TENNESSEE VALLEY AUTHORITY

1101 Market Street, Chattanooga, Tennessee 37402

CNL-26-049

June 15, 2026

10 CFR 50.55a

ATTN: Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

Watts Bar Nuclear Plant, Unit 1 and Unit 2
Facility Operating License Nos. NPF-90 and NPF-96
NRC Docket Nos. 50-390 and 50-391

Subject: **Watts Bar Nuclear Plant, Units 1 and 2 Inservice Testing Proposed Alternative Request RR-10 in Accordance with 10 CFR 50.55a(z)(2)**

Reference: TVA Letter to NRC, CNL-26-014, "Sequoyah Nuclear Plant, Units 1 and 2 and Watts Bar Nuclear Plant, Units 1 and 2 - Alternative and Relief Requests for the Next Inservice Testing Intervals," dated April 15, 2026 (ML26105A760)

In accordance with the provisions of Title 10 of the *Code of Federal Regulations* (10 CFR) 50.55a(z)(2), "Codes and Standards - Alternatives to codes and standards requirements," Tennessee Valley Authority (TVA) hereby requests Nuclear Regulatory Commission (NRC) approval of an alternative to the requirements of the American Society of Mechanical Engineers (ASME) Operation and Maintenance of Nuclear Power Plants (OM Code), 2004 Edition through 2006 Addenda, for the Watts Bar Nuclear Plant (WBN), Units 1 and 2.

Enclosure 1 to this submittal contains a proposed alternative to defer the inservice testing (IST) of specific WBN Units 1 and 2 pumps and valves in the essential raw cooling water (ERCW), chemical volume and control system (CVCS), and component cooling system (CCS), as shown in Section I of Enclosure 1. As noted in Enclosure 1, the basis for this alternative request is the degradation of the number 1 seal for the WBN Unit 2, reactor coolant pump (RCP) 2-2. The duration of this one-time alternative request is described in Section VI of Enclosure 1.

In support of this alternative request, Enclosure 2 provides system drawings for the ERCW, CVCS, and CCS systems, and Enclosure 3 provides performance trend data for components.

Enclosure 1, Section IV, explains how testing of the affected components would result in an undue hardship or unusual difficulty without a compensating increase in the level of quality and safety pursuant to 10 CFR 50.55a(z)(2). Specifically, testing of the affected components while at power could adversely impact the number 1 seal for RCP 2-2, which could subsequently result in an unscheduled shutdown of WBN Unit 2. This would challenge safety systems, result in unnecessary dose for plant personnel, and result in an extended loss of the WBN Unit 2 baseload generation capacity during a time of year when power demand is greatest.

TVA is currently planning to replace the number 1 seal for RCP 2-2 during the upcoming WBN Unit 2 Cycle 7 refueling outage (U2R7) scheduled for November 2026 with a planned 28-day outage duration. The testing of the components listed in Section I of Enclosure 1 is requested to be deferred so that testing can be completed before generator synchronization to the grid following U2R7 refueling outage, which is planned before the current end date of the WBN IST interval.

The proposed alternative request will allow deferral of the surveillances for the affected components, as shown in Section I and V of Enclosure 1, until the U2R7 refueling outage. As shown in Section V of Enclosure 1, the earliest due date for the components listed in Section I of the enclosure is July 3, 2026. Therefore, TVA requests NRC approval authorization of the proposed alternative by July 2, 2026. If WBN Unit 2 experiences a forced outage prior to U2R7, TVA will assess whether the number 1 seal for RCP 2-2 can be successfully replaced, depending on the plant conditions, without jeopardizing the health and safety of plant personnel.

There are no new regulatory commitments associated with this request. Please address any questions regarding this request to Amber V. Aboulfaida, Senior Manager, Fleet Licensing, at avaboulfaida@tva.gov.

