

Appendix I

Alarms and Setpoints

		Alarms and Setpoints		Document Code 1-0101-AELI-P002	
				Revision 00	
Client City of Winnipeg					
Project NEWPCC Primary Clarification Upgrade					
Package / Area Primary Clarifiers					
Prepared By		Name T. Wilson		Signature Date 2024-11-01	
Checked By		Name Matt Kowalski		Signature Date 2024-11-01	
Approved By		Name Matt Kowalski		Signature Date 2024-11-01	
Notes / Comments				Seal	

Revisions					
Rev	Description	Date	By	Checked	Approved
00	Issued for Tender	2024-11-01	T. Wilson	Matt Kowalski	Matt Kowalski

ALARM AND SETPOINTS

Tag	Description	P&ID City #	Eng. Units	Instrument range Min	Instrument range Max	LoLo Alarm SP	Lo Alarm SP	Hi Alarm SP	HiHi Alarm SP	Alarm level
XV-P31102	FSW FROM DISTRIBUTION	1-0101-PPID-P301-001	-	-	-	-	-	-	-	
XV-P31112	SCUM TANK 1A FSW VALVE	1-0101-PPID-P301-001								
XV-P32122	SCUM TANK 1B FSW VALVE	1-0101-PPID-P301-001								
XV-P32112	P-P3211 INTAKE FSW VALVE	1-0101-PPID-P301-001								
XV-P32121	P-P3212 INTAKE FSW VALVE	1-0101-PPID-P302-001								
XV-P32132	P-P3213 INTAKE FSW VALVE	1-0101-PPID-P302-001								
FE/FIT-P33132	PRIMARY SCUM MAGNETIC FLOWMETER	1-0101-PPID-P302-001	m3/d		1200	NA	NA	NA	NA	NA
FE/FIT-P33113	TK-P3311 SCP MAGNETIC FLOWMETER	1-0101-PPID-P302-001	m3/d		500	NA	50	300	NA	3
FE/FIT-P33123	TK-P3321 SCP MAGNETIC FLOWMETER	1-0101-PPID-P302-001	m3/d		500	NA	50	300	NA	3
FE/FIT-P33133	SCUM TANK 1B RETURN MAGNETIC FLOWMETER	1-0101-PPID-P302-001	m3/d		1200	NA	200	1000	NA	3
XV-P32211	FSW FROM DISTRIBUTION	1-0101-PPID-P303-001								
XV-P32212	SCUM TANK 2 FSW VALVE	1-0101-PPID-P303-001								
XV-P32223	P-P3222 FSW VALVE	1-0101-PPID-P304-001								
XV-P32233	P-P3223 FSW VALVE	1-0101-PPID-P304-001								
XV-P35011	PROCESS DRAIN TO CONTROL CHAMBER OUTER RING	1-0101-PPID-P002-001								
XV-P35012	PROCESS DRAIN TO CONTROL CHAMBER INNER RING	1-0101-PPID-P002-001								
XV-P35021	PROCESS DRAIN TO CONTROL CHAMBER OUTER RING	1-0101-PPID-P002-001								
XV-P35022	PROCESS DRAIN TO CONTROL CHAMBER INNER RING	1-0101-PPID-P002-001								
XV-P34112	POLYMER FOR ROTARY PRESS 1	1-0101-PPID-P307-001								
XV-P34122	POLYMER FOR ROTARY PRESS 2	1-0101-PPID-P307-001								
FE/FIT-P35012	PROCESS DRAIN LIFT STATION MAGNETIC FLOWMETER	1-0101-PPID-P002-001	m3/d		2000	NA	NA	1200	NA	3
FE/FIT-P35022	PROCESS DRAIN LIFT STATION MAGNETIC FLOWMETER	1-0101-PPID-P002-001	m3/d		2000	NA	NA	1200	NA	3
DIT-P33130	DENSITY TRANSMITTER BEFORE DEWATERING UNIT 1	1-0101-PPID-P305-001	%		50	NA	0.5	5	NA	3
DIT-P33230	DENSITY TRANSMITTER BEFORE DEWATERING UNIT 2	1-0101-PPID-P306-001	%		50	NA	0.5	5	NA	3
