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Interface Sheet-IS

IS-26.CC.2A-41-001 Interface between PBS26.CC.2A and Coil Power Supply & Distribution (PBS 41)

IS-26.CC.2A-41-001

Approval Process			
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Information Protection Level: Non-Public - Unclassified *RO: Tsedri Thibault*			
Read Access	**LG: DA RO to sign off ICDs, GG: AIF- CEA SSA Liaison Committee Members &experts, LG: F4E-Architect/Engineering company, GG: MAC Members and Experts, GG: STAC Members & Experts, GG: CEA Decommissioning Experts, LG: CEA view, GG: DA Heads, Co-ordinators and Management, AD: ITER, AD: External Collabor...**		

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Change Log			
IS-26.CC.2A-41-001 Interface between PBS26.CC.2A and Coil Power Supply & Distribution (PBS 41) (DABD6D)			
Version	***Latest Status***	***Issue Date***	***Description of Change***
v0.0	In Work	18 Feb 2025	
v1.0	Revision Required	03 Mar 2025	1) Updated due to PCR-001640 for the IVC power supply .The IS will only become applicable once the PCR is implemented. Main changes: IVC shift from B11-L4 into B13 ,so all the related CCWS-2A cooling connection interfaces also follow the changes. 2) Update the staged approach under PCR-1600 3) 344X9K-v3.8 ,will be separated into 3 individual interface sheet which include PBS26.CC.2A ,PBS26.CC.2B,PBS26.CC.2C.344X9K-v3.8 CCWS-2A part will be replaced by this version ,v3.8 remaining CCWS-2B,CCWS-2C part still valid until further individual CCWS-2B and CCWS-2C interface approved. 4) New IS Template for Cooling Water System (PBS26 and its clients) AT7F2B implemented.
v1.1	In Work	28 May 2025	Updated to implement the comments of last version.
v1.2	In Work	28 May 2025	Updated to implement the comments from version v1.0
v1.3	Signed	03 Jun 2025	Updated to implement the comments from version v1.0 Updated to modify the broken link in section 5.1.1 in v1.2
v1.4	Revision Required	06 Jun 2025	Updated to implement the comments from version v1.0 Updated to modify the broken link in section 5.1.1 in v1.2 Updated to add approved ICD version 2.3.
v1.5	In Work	14 Nov 2025	Updated to implement the last version comment: 1)Pressure-relief devices scope clarified: Added clarification that, when necessary, the pressure-relief devices installed in PBS 26.CC may be utilized to prevent system over-pressurization. 2)Reference document updated: a) updated the with recent approved versions. b) Included ITER_D_EAUG8E – Minutes of Meeting & Record of Decision regarding OPP interface issue between PBS 26 CCWS-2A and PBS 41 busbar as a formal reference document supporting and justifying the implemented modifications.
v1.6	Signed	14 Nov 2025	Updated to implement the last version 1.4 comment: 1)Pressure-relief devices scope clarified: Added clarification that, when necessary, the pressure-relief devices installed in PBS 26.CC may be utilized to prevent system over-pressurization. 2)Reference document updated: a) updated the with recent approved versions. b) Included ITER_D_EAUG8E – Minutes of Meeting & Record of Decision regarding OPP interface issue between PBS 26 CCWS-2A and PBS 41 busbar as a formal reference document supporting and justifying the implemented modifications.
v1.7	Approved	03 Dec 2025	Changes on v1.7 Appendix B inlet water chemistry from PBS65 typo been updated.

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Table of Contents

1 Purpose

This document is to define the interface requirements for each interface point between the Component Cooling Water System (PBS 26.CC) and Coil Power Supply and Distribution System (PBS 41), in agreement with the ICD [1].

Table 1: List of affected PBS sub-systems and procurements

Components (PBS 26.CC)			Components (PBS 41)		
Name	**PBS Level 3**	**PA**	**Name**	**PBS Level 3 / 2**	**PA**
CCWS-2A major equipment	26.CC.2A	2.6.P2A.IN.01	Fast Discharge Units	41TF.FD	4.1.P3.RF.01
CCWS-2A pipe and valves at interface	26.CC.2A	IO	Fast Discharge Units (non-PIC)	41FDUS	4.1.P3.RF.01
			Make Switches for PF2 to PF5, VS1 and CC circuits	41MSJM	4.1.P3.RF.01
			Protective Make Switches (PMS)	41PMSS	4.1.P3.RF.01
			Switching Network Unit (SNU)	41SNUS	4.1.P3.RF.01
			In-Vessel VS3 Circuits	41.V3	IO
			ELM Coil Circuits	41.EL	IO

2 Definitions

CCWS	Component Cooling Water System
CMM	Configuration Management Model
CS	Carbon Steel
CWC	Cooling Water Collector
DT	Fusion Power Operation
EIC	Environment Important Components
ELM PS	ELM Power Supplies
GOS	Global Operational States
HVAC	Heating, Ventilation and Air-Conditioning
ICD	Interface Control Document
IFP	Fluid Interface Points
IVC	In-Vessel Coils

IS	Interface Sheet
IP	Interface Point
LTM	Long Term Maintenance
PBS	Plant Breakdown Structure
PED	Pressure Equipment Directive
PMS	Piping Material Specifications
PIC	Protection Important Component
POS	Plasma Operation State
PRV	Pressure Reducing Valve
SIC	Safety Important Component
SRD	System Requirements Document
SRO	Start of Research Operation
SS	Stainless Steel
STM	Short Term Maintenance
TBD	To Be Defined
TC	Tokamak Complex
TCS	Test and Conditioning State
VS3	Vertical Stabilization (In-Vessel)

3 References

3.1 Applicable Documents

Ref	Document Titles	IDM Links	Version
[1]	Interface Control Document (ICD) between Component Cooling Water System (PBS-26CC) and Coil Power Supply & Distribution System (PBS-41)	2FPYX7	2.3
[2]	SRD-26-CC (CCWS) from DOORS	2DVV9N	5.0
[3]	SRD-41 (Coil Power Supply and Distribution) from DOORS	28B6XQ	5.0
[4]	Staged approach Configuration	SNE6G8	4.0

3.2 Reference Documents

Ref	Document Titles	IDM Links	Version
[5]	Design Interface Control Procedure	28VNJG	5.3
[6]	PBS 26 CWS Client Heat Loads - Data Collection Table	YSYAMH	5.1
[7]	Piping Material Specification for CCWS, CHWS and HRS	7GYNDL	3.1
[8]	Fire protection strategy for CWS SSCs inside TKC	YS2B9Q	1.0
[9]	ITER Coordinate Systems	2A9PXZ	3.7
[10]	Configuration Models Approval Forms (CMAF) Folder	2ESKSV	NA

Ref	Document Titles	IDM Links	Version
[11]	PBS 26 CWS – 2. Piping stress analysis Folder	XK89UL	NA
[12]	PBS 26 CWS – 2. Support stress analysis Folder	XK9J9P	NA
[13]	26.CC.2A - Process Flow Diagram	434R98	3.2
[14]	System Design Description Document (DDD) of CCWS	XPN6QG	1.3
[15]	PBS-41 CCWS CWC tags	U4LEZA	2.1
[16]	Requested interface point for CCWS 2A by PBS41	TRW6JE	1.1
[17]	ITER Numbering System for Components and Parts	28QDBS	5.1
[18]	Technical Specification for procurement of Flexible hose for DC Busbar	YPPA7M	3.1
[19]	Minutes of Meeting & Record of Decision for OPP issue between PBS 26 CCWS-2A & PBS 41 busbar	EAUG8E	1.3

Note: Refer the latest approved version.

3.3 P&IDs

Ref	Document Titles	IDM Links	Version
[20]	P&ID of system 26CC2A	YU3V6M	14
[21]	ITER_410000_PID_007:CCWS-2A Interface Point Bldg 11L3	RJGAL6	1.0
[22]	ITER_410000_PID_009 - CCWS-2A Interface point Bldg 74	53D4KB	1.1

PBS 41: IVC PS PIDs not produced yet.

4 Interfaces identification

The interfaces are at the cooling water supply or return isolation valves, with the valve in the scope of PBS 26. The interface with the PBS-41 pipe could be flanged or welded depending on the location of the interface (refer to the P&IDs). The systems and their interfaces are non-PIC. See the respective SRDs for other classifications.

Cooling Water systems (PBS 26.CC The scope of this section is to identify and classify the IFPs on the base of the PBS level 1 & 2, the IS structure and numbering reported in the corresponding ICD. Therefore, IFPs shall have the following structure:

26CC_41_001-IFP-####: Interface Points between Non-SIC Component) and Coil Power Supply & Distribution (PBS 41).

Please refer to the Appendix A for the detailed information of each IPFs.

5 Interface Requirement (IR)

This section presents all technical data that defining each IFP for this IS, summarized in section 5 and Appendix A.

Section 6 includes Appendix A, which considers all physical and functional requirements for each IFP., and lists the information for each IFP regarding project phases (staged approach) and Global Operational States (Machine States demand – GOS).

5.1 Functional Requirements

5.1.1 Thermal Hydraulic Requirements

[26CC41-001i001-R] The limiting values for cooling water (CW) parameters for client subsystems or components shall be in accordance with the values defined in Appendix A Table 2A-1 and Table 2A-2

These tables list limiting values for cooling water (CW) parameters for client subsystems or components, upon which the design of the CCWS is based. If no client requirement exists, reference CCWS design values are shown (in parentheses) and the client design must conform to these values.

[26CC41-001i002-R] Design temperature of PBS 26.2A is 60°C, PBS41 side client design temperature is 60°C. On both sides of the interface points, PBS26 and their clients should operate under their own design temperature, each interfacing PBS is responsible to make sure that the design temperature of both sides of the interface is respected.

[26CC41-001i003-R] PBS 26.CC maintains supply coolant temperature, pressure, flow rate to ensure component temperature and thermal margins are maintained during the operating campaign as indicated in Appendix A.

[26CC41-001i004-R] Design pressure of CCWS clients shall be at least equal to CCWS design pressure ([7]).