Respectfully,

Fegley, Damon Allan
Digitally signed by Fegley, Damon Allan
Date: 2026.06.15 16:15:30 -04'00'

Damon A. Fegley
General Manager, Nuclear Regulatory Affairs & Emergency Preparedness

Enclosures:

1. Proposed Alternative Request RR-10 for Watts Bar Nuclear Plant, Units 1 and 2
2. System Drawings for Essential Raw Cooling Water System, Chemical Volume and Control System, and Component Cooling System
3. Performance Trend Data

cc (Enclosures):

NRC Regional Administrator - Region II
NRC Senior Resident Inspector - Watts Bar Nuclear Plant
NRC Project Manager - Watts Bar Nuclear Plant

Enclosure 1

Proposed Alternative Request RR-10 for Watts Bar Nuclear Plant, Units 1 and 2

I. American Society of Mechanical Engineers (ASME) Code Component(s) Affected

The number of components associated with each system, for which an alternative is requested, is summarized in Table 1 and further described in Tables 2 and 3.

Table 1
Components by System

Components	Essential Raw Cooling Water (ERCW)	Chemical and Volume Control System (CVCS)	Component Cooling System (CCS)
Pumps	4	2	2
Valves	46	4	6

Table 2
Pumps as Described in the WBN IST Program

Site/Unit	Pump ID	Pump Description	Pump Type	Code Class	OM Group	Test Type and Frequency
ERCW						
Watts Bar (WBN) Unit 1 and 2	0-PMP-67-28	ERCW Pump A-A	Vertical Line Shaft	3	A	Quarterly Group A Test
WBN Unit 1 and 2	0-PMP-67-32	ERCW Pump B-A	Vertical Line Shaft	3	A	Quarterly Group A Test
WBN Unit 1 and 2	0-PMP-67-36	ERCW Pump C-A	Vertical Line Shaft	3	A	Quarterly Group A Test
WBN Unit 1 and 2	0-PMP-67-40	ERCW Pump D-A	Vertical Line Shaft	3	A	Quarterly Group A Test
CVCS						
WBN Unit 2	2-PMP-62-108-A	CENTRIFUGAL CHARGING PUMP 2A-A	Centrifugal Horizontal	2	A	Quarterly Group A Test
WBN Unit 2	2-PMP-62-104-B	CENTRIFUGAL CHARGING PUMP 2B-B	Centrifugal Horizontal	2	A	Quarterly Group A Test
CCS						
WBN Unit 2	2-PMP-70-59-A	CCS PUMP 2A-A	Centrifugal Horizontal	3	A	Quarterly Group A Test
WBN Unit 2	2-PMP-70-33-B	CCS PUMP 2B-B	Centrifugal Horizontal	3	A	Quarterly Group A Test

Table 3
Valves as Described in the WBN IST Program

ERCW						
Site/Unit	**Component ID**	**Component Description**	**Valve Actuator/Type**	**OM Code Class**	**OM Category**	**Test Type and Frequency**
WBN Unit 1 and 2	0-FCV-67-205	STA AIR COMPR ERCW SUP HDR 1A ISOL	Motor Operated (MO)/Butterfly (BF)	3	B	Quarterly Stroke Time Close (QSTC)
WBN Unit 1 and 2	0-CKV-67-502A	ERCW PUMP A-A AIR VENT LINE CHECK	Self Actuated (SA)/Check (CK)	3	C	Quarterly Check Valve Close Exercise Test (QCVC) and Quarterly Check Valve Open Exercise Test (QCVO)
WBN Unit 1 and 2	0-CKV-67-502B	ERCW PUMP B-A AIR VENT LINE CHECK	SA/CK	3	C	QCVC and QCVO
WBN Unit 1 and 2	0-CKV-67-502C	ERCW PUMP C-A AIR VENT LINE CHECK	SA/CK	3	C	QCVC and QCVO
WBN Unit 1 and 2	0-CKV-67-502D	ERCW PUMP D-A AIR VENT LINE CHECK	SA/CK	3	C	QCVC and QCVO
WBN Unit 1 and 2	0-CKV-67-503A	ERCW PUMP A-A DISCH CHECK	SA/CK	3	C	QCVC and QCVO
WBN Unit 1 and 2	0-CKV-67-503B	ERCW PUMP B-A DISCH CHECK	SA/CK	3	C	QCVC and QCVO
WBN Unit 1 and 2	0-CKV-67-503C	ERCW PUMP C-A DISCHARGE CHECK	SA/CK	3	C	QCVC and QCVO
WBN Unit 1 and 2	0-CKV-67-503D	ERCW PUMP D-A DISCH CHECK	SA/CK	3	C	QCVC and QCVO
WBN Unit 1	1-CKV-67-508A	DG HX 1A1/1A2 ERCW SUP HDR 1A CHECK	SA/CK	3	C	Condition Monitoring Quarterly Open Exercise Test (CM-O)[1]
WBN Unit 2	2-CKV-67-508A	DG HX 2A1/2A2 ERCW SUP HDR 1A CHECK	SA/CK	3	C	CM-O[1]

