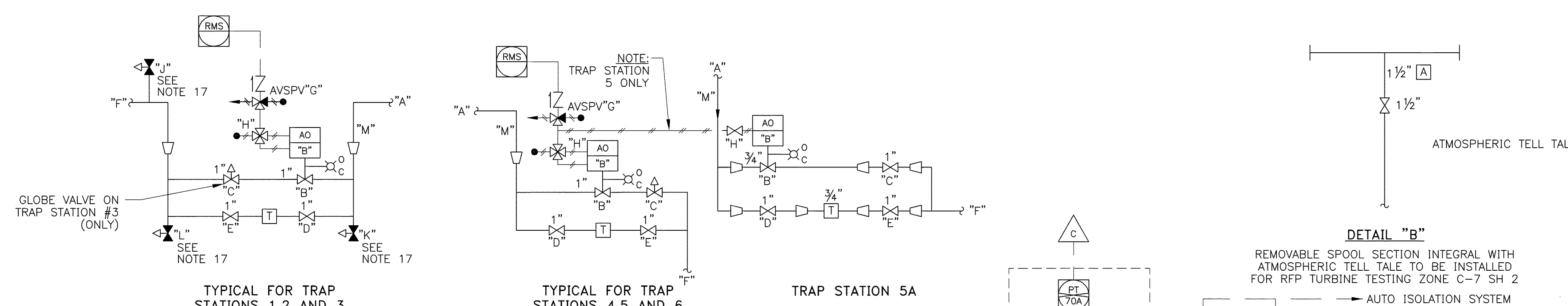


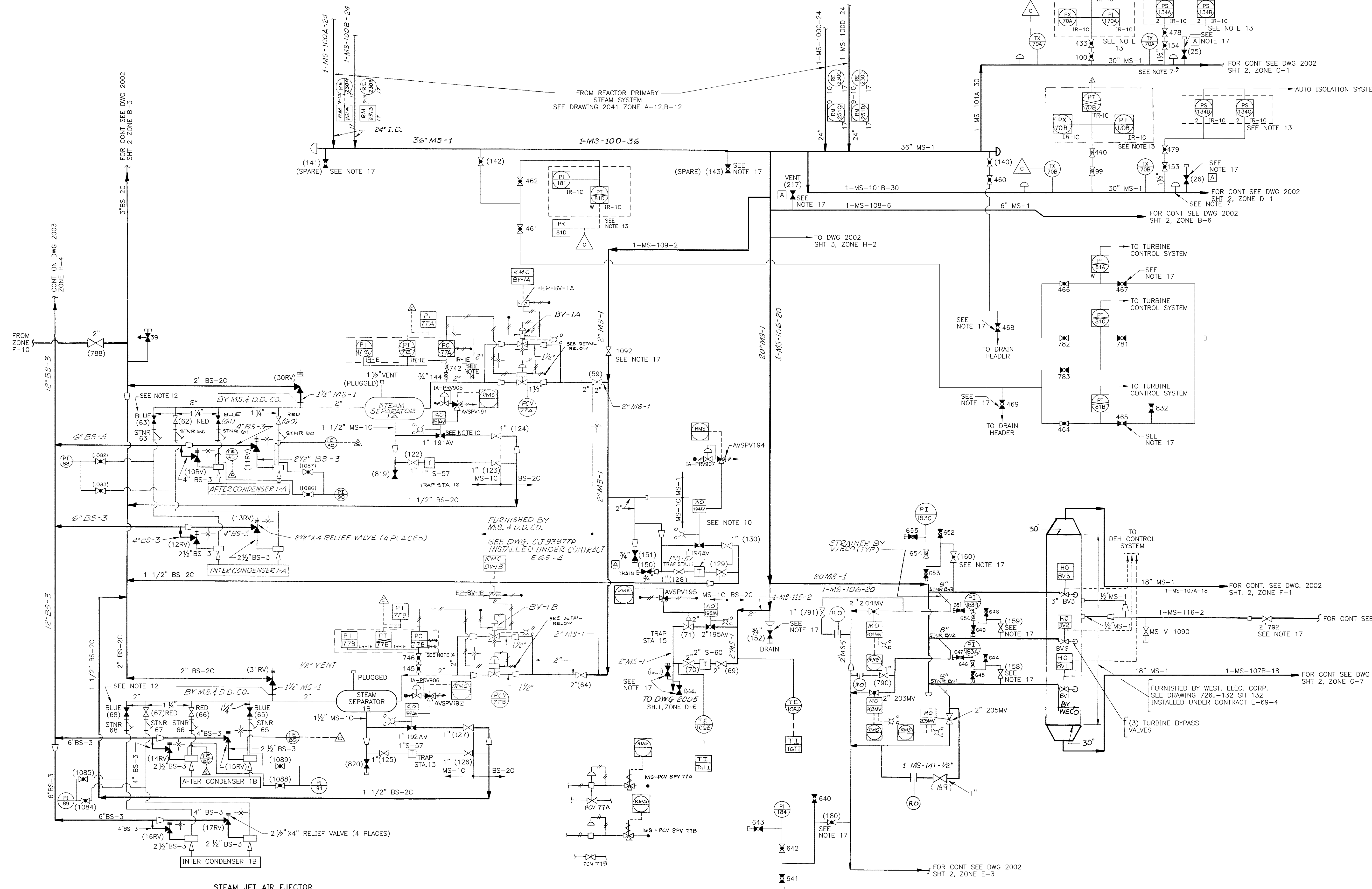
STA NO	"A"	"B"	"C"	"D"	TRAP	"E"	"F"	"G"	"H"	"J"	"K"	"L"	"M"
1	CONT ON 2002 SH2 ZONE B-7	197AV	133	131	1"S-57	132	2"MS-1 CONT ON 2005 SH1 ZONE D-5	197	JA-AV14	116	NA	177	2"MS-1
2	CONT ON 2002 SH2 ZONE D-9	198AV	136	134	1"S-57	135	2"MS-1 CONT ON 2005 SH1 ZONE D-5	198	JA-AV15	40	663	NA	2"MS-1
3	CONT ON 2002 SH2 ZONE E-7	199AV	139	137	1"S-57	138	2"MS-1 CONT ON 2005 SH1 ZONE D-5	199	JA-AV16	36	872	NA	2"MS-1
4	CONT ON 2002 SH2 ZONE C-6	AV	ES-63	ES-61	3/4"S-58	ES-62	2"CH-4 CONT ON 2005 SH1 ZONE H-11	ES-200	IA-AV17	NA	NA	NA	2"AS-2
5	CONT ON 2002 SH2 ZONE B-8	AV	ES-66	ES-64	3/4"S-58	ES-65	2"CH-4 CONT ON 2005 SH1 ZONE H-11	ES-201	IA-AV18	NA	NA	NA	2"AS-2
6	CONT ON 2002 SH2 ZONE D-8	AV	ES-69	ES-67	3/4"S-58	ES-68	2"CH-4 CONT ON 2005 SH1 ZONE H-11	ES-202	IA-AV19	NA	NA	NA	2"AS-2
6A	CONT ON 2002 SH2 ZONE C-7	AV	ES-274	ES-272	3/4"S-58	ES-273	2"CH-4 CONT ON 2005 SH1 ZONE H-11	ES-201	IA-2009	NA	NA	NA	2"AS-2