If needed, the pressure-relief devices in PBS 26.CC can be used to avoid system over-pressurization [19].

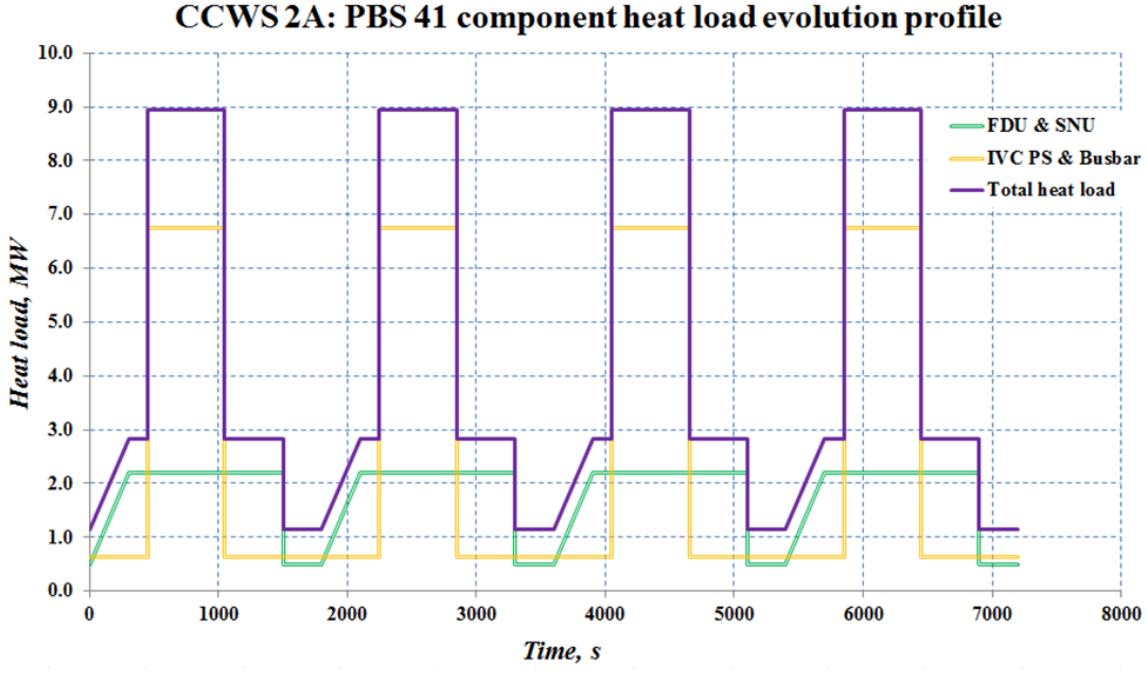
[26CC41-001i005-R] PBS41 shall provide means to regulate flow through its components by implementing flow balancing valve, so that total flow is not perturbed and the total pressure drop between the connecting interface points remains constant as defined in Appendix A.

[26CC41-001i006-R] Pressure drop across each client shall not exceed the value defined in Appendix A.

[26CC41-001i007-R] Both PBSs shall agree on a strategy in order to minimize the number of vents and drains present in each supply and return IFP lines.

[26CC41-001i008-R] Client PBS 41 shall provide a total heat load profile vs time during all GOS Operating State (POS/TCS/LTM/STM).

Figure 2A-1: PBS-41 Total Heat Load Profile During Plasma Operating State*



5.1.2 Water Chemistry Requirements

[26CC41-001i009-R] PBS26.CC water chemistry for PBS41 components shall be in compliance within the value (ranges included) specified in the Appendix B.

5.2 Physical Requirements

[26CC41-001i0010-R] The locations of the physical interfaces shall be in accordance with the applicable Configuration Management Models[10]. (list of the applicable CMAF shall be provided)

[26CC41-001i0011-R] Piping shall be compatible with the material used in the associated CCWS cooling loops as per [7]- Piping Material Specification for CCWS, CHWS and HRS.

[26CC41-001i0012-R] The material on PBS26 side shall be SS (as per specification in [7]), the material of flexible hoses on PBS41 side shall refer [18].

- Seismic Interface Requirements

[26CC41-001i0013-R] The Seismic Interface Requirements shall be in accordance with [7] - Piping Material Specification for CCWS, CHWS and HRS.

[26CC41-001i0014-R] The interface physical requirements shall be in accordance with the physical dimensions in Appendix C.

[26CC41-001i0015-R] The interface connection type shall be in accordance with the data within Appendix C.

[26CC41-001i0016-R] Both PBSs shall agree on a strategy in order to match pipe size (DN and Schedule) and length at all IFPs in order to homogenize discrepancies reported in [19] through [21]

[26CC41-001i0017-R] Boundary conditions at the interface shall be specified for each IFP (rigid, partial anchor, rest support…) in order to understand which direction and moments are restrained .

[26CC41-001i0018-R] The IFP shall be located at the nearest support with respect to the interface point.

[26CC41-001i0019-R] If a rigid connection is used, client PBS41 shall ensure that the mechanical loads at the first fixed support on PBS 26 side (after the interface with PBS 26.CC) are equal or below the maximum allowable values specified in Appendix C

The piping stress analysis shall be performed up to this support by both systems and the support has to be designed taking into account the loads coming from both piping stress analyses.

The coordinates of the IFPs is in the 3D model in ENOVIA and recorded in the dedicated CMAF database: https://user.iter.org/default.aspx?uid=2ESKSV.

If needed, flexible hoses shall be provided by PBS41 to connect with PBS26 IFPs.

6 IFPs Data

This section presents all technical data that defining each IFP for this IS, summarized in Appendix A.

Appendix A includes all physical and functional requirements for each IFP regarding project phases (staged approach) and GOS.

6.1 Interface data(CCWS-2A loop summary, table 2A-1 in Appendix A)

Tabel 2A-1 below list limiting values for cooling water (CW) parameters for client subsystems or components, upon which the design of the CCWS is based. If no client requirement exists, reference CCWS design values are shown (in parentheses) and the client design must conform to these values. The following general notes apply to all tables:

1. *Global Operational State of the Tokamak: Plasma Operation State (POS), Testing & Conditioning State (TCS), Short/Long-Term Maintenance (STM/LTM)*
2. *Parameters for Plasma Operating State based on Scenario-I (500MW fusion power with a 300-500 sec pulse and an 1800 sec repetition time). POS heat load and flow are assumed to be bounding for TCS, and temperature and pressure limits for POS are assumed to apply to other operating states, unless otherwise indicated. STM/LTM heat load and flow are assumed to be zero unless otherwise indicated. NA indicates that there is no specific requirement and actual value will be controlled by other parameters.*
3. *Minimum wintertime inlet temperature will be > dewpoint and ≥ 10°C.*
4. *Client pressure limits are at the interface point during normal operation.*
5. *The maximum pressure drop is the pressure loss in between the PBS 26 supply and return interface isolation valves. One exceptional case is that the requested pressure drop represents the drop from PRV outlet to return line interface point when there is PRV. That's to say, PRV pressure drop is excluded from it. Mentioned supply pressure in the same case is at PRV outlet.*
6. *The pressures are gauge pressures, expressed in MPa G.*

6.2 Interface points physical and functional requirements and availability during plant lifecycle(table 2A-2 in Appendix A)

Appendix A lists the information for each IFP regarding physical and functional requirements, organized in columns as follows:

1. IFP identification as described in Section 4;
2. PBS 26 supply or return line definition;
3. IFP location: Building (B);
4. IFP location: Level (L);
5. IFP location: Room (R);
6. IFP Connection Type: Welded or Flanged;
7. Name of client subsystem/component;
8. ID code of client subsystem/component;
9. Client valve ID at IFP;
10. Client pipe ID at IFP;
11. PBS 26 valve ID at IFP;
12. PBS 26 pipe ID at IFP;
13. Client pipe Dn at IFP;
14. Client pipe schedule at IFP;
15. Wetted metal surface type on Client Side;
16. PBS 26 pipe Dn at IFP;
17. PBS 26 pipe schedule at IFP;
18. Wetted metal surface type on PBS26 Side;

19. Client Design Pressure(also called Maximum Allowable Pressure in PED) , P_D;
20. Client Design Temperature , T_D;
21. Pressure losses on client side, P_{loss} (at max flowrate);
22. Volume (m^3) on Client Side;
23. Wetted metal surface (m^2)on Client Side;
24. Safety class of the client;
25. Seismic class of the client;
26. PBS26 Design Pressure, P_D;
27. PBS26 Design Temperature, T_D;
28. PBS26 Operation Pressure, P_o;
29. PBS26 Operation Temperature, T_o;
30. -53 Heat loads and required flowrates during different baselines and plant operation states.

7 Staged Approach

For PBS Level 3, refer [4] for staged approach.

8 Responsibilities

The system-RO for PBS 41 is responsible for:

- Design of piping beyond isolation valves provided by PBS-26.CC on branches from the CCWS supply/return headers within the building.
- Provide the functional interface requirements data for CCWS design.

The system-RO for PBS 26.CC is responsible for:

- Ensuring that the cooling is adequate for Coil Power Supply and Distribution System.
- Design of the CCWS, including the supply/return headers within the applicable building(s), including branches in the general vicinity of client systems or major equipment.