[1] The check valve condition monitoring plan credits quarterly verification of check valve full exercise open with flow because flow rate data is readily available when the associated MOV (1/2-FCV-67-66) quarterly stroke time open test is performed by the 1/2-SI-67-907-A procedures. This activity is performed more frequently than the disassembly and inspection activity necessary to demonstrate the bi-directional close function of the check valve. The disassembly and inspection activity is not part of this request for alternative.

Table 3
Valves as Described in the WBN IST Program

ERCW						
Site/Unit	**Component ID**	**Component Description**	**Valve Actuator/Type**	**OM Code Class**	**OM Category**	**Test Type and Frequency**
WBN Unit 1	1-FCV-67-354	PENT ROOM COOLER 1A-A ERCW SUP FLOW CNTL	Air Operated (AO)/Globe (GL)	3	B	Quarterly Fail Safe Open Test (QFSO) and Quarterly Stroke Open Test (QSTO)
WBN Unit 2	2-FCV-67-354	PENT ROOM COOLER 1A-A ERCW SUP FLOW CNTL	AO/GL	3	B	QFSO and QSTO
WBN Unit 1	1-FCV-67-350	PENT ROOM COOLER 1A-A ERCW SUP FLOW CNTL	AO/GL	3	B	QFSO and QSTO
WBN Unit 2	2-FCV-67-350	PENT ROOM COOLER 2A-A ERCW SUP FLOW CNTL	AO/GL	3	B	QFSO and QSTO
WBN Unit 1	1-FCV-67-346	PENT ROOM COOLER 1A-A ERCW SUP FLOW CNTL	AO/GL	3	B	QFSO and QSTO
WBN Unit 2	2-FCV-67-346	PENT ROOM COOLER 2A-A ERCW SUP FLOW CNTL	AO/GL	3	B	QFSO and QSTO
WBN Unit 1	1-FCV-67-342	PIPE CHASE COOLER 1A-A ERCW SUP FLOW CNTL	AO/GL	3	B	QFSO and QSTO
WBN Unit 2	2-FCV-67-342	PIPE CHASE COOLER 2A-A ERCW SUP FLOW CNTL	AO/GL	3	B	QFSO and QSTO
WBN Unit 2	2-FCV-67-336	EGTS ROOM COOLER 2AA ERCW SUP FLOW CNTL	AO/GL	3	B	QFSO and QSTO
WBN Unit 1	1-FCV-67-296	UPPER CNTMT VENT CLR 1C ERCW RET ISOL	MO/Plug (PLG)	2	A	QSTC
WBN Unit 2	2-FCV-67-296	UPPER CNTMT VENT CLR 2C ERCW RET ISOL	MO/PLG	2	A	QSTC
WBN Unit 1	1-FCV-67-295	UPPER CNTMT VENT CLR 1A ERCW RET ISOL	MO/PLG	2	A	QSTC
WBN Unit 2	2-FCV-67-217	BA XFER/AFW PMP SPACE CLR 2A-A ERCW SUPPLY	AO/GL	3	B	QFSO and QSTO