LE/LIT-P31111	SCUM TANK 1A ULTRASONIC LEVEL SENSOR	1-0101-PPID-P301-001	m		2.5	0.4	0.5	1.5	2	LoLo and HiHi P2, Lo and Hi P3
LE/LIT-P31121	SCUM TANK 1B ULTRASONIC LEVEL SENSOR	1-0101-PPID-P301-001	m		2.5	0.4	0.5	1.5	2	LoLo and HiHi P2, Lo and Hi P3
LE/LIT-P32111	SCUM TANK 2 ULTRASONIC LEVEL SENSOR	1-0101-PPID-P303-001	m		4	0.4	0.5	3	3.5	LoLo and HiHi P2, Lo and Hi P3
WE/WT-P34131	LOADING BAY LOAD CELL 1	1-0101-PPID-P305-001	kg		40,000	NA	NA	3000	4000	LoLo and HiHi P2, Lo and Hi P3
WE/WT-P34231	LOADING BAY LOAD CELL 3	1-0101-PPID-P306-001	kg		40,000	NA	NA	3000	4000	LoLo and HiHi P2, Lo and Hi P3
PIT-P32111	P-P32110 DISCHARGE PRESSURE SENSOR	1-0101-PPID-P301-001	psi		100	NA	NA	50	60	
PIT-P32121	P-P3212 DISCHARGE PRESSURE TRANSMITTER	1-0101-PPID-P302-001	psi		100	NA	NA	50	60	
PIT-P32131	P-P3213 DISCHARGE PRESSURE TRANSMITTER	1-0101-PPID-P302-001	psi		100	NA	NA	50	60	
PIT-P32211	P-P3221 DISCHARGE PRESSURE TRANSMITTER	1-0101-PPID-P303-001	psi		100	NA	NA	50	60	
PIT-P32221	P-P3222 DISCHARGE PRESSURE TRANSMITTER	1-0101-PPID-P304-001	psi		100	NA	NA	50	60	
PIT-P32231	P-P3223 DISCHARGE PRESSURE TRANSMITTER	1-0101-PPID-P304-001	psi		100	NA	NA	50	60	
LE/LIT-P35012	PROCESS DRAIN LIFT STATION ULTRASONIC LEVEL SENSOR	1-0101-PPID-P002-001	m		2	0.4	0.5	1	1.5	LoLo and HiHi P2, Lo and Hi P3
PIT-P51114	FOUL AIR FANS INTAKE PRESSURE TRANSMITTER	1-0101-PPID-P501-001								
XV-P31101	SCUM TANK 1A 1B SCP VALVE	1-0101-PPID-P301-001								
XV-P31113	SCUM TANK 1A VALVE	1-0101-PPID-P301-001								
XV-P31123	SCUM TANK 1B VALVE	1-0101-PPID-P301-001								
XV-P33111	SCP VALVE	1-0101-PPID-P302-001								
XV-P33121	SCP VALVE	1-0101-PPID-P302-001								
XV-P33131	PRIMARY SCUM CONTROL VALVE	1-0101-PPID-P302-001								
FV-P33121	SCP VALVE	1-0101-PPID-P302-001								
FV-P33112	TK-P3311 SCP FLOW CONTROL VALVE	1-0101-PPID-P302-001								
FV-P33122	TK-P3321 SCP FLOW CONTROL VALVE	1-0101-PPID-P302-001								
XV-P33131	SCUM TANK 1B RETURN VALVE	1-0101-PPID-P302-001								
XV-P32222	SCUM TANK 1A RETURN VALVE	1-0101-PPID-P304-001								
XV-P32232	SCP VALVE	1-0101-PPID-P304-001								
PSL-P01103	P-0110 LOW PRESSURE SWITCH	1-0101-AILD-P001-001	psi		120					
PSL-P01203	P-0120 LOW PRESSURE SWITCH	1-0101-AILD-P001-001	psi		120					
XV-P11110	PRIMARY CLARIFIER 1 VALVE	1-0101-PPID-P102-001								
XV-P11210	PRIMARY CLARIFIER 2 VALVE	1-0101-PPID-P102-001								
XV-P11310	PRIMARY CLARIFIER 3 VALVE	1-0101-PPID-P102-001								
ZS-P11111	PRIMARY CLARIFIER 1 LIMIT SWITCH	1-0101-PPID-P102-001								
ZS-P11211	PRIMARY CLARIFIER 2 LIMIT SWITCH	1-0101-PPID-P102-001								