Appendix A - IFPs Information and Requirements

Table 2A-1:Summary Table for PBS 26.CC.2A and PBS-41 Interface Data(SRO,DT-1 and DT-2)

Operational State(1.2)	Serving Loop of PBS-26.CC »	CCWS-2A									Total
	Name of Client Served »	PMS		SNU, FDU & CU Busbars			IVC Busbars	ELM PS (Inverters), ELM DC Distribution Busbars, VS3 Extension Busbar & IVC Busbars	ELM PS (Rectifiers)	VS3 Power Supplies	
	Location » / Parameter	Building 32	Building 33	Building 74 L3	Building 74 B2	Building 11 B2	Building 11 L3	Building 11 L4	Building 13	Building 13	
POS	Heat to be removed by CW (max, MW) (2A-2)	0.050	0.080	0.786	0.799	0.486	1.200	3.800	1.630	0.170	9.000
	CW supply temp. to client (max,ºC)	(31)	(31)	(31)	(31)	(31)	(31)	(31)	(31)	31	
	CW return temp. from client (max,ºC)	(50)	(39)	(41)	(42)	(44)	(37)	(37)	(43)	33	
	CW supply/return ΔT.(max, ºC)	(19)	(8)	(10)	(11)	(13)	(6)	(6)	12	2	
	CW supply pressure (max, MPa G)	0.85	0.85	0.85	0.85	0.85	0.65	0.52	0.68	0.68	
	Pressure drop of CW within client system (max @ nominal flow, MPa)	0.28	0.28	0.38	0.38	0.4	0.4	0.4	0.4	0.4	
	Required CW flow rate (nominal, kg/s)	0.63	2.25	18.30	17.90	9.27	51.8	137.1	32.3	21.6	291.2
TCS	Heat to be removed by CW (max. MW)	≤ POS	≤ POS	≤ POS	≤ POS	≤ POS	≤ POS	≤ POS	≤ POS	0.450	≤ POS
	Required CW flow rate (nominal. kg/s)	0.63	2.25	18.30	17.90	9.27	25.9	79.4	22.8	22.1	198.55
STM	Heat to be removed by CW (max. MW)	≤ POS	≤ POS	≤ POS	≤ POS	≤ POS	≤ POS	≤ POS	≤ POS	0.450	≤ POS
	Required CW flow rate (nominal. kg/s)	0.63	2.25	18.30	17.90	9.27	51.8	137.1	32.3	22.1	291.2
LTM	Heat to be removed by CW (max. MW)	0.025	0.040	0.393	0.400	0.243	0	0.76	1.043	0.450	3.238
	Required CW flow rate (nominal. kg/s)	0.32	1.13	9.15	8.95	4.64	0	27.4	22.8	22.1	96.49
Other Data	Conductivity of cooling water (µS/cm)	<=1									
	pH of circulating cooling water at 25 °C	(6.5-7.5)									
	Types of client wetted metal surface	Cu & SS									
	Area of client wetted metal surface. m2	3.6	13.2	28.5	28.5	8.3	338.9	540	228	68.4	**1257.4**
	Client system/component CW volume. m3	0.03	0.08	0.52	0.51	0.14	5	6.2	2.6	0.78	**15.86**
	Special requirements	No Special Requirements									

Table-specific notes:

2A-1 Refer respective tables and notes for individual buildings levels Appendix A

2A-2 PBS-41 total heat load profile during POS is as shown in Figure 2A-1.

Interface points physical and functional requirements and availability during plant lifecycle(table 2A-2 in Appendix A)

