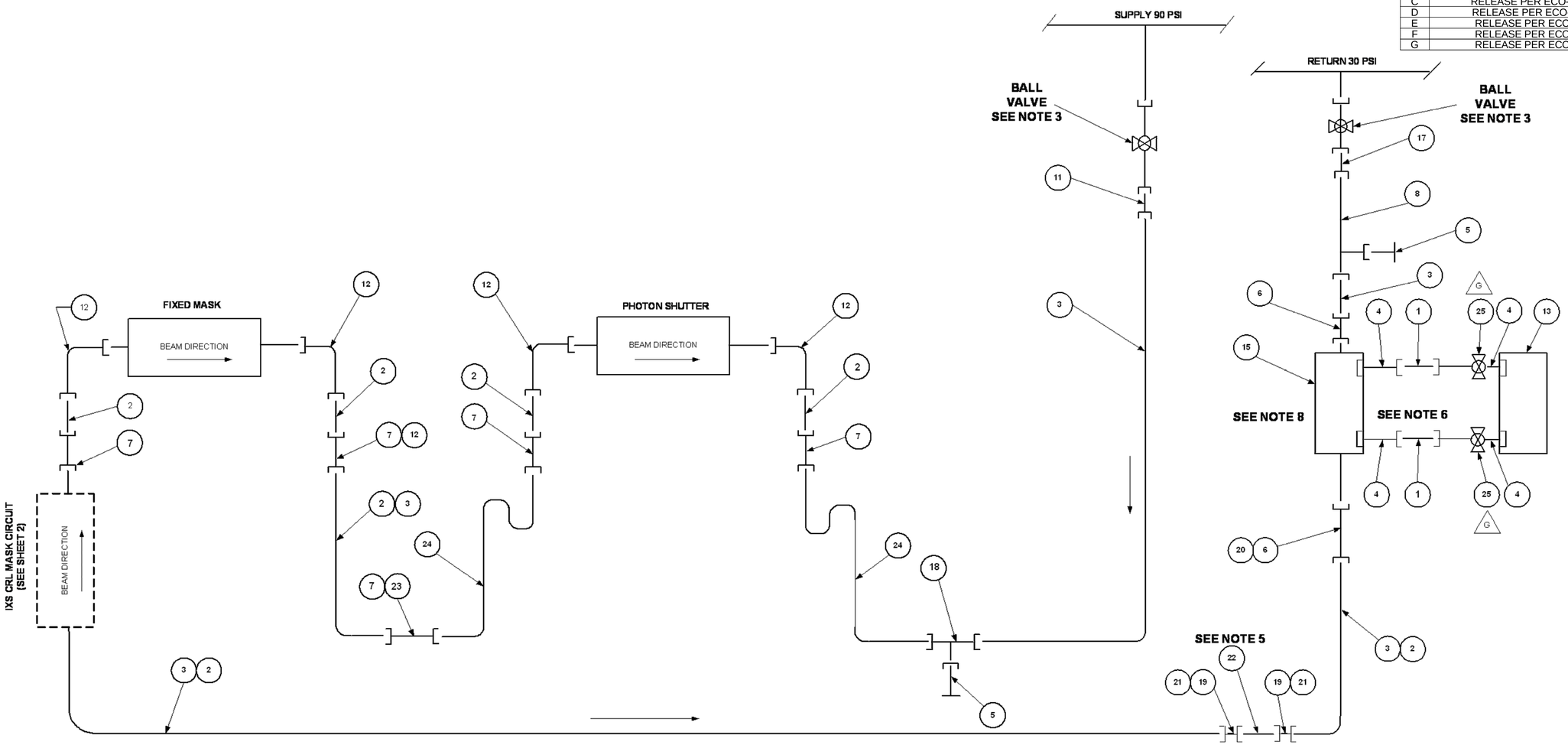
D	SR-FE-UT-0001	F
SHEET SIZE	DRAWING/PART NUMBER	REVISION
ESH&Q RISK LEVEL A-2		SHEET 2 OF 2

SR-FE-UT-0001

C:\Mech-Eng\LTNFE\CA\SR-FE-CA-0001

RELEASED – EFFECTIVE

REVISION HISTORY					
REV	DESCRIPTION	DATE	DESIGNER	CHECKED BY	ENGINEER
A	RELEASE PER ECO-001445	6/2013	FAUSSETE	AMARITO	DOOM
B	RELEASE PER ECO-001563	5/2014	FAUSSETE	MASY	HUSSAIN
C	RELEASE PER ECO-002614	9/2014	FAUSSETE	AMARITO	HUSSAIN
D	RELEASE PER ECO-002656	10/2014	FAUSSETE	AMARITO	DACOS
E	RELEASE PER ECO-002848	1/2015	FAUSSETE	AMARITO	ANTONELLI
F	RELEASE PER ECO-003153	9/1/2015	FAUSSETE	AMARITO	BREITFELLER
G	RELEASE PER ECO-003900	6/2016	FAUSSETE	CA/CS	BREITFELLER



FLOW RATE (GPM)		
NOMINAL FLOW	WARNING POINT	TRIP POINT
$5.0^{+1.0}_{-0.2}$	4.0	3.0

ITEM	QTY	DESCRIPTION	SIZE	PART NUMBER	VENDER
25	2	BALL VALVE	1/4" FNPT	SS-43GES4-LL	SWAGELOK
24	2	HOSE ASSY, BRAIDED ST. STL.	3/4" TUBE X 3/4" TUBE	PI-HOSE-0006	TEK STAINLESS PIPING PRODUCTS
23	1	UNION	3/4" COMP. X 3/4" COMP.	SS-1210-6	SWAGELOK
22	1	TUBE	3/8" OD, 0.035" WALL, ST. STL 304/304L		
21	2	REDUCING UNION	5/8" COMP. X 3/8" COMP.	SS-1010-6-6	SWAGELOK
20	1	FEMALE CONNECTOR	5/8" COMP. X 1/2" NPTF	SS-1010-7-8	SWAGELOK
19	2	REDUCING UNION	3/4" COMP. X 3/8" COMP.	SS-1210-6-6	SWAGELOK
18	1	UNION ("T")	3/4" COMP. X 3/4" COMP. X 3/4" COMP.	SS-1210-3	SWAGELOK
17	AR	BUSHING	3/4" NPTM X 1/2" NPTF, ST. STL. 304/304L	4464K271	McMASTER
16	AR	BUSHING	1" NPTM X 1/2" NPTF, ST. STL. 304/304L	4464K275	McMASTER
15	1	FLOW METER	1/2" NPTM X 1/2" NPTM (1/4" NPTF TAPS)	PI-FLW-0006	McCrometer
14					
13	1	TRANSMITTER	1/4" NPTF X 1/4" NPTF	PI-SNSR-0032	YOKOGAWA
12	4	UNION (ELBOW)	5/8" COMP X 5/8" COMP	SS-1010-9	SWAGELOK
11	AR	MALE CONNECTOR	3/4" NPTM X 3/4" COMP.	SS-1210-1-12	SWAGELOK
10	AR	MALE CONNECTOR	1" NPTM X 3/4" COMP.	SS-1210-1-16	SWAGELOK
9					
8	1	UNION ("T")	3/4" COMP. X 3/4" NPT. X 3/4" COMP.	SS-1210-3TMT	SWAGELOK
7	6	UNION	3/4" COMP X 5/8" COMP.	SS-1210-6-10	SWAGELOK
6	2	FEMALE CONNECTOR	3/4" COMP. X 1/2" NPTF,	SS-1210-7-8	SWAGELOK
5	2	PLUG	3/4"	SS-1210-P	SWAGELOK
4	4	MALE CONNECTOR	1/4" COMP. X 1/4" NPTM	SS-400-1-4	SWAGELOK
3	AR	TUBE	3/4" OD, .049" WALL, ST. STL. 304/304L		
2	AR	TUBE	5/8" OD, .049" WALL, ST. STL. 304/304L		
1	AR	TUBE	1/4" OD, .035" WALL, ST. STL. 304/304L		

NOTES,
1. USE TWO PART THREAD SEALANT ON NPT FITTIGS.
   PN: LOCKTITE PRIMER 7471, LOCKTITESEALANT 545
2. INSTALL ALL COMPRESSION FITTINGS PER SWAGELOK "AN INSTALLER'S POCKET GUIDE FOR SWAGELOK TUBE FITTINGS, MS-13-151
3. SEE UTILITY, COORDINATION PLAN DRAWING, FOR HEADER BALL VALVE IDENTIFICATION
   P1: UT-SR-PSYS-1011, P2: UT-SR-PSYS-2011, P3: UT-SR-PSYS-3011, P4: UT-SR-PSYS-4011, P5: UT-SR-PSYS-5011.
   SEE UTILITY, FLOW XMTR STD INTERFACE DRAWING, FOR TRANSMITTER IDENTIFICATION AND DETAIL UT-XMTR-STD-1100.
4. TARGET FLOW 5.5 GPM
5. ADD FLOW RESTRICTOR COIL AS REQUIRED.
6. LEAK TEST SYSTEM AT 150 PSI, PER ASME B31.3 USE A PRESSURE GAUGE CALIBRATED TO N.I.S.T. SPECIFICATIONS WITH CERTIFICATION THAT IS CURRENT. ISOLATE TRANSMITTER FROM THE REST OF SYSTEM. INSPECT ALL FITTINGS. AFTER TEST, OPEN TRANSMITTER VALVES AND CHECK ITS FITTINGS FOR LEAKS.
7. APPLY DI-WATER-CU AND FLOW DIRECTION LABELS TO BRANCHES.
8. MAINTAIN 8" MINIMUM STRAIGHT PIPE RUN UPSTREAM AND DOWNSTREAM OF FLOWMETER.

REFERENCE: FRONT END THERMAL ANALYSIS FOR NSLS-II (OCT. 26TH 2010). REVIEWED IN FRONT END FINAL DESIGN REVIEW.
https://ps.bnl.gov/acc/mech/frontends/Design%20Reviews/Final%20Design%20Review%2010-26-2010/Front%20End%20Thermal%20Analysis%2010-26-2010.pdf

UNLESS OTHERWISE SPECIFIED
ALL DIMENSIONS ARE IN INCHES
DIMENSIONS IN BRACKETS [xx.xx] (WHERE PRESENT) ARE MILLIMETERS AND ARE FOR REFERENCE ONLY
INTERPRET DRAWING AS PER ASME Y14.5-1994 OR Y32.2-1975
DIMENSIONAL TOLERANCE: X. ` 0.060; .X ` 0.030; .XX ` 0.015; .XXX ` 0.005
ANGULAR TOLERANCE: .5~
FINISH: 125
BREAK EDGES & SHARP CORNERS 0.005 MIN. TO 0.030 MAX

THIRD ANGLE PROJECTION
SCALE: SEE DWG VIEW

BROOKHAVEN NATIONAL LABORATORY
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BROOKHAVEN SCIENCE ASSOCIATES
UPTON, NEW YORK 11973
Exploring Life's Mysteries, Protecting its Future

NSLS II NATIONAL SYNCHROTRON LIGHT SOURCE II

DRAWN BY	FAUSSETE	6/1/2013
CHECKED BY	C. AMARITO	6/13
VACUUM APPROVAL	-	-
ENGINEER APPROVAL	DOOM	6/13
SUPERVISOR APPROVAL	SHARMA	6/13
ES&H APPROVAL	ACKERMAN	6/13
Q.A. APPROVAL	CHESWICK	6/13

