

12177-EK-401BC-2

SOURCE CONN				LINE TERMINATION				REMARKS
LINE REF	EK-401 SH/ZONE	EL	SOURCE VALVE IDENT	TUBING IDENT	EK-401 SH/ZONE	EL	INSTALL DETAIL	
R-147	EL	177'-11"	2CSH-V27	2CSH-PI128	EL	179'-6"	BK-16 JL	TEE'S FROM LINE R-015
R-170	EL	210'-4"	2RHS-V99	2E12-N028	EL	175'-0"	BK-16 JL	2H22-P021[A]
R-171	EL	190'-3"	2ICS-V90	2E52-N055A	EL	175'-0"	BK-16 JL	2H22-P017[A]
R-172	EL	190'-3"	2ICS-V91	2E59-N055B	EL	175'-0"	BK-16 JL	2H22-P029[A]
R-175	EL	182'-3"	2ICS-V94	2E51-R004	EL	175'-0"	BK-16 JL	2H22-P017[A]
R-176	EL	186'-9"	2ICS-V71	2E51-R001	EL	175'-0"	BK-16 JL	2H22-P017[A]
R-177	AX(C-4)	177'-10"	2RHS-V109	2E12-N063A	AU(D-9)	175'-0"	BK-16 QY	TEE'S FROM LINE R-258
R-178	EL	186'-9"	2ICS-V85	2E51-N053	EL	175'-0"	BK-16 JL	2H22-P017[A]
R-179	EL	188'-6"	2ICS-V88	2E51-N056A	EL	175'-0"	BK-16 JL	2H22-P017[A]
R-180	EL	188'-4"	2ICS-V89	2E51-N056E	EL	175'-0"	BK-16 JL	2H22-P017[A]
R-181	EL	188'-4"	2ICS-V194	2ICS-PT175	EL	175'-0"	BK-16 JL	2ICS-PT175
R-182	EL	189'-8"	2ICS-V78	2E51-N007	EL	175'-0"	BK-16 JL	2H22-P017[A]
R-183	EL	186'-9"	2ICS-V73	2E51-N051	EL	175'-0"	BK-16 JL	2H22-P017[B]
R-184	EL	186'-9"	2ICS-V74	2E51-N051	EL	175'-0"	BK-16 JL	2H22-P017[B]
R-185	EL	198'-0"	2CSH-V23	2E22-R002	EL	175'-0"	BK-16 JL	2H22-P024[A]
R-186	EL	278'-3"	2DFA-V33	2DFA-PI2L	EL	179'-6"	BK-16 JL	
R-187	EL	278'-3"	2DFA-V34	2DFA-PI2M	EL	179'-6"	BK-16 JL	
R-188	EL	234'-0"	2RHS-V96	2E12-N051A	B(E-3)	175'-0"	BK-16 GJ	2H22-P018[A]
R-189	EL	234'-0"	2RHS-V97	2E12-N050A	B(E-3)	175'-0"	BK-16 GJ	2H22-P018[A]
R-190	EL	234'-0"	2RHS-V98	2E12-N051B	EL	175'-0"	BK-16 JL	2H22-P021[A]
R-191	EL	234'-0"	2RHS-V100	2E12-N050B	EL	175'-0"	BK-16 JL	2H22-P021[A]
R-192	EL	226'-6"	2SFC-V75B	2SFC-PI14B	EL	219'-6"	BK-16 JL	
R-193	EL	224'-6"	2SFC-V68B	2SFC-PI15B	EL	219'-6"	BK-16 JL	
R-194	EL	243'-0"	2RHS-V144	2E12-N057	B(E-3)	175'-0"	BK-16 GJ	2H22-P018[B]