IFP No.	Supply / Return	IFP Location			Weld / Flange	Client - IFP Component/Valve/PIFPe Reference				PBS 26 - IP Valve/Pipe Reference		Client - Pipe/Valve Size			PBS 26 - Pipe/Valve Size			Client - Design Condition							PBS 26 - Design Condition		PBS 26 - Nominal Operating Condition		SRO								DT-1								DT-2							
		B	L	R		Name	Client ID	Valve at IFP	Pipe at IFP	Valve at IFP	Pipe at IFP	Pipe DN	SCH	Wetted metal surface type	Pipe DN	SCH	Wetted metal surface type	P_d (Mpa-g)	T_d (°C)	Pressure losses on client side (max @ max flow, MPa)	Volume on Client Side (m^3)	Surface on Client Side (m^2)	Safety Class	Seismic class	P_d (Mpa-g)	T_d (°C)	P_o (MPa-g)1)	T_o (°C)	POS		TCS		STM		LTM		POS		TCS		STM		LTM		POS		TCS		STM		LTM	
																													Q, (kW)	m, (kg/s)	Q, (kW)	m, (kg/s)	Q, (kW)	m, (kg/s)	Q, (kW)	m, (kg/s)	Q, (kW)	m, (kg/s)	Q, (kW)	m, (kg/s)	Q, (kW)	m, (kg/s)	Q, (kW)	m, (kg/s)	Q, (kW)	m, (kg/s)	Q, (kW)	m, (kg/s)	Q, (kW)	m, (kg/s)	Q, (kW)	m, (kg/s)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53
26CC_41_001-IFP-1401	Supply	B11	L3	03E	W	PBS 41 Coil Supply & Distribution	410000-DF-1501	NA	41ELBB-PI-0110	VG-1253	PI-1253	DN50	40S	SS&Cu	DN50	40S	SS	0.72	60	0.4			Non-SIC	NSC	1.5	60	0.75	31	85	3.67	42.5	1.84	0	3.67	0	0	85	3.67	42.5	1.84	0	3.67	0	0	85	3.67	42.5	1.84	0	3.67	0	0
26CC_41_001-IFP-1402	Return	B11	L3	03E	W	PBS 41 Coil Supply & Distribution	410000-DF-1501	NA	41ELBB-PI-0111	VG-1254	PI-1254	DN50	40S	SS&Cu	DN50	40S	SS	0.72	60	-			Non-SIC	NSC	1.5	60	0.35	37	-	-			-	-			-	-			-	-			-	-			-	-		
26CC_41_001-IFP-1403	Supply	B11	L3	03E	W	PBS 41 Coil Supply & Distribution	410000-DF-1502	NA	41ELBB-PI-0214	VG-1255	PI-1255	DN50	40S	SS&Cu	DN50	40S	SS	0.72	60	0.4			Non-SIC	NSC	1.5	60	0.75	31	168	7.25	84	3.63	0	7.25	0	0	168	7.25	84	3.63	0	7.25	0	0	168	7.25	84	3.63	0	7.25	0	0
26CC_41_001-IFP-1404	Return	B11	L3	03E	W	PBS 41 Coil Supply & Distribution	410000-DF-1502	NA	41ELBB-PI-0213	VG-1256	PI-1256	DN50	40S	SS&Cu	DN50	40S	SS	0.72	60	-			Non-SIC	NSC	1.5	60	0.35	37	-	-			-	-			-	-			-	-			-	-			-	-		
26CC_41_001-IFP-1405	Supply	B11	L3	03E	W	PBS 41 Coil Supply & Distribution	410000-DF-1503	NA	41ELBB-PI-0307	VG-1257	PI-1257	DN50	40S	SS&Cu	DN50	40S	SS	0.72	60	0.4			Non-SIC	NSC	1.5	60	0.75	31	40	1.71	20	0.86	0	1.71	0	0	40	1.71	20	0.86	0	1.71	0	0	40	1.71	20	0.86	0	1.71	0	0
26CC_41_001-IFP-1406	Return	B11	L3	03E	W	PBS 41 Coil Supply & Distribution	410000-DF-1503	NA	41ELBB-PI-0308	VG-1258	PI-1258	DN50	40S	SS&Cu	DN50	40S	SS	0.72	60	-			Non-SIC	NSC	1.5	60	0.35	37	-	-			-	-			-	-			-	-			-	-			-	-		
26CC_41_001-IFP-1407	Supply	B11	L3	03E	W	PBS 41 Coil Supply & Distribution	410000-DF-1504	NA	41ELBB-PI-0407	VG-1259	PI-1259	DN50	40S	SS&Cu	DN50	40S	SS	0.72	60	0.4			Non-SIC	NSC	1.5	60	0.75	31	83	3.55	41.5	1.78	0	3.55	0	0	83	3.55	41.5	1.78	0	3.55	0	0	83	3.55	41.5	1.78	0	3.55	0	0
26CC_41_001-IFP-1408	Return	B11	L3	03E	W	PBS 41 Coil Supply & Distribution	410000-DF-1504	NA	41ELBB-PI-0408	VG-1260	PI-1260	DN50	40S	SS&Cu	DN50	40S	SS	0.72	60	-			Non-SIC	NSC	1.5	60	0.35	37	-	-			-	-			-	-			-	-			-	-			-	-		
26CC_41_001-IFP-1409	Supply	B11	L3	03S	W	PBS 41 Coil Supply & Distribution	410000-DF-1505	NA	41ELBB-PI-0508	VG-1261	PI-1261	DN50	40S	SS&Cu	DN50	40S	SS	0.72	60	0.4			Non-SIC	NSC	1.5	60	0.75	31	72	3.12	36	1.56	0	3.12	0	0	72	3.12	36	1.56	0	3.12	0	0	72	3.12	36	1.56	0	3.12	0	0
26CC_41_001-IFP-1410	Return	B11	L3	03S	W	PBS 41 Coil Supply & Distribution	410000-DF-1505	NA	41ELBB-PI-0507	VG-1262	PI-1262	DN50	40S	SS&Cu	DN50	40S	SS	0.72	60	-			Non-SIC	NSC	1.5	60	0.35	37	-	-			-	-			-	-			-	-			-	-			-	-		
26CC_41_001-IFP-1411	Supply	B11	L3	03S	W	PBS 41 Coil Supply & Distribution	410000-DF-1506	NA	41ELBB-PI-0607	VG-1263	PI-1263	DN50	40S	SS&Cu	DN50	40S	SS	0.72	60	0.4			Non-SIC	NSC	1.5	60	0.75	31	56	2.41	28	1.21	0	2.41	0	0	56	2.41	28	1.21	0	2.41	0	0	56	2.41	28	1.21	0	2.41	0	0
26CC_41_001-IFP-1412	Return	B11	L3	03S	W	PBS 41 Coil Supply & Distribution	410000-DF-1506	NA	41ELBB-PI-0608	VG-1264	PI-1264	DN50	40S	SS&Cu	DN50	40S	SS	0.72	60	-			Non-SIC	NSC	1.5	60	0.35	37	-	-			-	-			-	-			-	-			-	-			-	-		
26CC_41_001-IFP-1413	Supply	B11	L3	03S	W	PBS 41 Coil Supply & Distribution	410000-DF-1507	NA	41ELBB-PI-0708	VG-1266	PI-1266	DN50	40S	SS&Cu	DN50	40S	SS	0.72	60	0.4			Non-SIC	NSC	1.5	60	0.75	31	55	2.34	27.5	1.17	0	2.34	0	0	55	2.34	27.5	1.17	0	2.34	0	0	55	2.34	27.5	1.17	0	2.34	0	0
26CC_41_001-IFP-1414	Return	B11	L3	03S	W	PBS 41 Coil Supply & Distribution	410000-DF-1507	NA	41ELBB-PI-0707	VG-1268	PI-1268	DN50	40S	SS&Cu	DN50	40S	SS	0.72	60	-			Non-SIC	NSC	1.5	60	0.35	37	-	-			-	-			-	-			-	-			-	-			-	-		
26CC_41_001-IFP-1415	Supply	B11	L3	03S	W	PBS 41 Coil Supply & Distribution	410000-DF-1508	NA	41ELBB-PI-0808	VG-1270	PI-1270	DN50	40S	SS&Cu	DN50	40S	SS	0.72	60	0.4			Non-SIC	NSC	1.5	60	0.75	31	58	2.48	29	1.24	0	2.48	0	0	58	2.48	29	1.24	0	2.48	0	0	58	2.48	29	1.24	0	2.48	0	0
26CC_41_001-IFP-1416	Return	B11	L3	03S	W	PBS 41 Coil Supply & Distribution	410000-DF-1508	NA	41ELBB-PI-0807	VG-1271	PI-1271	DN50	40S	SS&Cu	DN50	40S	SS	0.72	60	-			Non-SIC	NSC	1.5	60	0.35	37	-	-			-	-			-	-			-	-			-	-			-	-		
26CC_41_001-IFP-1417	Supply	B11	L3	03S	W	PBS 41 Coil Supply & Distribution	410000-DF-1509	NA	41ELBB-PI-0908	VG-1272	PI-1272	DN50	40S	SS&Cu	DN50	40S	SS	0.72	60	0.4			Non-SIC	NSC	1.5	60	0.75	31	57	2.45	28.5	1.23	0	2.45	0	0	57	2.45	28.5	1.23	0	2.45	0	0	57	2.45	28.5	1.23	0	2.45	0	0
26CC_41_001-IFP-1418	Return	B11	L3	03S	W	PBS 41 Coil Supply & Distribution	410000-DF-1509	NA	41ELBB-PI-0907	VG-1273	PI-1273	DN50	40S	SS&Cu	DN50	40S	SS	0.72	60	-			Non-SIC	NSC	1.5	60	0.35	37	-	-			-	-			-	-			-	-			-	-			-	-		
26CC_41_001-IFP-1419	Supply	B11	L3	03S	W	PBS 41 Coil Supply & Distribution	410000-DF-1510	NA	41ELBB-PI-1013	VG-1274	PI-1274	DN50	40S	SS&Cu	DN50	40S	SS	0.72	60	0.4			Non-SIC	NSC	1.5	60	0.75	31	85	3.65	42.5	1.83	0	3.65	0	0	85	3.65	42.5	1.83	0	3.65	0	0	85	3.65	42.5	1.83	0	3.65	0	0
26CC_41_001-IFP-1420	Return	B11	L3	03S	W	PBS 41 Coil Supply & Distribution	410000-DF-1510	NA	41ELBB-PI-1014	VG-1275	PI-1275	DN50	40S	SS&Cu	DN50	40S	SS	0.72	60	-			Non-SIC	NSC	1.5	60	0.35	37	-	-			-	-			-	-			-	-			-	-			-	-		
26CC_41_001-IFP-1421	Supply	B11	L3	03W	W	PBS 41 Coil Supply & Distribution	410000-DF-1511	NA	41ELBB-PI-1108	VG-1276	PI-1276	DN50	40S	SS&Cu	DN50	40S	SS	0.72	60	0.4			Non-SIC	NSC	1.5	60	0.75	31	59	2.55	29.5	1.28	0	2.55	0	0	59	2.55	29.5	1.28	0	2.55	0	0	59	2.55	29.5	1.28	0	2.55	0	0
26CC_41_001-IFP-1422	Return	B11	L3	03W	W	PBS 41 Coil Supply & Distribution	410000-DF-1511	NA	41ELBB-PI-1107	VG-1277	PI-1277	DN50	40S	SS&Cu	DN50	40S	SS	0.72	60	-			Non-SIC	NSC	1.5	60	0.35	37	-	-			-	-			-	-			-	-			-	-			-	-		
26CC_41_001-IFP-1423	Supply	B11	L3	03W	W	PBS 41 Coil Supply & Distribution	410000-DF-1512	NA	41ELBB-PI-1205	VG-1278	PI-1278	DN40	40S	SS&Cu	DN50	40S	SS	0.72	60	0.4			Non-SIC	NSC	1.5	60	0.75	31	29	1.23	14.5	0.62	0	1.23	0	0	29	1.23	14.5	0.62	0	1.23	0	0	29	1.23	14.5	0.62	0	1.23	0	0