WBS# 1.03.04.07.03

STORAGE RING
FRONT END, UTILITIES
PIPING SCHEMATIC, HIGH FLOW

D — SHEET SIZE
SR-FE-UT-0002 — DRAWING/PART NUMBER
G — REVISION
ESH&Q RISK LEVEL A2
SHEET 1 OF 2

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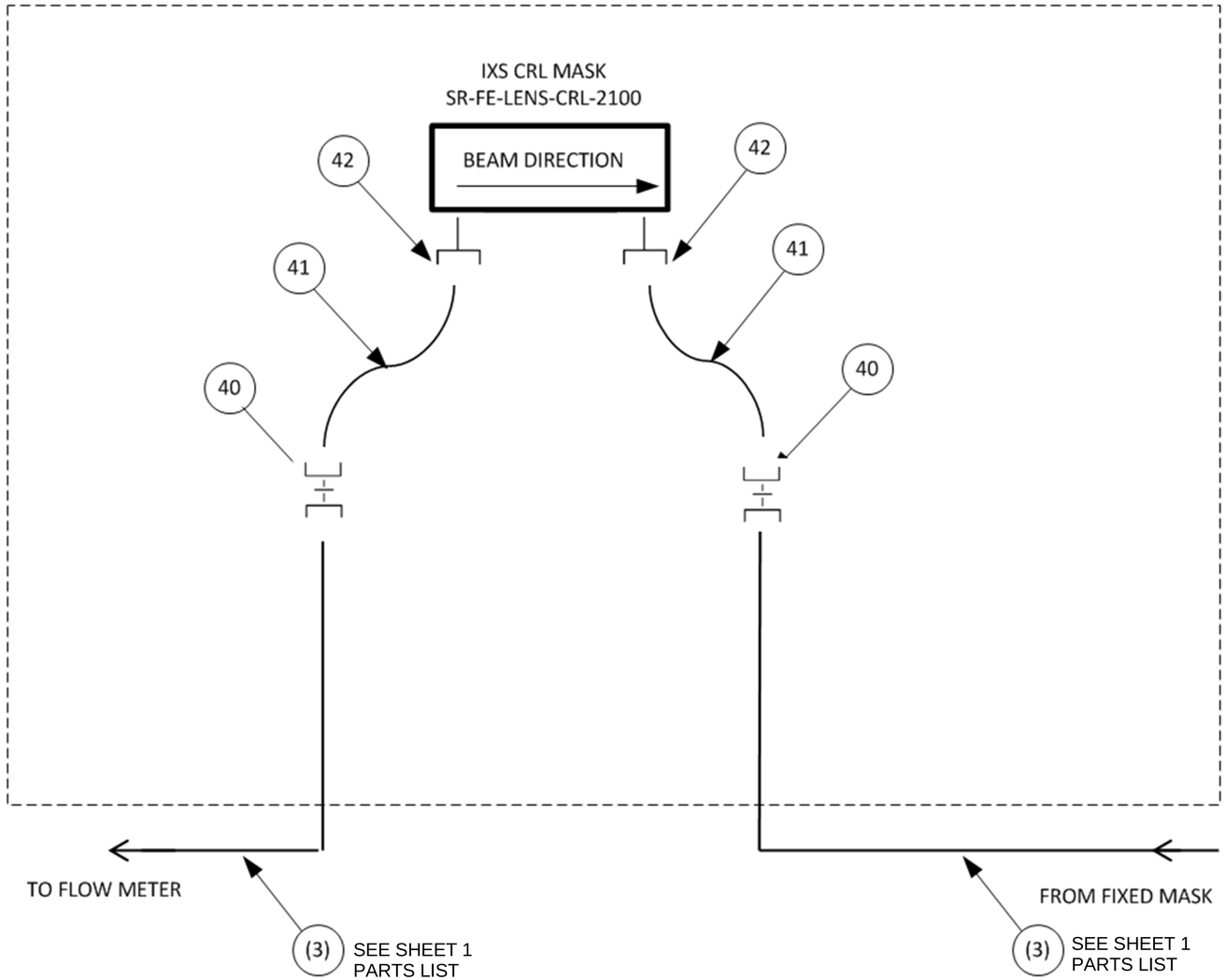
RELEASED + EFFECTIVE



ITEM	QTY	DESCRIPTION	SIZE	PART NUMBER	VENDER
42	2	CONNECTOR, MALE WELD, MODIFIED	5/8" TUBE MALE WELD	SR-FE-LENS-CRL-2117	
41	2	HOSE ASSY, BRAIDED SS	5/8" TUBE x 5/8" TUBE x 32" LONG	SR-FE-LENS-CRL-2026	TEK STAINLESS
40	2	UNION (STRAIGHT, BULKHEAD)	5/8" COMP x 5/8" COMP, ST. STL. 304/304L	SS-1210-61	SWAGELOK

D (SHEET SIZE)	SR-FE-UT-0002 (DRAWING/PART NUMBER)	G (REVISION)
ESH&Q RISK LEVEL A2	SHEET 2 OF 2	

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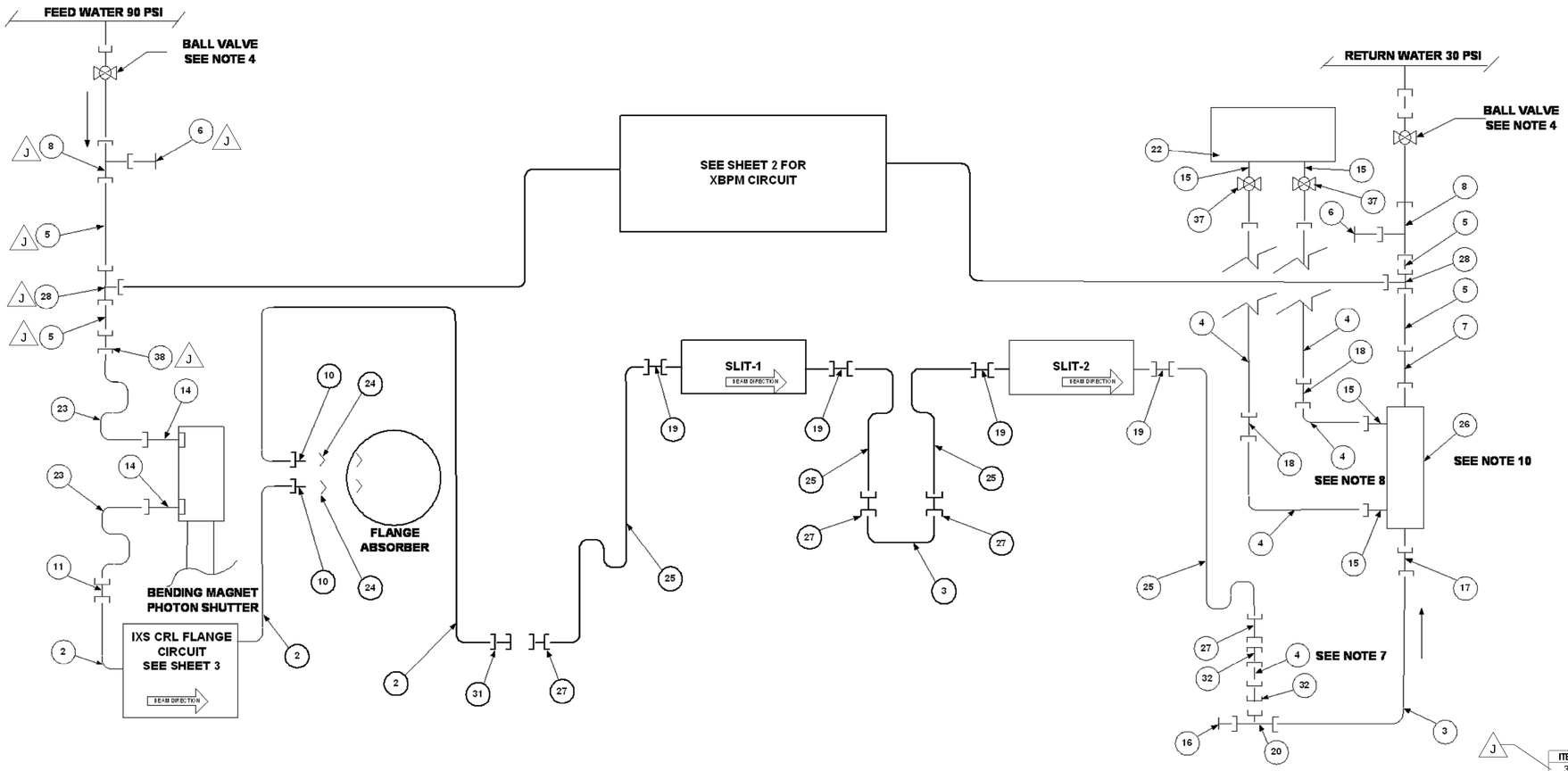
RELEASED + EFFECTIVE

REVISION HISTORY					
REV	DESCRIPTION	DATE	DESIGNER	CHECKED BY	ENGINEER
A	RELEASE PER ECO-001445	6/13	FAUSSETE	AMARITO	DOOM
B	RELEASE PER ECO-001563	5/14	FAUSSETE	ALMASY	HUSSAIN
C	RELEASE PER ECO-002377	7/14	FAUSSETE	AMARITO	HUSSAIN
D	RELEASE PER ECO-002614	10/14	FAUSSETE	AMARITO	HUSSAIN
E	RELEASE PER ECO-002656	10/14	FAUSSETE	AMARITO	DACOS
F	RELEASE PER ECO-002848	1/15	FAUSSETE	AMARITO	ANTONELLI
G	RELEASE PER ECO-003482	9/15	FAUSSETE	AMARITO	BREITFELLER
H	RELEASE PER ECO-003900	6/2016	FAUSSETE	CA/CS	BREITFELLER
J	RELEASE PER ECO-004445	8/2016	FAUSSETE	CA/CS	BREITFELLER



ITEM	QTY	DESCRIPTION	SIZE	PART NUMBER	VENDER
38	1	UNION	1/2" TUBE TO X 3/8" TUBE	SS-810-6-6	SWAGELOK
37	2	BALL VALVE	1/4" FNPT	SS-43GES4-LL	SWAGELOK
36					
35					
34					
33					
32	2	REDUCING UNION	1/4" COMP X 3/4" TUBE	SS-400-R-12	SWAGELOK
31	1	REDUCING UNION	3/8" COMP X 3/4" TUBE	SS-600-R-12	SWAGELOK
30					
29					
28	2	UNION ("T)"	1/2 COMP X 1/2 COMP X 1/2 COMP	SS-810-3	SWAGELOK
27	4	BULKHEAD UNION	3/4" COMP X 3/4" COMP	SS-1210-61	SWAGELOK
26	1	FLOW METER	1/2" NPTM X 1/2" NPTM (1/4"NPTF TAPS)	PI-FLW-0005	McCROMETER
25	4	HOSE ASSY, BRAIDED SS	3/4" TUBE X 3/4" TUBE	PI-HOSE-0006	TEK STAINLESS PIPING PRODUCTS
24	2	FLARETITE COPPER SEAL 37 DEG	3/8" AN	PI FTNGS-0168	SWAGELOK
23	2	HOSE ASSY, BRAIDED SS	3/8" TUBE X 3/8" TUBE	PI-HOSE-0005	TEK STAINLESS PIPING PRODUCTS
22	1	TRANSMITTER	1/4" NPTF X 1/4" NPTF	PI-SNSR-0033	YOKOGAWA
21					
20	1	UNION, (" T ")	3/4 COMP X 3/4 COMP X 3/4 COMP	SS-1210-3	SWAGELOK
19	4	UNION (STRAIGHT)	3/4" COMP X 5/8" COMP.	SS-1210-6-10	SWAGELOK
18	2	UNION	1/4" COMP X 1/4" COMP.	SS-400-6	SWAGELOK
17	1	CONNECTOR	3/4" COMP X 1/2"NPTF	SS-1210-7-8	SWAGELOK
16	1	PLUG	3/4"	SS-1210-P	SWAGELOK
15	4	MALE CONNECTOR	1/4" NPTM X 1/4 NPTM	SS-400-1-4	SWAGELOK
14	2	MALE CONNECTOR	1/4" NPTM X 3/8 COMP.	SS-600-1-4RT	SWAGELOK
13					
12					
11	1	UNION	3/8" COMP X 3/8" COMP.	SS-600-6	SWAGELOK
10					
9					
8	1	UNION (" T ")	1/2" COMP. X 1/2" COMP. X 1/2" NPTM	SS-810-3-8TMT	SWAGELOK
7	1	FEMALE CONNECTOR	1/2" COMP. X 1/2" NPTF	SS-810-7-8	SWAGELOK
6	2	PLUG	1/2"	SS-810-P	SWAGELOK
5	AR	TUBE	1/2" OD, .049" WALL, ST. STL. 304/304L		
4	AR	TUBE	1/4" OD, .035" WALL, ST. STL. 304/304L		
3	AR	TUBE	3/4" OD, .049" WALL, ST. STL. 304/304L,		
2	AR	TUBE	3/8" OD, .035" WALL, ST. STL. 304/304L		
1	AR	TUBE	5/8" OD, .049" WALL, ST. STL. 304/304L		

NOMINAL FLOW (GPM)	WARNING POINT (GPM)	TRIP POINT (GPM)
1.5 ` 0.2	1.2	.9

NOTES:
1. USE TWO PART THREAD SEALANT ON NPT FITTING. P/N: PRIMER 7471 P/N: LOCKTITE SEALANT 545
2. INSTALL COMPRESSION FITTINGS PER SWAGELOK AN INSTALLER'S POCKET GUIDE FOR SWAGELOK TUBE FITTINGS, MS-13-151.
3. SEE SHEET 2 FOR XBPM PIPING DIAGRAM.
4. SEE UTILITY, COORDINATION PLAN DRAWING, FOR HEADER BALL VALVE IDENTIFICATION P1: UT-SR-PSYS-1011, P2: UT-SR-PSYS-2011, P3: UT-SR-PSYS-3011, P4: UT-SR-PSYS-4011, P5: UT-SR-PSYS-5011.
   SEE UTILITY, FLOW XMTR STD INTERFACE DRAWING, FOR TRANSMITTER IDENTIFICATION AND DETAIL UT-XMTR-STD-1100.
5. TARGET FLOW = 1.5 GPM.
6. IXS CRL FLANGE CIRCUIT FOR CELL 10 ONLY.
7. ADD FLOW RESTRICTOR COIL AS REQUIRED.
8. LEAK TEST SYSTEM AT 150 PSI, PER ASME B31.3 USE A PRESSURE GAUGE CALIBRATED TO N.I.S.T. SPECIFICATIONS WITH CERTIFICATION THAT IS CURRENT. ISOLATE TRANSMITTER FROM THE REST OF SYSTEM. INSPECT ALL FITTINGS. AFTER TEST, OPEN TRANSMITTER VALVES AND CHECK ITS FITTINGS FOR LEAKS.
9. APPLY DI-WATER-CU AND FLOW DIRECTION LABELS TO BRANCHES.
10. MAINTAIN 8" MINIMUM STRAIGHT PIPE RUN UPSTREAM AND DOWNSTREAM OF FLOWMETER.