Table 3
Valves as Described in the WBN IST Program

ERCW						
Site/Unit	**Component ID**	**Component Description**	**Valve Actuator/Type**	**OM Code Class**	**OM Category**	**Test Type and Frequency**
WBN Unit 1	1-FCV-67-213	SFP/TBBP SPACE CLR 1A-A ERCW SUP FLOW CNTL	AO/GL	3	B	QFSO and QSTO
WBN Unit 1	1-FCV-67-184	CSP ROOM COOLER 1A-A ERCW SUP FLOW CNTL	AO/GL	3	B	QFSO and QSTO
WBN Unit 2	2-FCV-67-184	CSP ROOM COOLER 2A-A ERCW SUP FLOW CNTL	AO/GL	3	B	QFSO and QSTO
WBN Unit 1	1-FCV-67-176	SIP ROOM COOLER 1A-A ERCW SUP FLOW CNTL	AO/GL	3	B	QFSO and QSTO
WBN Unit 2	2-FCV-67-176	SIP ROOM COOLER 2A-A ERCW SUP FLOW CNTL	AO/GL	3	B	QFSO and QSTO
WBN Unit 1	1-FCV-67-162	CCS/AFW PMP SPACE CLR 1A-A ERCW SUP FLOW CNTL	AO/GL	3	B	QFSO and QSTO
WBN Unit 1	1-FCV-67-146	CCS HX A OUTLET ERCW FLOW CNTL	MO/BF	3	B	QSTC and QSTO
WBN Unit 2	2-FCV-67-146	CCS HX B OUTLET ERCW FLOW CNTL BYP	MO/BF	3	B	QSTC and QSTO
WBN Unit 1	1-FCV-67-143	CCS HX A OUTLET ERCW FLOW CNTL BYP	MO/GL	3	B	QSTC and QSTO
WBN Unit 2	2-FCV-67-143	CCS HX B OUTLET ERCW FLOW CNTL BYP	MO/GL	3	B	QSTC and QSTO
WBN Unit 1	1-FCV-67-134	UPPER CNTMT VENT CLR 1C ERCW RET HDR ISOL	MO/PLG	2	A	QSTC
WBN Unit 2	2-FCV-67-134	UPPER CNTMT VENT CLR 1C ERCW RET HDR ISOL	MO/PLG	2	A	QSTC
WBN Unit 1	1-FCV-67-133	UPPER CNTMT VENT CLR 1C ERCW SUP HDR ISOL	MO/PLG	2	A	QSTC
WBN Unit 2	2-FCV-67-133	UPPER CNTMT VENT CLR 1C ERCW SUP HDR ISOL	MO/PLG	2	A	QSTC

Table 3 Valves as Described in the WBN IST Program						
ERCW						
Site/Unit	**Component ID**	**Component Description**	**Valve Actuator/Type**	**OM Code Class**	**OM Category**	**Test Type and Frequency**
WBN Unit 1	1-FCV-67-131	UPPER CNTMT VENT CLR 1A ERCW RET HDR ISOL	MO/PLG	2	A	QSTC
WBN Unit 1	1-FCV-67-130	UPPER CNTMT VENT CLR 1A ERCW SUP HDR ISOL	MO/PLG	2	A	QSTC
WBN Unit 1	1-FCV-67-66	DG HX 1A1/1A2 ERCW SUP HDR 1A ISOL	MO/BF	3	B	QSTO
WBN Unit 2	2-FCV-67-66	DG HX 2A1/2A2 ERCW SUP HDR 1A ISOL	MO/BF	3	B	QSTO
WBN Unit 1	1-FCV-67-9A	ERCW STRAINER 1A-A BACKWASH	MO/Ball (BA)	3	B	QSTO
WBN Unit 2	2-FCV-67-9A	ERCW STRAINER 2A-A BACKWASH	MO/BA	3	B	QSTO
WBN Unit 1	1-FCV-67-9B	ERCW STRAINER 1A-A FLUSH CONTROL	MO/BA	3	B	QSTO
WBN Unit 2	2-FCV-67-9B	ERCW STRAINER 2A-A FLUSH	MO/BA	3	B	QSTO

Table 3 Valves as Described in the WBN IST Program						
CVCS						
Site/Unit	**Component ID**	**Component Description**	**Valve Actuator/Type**	**OM Code Class**	**OM Category**	**Test Type and Frequency**
WBN Unit 2	2-CKV-62-523	CCP 2A-A MINIFLOW CHECK	SA/CK	2	A/C	QCVC and QCVO
WBN Unit 2	2-CKV-62-530	CCP 2B-B MINIFLOW CHECK	SA/CK	2	A/C	QCVC and QCVO
WBN Unit 2	2-CKV-62-525	CCP 2A-A DISCHARGE CHECK	SA/CK	2	A/C	QCVC and QCVO