26CC_41_001-IFP-1424	Return	B11	L3	03W	W	PBS 41 Coil Supply & Distribution	410000-DF-1512	NA	41ELBB-PI-1204	VG-1279	PI-1279	DN40	40S	SS&Cu	DN50	40S	SS	0.72	60	-			Non-SIC	NSC	1.5	60	0.35	37	-	-			-	-			-	-			-	-			-	-			-	-		
26CC_41_001-IFP-1425	Supply	B11	L3	03W	W	PBS 41 Coil Supply & Distribution	410000-DF-1513	NA	41ELBB-PI-1308	VG-1280	PI-1280	DN50	40S	SS&Cu	DN50	40S	SS	0.72	60	0.4			Non-SIC	NSC	1.5	60	0.75	31	61	2.63	30.5	1.32	0	2.63	0	0	61	2.63	30.5	1.32	0	2.63	0	0	61	2.63	30.5	1.32	0	2.63	0	0
26CC_41_001-IFP-1426	Return	B11	L3	03W	W	PBS 41 Coil Supply & Distribution	410000-DF-1513	NA	41ELBB-PI-1307	VG-1281	PI-1281	DN50	40S	SS&Cu	DN50	40S	SS	0.72	60	-			Non-SIC	NSC	1.5	60	0.35	37	-	-			-	-			-	-			-	-			-	-			-	-		
26CC_41_001-IFP-1427	Supply	B11	L3	03W	W	PBS 41 Coil Supply & Distribution	410000-DF-1514	NA	41ELBB-PI-1405	VG-1282	PI-1282	DN40	40S	SS&Cu	DN50	40S	SS	0.72	60	0.4			Non-SIC	NSC	1.5	60	0.75	31	32	1.37	16	0.69	0	1.37	0	0	32	1.37	16	0.69	0	1.37	0	0	32	1.37	16	0.69	0	1.37	0	0
26CC_41_001-IFP-1428	Return	B11	L3	03W	W	PBS 41 Coil Supply & Distribution	410000-DF-1514	NA	41ELBB-PI-1404	VG-1283	PI-1283	DN40	40S	SS&Cu	DN50	40S	SS	0.72	60	-			Non-SIC	NSC	1.5	60	0.35	37	-	-			-	-			-	-			-	-			-	-			-	-		
26CC_41_001-IFP-1429	Supply	B11	L3	03N	W	PBS 41 Coil Supply & Distribution	410000-DF-1515	NA	41ELBB-PI-1511	VG-1284	PI-1284	DN50	40S	SS&Cu	DN50	40S	SS	0.72	60	0.4			Non-SIC	NSC	1.5	60	0.75	31	80	3.51	40	1.76	0	3.51	0	0	80	3.51	40	1.76	0	3.51	0	0	80	3.51	40	1.76	0	3.51	0	0
26CC_41_001-IFP-1430	Return	B11	L3	03N	W	PBS 41 Coil Supply & Distribution	410000-DF-1515	NA	41ELBB-PI-1510	VG-1285	PI-1285	DN50	40S	SS&Cu	DN50	40S	SS	0.72	60	-			Non-SIC	NSC	1.5	60	0.35	37	-	-			-	-			-	-			-	-			-	-			-	-		
26CC_41_001-IFP-1431	Supply	B11	L3	03N	W	PBS 41 Coil Supply & Distribution	410000-DF-1516	NA	41ELBB-PI-1611	VG-1286	PI-1286	DN50	40S	SS&Cu	DN50	40S	SS	0.72	60	0.4			Non-SIC	NSC	1.5	60	0.75	31	87	3.74	43.5	1.87	0	3.74	0	0	87	3.74	43.5	1.87	0	3.74	0	0	87	3.74	43.5	1.87	0	3.74	0	0
26CC_41_001-IFP-1432	Return	B11	L3	03N	W	PBS 41 Coil Supply & Distribution	410000-DF-1516	NA	41ELBB-PI-1610	VG-1287	PI-1287	DN50	40S	SS&Cu	DN50	40S	SS	0.72	60	-			Non-SIC	NSC	1.5	60	0.35	37	-	-			-	-			-	-			-	-			-	-			-	-		
26CC_41_001-IFP-1433	Supply	B11	L3	03E	W	PBS 41 Coil Supply & Distribution	410000-DF-1517	NA	41ELBB-PI-1708	VG-1288	PI-1288	DN50	40S	SS&Cu	DN50	40S	SS	0.72	60	0.4			Non-SIC	NSC	1.5	60	0.75	31	69	2.98	34.5	1.49	0	2.98	0	0	69	2.98	34.5	1.49	0	2.98	0	0	69	2.98	34.5	1.49	0	2.98	0	0
26CC_41_001-IFP-1434	Return	B11	L3	03E	W	PBS 41 Coil Supply & Distribution	410000-DF-1517	NA	41ELBB-PI-1707	VG-1289	PI-1289	DN50	40S	SS&Cu	DN50	40S	SS	0.72	60	-			Non-SIC	NSC	1.5	60	0.35	37	-	-			-	-			-	-			-	-			-	-			-	-		
26CC_41_001-IFP-1435	Supply	B11	L3	03E	W	PBS 41 Coil Supply & Distribution	410000-DF-1518	NA	41ELBB-PI-1804	VG-1290	PI-1290	DN50	40S	SS&Cu	DN50	40S	SS	0.72	60	0.4			Non-SIC	NSC	1.5	60	0.75	31	26	1.11	13	0.56	0	1.11	0	0	26	1.11	13	0.56	0	1.11	0	0	26	1.11	13	0.56	0	1.11	0	0
26CC_41_001-IFP-1436	Return	B11	L3	03E	W	PBS 41 Coil Supply & Distribution	410000-DF-1518	NA	41ELBB-PI-1805	VG-1291	PI-1291	DN50	40S	SS&Cu	DN50	40S	SS	0.72	60	-			Non-SIC	NSC	1.5	60	0.35	37	-	-			-	-			-	-			-	-			-	-			-	-		
26CC_41_001-IFP-7001	Supply	B74	B2	03	W	PBS 41 Coil Supply & Distribution	41V1F4-DF-7201	TBD	410000-PIF-0034	VG-2268	PI-2268	DN80	40S	SS&Cu	DN80	40S	SS	0.85	60	0.38			Non-SIC	NSC	1.5	60	0.85	31	132	2.5	132	2.5	132	2.5	66	1.25	132	2.5	132	2.5	132	2.5	66	1.25	132	2.5	132	2.5	132	2.5	66	1.25
26CC_41_001-IFP-7002	Return	B74	B2	03	W	PBS 41 Coil Supply & Distribution	41V1F4-DF-7201	TBD	410000-PIF-0035	VG-1269	PI-1269	DN80	40S	SS&Cu	DN80	40S	SS	0.85	60	-			Non-SIC	NSC	1.5	60	0.47	44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26CC_41_001-IFP-7003	Supply	B74	B2	03	W	PBS 41 Coil Supply & Distribution	41V1F5-DF-7201	TBD	410000-PIF-0036	VG-2266	PI-2266	DN80	40S	SS&Cu	DN80	40S	SS	0.85	60	0.38			Non-SIC	NSC	1.5	60	0.85	31	132	2.5	132	2.5	132	2.5	66	1.25	132	2.5	132	2.5	132	2.5	66	1.25	132	2.5	132	2.5	132	2.5	66	1.25
26CC_41_001-IFP-7004	Return	B74	B2	03	W	PBS 41 Coil Supply & Distribution	41V1F5-DF-7201	TBD	410000-PIF-0037	VG-1267	PI-1267	DN80	40S	SS&Cu	DN80	40S	SS	0.85	60	-			Non-SIC	NSC	1.5	60	0.47	44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26CC_41_001-IFP-7005	Supply	B74	B2	03	W	PBS 41 Coil Supply & Distribution	41P600-DF-7201	TBD	410000-PIF-0038	VG-0428	PI-2262	DN80	40S	SS&Cu	DN80	40S	SS	0.85	60	0.38			Non-SIC	NSC	1.5	60	0.85	31	146	3.4	146	3.4	146	3.4	73	1.7	146	3.4	146	3.4	146	3.4	73	1.7	146	3.4	146	3.4	146	3.4	73	1.7
26CC_41_001-IFP-7006	Return	B74	B2	03	W	PBS 41 Coil Supply & Distribution	41P600-DF-7201	TBD	410000-PIF-0039	VG-0263	PI-0263	DN80	40S	SS&Cu	DN80	40S	SS	0.85	60	-			Non-SIC	NSC	1.5	60	0.47	41	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26CC_41_001-IFP-7007	Supply	B74	B2	03	W	PBS 41 Coil Supply & Distribution	41C100-DF-7201	TBD	410000-PIF-0046	VG-0476	PI-0258	DN80	40S	SS&Cu	DN80	40S	SS	0.85	60	0.38			Non-SIC	NSC	1.5	60	0.85	31	117	2.7	117	2.7	117	2.7	58.5	1.35	117	2.7	117	2.7	117	2.7	58.5	1.35	117	2.7	117	2.7	117	2.7	58.5	1.35
26CC_41_001-IFP-7008	Return	B74	B2	03	W	PBS 41 Coil Supply & Distribution	41C100-DF-7201	TBD	410000-PIF-0047	VG-0477	PI-0259	DN80	40S	SS&Cu	DN80	40S	SS	0.85	60	-			Non-SIC	NSC	1.5	60	0.47	41	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26CC_41_001-IFP-7009	Supply	B74	B2	03	W	PBS 41 Coil Supply & Distribution	41C200-DF-7201	TBD	410000-PIF-0048	VG-2264	PI-2264	DN80	40S	SS&Cu	DN80	40S	SS	0.85	60	0.38			Non-SIC	NSC	1.5	60	0.85	31	136	3.4	136	3.4	136	3.4	68	1.7	136	3.4	136	3.4	136	3.4	68	1.7	136	3.4	136	3.4	136	3.4	68	1.7
26CC_41_001-IFP-7010	Return	B74	B2	03	W	PBS 41 Coil Supply & Distribution	41C200-DF-7201	TBD	410000-PIF-0049	VG-1265	PI-1265	DN80	40S	SS&Cu	DN80	40S	SS	0.85	60	-			Non-SIC	NSC	1.5	60	0.47	41	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26CC_41_001-IFP-7011	Supply	B74	B2	03	W	PBS 41 Coil Supply & Distribution	41C300-DF-7201	TBD	410000-PIF-0050	VG-0478	PI-0260	DN80	40S	SS&Cu	DN80	40S	SS	0.85	60	0.38			Non-SIC	NSC	1.5	60	0.85	31	136	3.4	136	3.4	136	3.4	68	1.7	136	3.4	136	3.4	136	3.4	68	1.7	136	3.4	136	3.4	136	3.4	68	1.7
26CC_41_001-IFP-7012	Return	B74	B2	03	W	PBS 41 Coil Supply & Distribution	41C300-DF-7201	TBD	410000-PIF-0051	VG-0261	PI-0261	DN80	40S	SS&Cu	DN80	40S	SS	0.85	60	-			Non-SIC	NSC	1.5	60	0.47	41	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26CC_41_001-IFP-7401	Supply	B74	L3	03	W	PBS 41 Coil Supply & Distribution	41P100-DF-7301	TBD	410000-PIF-0028	VG-0854	PI-1484	DN80	40S	SS&Cu	DN80	40S	SS	0.85	60	0.38			Non-SIC	NSC	1.5	60	0.65	31	146	3.4	146	3.4	146	3.4	73	1.7	146	3.4	146	3.4	146	3.4	73	1.7	146	3.4	146	3.4	146	3.4	73	1.7
