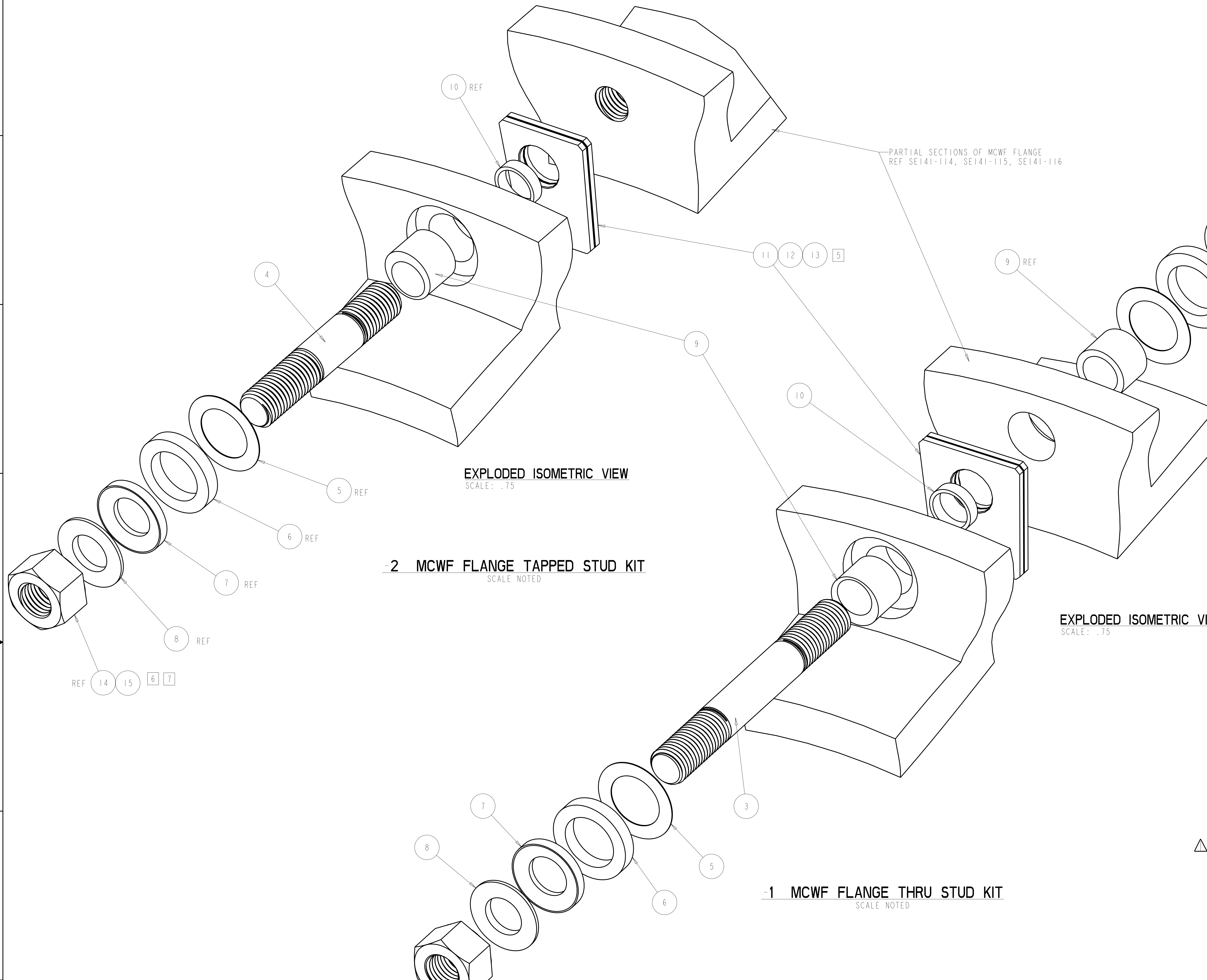


- NOTES
- DRAWING PREPARED IN ACCORDANCE WITH ASME Y14.100-2004.
 - INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M-1994.
 - DIMENSIONS ARE IN INCHES
 - MAGNETIC PERMEABILITY NOT TO EXCEED 1.02 AS TESTED BY A SEVERN INDICATOR. AVAILABLE FROM:
SEVERN ENGINEERING
AUBURN, ALABAMA 36830
WWW.SEVERNENGINEERING.COM
 - SHIM SIZES DEPENDENT ON LOCATION AT ASSEMBLIES SE140-003, SE100-002, AND SE100-001.
 - FASTENER PRELOAD REQUIREMENT IS 72000 ±1000 LB USING HYDRAULIC TENSIONER W/ ULTRASONIC INSPECTION
 - USE 12PT NUT WITH HYDRAULIC TENSIONER
 - LUBRICATE MATING SURFACE OF ITEM - 7 & -8 WITH ITEM -16, MOLYKOTE Z MOLY POWDER



2 MCWF FLANGE TAPPED STUD KIT
SCALE NOTED

EXPLoded ISOMETRIC VIEW
SCALE: .75

1 MCWF FLANGE THRU STUD KIT
SCALE NOTED

TYPICAL FLANGE ISOMETRIC VIEW
SCALE: .50

RELEASED FOR FABRICATION / INSTALLATION
PPPL Drafting:

REV	QTY	UNIT	PART OR IDENTIFYING NO	NOMENCLATURE OR DESCRIPTION	MATERIAL	SPECIFICATION	FIND NO
7	1	2	-16	DRY LUBRICANT	MOLYKOTE Z MOLY POWDER	DOW CORNING	16
7	1	2	DS141-060	1-3/8 -6UNC 12PT FLG NUT			15
1	2		-14	1-3/8 -6 UNC HEX NUT	UNS S66286 (A286) OR UNS S20910 (NITRONIC 50) DEPENDING ON COST/AVAIL	ASTM A453 GRADE 660B OR ASTM A276	14
5	AR	AR	SE140-040-3	C-C SINGLE HOLE SHIM			13
5	AR	AR	SE140-040-2	NARROW SINGLE HOLE SHIM			12
5	AR	AR	SE140-040-1	SINGLE HOLE SHIM			11
1	1		SE140-195-2	BUSHING			10
1	2		SE140-195-1	BUSHING			9
8	1	2	SE140-194-2	MALE SPHERICAL WASHER			8
8	1	2	SE140-194-1	FEMALE SPHERICAL WASHER			7
1	2		SE140-193	FLAT WASHER			6
1	2		SE140-192	INSULATING WASHER			5
1			SE140-191-2	1-3/8" X 7.50LG STUD			4
1	1		SE140-191-1	1-3/8" X 10.50LG STUD			3
2			-2	MCWF FLANGE TAPPED STUD KIT			2
1			-1	MCWF FLANGE THRU STUD KIT			1