SOURCE CONN				LINE TERMINATION				REMARKS
LINE REF	EK-401 SH/ZONE	EL	SOURCE VALVE IDENT	TUBING IDENT	EK-401 SH/ZONE	EL	INSTALL DETAIL	
R-239	AW(G-5)	181'-1"	2SWP-V47A	2SWP-PDI147A(H)	AW(F-5)	179'-6"	BK-16 JU	
R-240	AW(C-5)	218'-8"	2SWP-V51A	2SWP-PDI147A(L)	AW(F-5)	179'-6"	BK-16 JU	
R-241	AW(F-3)	184'-6"	2SWP-V47B	2SWP-PDI147B(H)	AW(F-5)	179'-6"	BK-16 JU	
R-242	AW(A-3)	218'-8"	2SWP-V51B	2SWP-PDI147B(L)	AW(F-5)	179'-6"	BK-16 JU	
R-243	AW(H-4)	180'-10"	2SWP-V47C	2SWP-PDI147C(H)	AW(F-5)	179'-6"	BK-16 JT	
R-244	AW(D-3)	218'-8"	2SWP-V51C	2SWP-PDI147C(L)	AW(F-5)	179'-6"	BK-16 JT	
R-245	AW(C-5)	224'-6"	2SWP-V57	2SWP-FI53J	AW(E-5)	179'-6"	BK-16 HF	
R-246	AW(C-5)	224'-6"	2SWP-V58	2SWP-FI530	AW(E-5)	179'-6"	BK-16 HF	
R-247	AW(J-3)	202'-0"	2SWP-V211A	2SWP-PT140A	AW(K-3)	201'-3"	BK-16 QP	
R-248	AW(J-3)	202'-0"	2SWP-V214B	2SWP-PT140B	AW(J-3)	201'-3"	BK-16 QP	
R-249	AW(K-4)	177'-10"	2CSL-V20	2E21-N002	B(D-3)	175'-0"	BK-16 GM	2CES-N0001[A]
R-250	AW(J-5)	178'-0"	2CSL-V26	2E21-N001	B(D-3)	175'-0"	BK-16 GX	2CES-N0001[A]
R-251	AW(J-5)	187'-0"	2CSL-V23	2E21-N003(H)	B(D-3)	175'-0"	BK-16 GU	2CES-N0001[A]
R-252	AW(J-5)	187'-0"	2CSL-V22	2E21-N003(L)	B(D-3)	175'-0"	BK-16 GU	2CES-N0001[A]
R-253	AW(J-6)	219'-6"	2CCP-TV108	2CCP-TV108	AW(J-6)	220'-3"	BK-16 FN	
R-254	AX(B-3)	233'-0"	2SWP-V143A	2E12-N007A(H)	B(F-3)	175'-0"	BK-16 FS	2CES-N0001[A]
R-255	AX(B-3)	233'-0"	2SWP-V144A	2E12-N007A(L)	B(F-3)	175'-0"	BK-16 FS	2CES-N0001[A]
R-256	AX(D-3)	187'-0"	2RHS-V56	2E12-N052A(H)	B(F-3)	175'-0"	BK-16 JX	2CES-N0001[A]
R-257	AX(D-3)	187'-0"	2RHS-V55	2E12-N052A(L)	B(F-3)	175'-0"	BK-16 JX	2CES-N0001[A]
R-258	AX(C-4)	177'-10"	2RHS-V109	2E12-N002A	B(F-3)	175'-0"	BK-16 QY	2CES-N0001[A]
R-259	AX(D-4)	177'-10"	2RHS-V107	2E12-N055A	B(F-3)	175'-0"	BK-16 GM	2CES-N0001[A]
R-260	AX(B-4)	185'-1"	2RHS-V111	2E12-N053A	B(F-3)	175'-0"	BK-16 GM	2CES-N0001[A]
R-261	AX(B-6)	182'-6"	2CCP-PS233	2CCP-PS76A	AX(F-7)	179'-6"	BK-16 FM	2CCP-PS76A
R-262	AX(G-4)	207'-0"	2RHS-V112	2E12-N008A(L)	AX(H-6)	179'-6"	BK-16 JZ	
R-263	AX(G-4)	195'-11"	2RHS-V113	2E12-N008A(H)	AX(H-6)	179'-6"	BK-16 JZ	
R-264	AX(H-6)	179'-6"	2E12-N001A	2E12-N005A	AX(H-5)	180'-6"	BK-16 GR	
R-265	AY(C-6)	194'-11"	2RHS-V141	2E12-N008B(H)	AY(C-3)	179'-6"	BK-16 HJ	
R-266	AY(C-6)	207'-0"	2RHS-V142	2E12-N008B(L)	AY(C-3)	179'-6"	BK-16 HJ	
R-267	AY(C-3)	179'-6"	2E12-N001B	2E12-N005B	AY(C-7)	178'-6"	BK-16 GR	
R-268	AY(H-5)	180'-6"	2CCP-V205	2CCP-PI76B	E(F-9)	179'-6"	BK-16 FM	2CCP-PS76B
R-269	AZ(C-7)	185'-5"	2RHS-V260	2RHS-PI31	E(F-9)	179'-6"	BK-16 QS	2RHS-PT31
R-270	AY(F-7)	177'-10"	2RHS-V127	2RHS-N002B	E(J-9)	175'-0"	BK-16 GX	2CES-N0001[B]
R-271	AZ(D-6)	177'-10"	2RHS-V135	2E12-N002C	E(J-9)	175'-0"	BK-16 GX	2CES-N0001[C]
R-272	AY(G-6)	177'-10"	2RHS-V128	2E12-N008B	E(J-9)	175'-0"	BK-16 GX	2CES-N0001[B]
R-273	AZ(C-6)	177'-10"	2RHS-V136	2E12-N055C	E(J-9)	175'-0"	BK-16 GX	2CES-N0001[C]
R-274	AY(H-6)	182'-2"	2RHS-V130	2E12-N057B	E(J-9)	175'-0"	BK-16 GX	2CES-N0001[A]
R-275	AZ(B-5)	181'-0"	2RHS-V80	2E12-N053C	E(J-9)	175'-0"	BK-16 GX	2CES-N0001[C]
R-276	AZ(C-6)	189'-9"	2RHS-V83	2E12-N052B(H)	E(J-9)	175'-0"	BK-16 QR	2CES-N0001[A]

