

PIP-II F37 Low Conductivity Water (LCW) System Instrumentation Specification

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Document Approval

Signatures Required	Date Approved
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Revision History

Revision	Date of Release	Description of Change
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Table of Contents

1. Purpose.....4

2. Acronyms.....**Error! Bookmark not defined.**

3. Reference Documents4

4. Topic 1**Error! Bookmark not defined.**

5. Topic 2**Error! Bookmark not defined.**

6. Conclusion**Error! Bookmark not defined.**

1. Purpose

This document is part of the Proton Improvement Plan-II (PIP-II) Building Infrastructure procurement package for the Low Conductivity Water (LCW) System. It contains a detailed description of the instrumentation and process filters that will be procured and installed in the F37 Pump Room portion of the PIP-II LCW System. This document can be found in Teamcenter under #ED0042585.

2. Reference Documents

#	Reference	Document #
1	P&ID's (for reference only)	F10151066 SH01/SH02
2	2D installation drawings	F10170043

3. Equipment Specification for Linac Gallery

Item	Requirement Statement	Quantity
Differential Pressure Switch	- Ashcroft B Series - Pipe Size: ¼" FNPT - Epoxy coated aluminum enclosure 30IW - 10 psi setpoint	3
Differential Pressure Gage	- Part Number: Ashcroft Model 45-1127-SD-02-L-XSG-15# 4-1/2" Dial 316SS Process Connection ¼" Male NPT 0-15 psig gage	3
Flow Transmitter	- ROSEMOUNT 8800 REDUCER VORTEX FLOW METER, 2 INCH (DN50) - Part Number 8800DR020SA1N1D1M5	1
Flow Transmitter	- ROSEMOUNT 8800 REDUCER VORTEX FLOW METER, 6 INCH (DN150) - Part Number 8800DR060SA1N1D1M5	1
Flow Transmitter	- ROSEMOUNT 8705 FLANGED MAGNETIC FLOW METER SENSOR, 6 INCH (DN150) - Part Number 8705TSA060C1M0 - ROSEMOUNT 8732E MAGNETIC FLOW METER TRANSMITTER - Part Number 8732EMR1A1M4	1

Dissolved Oxygen Sensor	• Metler Toledo #58037407 • 5-1000 ml/min sample rate • 0-10,000 ppb range	3
Level Transmitter	• Kodiak Controls Sure Site • Type BA connection • Plastic Flag Material • Stainless Housing and Float Material • S5 Side Connection, weld neck flange • Length of Indication – 48" • 4-20MA signal output – loop powered	1
Conductivity Meter	• Metler Toledo #58031404 • 1.34" Insertion Length • 0.02 – 50,000 $\mu\text{s}/\text{CM}$ • .1 Titanium Cell Construction	2
Pressure Transmitter	• Noshok 100 Series • 0-200 psi	10
Pressure Gage	• McMaster Carr Part Number 9880T23 • High-Clarity Vibration-Resistant Pressure Gauge with Seal • Stainless Steel $\frac{1}{4}$" NPT Male Bottom Connection • 4-1/2" Dial • 0-200 PSI	15
Temperature Transmitter	• Reotemp RTD including stainless steel thermowell • 100 ohm 3-wire with 4" dial	6
Particulate Filter - F1	• Parker Model #4LFE6-3-3F-SS with 0.5-micron cartridge	1
Particulate Filter – F2	• Parker FULFLO® BSSB Single Cartridge Filter Vessel, Part# 100837 with 20-micron cartridge	1
Particulate Filter – F3	• 6", Keckley Model SGFV, carbon steel body, single basket Strainer, with .125" basket	1