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Tag	Description	P&ID City #	Eng. Units	Instrument range Min	Instrument range Max	LoLo Alarm SP	Lo Alarm SP	Hi Alarm SP	HiHi Alarm SP	Alarm level
ZS-P11311	PRIMARY CLARIFIER 3 LIMIT SWITCH	1-0101-PPID-P102-001								
XV-P33112	FLUSH WATER FROM DISTRIBUTION	1-0101-PPID-P305-001								
XV-P33222	FLUSH WATER FROM DISTRIBUTION	1-0101-PPID-P306-001								
LSHH-P35003	PROCESS DRAIN LIFT STATION HIGH HIGH LEVEL SWITCH	1-0101-PPID-P002-001	see above							
XV-P34144	W2 FROM DISTRIBUTION	1-0101-PPID-P307-001								
FAD-P78501	FAN ROOM SMOKE DETECTOR									
FAD-P78502	BASEMENT SMOKE DETECTOR									
FAD-P78503	ELECTRICAL ROOM SMOKE DETECTOR									
FAD-P78551	ELECTRICAL ROOM HEAT DETECTOR									
FAD-P78504	LOADING BAY SMOKE DETECTOR A									
FAD-P78505	LOADING BAY SMOKE DETECTOR B									
FAD-P78506	LOADING BAY SMOKE DETECTOR C									
FAD-P78507	LOADING BAY SMOKE DETECTOR D									
FAD-P78508	MECHANICAL ROOM SMOKE DETECTOR									
FAD-P78509	STAIR 2-202 SMOKE DETECTOR									
FAD-P78510	DEWATERING UNIT 1 SMOKE DETECTOR									
FAD-P78511	DEWATERING UNIT 2 SMOKE DETECTOR									
GDC-P69010	GAS DETECTOR CONTROLLER									
AIT-P69011	H2S GAS DETECTOR FANS ROOM									
AIT-P69012	H2S GAS DETECTOR EAST LOADING BAY									
AIT-P69013	H2S GAS DETECTOR WEST LOADING BAY									
AIT-P69014	LEL GAS DETECTOR LOADING BAY									
AIT-P69015	CO GAS DETECTOR LOADING BAY									
AIT-P69016	H2S GAS DETECTOR SECOND LEVEL									
TT-P67000	OUTDOOR TEMPERATURE	1-0101-MPID-P601-001	C°	-40	40	-	-	-	-	
LSL-P66911	FDR-P6691 LEVEL SWITCH LOW	1-0101-MPID-P601-001								
PIT-P66004	HV-P6630-B PRESSURE SENSOR	1-0101-MPID-P601-001								
TT-P66005	HV-P6630-B TEMPERATURE SENSOR	1-0101-MPID-P601-001	C°	0	110		50	100		
TT-P66001	HYDRONIC HWS FROM PRIMARIES TEMP SENSOR	1-0101-MPID-P601-001	C°	0	110		60	105		
TV-P66002	HYDRONIC HWS FROM PRIMARIES MOD VALVE	1-0101-MPID-P601-001	%	0	100					
TT-P66003	HOT WATER CIRCULATION PUMP TEMP SENSOR	1-0101-MPID-P601-001	C°	0	110		60	105		
TSL-P66512	FAN ROOM B-003 UH-P6651 TEMP SWITCH LOW	1-0101-MPID-P601-002								
UH-P6651	FAN ROOM B-003 UNIT HEATER P6651	1-0101-MPID-P601-002								
TT-P66513	FAN ROOM B-003 TEMP SENSOR	1-0101-MPID-P601-002	C°	0	50	5	8	40	45	LoLo and HiHi P2, Lo and Hi P3
XV-P66511	FAN ROOM B-003 UH-P6651 ON/OFF VALVE	1-0101-MPID-P601-002								
TSL-P66522	FAN ROOM B-003 UH-P6652 TEMP SWITCH LOW	1-0101-MPID-P601-002								
UH-P6652	FAN ROOM B-003 UNIT HEATER P6652	1-0101-MPID-P601-002								
XV-P66521	FAN ROOM B-003 UH-P6652 ON/OFF VALVE	1-0101-MPID-P601-002								
TSL-P66702	STAIRS B-001 HTR-P6670 TEMP SWITCH LOW	1-0101-MPID-P601-002								
HTR-P6670	STAIRS B-001 HEATER P6670	1-0101-MPID-P601-002								
XV-P66701	STAIRS B-001 HTR-P6670 ON/OFF VALVE	1-0101-MPID-P601-002								
TSL-P66502	B-002 UH-P6650 TEMP SWITCH LOW	1-0101-MPID-P601-002								
UH-P6650	B-002 UNIT HEATER P6650	1-0101-MPID-P601-002								
TT-P66503	B-002 TEMP SENSOR	1-0101-MPID-P601-002	C°	0	50	5	8	40	45	LoLo and HiHi P2, Lo and Hi P3
XV-P66501	B-002 UH-P6651 ON/OFF VALVE	1-0101-MPID-P601-002								
TSL-P66532	POLYMER ROOM M-103 UH-P6653 TEMP SWITCH LOW	1-0101-MPID-P601-002								
UH-P6653	POLYMER ROOM M-103 UNIT HEATER P6653	1-0101-MPID-P601-002								
TT-P66533	POLYMER ROOM M-103 TEMP SENSOR	1-0101-MPID-P601-002	C°	0	50	5	8	40	45	LoLo and HiHi P2, Lo and Hi P3
XV-P66531	POLYMER ROOM M-103 UH-P6653 ON/OFF VALVE	1-0101-MPID-P601-002								
UH-P6654	POLYMER ROOM M-103 UNIT HEATER P6654	1-0101-MPID-P601-002								
TSL-P66542	POLYMER ROOM M-103 TEMP SENSOR	1-0101-MPID-P601-002								
XV-P66541	POLYMER ROOM M-103 UH-P6654 ON/OFF VALVE	1-0101-MPID-P601-002								
TSL-P66732	STAIRS M-104 HTR-P6673 TEMP SWITCH LOW	1-0101-MPID-P601-002								
HTR-P6673	STAIRS M-104 HEATER P6673	1-0101-MPID-P601-002								
XV-P66731	STAIRS M-104 HTR-P6673 ON/OFF VALVE	1-0101-MPID-P601-002								