Table 3
Valves as Described in the WBN IST Program

CVCS						
Site/Unit	**Component ID**	**Component Description**	**Valve Actuator/Type**	**OM Code Class**	**OM Category**	**Test Type and Frequency**
WBN Unit 2	2-CKV-62-532	CCP 2B-B DISCHARGE CHECK	SA/CK	2	A/C	QCVC and QCVO

CCS						
Site/Unit	**Component ID**	**Component Description**	**Valve Actuator/Type**	**OM Code Class**	**OM Category**	**Test Type and Frequency**
WBN Unit 2	2-FCV-70-215	SAMPLE HEAT EXCHANGER CCS INLET	MO/Gate (GA)	3	B	QSTC
WBN Unit 2	2-FCV-70-183	SAMPLE HEAT EXCHANGER CCS OUTLET	MO/GA	3	B	QSTC
WBN Unit 2	2-FCV-70-156	RHR HEAT EXCHANGER 2A CCS OUTLET	MO/BF	3	B	QSTC and QSTO
WBN Unit 1 and 2	0-FCV-70-194	SFP HEAT EXCHANGER B CCS SUPPLY	MO/BF	3	B	QSTO
WBN Unit 2	2-CKV-70-504A	CCS PUMP 2A-A DISCHARGE CHECK	SA/CK	3	C	Condition Monitoring Open and Close Test[2]
WBN Unit 2	2-CKV-70-504B	CCS PUMP 2B-B DISCHARGE CHECK	SA/CK	3	C	Condition Monitoring Open and Close Test[2]

[2] The CCS 2A-A and 2B-B pumps are cross tied such that when quarterly pump tests are performed, the check valve on discharge of tested pump is verified open and check valve on idle pump is verified closed when the tested pump is verified to meet the required flow rate. The check valve condition monitoring plan also credits non-intrusive testing of these check valves to verify open and closed positions at least once every 3 fuel cycles. However, the non-intrusive testing is not part of this request for alternative.

II. Applicable Code Edition and Addenda

ASME Operation and Maintenance of Nuclear Power Plants Code 2004 Edition through 2006 Addenda

III. Applicable Code Requirement

ISTB-3400, “Frequency of Inservice Tests,” and the associated tests described in Table ISTB-3400-1.

ISTB-3420, “Pumps In Systems Out of Service.” “For a pump in a system declared inoperable or not required to be operable, the test schedule need not be followed. Within 3 months before the system is placed in an operable status, the pump shall be tested and the test schedule followed in accordance with the requirements of this Subsection. Pumps that can only be tested during plant operation shall be tested within 1 week following plant startup.”

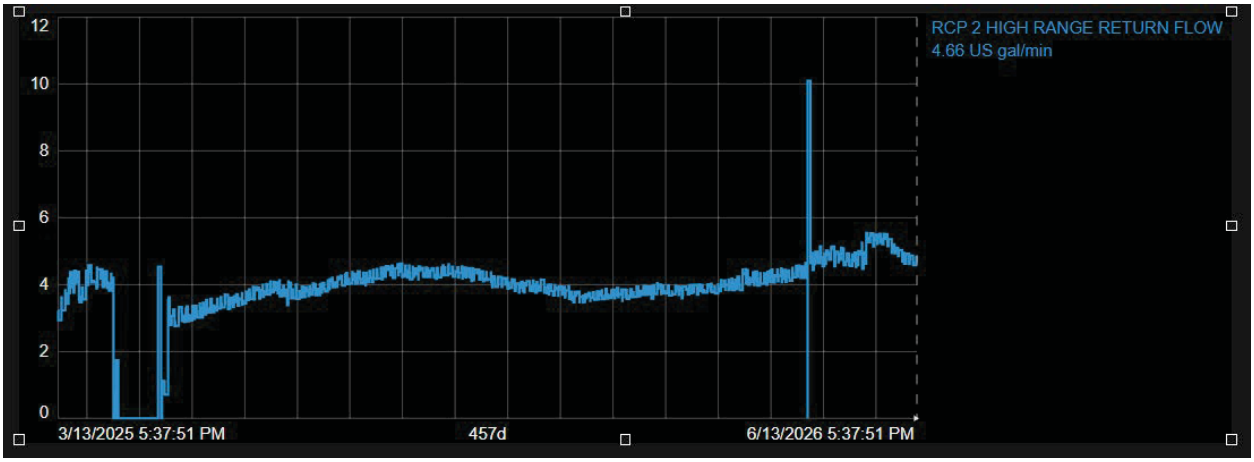
ISTC-3510, “Exercising Test Frequency.” “Active Category A, Category B, and Category C check valves shall be exercised nominally every 3 months, except as provided by ISTC-3520, ISTC-3540, ISTC-3550, ISTC-3570, ISTC-5221, and ISTC-5222.”