REFERENCE: FRONT END THERMAL ANALYSIS FOR NSLS-II (OCT. 26TH 2010). REVIEWED IN FRONT END FINAL DESIGN REVIEW.
https://ps.bnl.gov/acc/mech/frontends/Design%20Reviews/Final%20Design%20Review%2010-26-2010/Front%20End%20Thermal%20Analysis%2010-26-2010.pdf

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INTERPRET DRAWING AS PER ASME Y14.5 1994 OR Y32.2-1975
DIMENSIONAL TOLERANCES ANGULAR TOLERANCE
X. ` 0.060 .5~
.X ` 0.030
.XX ` 0.015
.XXX ` 0.005
FINISH 125 √
BREAK EDGES & SHARP CORNERS 0.005 MIN. TO 0.030 MAX

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BROOKHAVEN SCIENCE ASSOCIATES
UPTON, NEW YORK 11973
Exploring Life's Mysteries, Protecting its Future

NSLS II NATIONAL SYNCHROTRON LIGHT SOURCE II

DRAWN BY	FAUSSETE	6/1/2013
CHECKED BY	C. AMARITO	6/13
VACUUM APPROVAL	-	-
ENGINEER APPROVAL	DOOM	6/13
SUPERVISOR APPROVAL	SHARMA	6/13
ES&H APPROVAL	ACKERMAN	6/13
Q.A. APPROVAL	CHESWICK	6/13

STORAGE RING
FRONT END, UTILITIES
PIPING SCHEMATIC, LOW FLOW

D — SHEET SIZE
SR-FE-UT-0003 — DRAWING/PART NUMBER
J — REVISION

THIRD ANGLE PROJECTION
SCALE: SEE DWG VIEW
WBS# 1.03.04.07.03
ESH&Q RISK LEVEL A2
SHEET 1 OF 3

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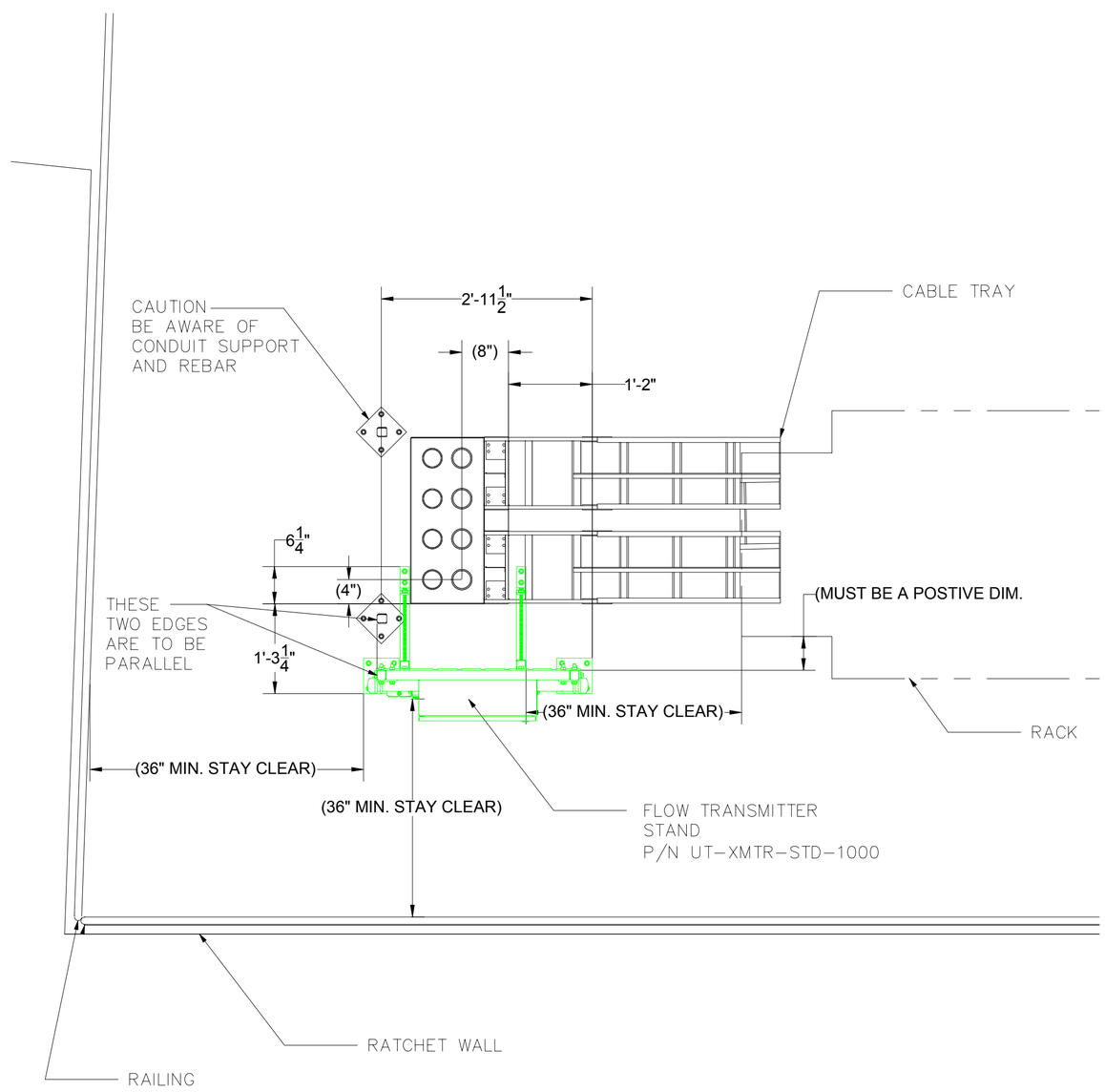
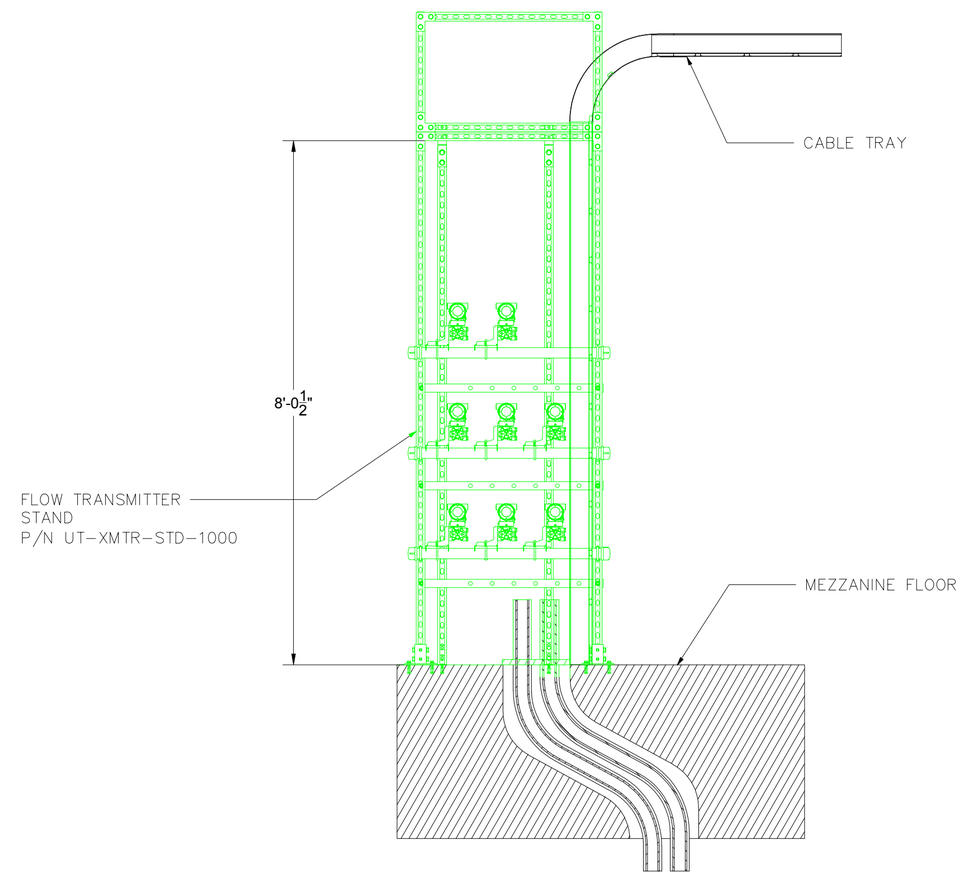
RELEASED + EFFECTIVE

REVISION HISTORY					
REV	DESCRIPTION	DATE	DESIGNER	CHECKED BY	ENGINEER
A	RELEASE PER ECO 001660	11/2013	J. KLEPPER	C. AMARITO	W. O'BRIEN
B	REVISED PER ECO 001896	12/2013	J. KLEPPER	C. AMARITO	W. O'BRIEN
C	REVISED PER ECO 002835	3/2015	B. Rose	C. AMARITO	B. Rose
D	REVISED PER ECO 003543	9/2015	B. R.	C. AMARITO	B. Rose
E	REVISED PER ECO-003734	4/2016	B. R./B.J.M.	C.A./C.S.	B. Rose
F	REVISED PER ECO-004210	6/2016	B. R./B.J.M.	C.A./C.S.	B. Rose
G	REVISED PER ECO-004418	10/2016	B. R./B.J.M.	C.A./C.S.	B. Rose
H	REVISED PER ECO-005020	4/2017	W.O./B.J.M.	C.A./M.L.	W. O'BRIEN





TYPICAL FOR ALL CELL LOCATIONS EXCEPT CELL 5-ID, CELL 22-BM, CELL 24-BM
AND FOR CELL LOCATIONS CELL 08-ID, CELL 18-ID & CELL 28-ID

UNLESS OTHERWISE SPECIFIED
ALL DIMENSIONS ARE IN INCHES
DIMENSIONS IN BRACKETS [xx.xx] (WHERE PRESENT) ARE MILLIMETERS AND ARE FOR REFERENCE ONLY
INTERPRET DRAWING AS PER ANSI Y14.5-1994 OR Y32.2-1975

DIMENSIONAL TOLERANCES: X. ± 0.060, .X ± 0.030, .XX ± 0.015, .XXX ± 0.005
ANGULAR TOLERANCE: ± .5°
FINISH: 125
BREAK EDGES & SHARP CORNERS 0.005 MIN. TO 0.030 MAX.
THIRD ANGLE PROJECTION
SCALE:

BROOKHAVEN NATIONAL LABORATORY
BROOKHAVEN NATIONAL LABORATORY
BROOKHAVEN SCIENCE ASSOCIATES
UPTON, NEW YORK 11973
Exploring Life's Mysteries
Protecting its Future
NSLS II NATIONAL SYNCHROTRON LIGHT SOURCE II