INSTRUMENT MATERIAL SCHEDULE			
MARK	GROUP (NOTE 7)	TUBING	STANDARD
A	1	ASME SA 213 GR TP 316 SMLS SS	PIPING & TUBING STANDARD FOR ASME III INSTALL (C031A)
B	2B		
C	3	ASTM A 213 GR TP 316 SMLS SS	PIPING & TUBING STANDARD FOR ANSI B31.1 (INSTALL C031A)
D	4		
E	2A		

NOTES

- SCALE: 3/8"=1'-0" UNLESS OTHERWISE NOTED.
- ALL DIMS TO BE PREFIXED "2177" EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN.
- MATL AND LINE SIZE PER INSTR INSTALL DET REFERENCED IN TABLE (THIS DWG)
- REFER TO INSTR BILL OF MATL FOR INSTR MARK NO. SHOWN.
- REFER TO MFR'S PRINTS FOR CONNS TO EQPT.
- PRI SENSING LINE SLOPES SHALL BE 1/2 PER FT MIN FOR PRESS, FLOW & DIFF DEVICES UNLESS OTHERWISE NOTED.
- FOR GROUP DEF REFER TO INSTR INSTALL SPEC NO. C031A.
- FOR TYPE OF FTG'S & VALVES USED WITH EACH MARK REFER TO STANDARD IN SPEC NO. C031A.
- 1" STR & PIPING TO BE INSTALLED, SUPPORTED & PROTECTED IN ACCORDANCE WITH INSTR INSTL SPEC NO. NMP2-C031A.
- INSTR TUBE ROUTING FROM THE LAST SUPPORT OF TUBING RUN TO THE INSTR IS TO BE DETERMINED BY FIELD.
- THIS SYMBOL [BZ] INDICATES A REF TO A PIPE SUPPORT DETAIL DWG.
- TOL OF SUPPORT LOCN IN CONJUNCTION WITH WORK POINT ELEV'S GIVEN IS $\pm 3'$, PROVIDED THAT MIN CONT SLOPE AND MAX SPAN REQTS ARE COMPLIED WITH.
- ALL SUPPORTS SHOWN TO BE RSTNT OR GUIDES UNLESS INDICATED AS (A) ANCHOR.
- R-XXX INDICATES LINE REF IDENT NUMBER.
- K-XXX INDICATES LINE REF IDENT NUMBER FOR LINES ORIGINATING IN THE PRI CONTMT.
- SYM 3-*****C REPRESENTS THE LIVE LENGTH OF FLEX HOSE.
- CENTERLINE SPACING FOR INSTR TUBING TO BE 3 1/2" MIN UNLESS OTHERWISE NOTED.
- ALL WP EL ARE TO BE TAKEN AT CL OF TUBING UNLESS OTHERWISE NOTED.
- PIPING FROM HP VENT AND/OR LP DRAIN WILL BE IDENTIFIED BY A LINE REF NUMBER WITH A SUFFIX OF EITHER A V - (VENT) OR D (DRAIN) RESPECTIVELY.