26CC_41_001-IFP-7402	Return	B74	L3	03	W	PBS 41 Coil Supply & Distribution	41P100-DF-7301	TBD	410000-PIF-0029	VG-0853	PI-0255	DN80	40S	SS&Cu	DN80	40S	SS	0.85	60	-			Non-SIC	NSC	1.5	60	0.27	41	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26CC_41_001-IFP-7403	Supply	B74	L3	03	W	PBS 41 Coil Supply & Distribution	41V1F2-DF-7301	TBD	410000-PIF-0030	VG-0856	PI-1486	DN80	40S	SS&Cu	DN80	40S	SS	0.85	60	0.38			Non-SIC	NSC	1.5	60	0.65	31	132	2.5	132	2.5	132	2.5	66	1.25	132	2.5	132	2.5	132	2.5	66	1.25	132	2.5	132	2.5	132	2.5	66	1.25
26CC_41_001-IFP-7404	Return	B74	L3	03	W	PBS 41 Coil Supply & Distribution	41V1F2-DF-7301	TBD	410000-PIF-0031	VG-0855	PI-0755	DN80	40S	SS&Cu	DN80	40S	SS	0.85	60	-			Non-SIC	NSC	1.5	60	0.27	44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26CC_41_001-IFP-7405	Supply	B74	L3	03	W	PBS 41 Coil Supply & Distribution	41V1F3-DF-7301	TBD	410000-PIF-0032	VG-0858	PI-1488	DN80	40S	SS&Cu	DN80	40S	SS	0.85	60	0.38			Non-SIC	NSC	1.5	60	0.65	31	132	2.5	132	2.5	132	2.5	66	1.25	132	2.5	132	2.5	132	2.5	66	1.25	132	2.5	132	2.5	132	2.5	66	1.25
26CC_41_001-IFP-7406	Return	B74	L3	03	W	PBS 41 Coil Supply & Distribution	41V1F3-DF-7301	TBD	410000-PIF-0033	VG-0857	PI-0757	DN80	40S	SS&Cu	DN80	40S	SS	0.85	60	-			Non-SIC	NSC	1.5	60	0.27	44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26CC_41_001-IFP-7407	Supply	B74	L3	03	W	PBS 41 Coil Supply & Distribution	41C100-DF-7301	TBD	410000-PIF-0040	VG-0864	PI-1494	DN80	40S	SS&Cu	DN80	40S	SS	0.85	60	0.38			Non-SIC	NSC	1.5	60	0.65	31	104	3.1	104	3.1	104	3.1	52	1.55	104	3.1	104	3.1	104	3.1	52	1.55	104	3.1	104	3.1	104	3.1	52	1.55
26CC_41_001-IFP-7408	Return	B74	L3	03	W	PBS 41 Coil Supply & Distribution	41C100-DF-7301	TBD	410000-PIF-0041	VG-0863	PI-0763	DN80	40S	SS&Cu	DN80	40S	SS	0.85	60	-			Non-SIC	NSC	1.5	60	0.27	40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26CC_41_001-IFP-7409	Supply	B74	L3	03	W	PBS 41 Coil Supply & Distribution	41C200-DF-7301	TBD	410000-PIF-0042	VG-0860	PI-0490	DN80	40S	SS&Cu	DN80	40S	SS	0.85	60	0.38			Non-SIC	NSC	1.5	60	0.65	31	136	3.4	136	3.4	136	3.4	68	1.7	136	3.4	136	3.4	136	3.4	68	1.7	136	3.4	136	3.4	136	3.4	68	1.7
26CC_41_001-IFP-7410	Return	B74	L3	03	W	PBS 41 Coil Supply & Distribution	41C200-DF-7301	TBD	410000-PIF-0043	VG-0859	PI-0759	DN80	40S	SS&Cu	DN80	40S	SS	0.85	60	-			Non-SIC	NSC	1.5	60	0.27	41	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26CC_41_001-IFP-7411	Supply	B74	L3	03	W	PBS 41 Coil Supply & Distribution	41C300-DF-7301	TBD	410000-PIF-0044	VG-0862	PI-0492	DN80	40S	SS&Cu	DN80	40S	SS	0.85	60	0.38			Non-SIC	NSC	1.5	60	0.65	31	136	3.4	136	3.4	136	3.4	68	1.7	136	3.4	136	3.4	136	3.4	68	1.7	136	3.4	136	3.4	136	3.4	68	1.7
26CC_41_001-IFP-7412	Return	B74	L3	03	W	PBS 41 Coil Supply & Distribution	41C300-DF-7301	TBD	410000-PIF-0045	VG-0861	PI-0761	DN80	40S	SS&Cu	DN80	40S	SS	0.85	60	-			Non-SIC	NSC	1.5	60	0.27	41	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26CC_41_001-IFP-1001	Supply	B11	B2	02E	W	PBS 41 Coil Supply & Distribution	41TFFD-DF-1201	TBD	410000-PIF-0337	VG-0468	PI-0274	DN25	40S	SS&Cu	DN25	40S	SS	0.85	60	0.4			Non-SIC	NSC	1.5	60	0.85	31	54	1.03	54	1.03	54	1.03	27	0.52	54	1.03	54	1.03	54	1.03	27	0.52	54	1.03	54	1.03	54	1.03	27	0.52
26CC_41_001-IFP-1002	Return	B11	B2	02E	W	PBS 41 Coil Supply & Distribution	41TFFD-DF-1201	TBD	410000-PIF-0338	VG-0469	PI-0275	DN25	40S	SS&Cu	DN25	40S	SS	0.85	60	-			Non-SIC	NSC	1.5	60	0.45	44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26CC_41_001-IFP-1003	Supply	B11	B2	02E	W	PBS 41 Coil Supply & Distribution	41TFFD-DF-1202	TBD	410000-PIF-0339	VG-0470	PI-0276	DN25	40S	SS&Cu	DN25	40S	SS	0.85	60	0.4			Non-SIC	NSC	1.5	60	0.85	31	54	1.03	54	1.03	54	1.03	27	0.52	54	1.03	54	1.03	54	1.03	27	0.52	54	1.03	54	1.03	54	1.03	27	0.52
26CC_41_001-IFP-1004	Return	B11	B2	02E	W	PBS 41 Coil Supply & Distribution	41TFFD-DF-1202	TBD	410000-PIF-0340	VG-0471	PI-0277	DN25	40S	SS&Cu	DN25	40S	SS	0.85	60	-			Non-SIC	NSC	1.5	60	0.45	44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26CC_41_001-IFP-1005	Supply	B11	B2	02N	W	PBS 41 Coil Supply & Distribution	41TFFD-DF-1203	TBD	410000-PIF-0341	VG-0472	PI-0278	DN25	40S	SS&Cu	DN25	40S	SS	0.85	60	0.4			Non-SIC	NSC	1.5	60	0.85	31	54	1.03	54	1.03	54	1.03	27	0.52	54	1.03	54	1.03	54	1.03	27	0.52	54	1.03	54	1.03	54	1.03	27	0.52
26CC_41_001-IFP-1006	Return	B11	B2	02N	W	PBS 41 Coil Supply & Distribution	41TFFD-DF-1203	TBD	410000-PIF-0342	VG-0473	PI-0279	DN25	40S	SS&Cu	DN25	40S	SS	0.85	60	-			Non-SIC	NSC	1.5	60	0.45	44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26CC_41_001-IFP-1007	Supply	B11	B2	02N	W	PBS 41 Coil Supply & Distribution	41TFFD-DF-1204	TBD	410000-PIF-0343	VG-0474	PI-0280	DN25	40S	SS&Cu	DN25	40S	SS	0.85	60	0.4			Non-SIC	NSC	1.5	60	0.85	31	54	1.03	54	1.03	54	1.03	27	0.52	54	1.03	54	1.03	54	1.03	27	0.52	54	1.03	54	1.03	54	1.03	27	0.52
26CC_41_001-IFP-1008	Return	B11	B2	02N	W	PBS 41 Coil Supply & Distribution	41TFFD-DF-1204	TBD	410000-PIF-0344	VG-0475	PI-0281	DN25	40S	SS&Cu	DN25	40S	SS	0.85	60	-			Non-SIC	NSC	1.5	60	0.45	44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26CC_41_001-IFP-1009	Supply	B11	B2	02W	W	PBS 41 Coil Supply & Distribution	41TFFD-DF-1205	TBD	410000-PIF-0345	VG-0458	PI-0264	DN25	40S	SS&Cu	DN25	40S	SS	0.85	60	0.4			Non-SIC	NSC	1.5	60	0.85	31	54	1.03	54	1.03	54	1.03	27	0.52	54	1.03	54	1.03	54	1.03	27	0.52	54	1.03	54	1.03	54	1.03	27	0.52
26CC_41_001-IFP-1010	Return	B11	B2	02W	W	PBS 41 Coil Supply & Distribution	41TFFD-DF-1205	TBD	410000-PIF-0346	VG-0459	PI-0265	DN25	40S	SS&Cu	DN25	40S	SS	0.85	60	-			Non-SIC	NSC	1.5	60	0.45	44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26CC_41_001-IFP-1011	Supply	B11	B2	02W	W	PBS 41 Coil Supply & Distribution	41TFFD-DF-1206	TBD	410000-PIF-0347	VG-0460	PI-0266	DN25	40S	SS&Cu	DN25	40S	SS	0.85	60	0.4			Non-SIC	NSC	1.5	60	0.85	31	54	1.03	54	1.03	54	1.03	27	0.52	54	1.03	54	1.03	54	1.03	27	0.52	54	1.03	54	1.03	54	1.03	27	0.52
26CC_41_001-IFP-1012	Return	B11	B2	02W	W	PBS 41 Coil Supply & Distribution	41TFFD-DF-1206	TBD	410000-PIF-0348	VG-0461	PI-0267	DN25	40S	SS&Cu	DN25	40S	SS	0.85	60	-			Non-SIC	NSC	1.5	60	0.45	44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26CC_41_001-IFP-1013	Supply	B11	B2	02S	W	PBS 41 Coil Supply & Distribution	41TFFD-DF-1207	TBD	410000-PIF-0349	VG-0462	PI-0268	DN25	40S	SS&Cu	DN25	40S	SS	0.85	60	0.4	Refer table Table 2A-1		Non-SIC	NSC	1.5	60	0.85	31	54	1.03	54	1.03	54	1.03	27	0.52	54	1.03	54	1.03	54	1.03	27	0.52	54	1.03	54	1.03	54	1.03	27	0.52
26CC_41_001-IFP-1014	Return	B11	B2	02S	W	PBS 41 Coil Supply & Distribution	41TFFD-DF-1207	TBD	410000-PIF-0350	VG-0463	PI-0269	DN25	40S	SS&Cu	DN25	40S	SS	0.85	60	-			Non-SIC	NSC	1.5	60	0.45	44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26CC_41_001-IFP-1015	Supply	B11	B2	02S	W	PBS 41 Coil Supply & Distribution	41TFFD-DF-1208	TBD	410000-PIF-0351	VG-0464	PI-0270	DN25	40S	SS&Cu	DN25	40S	SS	0.85	60	0.4			Non-SIC	NSC	1.5	60	0.85	31	54	1.03	54	1.03	54	1.03	27	0.52	54	1.03	54	1.03	54	1.03	27	0.52	54	1.03	54	1.03	54	1.03	27	0.52