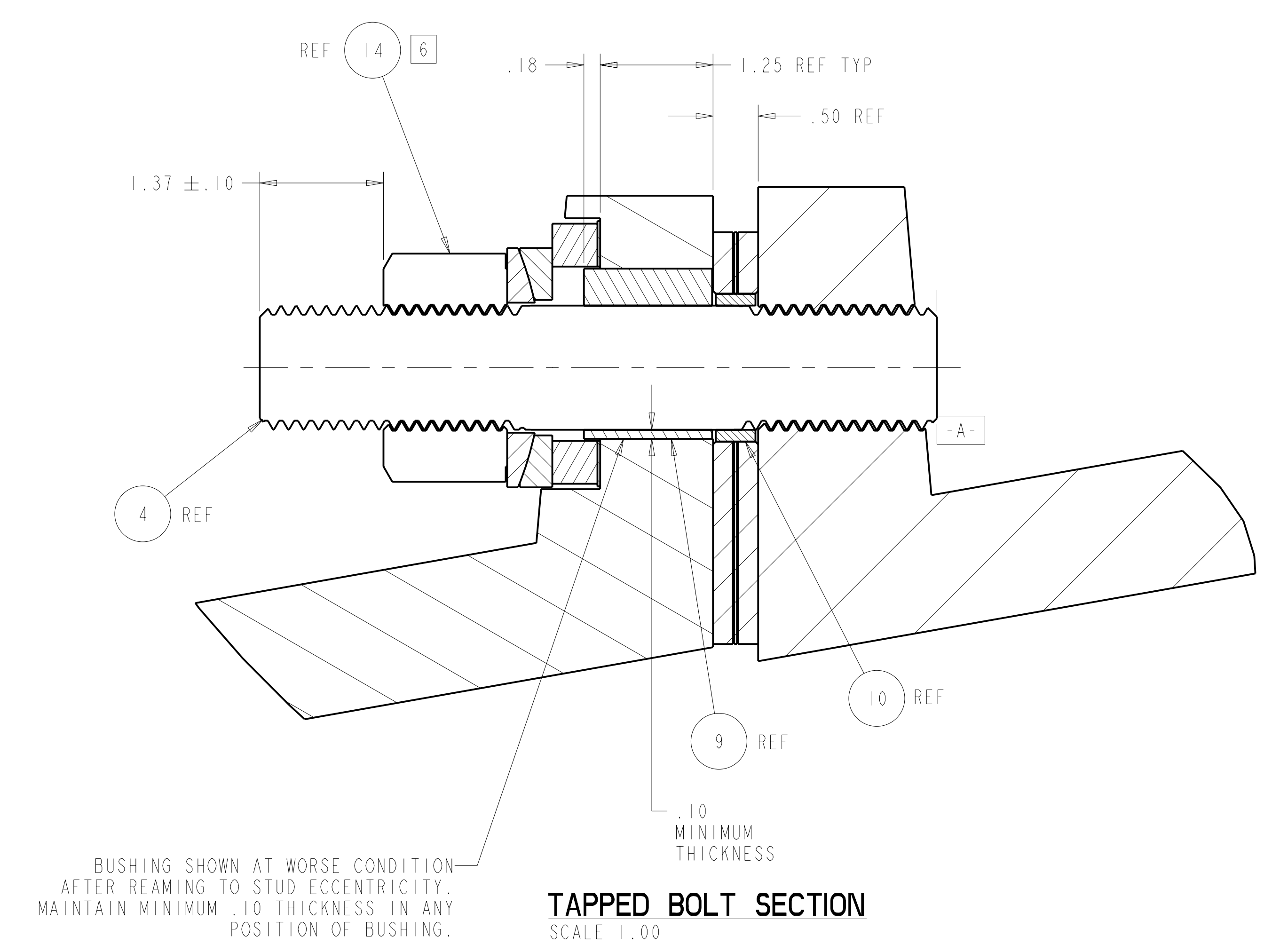
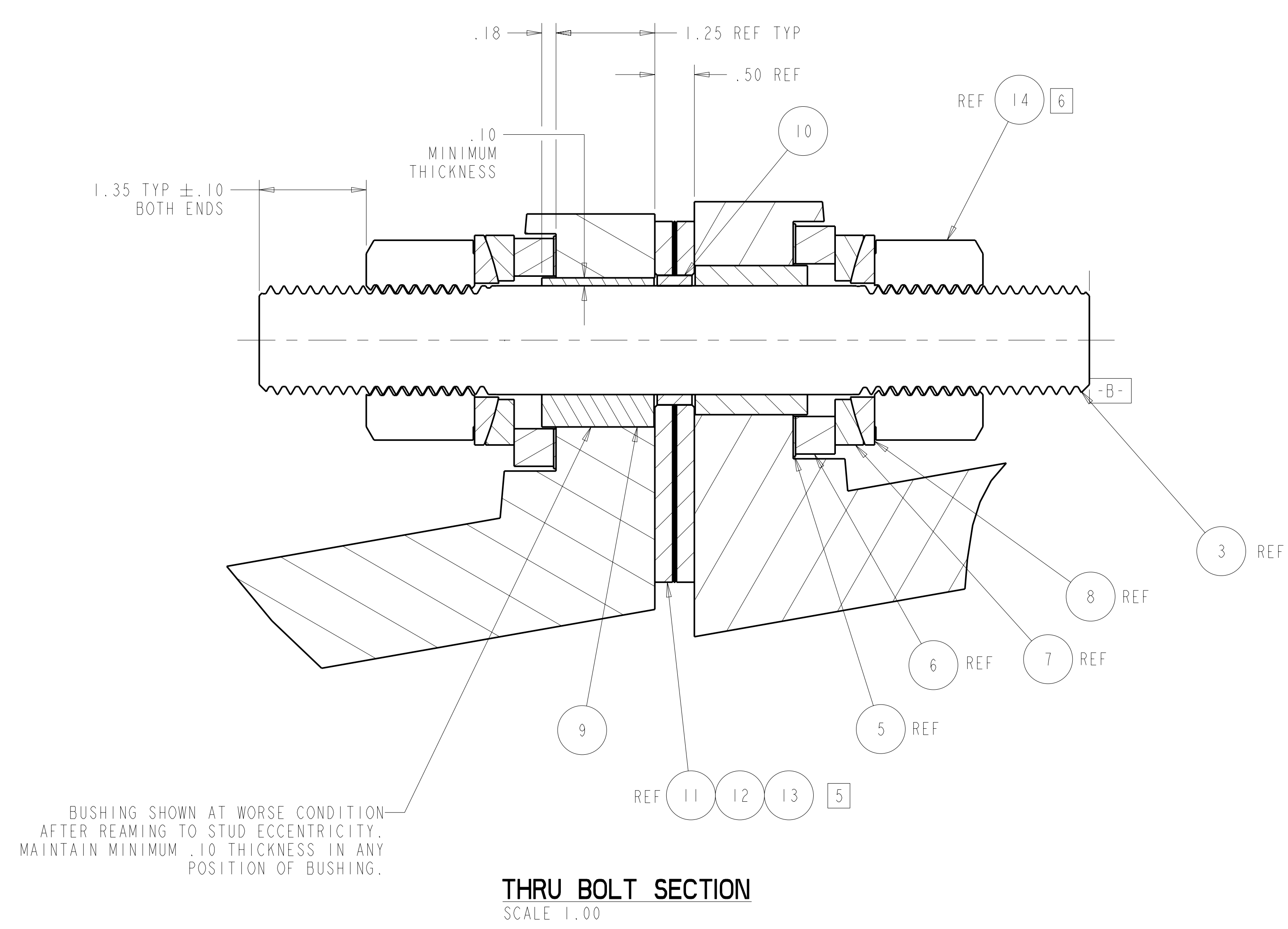
CAGE CODE	PART OR IDENTIFYING NO	NOMENCLATURE OR DESCRIPTION	MATERIAL	SPECIFICATION	FIND NO
-2	-1	MCWF FLANGE TAPPED STUD KIT			2
		MCWF FLANGE THRU STUD KIT			1