ISTC-3570, “Valves in Systems Out of Service.”

IV. Reason for Request

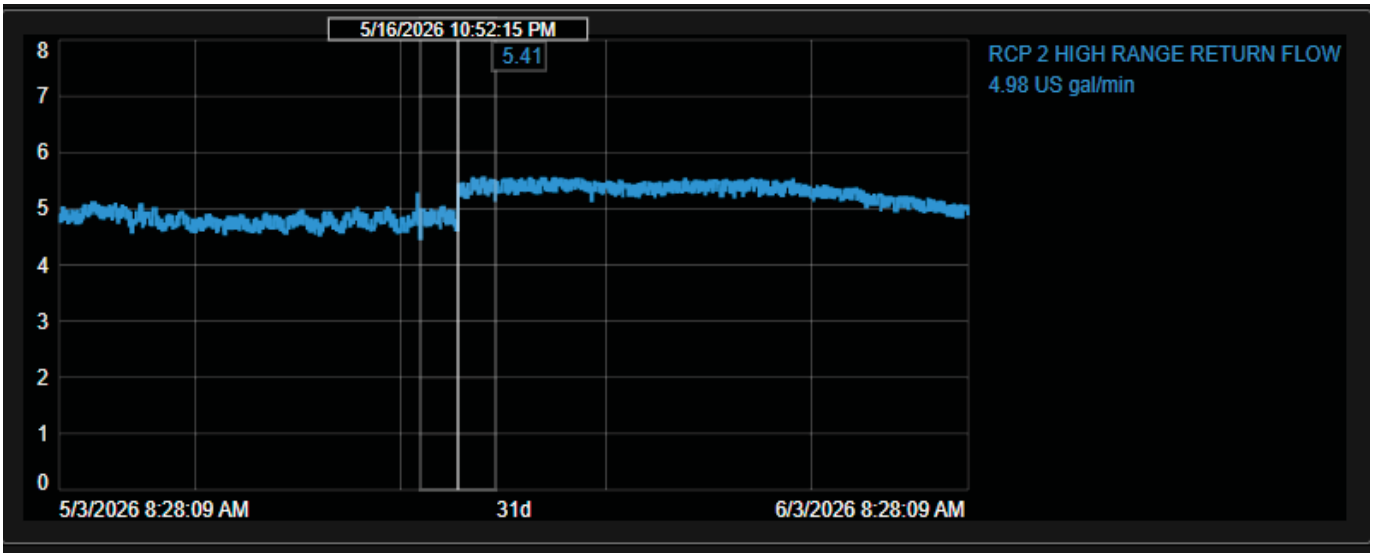
The Watts Bar Nuclear Plant (WBN), RCP 2-2, number 1 seal, has been experiencing degrading performance since startup from the previous WBN Unit 2 refueling outage in spring 2025 (U2R6). Figure 1 shows the trend for this seal. The seal is at the end of its life cycle and is scheduled for replacement in the U2R7 refueling outage scheduled for November 2026. The number 1 seal leakoff flow rate is within operating limits but is currently in the upper band. The operating band for RCP 2-2 is from 0.8 gallon per minute (gpm) to 7.0 gpm. The June 13, 2026 seal leakoff was 4.63 gpm. If the operating band is exceeded, then a complete seal replacement would be needed. This could only be completed during a unit shutdown with the reactor coolant system depressurized.