REFERENCES:

INSTR PP PLAN REAC BLDG EL 175'-0" EK-401A-F
INSTR PP PLAN REAC BLDG EL 215'-0" EK-401G-M
INSTR PP PLAN REAC BLDG EL 240'-0" EK-401H-T
INSTR PP PLAN REAC BLDG EL 261'-0" EK-401U-Z
INSTR PP PLAN REAC BLDG EL 289'-0" EK-401AA-AF
INSTR PP PLAN REAC BLDG EL 305'-6" EK-401AG-AL
INSTR PP PLAN REAC BLDG EL 323'-10" EK-401AM-AS
INSTR PP PLAN NORTH AUX BAY EL 175'-0" EK-401AW-AX
INSTR PP PLAN SOUTH AUX BAY EL 175'-0" EK-401AY-AZ
INSTR PP-REAC BLDG TABLN EK-401BA-BB & BO
REAC BLDG DRYWELL SCHED & LOCN OF EK-22A & B
INSTR PP PEN BK-16 SERIES
INSTR INSTALL DETAILS BK-16 SERIES
THIMBLE LOCN PLAN REAC BLDG EK-116 SERIES
MACH LOCN PLAN REAC BLDG EM-2 SERIES
FL & EQPT DRAINAGE PLAN REAC BLDG EB-10 SERIES
INSTR AIR PIPING 150'S CP340A-BZAJA-JZ
INSTR INSTALL SPEC NMP2-C031A
ENGRG MECHANICS DIV TECH RPRT CHOC-EMTR-602

PRO
APERTURE
CARD



APPROVED: R. Patrick 59006
LICENSED PROFESSIONAL ENGINEER, N.Y.
STATE OF NEW YORK
ALTERATION PERMITTED BY A LICENSED PROFESSIONAL ENGINEER IN ALABAMA

NUCLEAR SAFETY RELATED
QA CAT I, II

INSTRUMENT PIPING-REACTOR BLDG
TABULATION SH 3
NINE MILE POINT NUCLEAR STATION - UNIT 2
NIAGARA MOHAWK POWER CORPORATION
STONE & WEBSTER ENGINEERING CORPORATION
CHERRY HILL, NJ
12177-EK-401BC-2
DESIGNED BY J. SYLVESTER DRAWN BY D. BARTHA
CHECKED BY T. FOWLER

FOR CONSTRUCTION
SEE RECORD OF DWG CHANGES
12177-BCK-401BC-2

ORIGINAL ISSUE
FOR CONSTRUCTION

REVISION	DESCRIPTION	CHNGD	CORRECT	DATE	REVISION	DESCRIPTION	CHNGD	CORRECT	DATE	REVISION	DESCRIPTION	CHNGD	CORRECT	DATE	REVISION	DESCRIPTION	CHNGD	CORRECT	DATE
1	FOR CONSTRUCTION				2	FOR CONSTRUCTION				3	FOR CONSTRUCTION				4	FOR CONSTRUCTION			