- NOTES:**
- UNLESS OTHERWISE INDICATED ALL PRESSURE AND OR FLOW INSTRUMENT ROOT LINES SHALL BE 3/4" ROOT VALVES SHALL BE 3/4"x253X. LINE UP TO AND INCLUDING ROOT VALVE SHALL BE FURNISHED AND INSTALLED UNDER CONTRACT E-69-4.
 - MOISTURE SEPARATOR SAFETY VALVES FURNISHED BY WEST. ELEC. CORP. MOUNTED BY MECH. PIPING CONTRACTOR.
 - FOR REACTOR FEED PUMP TURBINE PIPING DRAINS SEE DWG 2005.
 - FOR DETAILS ON CONDENSER CONNECTION REFER TO CORRESPONDING DESIGNATIONS MS & DD. CO. DWG DC-93877 GA SH.3.
 - ALL MS-1, MS-1C, BS-2 & BS-2C PIPING SYSTEMS SHOWN HEREON SHALL BE CLASS IV-P POWER CLASSIFICATION.
 - UNLESS NOTED OTHERWISE ALL PIPING & EQUIPMENT FURNISHED BY WESTINGHOUSE (WITH TURBINE GEN.) SHALL BE INSTALLED BY TURBINE GENERATOR ERECTION CONTRACTOR.
 - AT SAMPLING POINTS, PROBES AND PIPING TO AND INCLUDING ROOT VALVES SHALL BE FURNISHED AND INSTALLED UNDER CONTRACT E-69-1. PROBES SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH CONTRACT PARA 34.2 AND DRAWING SP-07211 FIG. 1B. CONTINUATION OF SAMPLE PIPING BY E-70-3.
 - ALL VALVE NUMBERS IN PARENTHESIS () ARE NUMBERS TO BE USED IN OPERATING PROCEDURES. THESE NUMBERS ARE ASSIGNED BY NPPD AND WILL NOT BE SHOWN ON PIPING DRAWINGS.
 - ALL ITEMS MARKED WITH "AS-BUILT" ARE NOT SHOWN PIPING DRAWINGS.
 - A SPEED CONTROL VALVE EXISTS BETWEEN THE ACTUATOR AND SOLENOID PILOT VALVE FOR THE INDICATED TRAP STATIONS:

TRAP STATION	SOLENOID VALVE	SPEED CONTROL VALVE
4	IA-AV17	IA-1657
5	IA-AV18	IA-1658
6	IA-AV19	IA-1659
11	MS-SPV194	IA-1660
12	MS-SPV191	IA-1661

- THE START UP POSITION FOR VALVES MS-V-60,61,62,63,65,66,67,68 ASSUMES RED SET IN SERVICE.
- REF HONEYWELL DWG 1550-X301 FOR INSTR PIPING AND VALVE INSTALLATION AT INSTR RACK IR-1C.
- REF HONEYWELL DWG 1550-X103 FOR INSTR PIPING AND VALVE INSTALLATION AT INSTR RACK IR-1E.
- ALL VALVES ARE IN THE MS SYSTEM UNLESS OTHERWISE DESIGNATED.
- WHERE LINES INTERCONNECT AND ARE CONTINUED ON OTHER DRAWINGS, ZONE NUMBERS ARE APPROXIMATE ONLY.
- BOUNDARY VALVE - REF. TO CALC. NEDC 00-029, ENG. EVAL. EE 01-147 & DWG CNS-MS-43 FOR IDENTIFICATION OF THE MSV LEAKAGE PATHWAY TO THE CONDENSER BOUNDARIES & SEISMIC QUALIFICATIONS.



REVISIONS TO THIS DRAWING REQUIRES A REVISION TO THE CORRESPONDING ISOKEY.

FOR PREVIOUS REVISIONS, SEE SUPERSEDED CARDS.

NO.	DESCRIPTION	DFT DATE	ENG
AB/48/DR-2017-0273		06/10/30/18	DTWALLEN

SIGNIFICANT NUMBER	1	2	3	4	5	6
	GROUP					
DRAWN	HFY	DATE	06/28/01			
	CHECKED	DATE				
APPROVED	DATE					
	FILED					
FLOW DIAGRAM MAIN, EXHAUST & AUXILIARY STEAM SYSTEMS COOPER NUCLEAR STATION						
BURNS & ROE						2002 SH 1

AS BUILT
454003580
STATUS: Release
STATUS DATE: 10/30/2018
DIS APPROVED: DTWALLEN
VER: AB REV: 48 SIZE: F