26CC_41_001-IFP-1016	Return	B11	B2	02S	W	PBS 41 Coil Supply & Distribution	41TFFD-DF-1208	TBD	410000-PIF-0352	VG-0465	PI-0271	DN25	40S	SS&Cu	DN25	40S	SS	0.85	60	-			Non-SIC	NSC	1.5	60	0.45	44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26CC_41_001-IFP-1017	Supply	B11	B2	02S	W	PBS 41 Coil Supply & Distribution	41TFFD-DF-1209	TBD	410000-PIF-0353	VG-0466	PI-0272	DN25	40S	SS&Cu	DN25	40S	SS	0.85	60	0.4			Non-SIC	NSC	1.5	60	0.85	31	54	1.03	54	1.03	54	1.03	27	0.52	54	1.03	54	1.03	54	1.03	27	0.52	54	1.03	54	1.03	54	1.03	27	0.52
26CC_41_001-IFP-1018	Return	B11	B2	02S	W	PBS 41 Coil Supply & Distribution	41TFFD-DF-1209	TBD	410000-PIF-0354	VG-0467	PI-0273	DN25	40S	SS&Cu	DN25	40S	SS	0.85	60	-			Non-SIC	NSC	1.5	60	0.45	44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26CC_41_001-IFP-1501	Supply	B11	L4	1	W	PBS 41 Coil Supply & Distribution	410000-DF-1451	TBD	TBD	VC-1167	PI-1167	DN100	40S	SS&Cu	DN100	40S	SS	1.0	60	0.4			Non-SIC	NSC	1.5	60	0.52	31	244	8.81	122	4.40	48.8	8.81	48.8	1.76	244	8.81	122	4.40	48.8	8.81	48.8	1.76	244	8.81	122	4.40	48.8	8.81	48.8	1.76
26CC_41_001-IFP-1502	Return	B11	L4	1	W	PBS 41 Coil Supply & Distribution	410000-DF-1451	TBD	TBD	VG-1168	PI-1168	DN100	40S	SS&Cu	DN100	40S	SS	1.0	60	-			Non-SIC	NSC	1.5	60	0.12	38																								
26CC_41_001-IFP-1503	Supply	B11	L4	1	W	PBS 41 Coil Supply & Distribution	410000-DF-1452	TBD	TBD	VC-1141	PI-0061	DN100	40S	SS&Cu	DN100	40S	SS	1.0	60	0.4			Non-SIC	NSC	1.5	60	0.52	31	460	16.61	380	11.90	92	16.61	92	3.32	460	16.61	380	11.90	92	16.61	92	3.32	460	16.61	380	11.90	92	16.61	92	3.32
26CC_41_001-IFP-1504	Return	B11	L4	1	W	PBS 41 Coil Supply & Distribution	410000-DF-1452	TBD	TBD	VG-1749	PI-0284	DN100	40S	SS&Cu	DN100	40S	SS	1.0	60	-			Non-SIC	NSC	1.5	60	0.12	38																								
26CC_41_001-IFP-1505	Supply	B11	L4	1	W	PBS 41 Coil Supply & Distribution	410000-DF-1453	TBD	TBD	VC-1171	PI-1171	DN100	40S	SS&Cu	DN100	40S	SS	1.0	60	0.4			Non-SIC	NSC	1.5	60	0.52	31	33	1.19	16.5	0.60	6.6	1.19	6.6	0.24	33	1.19	16.5	0.60	6.6	1.19	6.6	0.24	33	1.19	16.5	0.60	6.6	1.19	6.6	0.24
26CC_41_001-IFP-1506	Return	B11	L4	1	W	PBS 41 Coil Supply & Distribution	410000-DF-1453	TBD	TBD	VG-1172	PI-1172	DN100	40S	SS&Cu	DN100	40S	SS	1.0	60	-			Non-SIC	NSC	1.5	60	0.12	38																								
26CC_41_001-IFP-1507	Supply	B11	L4	1	W	PBS 41 Coil Supply & Distribution	410000-DF-1454	TBD	TBD	VC-1169	PI-1169	DN100	40S	SS&Cu	DN100	40S	SS	1.0	60	0.4			Non-SIC	NSC	1.5	60	0.52	31	460	16.61	230	8.30	92	16.61	92	3.32	460	16.61	230	8.30	92	16.61	92	3.32	460	16.61	230	8.30	92	16.61	92	3.32
26CC_41_001-IFP-1508	Return	B11	L4	1	W	PBS 41 Coil Supply & Distribution	410000-DF-1454	TBD	TBD	VG-1170	PI-1170	DN100	40S	SS&Cu	DN100	40S	SS	1.0	60	-			Non-SIC	NSC	1.5	60	0.12	38																								
26CC_41_001-IFP-1509	Supply	B11	L4	1	W	PBS 41 Coil Supply & Distribution	410000-DF-1455	TBD	TBD	VC-1142	PI-0058	DN100	40S	SS&Cu	DN100	40S	SS	1.0	60	0.4			Non-SIC	NSC	1.5	60	0.52	31	369	13.32	334.5	10.26	73.8	13.32	73.8	2.66	369	13.32	334.5	10.26	73.8	13.32	73.8	2.66	369	13.32	334.5	10.26	73.8	13.32	73.8	2.66
26CC_41_001-IFP-1510	Return	B11	L4	1	W	PBS 41 Coil Supply & Distribution	410000-DF-1455	TBD	TBD	VG-1750	PI-0283	DN100	40S	SS&Cu	DN100	40S	SS	1.0	60	-			Non-SIC	NSC	1.5	60	0.12	38																								
26CC_41_001-IFP-1511	Supply	B11	L4	1	W	PBS 41 Coil Supply & Distribution	410000-DF-1456	TBD	TBD	VC-1135	PI-1157	DN100	40S	SS&Cu	DN100	40S	SS	1.0	60	0.4			Non-SIC	NSC	1.5	60	0.52	31	369	13.32	184.5	6.66	73.8	13.32	73.8	2.66	369	13.32	184.5	6.66	73.8	13.32	73.8	2.66	369	13.32	184.5	6.66	73.8	13.32	73.8	2.66
26CC_41_001-IFP-1512	Return	B11	L4	1	W	PBS 41 Coil Supply & Distribution	410000-DF-1456	TBD	TBD	VG-1744	PI-0288	DN100	40S	SS&Cu	DN100	40S	SS	1.0	60	-			Non-SIC	NSC	1.5	60	0.12	38																								
26CC_41_001-IFP-1513	Supply	B11	L4	1	W	PBS 41 Coil Supply & Distribution	410000-DF-1457	TBD	TBD	VC-1163	PI-1163	DN100	40S	SS&Cu	DN100	40S	SS	1.0	60	0.4			Non-SIC	NSC	1.5	60	0.52	31	227	8.19	113.5	4.10	45.4	8.19	45.4	1.64	227	8.19	113.5	4.10	45.4	8.19	45.4	1.64	227	8.19	113.5	4.10	45.4	8.19	45.4	1.64
26CC_41_001-IFP-1514	Return	B11	L4	1	W	PBS 41 Coil Supply & Distribution	410000-DF-1457	TBD	TBD	VG-1164	PI-1164	DN100	40S	SS&Cu	DN100	40S	SS	1.0	60	-			Non-SIC	NSC	1.5	60	0.12	38																								
26CC_41_001-IFP-1515	Supply	B11	L4	1	W	PBS 41 Coil Supply & Distribution	410000-DF-1458	TBD	TBD	VC-1136	PI-0052	DN100	40S	SS&Cu	DN100	40S	SS	1.0	60	0.4			Non-SIC	NSC	1.5	60	0.52	31	399	14.40	199.5	7.20	79.8	14.40	79.8	2.88	399	14.40	199.5	7.20	79.8	14.40	79.8	2.88	399	14.40	199.5	7.20	79.8	14.40	79.8	2.88
26CC_41_001-IFP-1516	Return	B11	L4	1	W	PBS 41 Coil Supply & Distribution	410000-DF-1458	TBD	TBD	VG-1745	PI-0287	DN100	40S	SS&Cu	DN100	40S	SS	1.0	60	-			Non-SIC	NSC	1.5	60	0.12	38																								
26CC_41_001-IFP-1517	Supply	B11	L4	1	W	PBS 41 Coil Supply & Distribution	410000-DF-1459	TBD	TBD	VC-1165	PI-1165	DN100	40S	SS&Cu	DN100	40S	SS	1.0	60	0.4			Non-SIC	NSC	1.5	60	0.52	31	399	14.40	199.5	7.20	79.8	14.40	79.8	2.88	399	14.40	199.5	7.20	79.8	14.40	79.8	2.88	399	14.40	199.5	7.20	79.8	14.40	79.8	2.88
26CC_41_001-IFP-1518	Return	B11	L4	1	W	PBS 41 Coil Supply & Distribution	410000-DF-1459	TBD	TBD	VG-1166	PI-1166	DN100	40S	SS&Cu	DN100	40S	SS	1.0	60	-			Non-SIC	NSC	1.5	60	0.12	38																								
26CC_41_001-IFP-1519	Supply	B11	L4	1	W	PBS 41 Coil Supply & Distribution	410000-DF-1460	TBD	TBD	VC-1139	PI-0053	DN100	40S	SS&Cu	DN100	40S	SS	1.0	60	0.4			Non-SIC	NSC	1.5	60	0.52	31	341	12.31	320.5	9.76	68.2	12.31	68.2	2.46	341	12.31	320.5	9.76	68.2	12.31	68.2	2.46	341	12.31	320.5	9.76	68.2	12.31	68.2	2.46
26CC_41_001-IFP-1520	Return	B11	L4	1	W	PBS 41 Coil Supply & Distribution	410000-DF-1460	TBD	TBD	VG-1747	PI-0286	DN100	40S	SS&Cu	DN100	40S	SS	1.0	60	-			Non-SIC	NSC	1.5	60	0.12	38																								
26CC_41_001-IFP-1521	Supply	B11	L4	1	W	PBS 41 Coil Supply & Distribution	410000-DF-1461	TBD	TBD	VC-1140	PI-0056	DN100	40S	SS&Cu	DN100	40S	SS	1.0	60	0.4			Non-SIC	NSC	1.5	60	0.52	31	502	18.12	251	9.06	100.4	18.12	100.4	3.62	502	18.12	251	9.06	100.4	18.12	100.4	3.62	502	18.12	251	9.06	100.4	18.12	100.4	3.62
26CC_41_001-IFP-1522	Return	B11	L4	1	W	PBS 41 Coil Supply & Distribution	410000-DF-1461	TBD	TBD	VG-1748	PI-0285	DN100	40S	SS&Cu	DN100	40S	SS	1.0	60	-			Non-SIC	NSC	1.5	60	0.12	38	-	-			-	-	-	-	-	-			-	-	-	-	-	-			-	-	-	-
26CC_41_001-IFP-3201	Supply	B33	L1	1	F	PBS 41 Coil Supply & Distribution	PF2 MS 41.V1.B2 DF 3301 & 3302	TBD	410000-PIF-0598	VG-0411	PI-0230	DN40	40S	SS&Cu	DN40	40S	CS	0.85	60	0.28			Non-SIC	NSC	1.5	60	0.6	31	10	0.33	10	0.33	10	0.33	5	0.17	10	0.33	10	0.33	10	0.33	5	0.17	10	0.33	10	0.33	10	0.33	5	0.17