REV	DESCRIPTION	BY	DATE	CHK	DEPT	DATE	PE	REQ	DATE	ORNL	DOE	DATE
1	REVISED MATL AND NOTES PER ECN-5232	DW	3/03	MC								
0	ORIGINAL ISSUE	GM	02/01									

SCALE NOTED	DES: D WILLIAMSON 02/07	DRW: G MCGINNIS 02/07	CHK: M COLE 02/07	SECT: :	DEPT: :	FRAC: :	XX DEC: ±.01	XXX DEC: ±.005	ANGL: ±0°15'	BREAK SHARP EDGES OR MAX	FINISH: : UNLESS OTHERWISE SPECIFIED	
PPPL DRFT J SIEGEL 02/07	VERSION NO. 0	PLANT ORNL	BLDG 5700	FL 3	SHT 1	OF 2	TYPE A	CLASS U	Oak Ridge National Laboratory managed for the DEPARTMENT OF ENERGY under U.S. GOVERNMENT contract DE-AC05-00OR22725 UT-BATTELLE, LLC. Oak Ridge, Tennessee PROJECT NAME: NATIONAL COMPACT STELLARATOR EXPERIMENT			
DRAWING APPROVALS	RELEASE LEVEL WIP	SE140-190			REV 1			MCFW FLANGE STUD KITS				

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P THIS DRAWING PRODUCED ON PRO-ENGINEER



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Oak Ridge National Laboratory managed for the DEPARTMENT OF ENERGY under U.S. GOVERNMENT contract DE-AC05-00OR22725 UT-BATTELLE, LLC. Oak Ridge, Tennessee									
UT-BATTELLE									
PROJECT NAME NATIONAL COMPACT STELLARATOR EXPERIMENT									
MCWF FLANGE STUD KITS									
VERSION NO.	PLANT	BLDG	FL	SHT	OF	TYPE	CLASS	U	REV
0	ORNL	5700	3	2	2	A			
RELEASE LEVEL		SE140-190							
WIP									