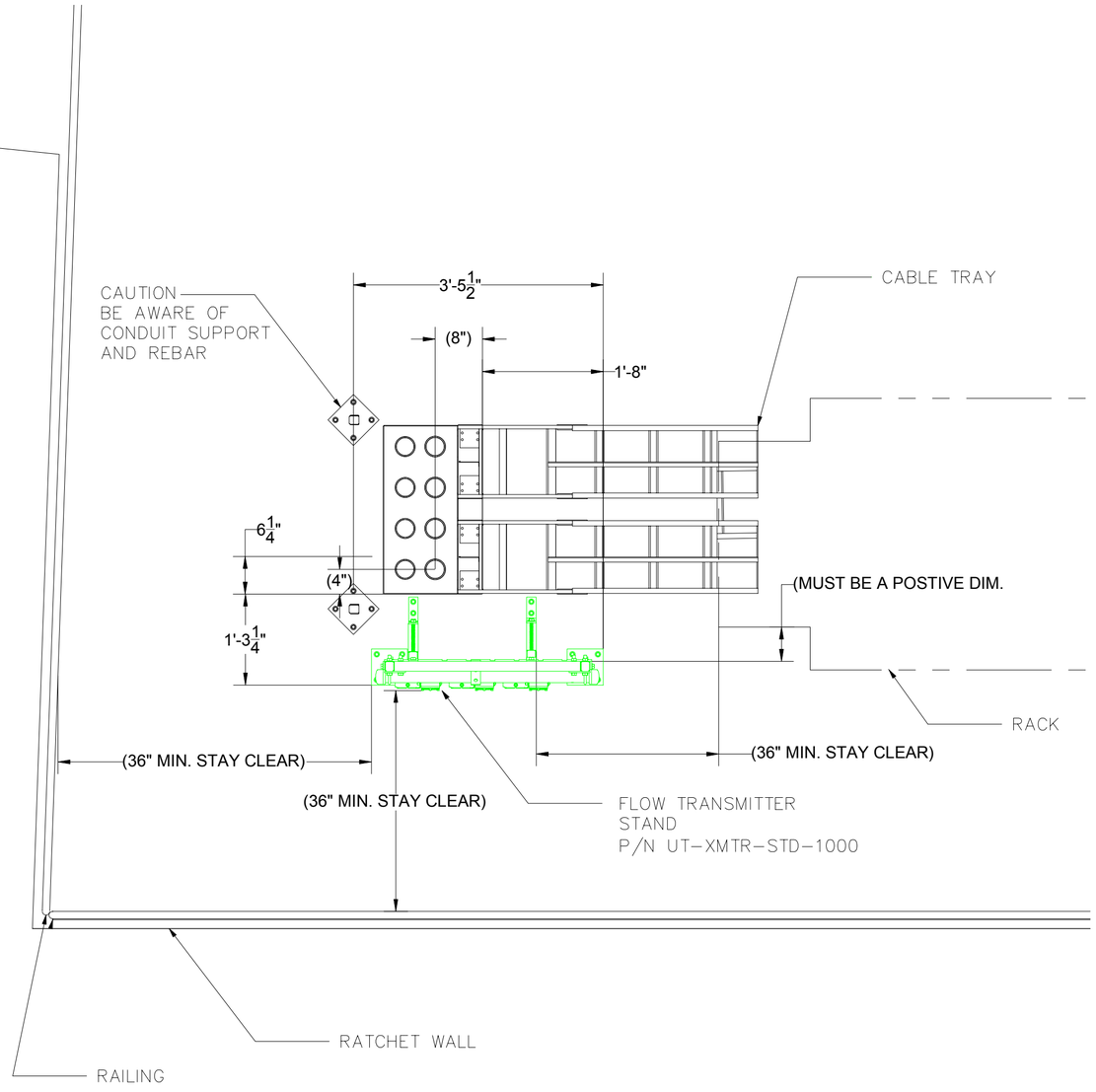
DRAWN BY	J. KLEPPER	12/2013
CHECKED BY	C. AMARITO	12/2013
SAFETY APPROVAL		
ENGINEER APPROVAL	W. O'BRIEN	12/2013
SUPERVISOR APPROVAL	J. GOSMAN	12/2013
ES&H APPROVAL	A. ACKERMAN	12/2013
QA APPROVAL	J. ZIPPER	12/2013