26CC_41_001-IFP-3202	Return	B33	L1	1	F	PBS 41 Coil Supply & Distribution	PF2 MS 41.V1.B2 DF 3301 & 3302	TBD	410000-PIF-0601	VG-0417	PI-0235	DN40	40S	SS&Cu	DN40	40S	CS	0.85	60	-			Non-SIC	NSC	1.5	60	0.32	38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26CC_41_001-IFP-3203	Supply	B33	L1	1	F	PBS 41 Coil Supply & Distribution	PF3 MS 41.V1.B3 DF 3301 & 3302	TBD	410000-PIF-0610	VG-0401	PI-0223	DN40	40S	SS&Cu	DN40	40S	CS	0.85	60	0.28			Non-SIC	NSC	1.5	60	0.6	31	10	0.33	10	0.33	10	0.33	5	0.17	10	0.33	10	0.33	10	0.33	5	0.17	10	0.33	10	0.33	10	0.33	5	0.17
26CC_41_001-IFP-3204	Return	B33	L1	1	F	PBS 41 Coil Supply & Distribution	PF3 MS 41.V1.B3 DF 3301 & 3302	TBD	410000-PIF-0611	VG-0406	PI-0224	DN40	40S	SS&Cu	DN40	40S	CS	0.85	60	-			Non-SIC	NSC	1.5	60	0.32	38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26CC_41_001-IFP-3205	Supply	B33	L1	1	F	PBS 41 Coil Supply & Distribution	PF4 MS 41.V1.B4 DF 3301 & 3302	TBD	410000-PIF-0605	VG-0412	PI-0231	DN40	40S	SS&Cu	DN40	40S	CS	0.85	60	0.28			Non-SIC	NSC	1.5	60	0.6	31	10	0.33	10	0.33	10	0.33	5	0.17	10	0.33	10	0.33	10	0.33	5	0.17	10	0.33	10	0.33	10	0.33	5	0.17
26CC_41_001-IFP-3206	Return	B33	L1	1	F	PBS 41 Coil Supply & Distribution	PF4 MS 41.V1.B4 DF 3301 & 3302	TBD	410000-PIF-0607	VG-0418	PI-0234	DN40	40S	SS&Cu	DN40	40S	CS	0.85	60	-			Non-SIC	NSC	1.5	60	0.32	38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26CC_41_001-IFP-3207	Supply	B33	L1	1	F	PBS 41 Coil Supply & Distribution	PF5 MS 41.V1.B5 DF 3301 & 3302	TBD	410000-PIF-0613	VG-0402	PI-0029	DN40	40S	SS&Cu	DN40	40S	CS	0.85	60	0.28			Non-SIC	NSC	1.5	60	0.61	31	10	0.33	10	0.33	10	0.33	5	0.17	10	0.33	10	0.33	10	0.33	5	0.17	10	0.33	10	0.33	10	0.33	5	0.17
26CC_41_001-IFP-3208	Return	B33	L1	1	F	PBS 41 Coil Supply & Distribution	PF5 MS 41.V1.B5 DF 3301 & 3302	TBD	410000-PIF-0614	VG-0407	PI-0087	DN40	40S	SS&Cu	DN40	40S	CS	0.85	60	-			Non-SIC	NSC	1.5	60	0.33	38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26CC_41_001-IFP-3209	Supply	B33	L1	1	F	PBS 41 Coil Supply & Distribution	VS1 MS 41.V1.00 DF 3301 & 3302	TBD	410000-PIF-0602	VG-0413	PI-1195	DN40	40S	SS&Cu	DN40	40S	CS	0.85	60	0.28			Non-SIC	NSC	1.5	60	0.61	31	10	0.33	10	0.33	10	0.33	5	0.17	10	0.33	10	0.33	10	0.33	5	0.17	10	0.33	10	0.33	10	0.33	5	0.17
26CC_41_001-IFP-3210	Return	B33	L1	1	F	PBS 41 Coil Supply & Distribution	VS1 MS 41.V1.00 DF 3301 & 3302	TBD	410000-PIF-0604	VG-0419	PI-0394	DN40	40S	SS&Cu	DN40	40S	CS	0.85	60	-			Non-SIC	NSC	1.5	60	0.33	38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26CC_41_001-IFP-3211	Supply	B33	L1	1	F	PBS 41 Coil Supply & Distribution	CCL1-4/CCS3-6 MS 41.L1.DC DF 3301 & 3302	TBD	#N/A	VG-0400	PI-0221	DN40	40S	SS&Cu	DN40	40S	CS	0.85	60	0.28			Non-SIC	NSC	1.5	60	0.61	31	10	0.2	10	0.2	10	0.2	5	0.17	10	0.2	10	0.2	10	0.2	5	0.17	10	0.2	10	0.2	10	0.2	5	0.17
26CC_41_001-IFP-3212	Return	B33	L1	1	F	PBS 41 Coil Supply & Distribution	CCL1-4/CCS3-6 MS 41.L1.DC DF 3301 & 3302	TBD	#N/A	VG-0405	PI-0222	DN40	40S	SS&Cu	DN40	40S	CS	0.85	60	-			Non-SIC	NSC	1.5	60	0.33	38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26CC_41_001-IFP-3213	Supply	B33	L1	1	F	PBS 41 Coil Supply & Distribution	CCL2-5/CCS1-4 MS 41.L2.DC DF 3301 & 3302	TBD	#N/A	VG-0398	PI-0217	DN40	40S	SS&Cu	DN40	40S	CS	0.85	60	0.28			Non-SIC	NSC	1.5	60	0.61	31	10	0.2	10	0.2	10	0.2	5	0.17	10	0.2	10	0.2	10	0.2	5	0.17	10	0.2	10	0.2	10	0.2	5	0.17
26CC_41_001-IFP-3214	Return	B33	L1	1	F	PBS 41 Coil Supply & Distribution	CCL2-5/CCS1-4 MS 41.L2.DC DF 3301 & 3302	TBD	#N/A	VG-0403	PI-0218	DN40	40S	SS&Cu	DN40	40S	CS	0.85	60	-			Non-SIC	NSC	1.5	60	0.33	38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26CC_41_001-IFP-3215	Supply	B33	L1	1	F	PBS 41 Coil Supply & Distribution	CCL3-6/CCS2-5 MS 41.L3.DC DF 3301 & 3302	TBD	#N/A	VG-0399	PI-0219	DN40	40S	SS&Cu	DN40	40S	CS	0.85	60	0.28			Non-SIC	NSC	1.5	60	0.61	31	10	0.2	10	0.2	10	0.2	5	0.17	10	0.2	10	0.2	10	0.2	5	0.17	10	0.2	10	0.2	10	0.2	5	0.17
26CC_41_001-IFP-3216	Return	B33	L1	1	F	PBS 41 Coil Supply & Distribution	CCL3-6/CCS2-5 MS 41.L3.DC DF 3301 & 3302	TBD	#N/A	VG-0404	PI-0220	DN40	40S	SS&Cu	DN40	40S	CS	0.85	60	-			Non-SIC	NSC	1.5	60	0.33	38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26CC_41_001-IFP-2201	Supply	B32	L1	1	F	PBS 41 Coil Supply & Distribution	CCU1-4 / CCU2-5 MS 41.U1.DC DF 3201 & 3202	TBD	#N/A	VG-0425	PI-0099	DN40	40S	SS&Cu	DN40	40S	CS	0.85	60	0.28			Non-SIC	NSC	1.5	60	0.59	31	40	0.53	40	0.53	40	0.53	20	0.27	40	0.53	40	0.53	40	0.53	20	0.27	40	0.53	40	0.53	40	0.53	20	0.27
26CC_41_001-IFP-2202	Return	B32	L1	1	F	PBS 41 Coil Supply & Distribution	CCU1-4 / CCU2-5 MS 41.U1.DC DF 3201 & 3202	TBD	#N/A	VG-0431	PI-0100	DN40	40S	SS&Cu	DN40	40S	CS	0.85	60	-			Non-SIC	NSC	1.5	60	0.31	49	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26CC_41_001-IFP-2203	Supply	B32	L1	1	F	PBS 41 Coil Supply & Distribution	CCU3-6 MS 41.U2.DC DF 3201	TBD	#N/A	VG-0432	PI-1197	DN40	40S	SS&Cu	DN40	40S	CS	0.85	60	0.28			Non-SIC	NSC	1.5	60	0.59	31	10	0.1	10	0.1	10	0.1	5	0.05	10	0.1	10	0.1	10	0.1	5	0.05	10	0.1	10	0.1	10	0.1	5	0.05
26CC_41_001-IFP-2204	Return	B32	L1	1	F	PBS 41 Coil Supply & Distribution	CCU3-6 MS 41.U2.DC DF 3202	TBD	#N/A	VG-0436	PI-0089	DN40	40S	SS&Cu	DN40	40S	CS	0.85	60	-			Non-SIC	NSC	1.5	60	0.31	56	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26CC_41_001-IFP-1301	Supply	B13	L2	1	W	PBS 41 Coil Supply & Distribution	TBD	TBD	TBD	VC-1337	PI-1337	DN200	40S	SS&Cu	DN200	40S	SS	1.5	60	0.4			Non-SIC	NSC	1.5	60	0.68	31	1630	32.30	1043	22.80	1043	32.30	1043	22.80	1630	32.30	1043	22.80	1043	32.30	1043	22.80	1630	32.30	1043	22.80	1043	32.30	1043	22.80
26CC_41_001-IFP-1302	Return	B13	L2	1	W	PBS 41 Coil Supply & Distribution	TBD	TBD	TBD	VG-1338	PI-1338	DN200	40S	SS&Cu	DN200	40S	SS	1.5	60				Non-SIC	NSC	1.5	60	0.28	43																								
26CC_41_001-IFP-1303	Supply	B13	L2	1	W	PBS 41 Coil Supply & Distribution	TBD	TBD	TBD	VC-1343	PI-1343	DN200	40S	SS&Cu	DN200	40S	SS	1.5	60	0.4			Non-SIC	NSC	1.5	60	0.68	31	170	21.60	450	22.10	450	22.10	450	22.10	170	21.60	450	22.10	450	22.10	450	22.10	170	21.60	450	22.10	450	22.10	450	22.10
26CC_41_001-IFP-1304	Return	B13	L2	1	W	PBS 41 Coil Supply & Distribution	TBD	TBD	TBD	VG-1344	PI-1344	DN200	40S	SS&Cu	DN200	40S	SS	1.5	60				Non-SIC	NSC	1.5	60	0.28	33																								

Appendix B - Water Chemistry Requirements

DM water (from PBS 65) is used as make up water for CCWS-2A and also for initial filling. The quality of available water is shown in table below.

Table B.1 PBS26.CC.2A water quality

Parameter	Make up water quality	Circulating water quality
Sp. Conductivity @ 25°C, µS/cm	< 0.1	< 1
pH @ 25°C	6.5 – 7.5	6.5 – 7.5
Chloride, ppb	≤ 3	≤ 10
Iron, ppb	≤ 2	≤ 10
Silica, ppb	NA	≤ 200
Dissolved Oxygen, ppb	≤ 50	≤ 50
TOC, ppb	≤ 100	≤ 100

Appendix C - Mechanical Loads

TBD