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Tag	Description	P&ID City #	Eng. Units	Instrument range Min	Instrument range Max	LoLo Alarm SP	Lo Alarm SP	Hi Alarm SP	HiHi Alarm SP	Alarm level
TSL-P66712	STAIRS M-101 HTR-P6671 TEMP SWITCH LOW	1-0101-MPID-P601-002								
HTR-P6671	STAIRS M-101 HEATER P6671	1-0101-MPID-P601-002								
XV-P66711	STAIRS M-101 HTR-P6673 ON/OFF VALVE	1-0101-MPID-P601-002								
TSL-P66722	STAIR 2-201 HTR-P6672 TEMP SWITCH LOW	1-0101-MPID-P601-003								
HTR-P6672	STAIR 2-201 UNIT HEATER P6672	1-0101-MPID-P601-003								
TT-P66723	STAIR 2-201 TEMP SENSOR	1-0101-MPID-P601-003	C°	0	50	5	8	40	45	LoLo and HiHi P2, Lo and Hi P3
XV-P66721	STAIR 2-201 UH-P6653 ON/OFF VALVE	1-0101-MPID-P601-003								
TSL-P66552	LOADING BAY M-100 UH-P6655 TEMP SWITCH LOW	1-0101-MPID-P601-003								
UH-P6655	LOADING BAY M-100 UNIT HEATER P6655	1-0101-MPID-P601-003								
TT-P66553	LOADING BAY M-100 TEMP SENSOR	1-0101-MPID-P601-003	C°	0	50	5	8	40	45	LoLo and HiHi P2, Lo and Hi P3
XV-P66551	LOADING BAY M-100 UH-P6651 ON/OFF VALVE	1-0101-MPID-P601-003								
TSL-P66562	LOADING BAY M-100 UH-P6656 TEMP SWITCH LOW	1-0101-MPID-P601-003								
UH-P6656	LOADING BAY M-100 UNIT HEATER P6656	1-0101-MPID-P601-003								
XV-P66561	LOADING BAY M-100 UH-P6656 ON/OFF VALVE	1-0101-MPID-P601-003								
TSL-P66742	STAIR 2-203 UH-P6674 TEMP SWITCH LOW	1-0101-MPID-P601-003								
HTR-P6674	STAIR 2-203 UNIT HEATER P6674	1-0101-MPID-P601-003								
TT-P66743	STAIR 2-203 TEMP SENSOR	1-0101-MPID-P601-003	C°	0	50	5	8	40	45	LoLo and HiHi P2, Lo and Hi P3
XV-P66741	STAIR 2-203 HTR-P6674 ON/OFF VALVE	1-0101-MPID-P601-003								
TSL-P66572	DEWATERING 2-200 UH-P6657 TEMP SWITCH LOW	1-0101-MPID-P601-003								
UH-P6657	DEWATERING 2-200 UNIT HEATER P6657	1-0101-MPID-P601-003								
TT-P66572	DEWATERING 2-200 TEMP SENSOR	1-0101-MPID-P601-003	C°	0	50	5	8	40	45	LoLo and HiHi P2, Lo and Hi P3
XV-P66571	DEWATERING 2-200 UH-P6657 ON/OFF VALVE	1-0101-MPID-P601-003								
TSL-P66582	DEWATERING 2-200 UH-P6658 TEMP SWITCH LOW	1-0101-MPID-P601-003								
UH-P6658	DEWATERING 2-200 UNIT HEATER P6658	1-0101-MPID-P601-003								