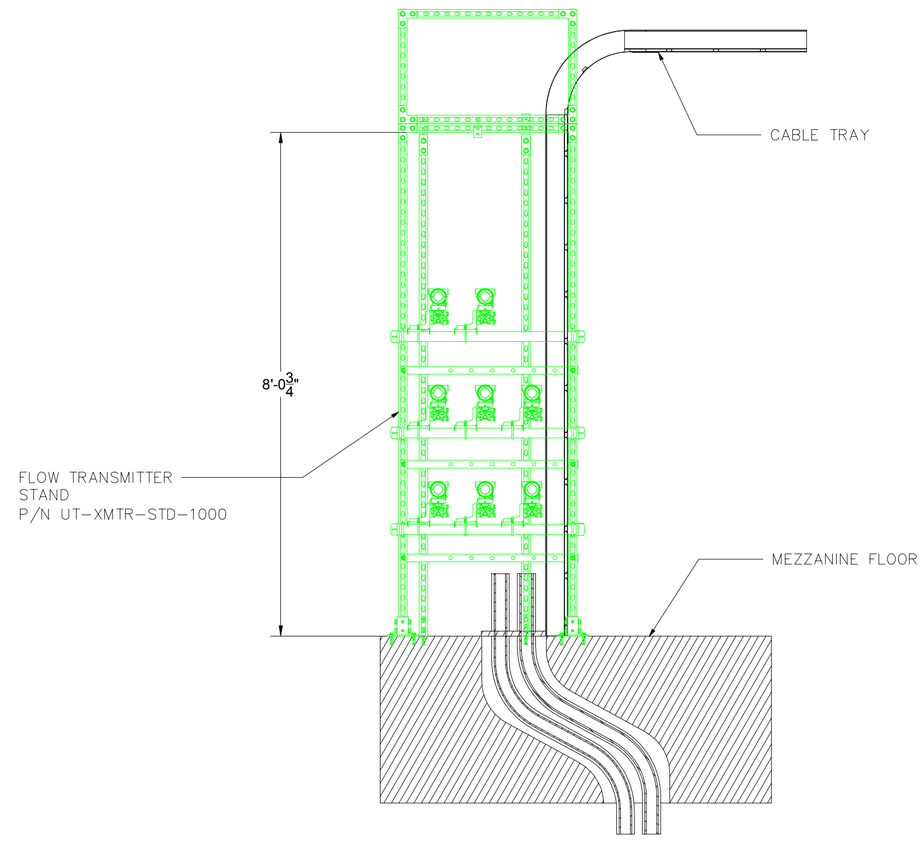
UTILITY
STORAGE RING
FLOW XMTR STD INTERFACE

SHEET SIZE: D
DRAWING/PART NUMBER: UT-XMTR-STD-1100
REVISION: H

NEXT ASSY:
PROJECT:
WBS# 4.2.4.7
ESH&Q RISK LEVEL: A2
SHEET 1 OF 8

RELEASED – EFFECTIVE



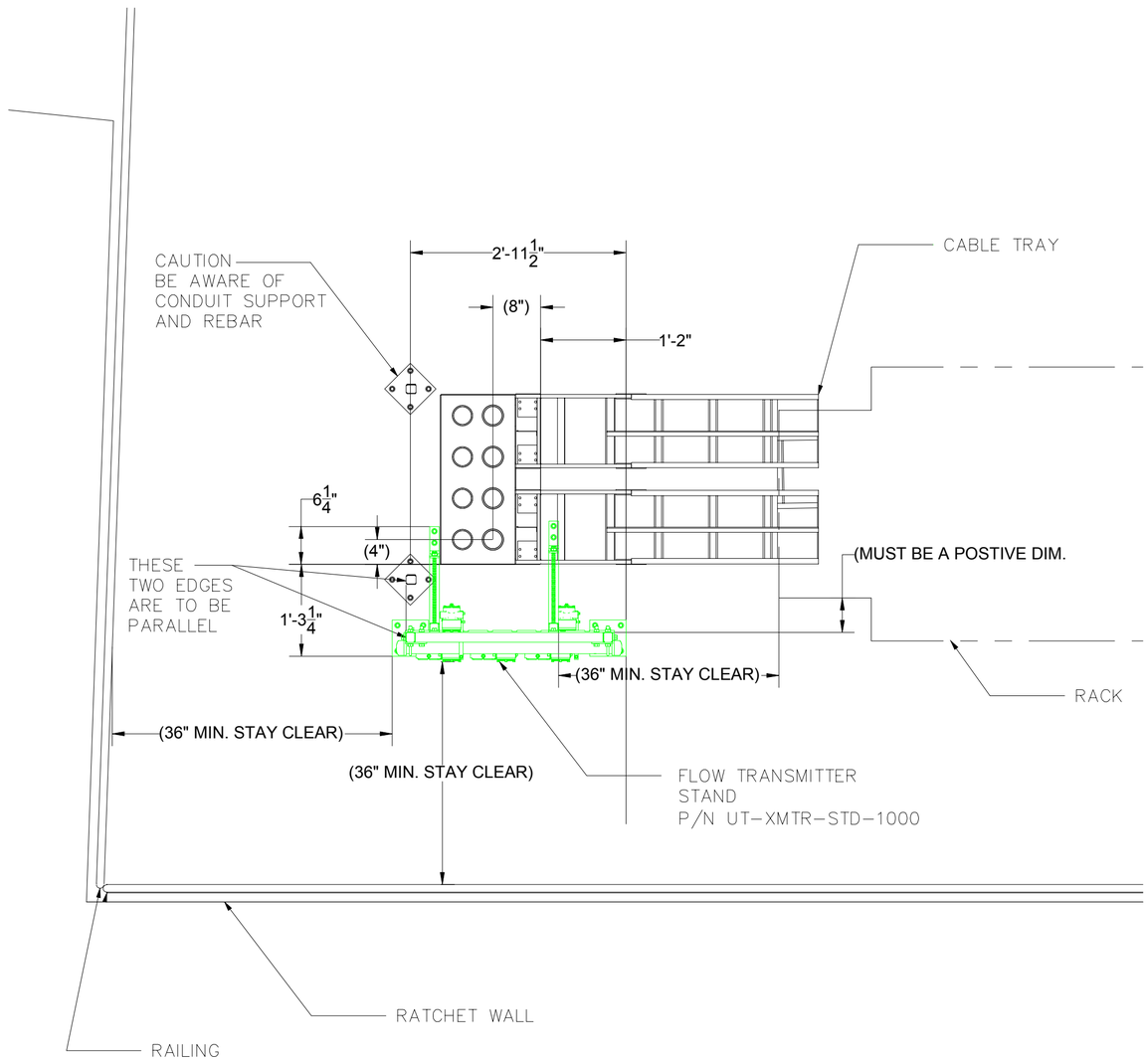


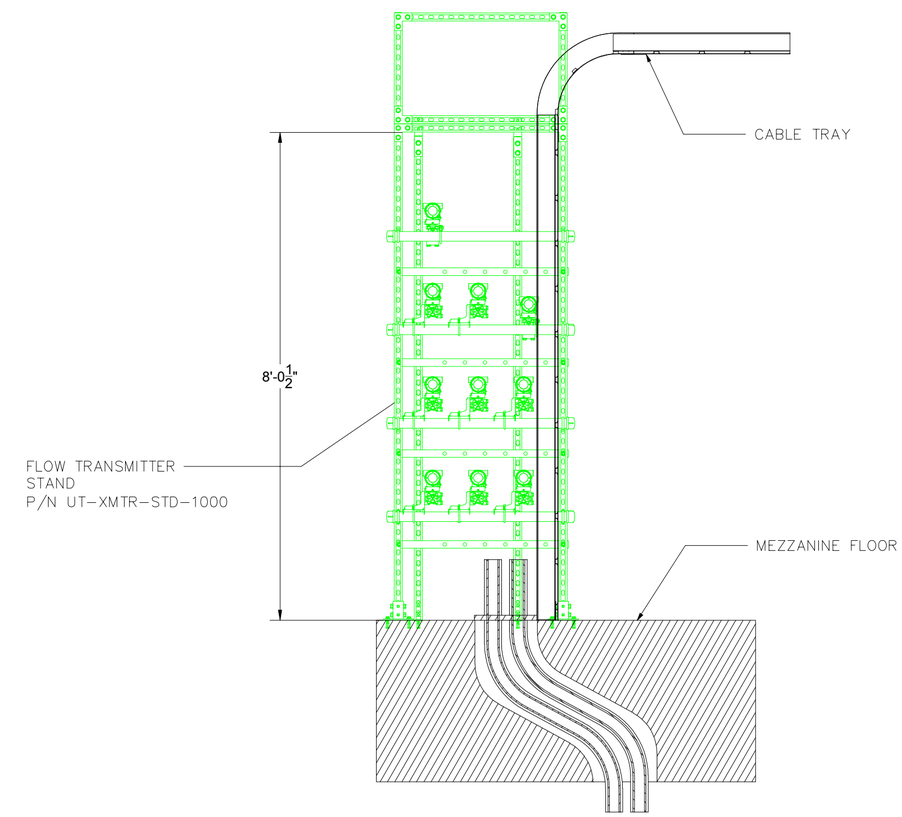
CELL 5-ID FLOW TRANSMITTER STAND CONFIGURATION

D (SHEET SIZE)	UT-XMTR-STD-1100 (DRAWING/PART NUMBER)	H (REVISION)
ESH&Q RISK LEVEL A2	SHEET 2 OF 8	

AUTOCAD 2010

RELEASED – EFFECTIVE





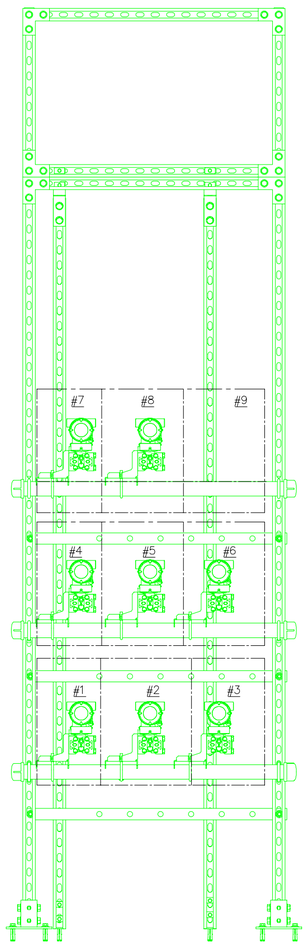
CELL 08-ID, CELL 18-ID AND CELL 28-ID FLOW TRANSMITTER STAND CONFIGURATION

D (SHEET SIZE)	UT-XMTR-STD-1100 (DRAWING/PART NUMBER)	H (REVISION)
ESH&Q RISK LEVEL A2	SHEET 3 OF 8	

AUTOCAD 2010

RELEASED – EFFECTIVE

ONLY INSTALL VALVES WHEN CORRESPONDING TRANSMITTER IS INSTALLED



PENTANT #1											
CELL 23 (LOCATED BETWEEN COLUMNS 109-110)			CELL 23 (LOCATED AT COLUMNS 111)			CELL 24 (LOCATED BETWEEN COLUMNS 113-114)			CELL 24 (LOCATED BETWEEN COLUMNS 115-116)		
LOCATION #7	LOCATION #8	LOCATION #9	NOT INSTALLED			LOCATION #7	LOCATION #8	LOCATION #9	LOCATION #7	LOCATION #8	LOCATION #9
NA	NA	NA				NA	NA	NA	NA	NA	NA
LOCATION #4 CROTCH ABSORBER (COPPER) BNL P/N C23-ABR-FM-1263	LOCATION #5 HIGH END FRONT END (COPPER) BNL P/N C23-HFER-FM-1266	LOCATION #6 LOW END FRONT END (COPPER) BNL P/N C23-LFER-FM-1267				LOCATION #4	LOCATION #5	LOCATION #6	LOCATION #4 CROTCH ABSORBER (COPPER) BNL P/N C24-ABR-FM-1363	LOCATION #5	LOCATION #6
YOKOGAWA SN# U1L901745 0-3 GPM	YOKOGAWA SN# U1N700941	YOKOGAWA SN# 91N803965				NA	NA	NA	YOKOGAWA SN# U1L901746 0-3 GPM	NA	NA
LOCATION #1 (ALUMINUM) BNL P/N C23-ALR-FM-1260	LOCATION #2 (ALUMINUM) BNL P/N C23-ALR-FM-1261	LOCATION #3 STICK/FLG ABSORBER (COPPER) BNL P/N C23-ABR-FM-1262				LOCATION #1 (ALUMINUM) BNL P/N C24-ALR-FM-1360	LOCATION #2	LOCATION #3 23ID FE PG C23-FE-PG-1290	LOCATION #1	LOCATION #2 (ALUMINUM) BNL P/N C24-ALR-FM-1361	LOCATION #3 STICK/FLG ABSORBER (COPPER) BNL P/N C24-ABR-FM-1362
YOKOGAWA SN# U1L901703 0-1 GPM	YOKOGAWA SN# U1L901705 0-1 GPM	YOKOGAWA SN# U1L901769 0-3 GPM				YOKOGAWA SN# U1L901686 0-1 GPM	NA	23BM FE PG C23-FE-PG-1291	NA	YOKOGAWA SN# U1L901697 0-1 GPM	YOKOGAWA SN# U1L901755 0-3 GPM
CELL 25 (LOCATED BETWEEN COLUMNS 117-118)			CELL 25 (LOCATED AT COLUMN 119)			CELL 26 (LOCATED BETWEEN COLUMNS 1-2)			CELL 26 (LOCATED BETWEEN COLUMNS 3-4)		
LOCATION #7	LOCATION #8	LOCATION #9	LOCATION #7	LOCATION #8	LOCATION #9	LOCATION #7	LOCATION #8	LOCATION #9	LOCATION #7	LOCATION #8	LOCATION #9
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LOCATION #4	LOCATION #5	LOCATION #6	LOCATION #4 CROTCH ABSORBER (COPPER) BNL P/N C25-ABR-FM-1463	LOCATION #5	LOCATION #6	LOCATION #4	LOCATION #5	LOCATION #6	LOCATION #4 CROTCH ABSORBER (COPPER) BNL P/N C26-ABR-FM-1563	LOCATION #5	LOCATION #6
NA	NA	NA	YOKOGAWA SN# U1L901754 0-3 GPM	NA	NA	NA	NA	NA	YOKOGAWA SN# U1L901752 0-3 GPM	NA	NA
LOCATION #1 (ALUMINUM) BNL P/N C25-ALR-FM-1460	LOCATION #2	LOCATION #3	LOCATION #1	LOCATION #2 (ALUMINUM) BNL P/N C25-ALR-FM-1461	LOCATION #3 STICK/FLG ABSORBER (COPPER) BNL P/N C25-ABR-FM-1462	LOCATION #1 (ALUMINUM) BNL P/N C26-ALR-FM-1560	LOCATION #2	LOCATION #3	LOCATION #1	LOCATION #2 (ALUMINUM) BNL P/N C26-ALR-FM-1561	LOCATION #3 STICK/FLG ABSORBER (COPPER) BNL P/N C26-ABR-FM-1562
YOKOGAWA SN# U1L901692 0-1 GPM	NA	NA	NA	YOKOGAWA SN# U1L901693 0-1 GPM	YOKOGAWA SN# U1L901750 0-3 GPM	YOKOGAWA SN# U1L901711 0-1 GPM	NA	NA	NA	YOKOGAWA SN# U1L901702 0-1 GPM	YOKOGAWA SN# U1L901772 0-3 GPM
CELL 27 (LOCATED BETWEEN COLUMNS 5-6)			CELL 27 (LOCATED AT COLUMN 7)			CELL 28 (LOCATED BETWEEN COLUMNS 9-10)			CELL 28(LOCATED BETWEEN COLUMNS 11-12)		
LOCATION #7	LOCATION #8	LOCATION #9	LOCATION #7	LOCATION #8	LOCATION #9	LOCATION #7	LOCATION #8 DAMPLER WIGGLER ABSORBER (COPPER) BNL P/N C28-DWAR-FM-1769	LOCATION #9 DAMPLER WIGGLER ABSORBER (COPPER) BNL P/N C28-DWAR-FM-1768	LOCATION #7	LOCATION #8	LOCATION #9
NA	NA	NA	NA	NA	NA	NA	YOKOGAWA SN# U1N802701 X-X GPM	YOKOGAWA SN# U1N802704 X-X GPM	NA	NA	NA
LOCATION #4	LOCATION #5	LOCATION #6	LOCATION #4 CROTCH ABSORBER (COPPER) BNL P/N C27-ABR-FM-1663	LOCATION #5	LOCATION #6	LOCATION #4	LOCATION #5	LOCATION #6	LOCATION #4 CROTCH ABSORBER (COPPER) BNL P/N C28-ABR-FM-1763	LOCATION #5 HIGH END FRONT END (COPPER) BNL P/N C28-HFER-FM-1766	LOCATION #6 LOW END FRONT END (COPPER) BNL P/N C28-LFER-FM-1767
NA	NA	NA	YOKOGAWA SN# U1L901733 0-3 GPM	NA	NA	NA	NA	NA	YOKOGAWA SN# U1L901729 0-3 GPM	YOKOGAWA SN# U1N700938	YOKOGAWA SN# 91N803976
LOCATION #1 (ALUMINUM) BNL P/N C27-ALR-FM-1660	LOCATION #2	LOCATION #3	LOCATION #1	LOCATION #2 (ALUMINUM) BNL P/N C27-ALR-FM-1661	LOCATION #3 STICK/FLG ABSORBER (COPPER) BNL P/N C27-ABR-FM-1662	LOCATION #1 (ALUMINUM) BNL P/N C28-ALR-FM-1760	LOCATION #2	LOCATION #3	LOCATION #1	LOCATION #2 (ALUMINUM) BNL P/N C28-ALR-FM-1761	LOCATION #3 STICK/FLG ABSORBER (COPPER) BNL P/N C28-ABR-FM-1762
YOKOGAWA SN# U1L901709 0-1 GPM	NA	NA	NA	YOKOGAWA SN# U1L901701 0-1 GPM	YOKOGAWA SN# U1L901748 0-3 GPM	YOKOGAWA SN# U1L901699 0-1 GPM	NA	NA	NA	YOKOGAWA SN# U1L901696 0-1 GPM	YOKOGAWA SN# U1L901722 0-3 GPM