Figure 1
RCP 2-2 Number 1 Seal Leakoff – Spring 2025 to Present



Due to its degraded nature, the seal has become more sensitive to plant manipulations, which was discovered during the WBN Unit 1 Cycle 20 refueling outage in Spring 2026. Manipulations of the affected components in Section I can cause sudden perturbations within the system which in turn increase seal leakoff. See Figure 2 below for an example of one component.

Figure 2
RCP 2-2 Number 1 Seal Leakoff Affected by ERCW A-A Pump Start



Sudden flow, pressure or temperature perturbations to Train A ERCW, U2 Train A CCS and U2 CVCS have the potential to impact RCP seal temperature. As seen in Figure 2, an A train ERCW pump swap resulted in the associated ERCW system header pressure lowering by 2.5 psig. As a consequence of this pressure change, the flow to the CCS heat exchanger B was changed and thus a 10 degree Fahrenheit (°F) rise in temperature was experienced and RCP 2-2 lower bearing temperature rose by 6 °F. The corresponding change in RCP 2-2 seal leakoff was an increase of 0.8 gpm, therefore an alternative is being requested.

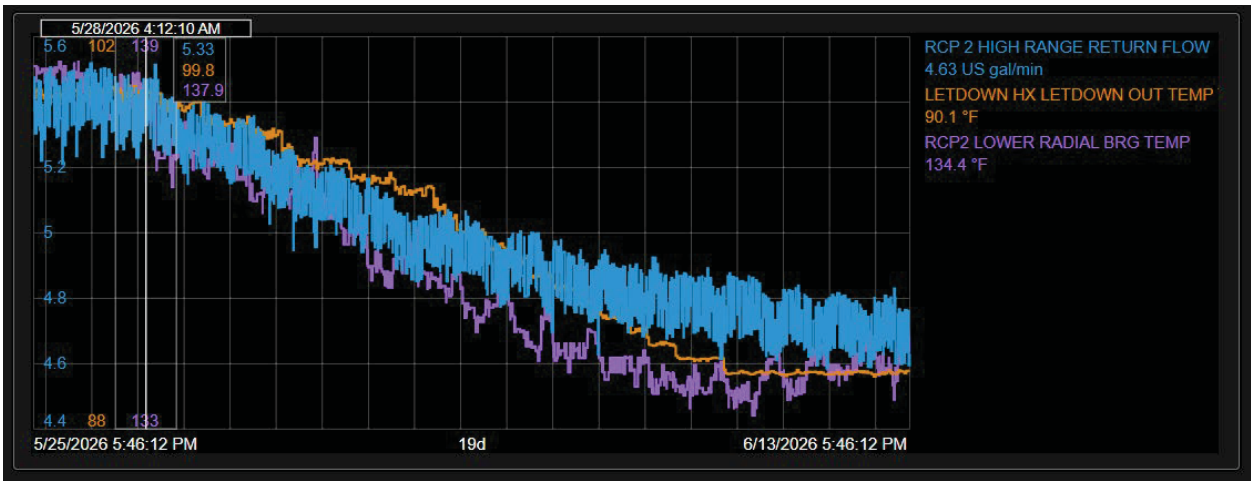
The RCP 2-2 number 1 seal degradation is documented in the corrective action program.

Drawings are provided in Enclosure 2 to illustrate the relationship between components and the RCP 2-2 seal. Examples of these system relationships include:

- ERCW and CCS are common systems supplying both Unit 1 and Unit 2, which is why some Unit 0 (common) and Unit 1 components have been identified in Section I and included in the Alternative proposed in Section V.
- Train A of the ERCW is pumped from the Tennessee River and suppled via the 2A Header to cool the B CCS Heat Exchanger.
- CCS is the intermediary system and flow is provided by the CCS pumps 2A-A and 2B-B through the B CCS Heat Exchanger and then routed to the CVCS letdown heat exchanger for cooling of CVCS.
- CVCS flow is provided by centrifugal charging pumps (CCP) 2A-A and 2B-B and is split between charging flow and RCP seal injection.

Per vendor recommendations, TVA has lowered overall CVCS letdown temperatures which has resulted in decreased seal leakoff. See Figure 3.

Figure 3
RCP 2-2 Number 1 Seal Leakoff Decline With Decrease In Letdown Temperature



WBN has achieved the target letdown temperature of 90°F and seal performance is being monitored by TVA and vendor personnel.