XV-P66581	DEWATERING 2-200 UH-P6658 ON/OFF VALVE	1-0101-MPID-P601-003								
TSL-P66592	MECH ROOM 2-202 UH-P6659 TEMP SWITCH LOW	1-0101-MPID-P601-003								
UH-P6659	MECH ROOM 2-202 UNIT HEATER P6659	1-0101-MPID-P601-003								
TT-P66593	MECH ROOM 2-202 TEMP SENSOR	1-0101-MPID-P601-003	C°	0	50	5	8	40	45	LoLo and HiHi P2, Lo and Hi P3
XV-P66591	MECH ROOM 2-202 UH-P6659 ON/OFF VALVE	1-0101-MPID-P601-003								
FSL-P51201	EEWS FLOW SWITCH LOW									
FSL-P51101	EEW FLOW SWITCH LOW									
LSH-P52001	SCALE PIT SUMP LOW SWITCH LEVEL									
XV-P61001	SF-P6101 ON/OFF VALVE									
XV-P61002	EF-P6102 ON/OFF VALVE									
FIT-P61004	SF-P6101 FLOW METER		L/s	0	6000		2000	5500		
TT-P61005	SF-P6101 TEMPERATURE SENSOR		C°	0	50	5	8	40	45	LoLo and HiHi P2, Lo and Hi P3
DPT-P61007	LOAD BAY - OUTSIDE AIR DIFF PRESSURE TRANSMITTER		Pa	-250	250	-75	-50	-10	0	
TV-P61006	AHU-P6100 GLYCOL FLOW MODULATING VALVE		%	0	100					
XV-P62001	SF-P6201 ON/OFF VALVE									
XV-P62002	EF-P6202 ON/OFF VALVE									
TV-P62004	AHU-P6200 GLYCOL TEMPERATURE MODULATING VALVE		%	0	100					
TT-P63005	SF-P6300 TEMPERATURE TRANSMITTER		C°	0	50	5	8	40	45	LoLo and HiHi P2, Lo and Hi P3
TV-P63004	AHU-P6300 GLYCOL TEMPERATURE MODULATING VALVE		%	0	100					
DPT-P64007	ELEC ROOM - OUTSIDE AIR DIFF PRESSURE TRANSMITTER		Pa	-250	250	0	10	50	75	
TV-P64006	AHU-P6400 GLYCOL TEMPERATURE MODULATING VALVE		%	0	100					
TT-P64005	SF-P6400 TEMPERATURE TRANSMITTER		C°	0	40	5	8	30	35	LoLo and HiHi P2, Lo and Hi P3
TT-P64009	ELECT ROOM TEMP SENSOR		C°	0	40	5	8	30	35	LoLo and HiHi P2, Lo and Hi P3
PV-P64008	ELECT ROOM PRESSURE VALUE		%	0	100					
ZSC-P91010	XD-94134 LOADING BAY SOUTH OVERHEAD DOOR CLOSED									
ZSC-P91020	XD-94234 LOADING BAY SOUTH OVERHEAD DOOR CLOSED									
ZSC-P91030	M-103 POLYMER ROOM WEST OVERHEAD DOOR CLOSED									
ZSC-P92010	M-100 LOADING BAY SOUTH MAN DOOR CLOSED									
ZSC-P92020	M-101 LOADING BAY DEWAT WEST STAIRWELL DOOR 1 CLOSED									
ZSC-P92030	M-103 POLMER ROOM WEST DOOR CLOSED									
ZSC-P92040	M-100 LOADING BAY EAST DOOR CLOSED									

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