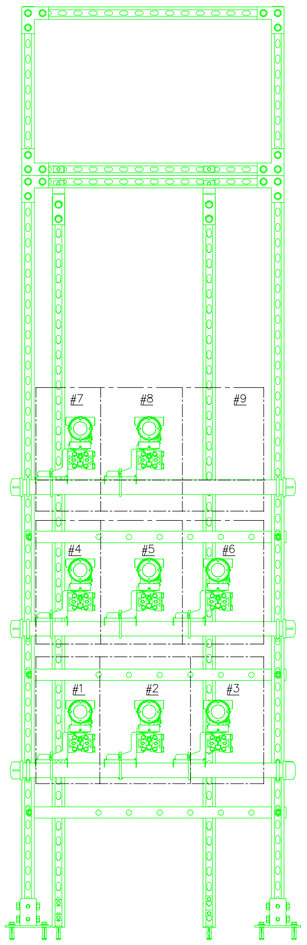
PENTANT #1 FLOW TRANSMITTER STAND CONFIGURATION

D SHEET SIZE	UT-XMTR-STD-1100 DRAWING/PART NUMBER	H REVISION
ESH&Q RISK LEVEL A2	SHEET 4 OF 8	

AUTOCAD 2010

RELEASED – EFFECTIVE

ONLY INSTALL VALVES WHEN CORRESPONDING TRANSMITTER IS INSTALLED



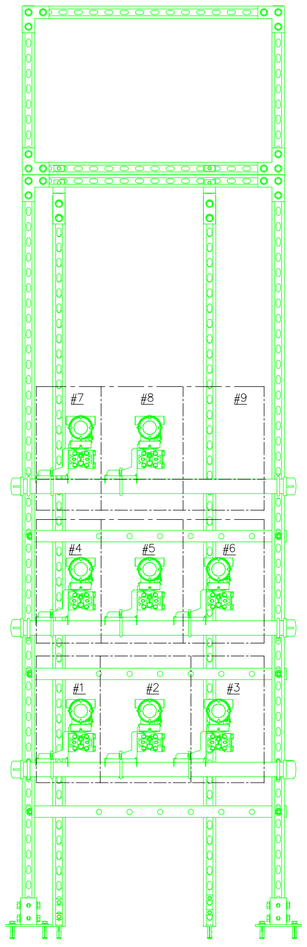
PENTANT #2											
CELL 29 (LOCATED BETWEEN COLUMNS 13-14)			CELL 29 (LOCATED AT COLUMN 15)			CELL 30 (LOCATED BETWEEN COLUMNS 17-18)			CELL 30 (LOCATED BETWEEN COLUMNS 19-20)		
LOCATION #7 28ID FE PG C28-FE-PG-1790	LOCATION #8	LOCATION #9	LOCATION #7	LOCATION #8	LOCATION #9	LOCATION #7 HORIZONTAL SCRAPER X/ VERTICAL SCRAPER 1 BNL P/N C30-SRPR-FM-2370	LOCATION #8 HORIZONTAL SCRAPER 1 BNL P/N C30-SRPH-FM-2371	LOCATION #9	LOCATION #7	LOCATION #8	LOCATION #9
NA	NA	NA	NA	NA	NA	YOKOGAWA SN# U1NA03506	YOKOGAWA SN# U1NA03507	NA	NA	NA	NA
LOCATION #4	LOCATION #5	LOCATION #6	LOCATION #4 CROTCH ABSORBER (COPPER) BNL P/N C29-ABR-FM-2263	LOCATION #5	LOCATION #6	LOCATION #4	LOCATION #5	LOCATION #6	LOCATION #4 CROTCH ABSORBER (COPPER) BNL P/N C30-ABR-FM-2363	LOCATION #5 DIAGNOSTIC SLM FRONT END BNL P/N C30-SLM-FM-2366	LOCATION #6 DIAGNOSTIC SLM FRONT END BNL P/N C30-SLM-FM-2367
NA	NA	NA	YOKOGAWA SN# U1L901751 0-3 GPM	NA	NA	NA	NA	NA	YOKOGAWA SN# U1L901781 0-3 GPM	YOKOGAWA SN# U1P201785 X-X GPM	YOKOGAWA SN# U1P201782 X-X GPM
LOCATION #1 (ALUMINUM) BNL P/N C29-ALR-FM-2260	LOCATION #2 (ALUMINUM) BNL P/N C29-ALR-FM-2261	LOCATION #3	LOCATION #1	LOCATION #2	LOCATION #3 STICK/FLG ABSORBER (COPPER) BNL P/N C29-ABR-FM-2262	LOCATION #1 (ALUMINUM) BNL P/N C30-ALR-FM-2360	LOCATION #2 (ALUMINUM) BNL P/N C30-ALR-FM-2361	LOCATION #3	LOCATION #1	LOCATION #2	LOCATION #3 STICK/FLG ABSORBER (COPPER) BNL P/N C30-ABR-FM-2362
YOKOGAWA SN# U1L901717 0-1 GPM	YOKOGAWA SN# U1L901663 0-1 GPM	NA	NA	NA	YOKOGAWA SN# U1L901759 0-3 GPM	YOKOGAWA SN# U1L901662 0-1 GPM	YOKOGAWA SN# U1L901665 0-1 GPM	NA	NA	NA	YOKOGAWA SN# U1L901776 0-3 GPM
CELL 01 (LOCATED BETWEEN COLUMNS 21-22)			CELL 01 (LOCATED AT COLUMN 23)			CELL 02 (LOCATED BETWEEN COLUMNS 25-26)			CELL 02 (LOCATED BETWEEN COLUMNS 27-28)		
LOCATION #7 HORIZONTAL / VERTICAL SCRAPER 2 BNL P/N C01-SRPR-FM-2470	LOCATION #8	LOCATION #9	LOCATION #7	LOCATION #8	LOCATION #9	LOCATION #7	LOCATION #8	LOCATION #9	LOCATION #7	LOCATION #8	LOCATION #9
YOKOGAWA SN# U1NA03508	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LOCATION #4	LOCATION #5	LOCATION #6	LOCATION #4 CROTCH ABSORBER (COPPER) BNL P/N C01-ABR-FM-2463	LOCATION #5	LOCATION #6	LOCATION #4	LOCATION #5	LOCATION #6	LOCATION #4 CROTCH ABSORBER (COPPER) BNL P/N C02-ABR-FM-2563	LOCATION #5 HIGH END FRONT END (COPPER) BNL P/N C02-HFER-FM-2566	LOCATION #6 LOW END FRONT END (COPPER) BNL P/N C02-LFER-FM-2567
NA	NA	NA	YOKOGAWA SN# U1L901724 0-3 GPM	NA	NA	NA	NA	NA	YOKOGAWA SN# U1L901726 0-3 GPM	YOKOGAWA SN# U1N700939	YOKOGAWA SN# 91N803970
LOCATION #1 (ALUMINUM) BNL P/N C01-ALR-FM-2460	LOCATION #2 (ALUMINUM) BNL P/N C01-ALR-FM-2461	LOCATION #3	LOCATION #1	LOCATION #2	LOCATION #3 STICK/FLG ABSORBER (COPPER) BNL P/N C01-ABR-FM-2462	LOCATION #1 (ALUMINUM) BNL P/N C02-ALR-FM-2560	LOCATION #2 (ALUMINUM) BNL P/N C02-ALR-FM-2561	LOCATION #3	LOCATION #1	LOCATION #2	LOCATION #3 STICK/FLG ABSORBER (COPPER) BNL P/N C02-ABR-FM-2562
YOKOGAWA SN# U1L901664 0-1 GPM	YOKOGAWA SN# U1L901677 0-1 GPM	NA	NA	NA	YOKOGAWA SN# U1L901749 0-3 GPM	YOKOGAWA SN# U1L901679 0-1 GPM	YOKOGAWA SN# U1L901681 0-1 GPM	NA	NA	NA	YOKOGAWA SN# U1L901734 0-3 GPM
CELL 03 (LOCATED BETWEEN COLUMNS 29-30)			CELL 03 (LOCATED AT COLUMN 31)			CELL 04 (LOCATED BETWEEN COLUMNS 33-34)			CELL 04 (LOCATED BETWEEN COLUMNS 35-36)		
LOCATION #7 HXN ABSORBER BNL P/N CO3-HXNR-FM-2692	LOCATION #8 HXN COOLING CIRCUIT BNL P/N CO3-HXNR-FM-2696	LOCATION #9	LOCATION #7	LOCATION #8	LOCATION #9 LOW END FRONT END (COPPER) BNL P/N C03-LFER-FM-2668	LOCATION #7	LOCATION #8 ISR COOLING CIRCUIT BNL P/N CO4-ISRR-FM-2745	LOCATION #9 ISR ABSORBER BNL P/N CO4-ISRR-FM-2747	LOCATION #7 SRX ABSORBER BNL P/N C05-SRXR-FM-3254	LOCATION #8 SRX COOLING CIRCUIT SUPPLY BNL P/N C05-SRXR-FM-3255	LOCATION #9 SRX COOLING CIRCUIT RETURN BNL P/N C05-SRXR-FM-3256
YOKOGAWA SN# U1N602553	YOKOGAWA SN# U1N602542	NA	NA	NA	YOKOGAWA SN# 91P818927	NA	YOKOGAWA SN# U1L901668	YOKOGAWA SN# U1L901669	YOKOGAWA SN# U1N602551	YOKOGAWA SN# U1P503209	YOKOGAWA SN# U1P503210
LOCATION #4	LOCATION #5	LOCATION #6	LOCATION #4 CROTCH ABSORBER (COPPER) BNL P/N C03-ABR-FM-2663	LOCATION #5 HIGH END FRONT END (COPPER) BNL P/N C03-HFER-FM-2666	LOCATION #6 LOW END FRONT END (COPPER) BNL P/N C03-LFER-FM-2667	LOCATION #4	LOCATION #5	LOCATION #6	LOCATION #4 CROTCH ABSORBER (COPPER) BNL P/N C04-ABR-FM-2763	LOCATION #5 HIGH END FRONT END (COPPER) BNL P/N C04-HFER-FM-2766	LOCATION #6 LOW END FRONT END (COPPER) BNL P/N C04-LFER-FM-2767
NA	NA	NA	YOKOGAWA SN# U1L901764 0-3 GPM	YOKOGAWA SN# U1N700944	YOKOGAWA SN# 91N803981	NA	NA	NA	YOKOGAWA SN# U1L901757 0-3 GPM	YOKOGAWA SN# U1N700942	YOKOGAWA SN# 91N803980
LOCATION #1 (ALUMINUM) BNL P/N C03-ALR-FM-2660	LOCATION #2 (ALUMINUM) BNL P/N C03-ALR-FM-2661	LOCATION #3 02ID FE PG C02-FE-PG-2590	LOCATION #1	LOCATION #2	LOCATION #3 STICK/FLG ABSORBER (COPPER) BNL P/N C03-ABR-FM-2662	LOCATION #1 (ALUMINUM) BNL P/N C04-ALR-FM-2760	LOCATION #2 (ALUMINUM) BNL P/N C04-ALR-FM-2761	LOCATION #3 03ID FE PG C03-FE-PG-2690	LOCATION #1	LOCATION #2	LOCATION #3 STICK/FLG ABSORBER (COPPER) BNL P/N C04-ABR-FM-2762
YOKOGAWA SN# U1L901675 0-1 GPM	YOKOGAWA SN# U1L901688 0-1 GPM	02BM FE PG C02-FE-PG-2591	NA	NA	YOKOGAWA SN# U1L901765 0-3 GPM	YOKOGAWA SN# U1L901708 0-1 GPM	YOKOGAWA SN# U1L901671 0-1 GPM	03BM FE PG C03-FE-PG-2691	NA	NA	YOKOGAWA SN# U1L901743 0-3 GPM

PENTANT #2 FLOW TRANSMITTER STAND CONFIGURATION

D SHEET SIZE	UT-XMTR-STD-1100 DRAWING/PART NUMBER	H REVISION
ESH&Q RISK LEVEL A2	SHEET 5 OF 8	

AUTOCAD 2010

RELEASED – EFFECTIVE



ONLY INSTALL VALVES WHEN CORRESPONDING TRANSMITTER IS INSTALLED

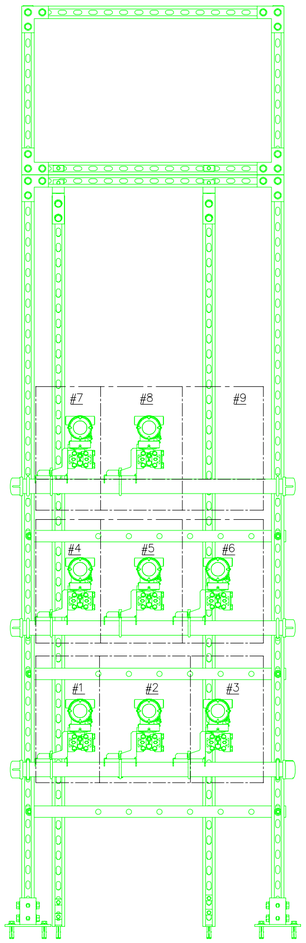
PENTANT #3											
CELL 05 (LOCATED BETWEEN COLUMNS 37-38)			CELL 05 (LOCATED AT COLUMN 39)			CELL 06 (LOCATED BETWEEN COLUMNS 41-42)			CELL 06 (LOCATED BETWEEN COLUMNS 43-44)		
LOCATION #7	LOCATION #8	LOCATION #9	LOCATION #7	LOCATION #8	LOCATION #9	LOCATION #7	LOCATION #8	LOCATION #9	LOCATION #7	LOCATION #8	LOCATION #9
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LOCATION #4	LOCATION #5 LOW END FRONT END (COPPER) BNL P/N C04-LFER-FM-3168	LOCATION #6	LOCATION #4 CROTCH ABSORBER (COPPER) BNL P/N C05-ABR-FM-3263	LOCATION #5 HIGH END FRONT END (COPPER) BNL P/N C05-HFER-FM-3266	LOCATION #6 LOW END FRONT END (COPPER) BNL P/N C05-LFER-FM-3267	LOCATION #4	LOCATION #5	LOCATION #6	LOCATION #4 CROTCH ABSORBER (COPPER) BNL P/N C06-ABR-FM-3363	LOCATION #5	LOCATION #6
NA	YOKOGAWA SN# U1N700952	NA	YOKOGAWA SN# U1L901738 0-3 GPM	YOKOGAWA SN# U1N700952	YOKOGAWA SN# 91N803966	NA	NA	NA	YOKOGAWA SN# U1L901739 0-3 GPM	NA	NA
LOCATION #1 (ALUMINUM) BNL P/N C05-ALR-FM-3260	LOCATION #2 (ALUMINUM) BNL P/N C05-ALR-FM-3261	LOCATION #3 04ID FE PG C04-FE-PG-2790	LOCATION #1	LOCATION #2	LOCATION #3 STICK/FLG ABSORBER (COPPER) BNL P/N C05-ABR-FM-3262	LOCATION #1 (ALUMINUM) BNL P/N C06-ALR-FM-3360	LOCATION #2 (ALUMINUM) BNL P/N C06-ALR-FM-3361	LOCATION #3 05ID FE PG C05-FE-PG-3290	LOCATION #1	LOCATION #2	LOCATION #3 STICK/FLG ABSORBER (COPPER) BNL P/N C06-ABR-FM-3362
YOKOGAWA SN# U1L901685 0-1 GPM	YOKOGAWA SN# U1L901676 0-1 GPM	04BM FE PG C04-FE-PG-2791	NA	NA	YOKOGAWA SN# U1L901774 0-3 GPM	YOKOGAWA SN# U1L901684 0-1 GPM	YOKOGAWA SN# U1L901694 0-1 GPM	05BM FE PG C05-FE-PG-3291	NA	NA	YOKOGAWA SN# U1L901735 0-3 GPM
CELL 07 (LOCATED BETWEEN COLUMNS 45-46)			CELL 07 (LOCATED AT COLUMN 47)			CELL 08 (LOCATED BETWEEN COLUMNS 49-50)			CELL 08 (LOCATED BETWEEN COLUMNS 51-52)		
LOCATION #7	LOCATION #8	LOCATION #9	LOCATION #7	LOCATION #8	LOCATION #9	LOCATION #7	LOCATION #8 DAMPLER WIGGLER ABSORBER (COPPER) BNL P/N C08-DWAR-FM-3569	LOCATION #9 DAMPLER WIGGLER ABSORBER (COPPER) BNL P/N C08-DWAR-FM-3568	LOCATION #7	LOCATION #8	LOCATION #9
NA	NA	NA	NA	NA	NA	NA	YOKOGAWA SN# U1N802706 X-X GPM	YOKOGAWA SN# U1N802702 X-X GPM	NA	NA	NA
LOCATION #4 LOW END FRONT END BNL P/N C06-LFER-FM-3368	LOCATION #5 FRONT END MIRROR BNL P/N C06-MFER-FM-3369	LOCATION #6	LOCATION #4 CROTCH ABSORBER (COPPER) BNL P/N C07-ABR-FM-3463	LOCATION #5	LOCATION #6	LOCATION #4 LOW END FRONT END BNL P/N C07-LFER-FM-3468	LOCATION #5 FRONT END MIRROR BNL P/N C07-MFER-FM-3469	LOCATION #6	LOCATION #4 CROTCH ABSORBER (COPPER) BNL P/N C08-ABR-FM-3563	LOCATION #5 HIGH END FRONT END (COPPER) BNL P/N C08-HFER-FM-3566	LOCATION #6 LOW END FRONT END (COPPER) BNL P/N C08-LFER-FM-3567
YOKOGAWA SN# U1R902247	YOKOGAWA SN# U1R902252	NA	YOKOGAWA SN# U1L901732 0-3 GPM	NA	NA	YOKOGAWA SN U1RA02190	YOKOGAWA U1RB01580	NA	YOKOGAWA SN# U1L901780 0-3 GPM	YOKOGAWA SN# U1N700950	YOKOGAWA SN# 91N803968
LOCATION #1 (ALUMINUM) BNL P/N C07-ALR-FM-3460	LOCATION #2 (ALUMINUM) BNL P/N C07-ALR-FM-3461	LOCATION #3	LOCATION #1 HIGH END FRONT END (COPPER) BNL P/N C07-HFER-FM-3466	LOCATION #2 LOW END FRONT END (COPPER) BNL P/N C07-LFER-3467	LOCATION #3 STICK/FLG ABSORBER (COPPER) BNL P/N C07-ABR-FM-3462	LOCATION #1 (ALUMINUM) BNL P/N C08-ALR-FM-3560	LOCATION #2 (ALUMINUM) BNL P/N C08-ALR-FM-3561	LOCATION #3 07ID FE PG C07-FE-PG-3490	LOCATION #1	LOCATION #2	LOCATION #3 STICK/FLG ABSORBER (COPPER) BNL P/N C08-ABR-FM-3562
YOKOGAWA SN# U1L901707 0-1 GPM	YOKOGAWA SN# U1L901720 0-1 GPM	NA	YOKOGAWA SN# U1S601058	YOKOGAWA SN# U1S601059	YOKOGAWA SN# U1L901773 0-3 GPM	YOKOGAWA SN# U1L901698 0-1 GPM	YOKOGAWA SN# U1L901695 0-1 GPM	07BM FE PG C07-FE-PG-3491	NA	NA	YOKOGAWA SN# U1L901766 0-3 GPM
CELL 09 (LOCATED BETWEEN COLUMNS 53-54)			CELL 09 (LOCATED AT COLUMN 55)			CELL 10 (LOCATED BETWEEN COLUMNS 57-58)			CELL 10 (LOCATED BETWEEN COLUMNS 59-60)		
LOCATION #7	LOCATION #8	LOCATION #9 08ID FE PG C08-FE-PG-3590	LOCATION #7	LOCATION #8	LOCATION #9	LOCATION #7 ISX COOLING CIRCUIT BNL P/N C10-IXSR-FM-3758	LOCATION #8 ISX ABSORBER BNL P/N C10-IXSR-FM-3759	LOCATION #9	LOCATION #7	LOCATION #8	LOCATION #9
NA	NA	08BM FE PG C08-FE-PG-3590	NA	NA	NA	YOKOGAWA SN# U1L901723	YOKOGAWA SN# U1W400758	NA	NA	NA	NA
LOCATION #4	LOCATION #5	LOCATION #6	LOCATION #4 CROTCH ABSORBER (COPPER) BNL P/N C09-ABR-FM-3663	LOCATION #5	LOCATION #6	LOCATION #4	LOCATION #5	LOCATION #6	LOCATION #4 CROTCH ABSORBER (COPPER) BNL P/N C10-ABR-FM-3763	LOCATION #5 HIGH END FRONT END (COPPER) BNL P/N C10-HFER-FM-3766	LOCATION #6 LOW END FRONT END (COPPER) BNL P/N C10-LFER-FM-3767
NA	NA	NA	YOKOGAWA SN# U1L901779 0-3 GPM	NA	NA	NA	NA	NA	YOKOGAWA SN# U1L901778 0-3 GPM	YOKOGAWA SN# U1N700937	YOKOGAWA SN# 91N803975
LOCATION #1 (ALUMINUM) BNL P/N C09-ALR-FM-3660	LOCATION #2 (ALUMINUM) BNL P/N C09-ALR-FM-3661	LOCATION #3 LOW END FRONT END (COPPER) BNL P/N C08-LFER-FM-3668	LOCATION #1	LOCATION #2	LOCATION #3 STICK/FLG ABSORBER (COPPER) BNL P/N C09-ABR-FM-3662	LOCATION #1 (ALUMINUM) BNL P/N C10-ALR-FM-3760	LOCATION #2 (ALUMINUM) BNL P/N C10-ALR-FM-3761	LOCATION #3	LOCATION #1	LOCATION #2	LOCATION #3 STICK/FLG ABSORBER (COPPER) BNL P/N C10-ABR-FM-3762
YOKOGAWA SN# U1L901716 0-1 GPM	YOKOGAWA SN# U1L901718 0-1 GPM	YOKOGAWA SN# U1R902249 0-1.5 GPM	NA	NA	YOKOGAWA SN# U1L901777 0-3 GPM	YOKOGAWA SN# U1L901713 0-1 GPM	YOKOGAWA SN# U1L901706 0-1 GPM	NA	NA	NA	YOKOGAWA SN# U1L901767 0-3 GPM

PENTANT #3 FLOW TRANSMITTER STAND CONFIGURATION

D	UT-XMTR-STD-1100	H
SHEET SIZE	DRAWING/PART NUMBER	REVISION
ESH&Q RISK LEVEL A2	SHEET 6 OF 8	

AUTOCAD 2010

RELEASED – EFFECTIVE



ONLY INSTALL VALVES WHEN CORRESPONDING TRANSMITTER IS INSTALLED

PENTANT #4											
CELL 11 (LOCATED BETWEEN COLUMNS 61-62)			CELL 11 (LOCATED AT COLUMN 63)			CELL 12 (LOCATED BETWEEN COLUMNS 65-66)			CELL 12 (LOCATED BETWEEN COLUMNS 67-68)		
LOCATION #7 CHX COOLING CIRCUIT BNL P/N C11-CHXR-FM-4279	LOCATION #8 CHX ABSORBER BNL P/N C11-CHXR-FM-4278	LOCATION #9	LOCATION #7	LOCATION #8	LOCATION #9	LOCATION #7 SMI COOLING CIRCUIT BNL P/N C12-SMIR-FM-4345	LOCATION #8 SMI ABSORBER BNL P/N C12-SMIR-FM-4347	LOCATION #9 11ID FE PG C11-FE-PG-4290	LOCATION #7	LOCATION #8	LOCATION #9
YOKOGAWA SN# U1W400757	YOKOGAWA SN# U1N802707	NA	NA	NA	NA	YOKOGAWA SN# U1R902254	YOKOGAWA SN# U1R902248	11BM FE PG C11-FE-PG-4291	NA	NA	NA
LOCATION #4	LOCATION #5	LOCATION #6	LOCATION #4 CROTCH ABSORBER (COPPER) BNL P/N C11-ABR-FM-4263	LOCATION #5 HIGH END FRONT END (COPPER) BNL P/N C11-HFER-FM-4266	LOCATION #6 LOW END FRONT END (COPPER) BNL P/N C11-LFER-FM-4267	LOCATION #4	LOCATION #5	LOCATION #6	LOCATION #4 CROTCH ABSORBER (COPPER) BNL P/N C12-ABR-FM-4363	LOCATION #5 HIGH END FRONT END (COPPER) BNL P/N C12-HFER-FM-4366	LOCATION #6 LOW END FRONT END (COPPER) BNL P/N C12-LFER-FM-4367
NA	NA	NA	YOKOGAWA SN# U1L901771 0-3 GPM	YOKOGAWA SN# U1N700948	YOKOGAWA SN# 91N803967	NA	NA	NA	YOKOGAWA SN# U1L901761 0-3 GPM	YOKOGAWA SN# U1N700940	YOKOGAWA SN# 91N803974
LOCATION #1 (ALUMINUM) BNL P/N C11-ALR-FM-4260	LOCATION #2 (ALUMINUM) BNL P/N C11-ALR-FM-4261	LOCATION #3 10ID FE PG C10-FE-PG-3790	LOCATION #1	LOCATION #2	LOCATION #3 STICK/FLG ABSORBER (COPPER) BNL P/N C11-ABR-FM-4262	LOCATION #1 (ALUMINUM) BNL P/N C12-ALR-FM-4360	LOCATION #2 (ALUMINUM) BNL P/N C12-ALR-FM-4361	LOCATION #3 LOW END FRONT END (COPPER) C11-LFER-FM-4268	LOCATION #1	LOCATION #2	LOCATION #3 STICK/FLG ABSORBER (COPPER) BNL P/N C12-ABR-FM-4362
YOKOGAWA SN# U1L901678 0-1 GPM	YOKOGAWA SN# U1L901673 0-1 GPM	10BM FE PG C10-FE-PG-3791	NA	NA	YOKOGAWA SN# U1L901770 0-3 GPM	YOKOGAWA SN# U1L901714 0-1 GPM	YOKOGAWA SN# U1L901710 0-1 GPM	YOKOGAWA SN# U1R902250 0-1.5 GPM	NA	NA	YOKOGAWA SN# U1L901737 0-3 GPM
CELL 13 (LOCATED BETWEEN COLUMNS 69-70)			CELL 13 (LOCATED AT COLUMN 71)			CELL 14 (LOCATED BETWEEN COLUMNS 73-74)			CELL 14 (LOCATED BETWEEN COLUMNS 75-76)		
LOCATION #7	LOCATION #8	LOCATION #9	LOCATION #7	LOCATION #8	LOCATION #9	LOCATION #7	LOCATION #8	LOCATION #9	LOCATION #7	LOCATION #8	LOCATION #9
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LOCATION #4	LOCATION #5	LOCATION #6	LOCATION #4 CROTCH ABSORBER (COPPER) BNL P/N C13-ABR-FM-4463	LOCATION #5	LOCATION #6	LOCATION #4	LOCATION #5	LOCATION #6	LOCATION #4 CROTCH ABSORBER (COPPER) BNL P/N C14-ABR-FM-4563	LOCATION #5	LOCATION #6
NA	NA	NA	YOKOGAWA SN# U1L901740 0-3 GPM	NA	NA	NA	NA	NA	YOKOGAWA SN# U1L901775 0-3 GPM	NA	NA
LOCATION #1 (ALUMINUM) BNL P/N C13-ALR-FM-4460	LOCATION #2 (ALUMINUM) BNL P/N C13-ALR-FM-4461	LOCATION #3 12ID FE PG C12-FE-PG-4390	LOCATION #1	LOCATION #2	LOCATION #3 STICK/FLG ABSORBER (COPPER) BNL P/N C13-ABR-FM-4462	LOCATION #1 (ALUMINUM) BNL P/N C14-ALR-FM-4560	LOCATION #2 (ALUMINUM) BNL P/N C14-ALR-FM-4561	LOCATION #3	LOCATION #1	LOCATION #2	LOCATION #3 STICK/FLG ABSORBER (COPPER) BNL P/N C14-ABR-FM-4562
YOKOGAWA SN# U1L901712 0-1 GPM	YOKOGAWA SN# U1L901666 0-1 GPM	12BM FE PG C12-FE-PG-4391	NA	NA	YOKOGAWA SN# U1L901760 0-3 GPM	YOKOGAWA SN# U1L901674 0-1 GPM	YOKOGAWA SN# U1L901667 0-1 GPM	NA	NA	NA	YOKOGAWA SN# U1L901747 0-3 GPM
CELL 15 (LOCATED BETWEEN COLUMNS 77-78)			CELL 15 (LOCATED AT COLUMN 79)			CELL 16 (LOCATED BETWEEN COLUMNS 81-82)			CELL 16 (LOCATED BETWEEN COLUMNS 83-84)		
LOCATION #7	LOCATION #8	LOCATION #9	LOCATION #7 LIX ABSORBER BNL P/N C16-LIXR-FM-4746	LOCATION #8 LIX COOLING CIRCUIT BNL P/N C16-LIXR-FM-4748	LOCATION #9	LOCATION #7	LOCATION #8	LOCATION #9	LOCATION #7 FMX ABSORBER BNL P/N C17-FMXR-FM-5252	LOCATION #8 AMX ABSORBER BNL P/N C17-AMXR-FM-5254	LOCATION #9 FMX COOLING CIRCUIT BNL P/N C17-FMXR-FM-5256
NA	NA	NA	YOKOGAWA SN# 91P818934	YOKOGAWA SN# 91P818932	NA	NA	NA	NA	YOKOGAWA SN# 91P818931	YOKOGAWA SN# 91P818930	YOKOGAWA SN# U1PA02846
LOCATION #4	LOCATION #5	LOCATION #6	LOCATION #4 CROTCH ABSORBER (COPPER) BNL P/N C15-ABR-FM-4663	LOCATION #5	LOCATION #6	LOCATION #4	LOCATION #5	LOCATION #6	LOCATION #4 CROTCH ABSORBER (COPPER) BNL P/N C16-ABR-FM-4763	LOCATION #5 HIGH END FRONT END (COPPER) BNL P/N C16-HFER-FM-4766	LOCATION #6 LOW END FRONT END (COPPER) BNL P/N C16-LFER-FM-4767
NA	NA	NA	YOKOGAWA SN# U1L901756 0-3 GPM	NA	NA	NA	NA	NA	YOKOGAWA SN# U1L901742 0-3 GPM	YOKOGAWA SN# U1N700945	YOKOGAWA SN# 91N803979
LOCATION #1 (ALUMINUM) BNL P/N C15-ALR-FM-4660	LOCATION #2 (ALUMINUM) BNL P/N C15-ALR-FM-4661	LOCATION #3	LOCATION #1	LOCATION #2	LOCATION #3 STICK/FLG ABSORBER (COPPER) BNL P/N C15-ABR-FM-4662	LOCATION #1 (ALUMINUM) BNL P/N C16-ALR-FM-4760	LOCATION #2 (ALUMINUM) BNL P/N C16-ALR-FM-4761	LOCATION #3 XBPM FRONT END BNL P/N C16-XBPM-FM-4768	LOCATION #1 AMX COOLING CIRCUIT BNL P/N C17-AMXR-FM-5258	LOCATION #2	LOCATION #3 STICK/FLG ABSORBER (COPPER) BNL P/N C16-ABR-FM-4762
YOKOGAWA SN# U1L901689 0-1 GPM	YOKOGAWA SN# U1L901700 0-1 GPM	NA	NA	NA	YOKOGAWA SN# U1L901736 0-3 GPM	YOKOGAWA SN# U1L901690 0-1 GPM	YOKOGAWA SN# U1L901691 0-1 GPM	YOKOGAWA SN# 91P427131	YOKOGAWA SN# 91P818933	NA	YOKOGAWA SN# U1L901744 0-3 GPM

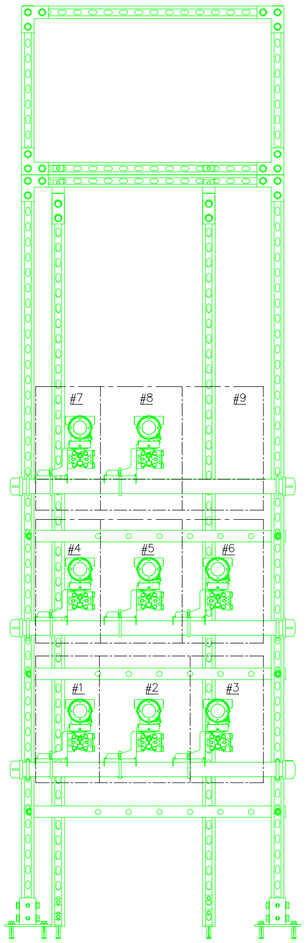
PENTANT #4 FLOW TRANSMITTER STAND CONFIGURATION

D SHEET SIZE	UT-XMTR-STD-1100 DRAWING/PART NUMBER	H REVISION
ESH&Q RISK LEVEL A2	SHEET 7 OF 8	

AUTOCAD 2010

RELEASED – EFFECTIVE

ONLY INSTALL VALVES WHEN CORRESPONDING TRANSMITTER IS INSTALLED



PENTANT #5											
CELL 17 (LOCATED BETWEEN COLUMNS 85-86)			CELL 17 (LOCATED AT COLUMN 87)			CELL 18 (LOCATED BETWEEN COLUMNS 89-90)			CELL 18 (LOCATED BETWEEN COLUMNS 91-92)		
LOCATION #7 16ID FE PG C16-FE-PG-4790	LOCATION #8	LOCATION #9	LOCATION #7	LOCATION #8	LOCATION #9	LOCATION #7 17ID FE PG C17-FE-PG-5290	LOCATION #8 DAMPLER WIGGLER ABSORBER (COPPER) BNL P/N C18-DWAR-FM-5369	LOCATION #9 DAMPLER WIGGLER ABSORBER (COPPER) BNL P/N C18-DWAR-FM-5368	LOCATION #7	LOCATION #8	LOCATION #9
NA	NA	NA	NA	NA	NA	17BM FEPG C17-FE-PG-5291	YOKOGAWA SN# U1N802703 X-X GPM	YOKOGAWA SN# U1N802705 X-X GPM	NA	NA	NA
LOCATION #4	LOCATION #5	LOCATION #6	LOCATION #4 CROTCH ABSORBER (COPPER) BNL P/N C17-ABR-FM-5263	LOCATION #5 HIGH END FRONT END (COPPER) BNL P/N C17-HFER-FM-5266	LOCATION #6 LOW END FRONT END (COPPER) BNL P/N C17-LFER-FM-5267	LOCATION #4	LOCATION #5	LOCATION #6	LOCATION #4 CROTCH ABSORBER (COPPER) BNL P/N C18-ABR-FM-5363	LOCATION #5 HIGH END FRONT END (COPPER) BNL P/N C18-HFER-FM-5366	LOCATION #6 LOW END FRONT END (COPPER) BNL P/N C18-LFER-FM-5367
NA	NA	NA	YOKOGAWA SN# U1L901762 0-3 GPM	YOKOGAWA SN# U1N700947	YOKOGAWA SN# U1PA02841	NA	NA	NA	YOKOGAWA SN# U1L901727 0-3 GPM	YOKOGAWA SN# U1N700951	YOKOGAWA SN# 91N803972
LOCATION #1 (ALUMINUM) BNL P/N C17-ALR-FM-5260	LOCATION #2 (ALUMINUM) BNL P/N C17-ALR-FM-5261	LOCATION #3	LOCATION #1	LOCATION #2 XBPM FRONT END BNL P/N C17-XBPM-FM-5268	LOCATION #3 STICK/FLG ABSORBER (COPPER) BNL P/N C17-ABR-FM-5262	LOCATION #1 (ALUMINUM) BNL P/N C18-ALR-FM-5360	LOCATION #2 (ALUMINUM) BNL P/N C18-ALR-FM-5361	LOCATION #3 LOW END FRONT END (COPPER) C17-LFER-FM-5269	LOCATION #1 NYX COOLING CIRCUIT SUPPLY BNL P/N C19-NYXS-FM-5926	LOCATION #2 NYX COOLING CIRCUIT RETURN BNL P/N C19-NYXR-FM-5937	LOCATION #3 STICK/FLG ABSORBER (COPPER) BNL P/N C18-ABR-FM-5362
YOKOGAWA SN# U1L901719 0-1 GPM	YOKOGAWA SN# U1L901715 0-1 GPM		NA	YOKOGAWA SN# UP1A02844	YOKOGAWA SN# U1L901758 0-3 GPM	YOKOGAWA SN# U1L901721 0-1 GPM	YOKOGAWA SN# U1L901704 0-1 GPM	YOKOGAWA SN# U1R902251 0-1.5 GPM	YOKOGAWA SN# U1S303097	YOKOGAWA SN# U1S303098	YOKOGAWA SN# U1L901725 0-3 GPM
CELL 19 (LOCATED BETWEEN COLUMNS 93-94)			CELL 19 (LOCATED AT COLUMN 95)			CELL 20 (LOCATED BETWEEN COLUMNS 97-98)			CELL 20 (LOCATED BETWEEN COLUMNS 99-100)		
LOCATION #7	LOCATION #8	LOCATION #9	LOCATION #7	LOCATION #8	LOCATION #9	LOCATION #7	LOCATION #8	LOCATION #9	LOCATION #7	LOCATION #8	LOCATION #9
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LOCATION #4	LOCATION #5	LOCATION #6	LOCATION #4 CROTCH ABSORBER (COPPER) BNL P/N C19-ABR-FM-5463	LOCATION #5	LOCATION #6	LOCATION #4	LOCATION #5	LOCATION #6	LOCATION #4 CROTCH ABSORBER (COPPER) BNL P/N C20-ABR-FM-5563	LOCATION #5	LOCATION #6
NA	NA	NA	YOKOGAWA SN# U1L901731 0-3 GPM	NA	NA	NA	NA	NA	YOKOGAWA SN# U1L901741 0-3 GPM	NA	NA
LOCATION #1 (ALUMINUM) BNL P/N C19-ALR-FM-5460	LOCATION #2 (ALUMINUM) BNL P/N C19-ALR-FM-5461	LOCATION #3	LOCATION #1 HIGH END FRONT END (COPPER) BNL P/N C19-HFER-FM-5466	LOCATION #2 LOW END FRONT END (COPPER) BNL P/N C19-LFER-FM-5467	LOCATION #3 STICK/FLG ABSORBER (COPPER) BNL P/N C19-ABR-FM-5462	LOCATION #1 (ALUMINUM) BNL P/N C20-ALR-FM-5560	LOCATION #2 (ALUMINUM) BNL P/N C20-ALR-FM-5561	LOCATION #3 19ID FE PG C19-FE-PG-5490	LOCATION #1	LOCATION #2	LOCATION #3 STICK/FLG ABSORBER (COPPER) BNL P/N C20-ABR-FM-5562
YOKOGAWA SN# U1L901683 0-1 GPM	YOKOGAWA SN# U1L901670 0-1 GPM		YOKOGAWA SN# U1S601060	YOKOGAWA SN# U1S601061	YOKOGAWA SN# U1L901753 0-3 GPM	YOKOGAWA SN# U1L901682 0-1 GPM	YOKOGAWA SN# U1L901672 0-1 GPM	19BM FE PG C19-FE-PG-5491	NA	NA	YOKOGAWA SN# U1L901730 0-3 GPM
CELL 21 (LOCATED BETWEEN COLUMNS 101-102)			CELL 21 (LOCATED AT COLUMN 103)			CELL 22 (LOCATED BETWEEN COLUMNS 105-106)			CELL 22 (LOCATED BETWEEN COLUMNS 107-108)		
LOCATION #7	LOCATION #8	LOCATION #9				LOCATION #7	LOCATION #8	LOCATION #9	LOCATION #7	LOCATION #8	LOCATION #9
NA	NA	NA				NA	NA	NA	NA	NA	NA
LOCATION #4 CROTCH ABSORBER (COPPER) BNL P/N C21-ABR-FM-5663	LOCATION #5 HIGH END FRONT END (COPPER) BNL P/N C21-HFER-FM-5666	LOCATION #6 LOW END FRONT END (COPPER) BNL P/N C21-LFER-FM-5667				LOCATION #4	LOCATION #5	LOCATION #6	LOCATION #4 CROTCH ABSORBER (COPPER) BNL P/N C22-ABR-FM-5763	LOCATION #5	LOCATION #6
YOKOGAWA SN# U1L901728 0-3 GPM	YOKOGAWA SN# U1N700953	YOKOGAWA SN# 91N803973				NA	NA	NA	YOKOGAWA SN# U1W400760 0-3 GPM	NA	NA
LOCATION #1 (ALUMINUM) BNL P/N C21-ALR-FM-5660	LOCATION #2 (ALUMINUM) BNL P/N C21-ALR-FM-5661	LOCATION #3 STICK/FLG ABSORBER (COPPER) BNL P/N C21-ABR-FM-5662				LOCATION #1 (ALUMINUM) BNL P/N C22-ALR-FM-5760	LOCATION #2 (ALUMINUM) BNL P/N C22-ALR-FM-5761	LOCATION #3 21ID FE PG C21-FE-PG-5690	LOCATION #1	LOCATION #2	LOCATION #3 STICK/FLG ABSORBER (COPPER) BNL P/N C22-ABR-FM-5762
YOKOGAWA SN# U1L901687 0-1 GPM	YOKOGAWA SN# U1W400759 0-1 GPM	YOKOGAWA SN# U1L901763 0-3 GPM				YOKOGAWA SN# U1L403229 0-1 GPM	YOKOGAWA SN# U1L403225 0-1 GPM	21BM FE PG C21-FE-PG-5691	NA	NA	YOKOGAWA SN# U1L403226 0-3 GPM

PENTANT #5 FLOW TRANSMITTER STAND CONFIGURATION

D SHEET SIZE	UT-XMTR-STD-1100 DRAWING/PART NUMBER	H REVISION
ESH&Q RISK LEVEL A2	SHEET 8 OF 8	

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RELEASED – EFFECTIVE