As the Tennessee River (ultimate heat sink) temperatures rise during the summer months, it is expected that WBN will be challenged in maintaining this lowered seal injection temperature. River temperatures normally peak in the August/September timeframe at 83-84 °F. The June 6, 2026 river temperature was 72 °F. To compensate for this expected rise in river temperature, TVA plans to install a modification to provide external cooling for a portion of the seal injection line. Industry operating experience demonstrates this method is successful in cooling seal injection and will help maintain the lower injection temperatures for WBN.

Deferring the IST of the components listed in Section I, as shown in Section V, will help avoid any sudden increases in seal injection temperature resulting from the manipulation of the identified components and will help prevent any further degradation of the RCP 2-2 number 1 seal.

Hardships Listed by Components

The list of components in Section I were selected because they can lead to transients in the RCP 2-2 number 1 seal. For example, the ERCW Train A flow path provides cooling water to the CCS Heat Exchanger B (Train 2A) which in turn provides cooling water to the CVCS Letdown Heat Exchanger that directly impacts the RCP seal injection fluid temperature. The components in these flow paths are discussed below, as grouped by surveillance instructions which manipulate the components.

0-SI-67-901-A, Essential Raw Cooling Water Train A Pumps Performance Test

Surveillance Instruction 0-SI-67-901-A performs IST testing of the Train A ERCW pumps. Per the test methodology, each pump is tested individually with the other three pumps secured. As such, each pump tested in 0-SI-67-901-A results in flow perturbations to the ERCW system similar to those observed on May 16, 2026 due to swapping pumps for testing. Additionally, 0-SI-67-901-A tests each pump air vent line check valve and each pump discharge check valve. These check valves are tested by securing pumps and/or swapping pumps. As such, these components are also included in the scope of the RFA. The components below are impacted by 0-SI-67-901-A:

- 0-PMP-67-28 ERCW PUMP A-A
- 0-PMP-67-32 ERCW PUMP B-A.
- 0-PMP-67-36 ERCW PUMP C-A
- 0-PMP-67-40 ERCW PUMP D-A.
- 0-CKV-67-502A ERCW PUMP A-A AIR VENT LINE CHECK
- 0-CKV-67-502B ERCW PUMP B-A AIR VENT LINE CHECK
- 0-CKV-67-502C ERCW PUMP C-A AIR VENT LINE CHECK
- 0-CKV-67-502D ERCW PUMP D-A AIR VENT LINE CHECK
- 0-CKV-67-503A ERCW PUMP A-A DISCH CHECK
- 0-CKV-67-503B ERCW PUMP B-A DISCH CHECK
- 0-CKV-67-503C ERCW PUMP C-A DISCH CHECK
- 0-CKV-67-503D ERCW PUMP D-A DISCH CHECK

2-SI-67-907-A, Valve Full Stroke Exercising During Plant Operation - Essential Raw Cooling Water (Train 2A)

Surveillance Instruction 2-SI-67-907-A performs IST testing of ERCW valves providing flow to Unit 2 Train A components. The test methodology for these valves involves open and closed stroke of each valve, which perturbates the ERCW flow balance and has the potential to impact component cooling temperatures leading to RCP 2-2 seal thermal transients. The components below are impacted by 2-SI-67-907-A:

- 2-FCV-67-133 UPPER CNTMT VENT CLR 1C ERCW SUP HDR ISOL
- 2-FCV-67-9A ERCW STRAINER 2A-A BACKWASH
- 2-FCV-67-9B ERCW STRAINER 2A-A FLUSH
- 2-FCV-67-134 UPPER CNTMT VENT CLR 1C ERCW RET HDR ISOL
- 2-FCV-67-217 BA XFER/AFW PMP SPACE CLR 2A-A ERCW SUPPLY
- 2-FCV-67-176 SIP ROOM COOLER 2A-A ERCW SUP FLOW CNTL
- 2-FCV-67-184 CSP ROOM COOLER 2A-A ERCW SUP FLOW CNTL
- 2-FCV-67-296 UPPER CNTMT VENT CLR 2C ERCW RET ISOL
- 2-FCV-67-342 PIPE CHASE COOLER 2A-A ERCW SUP FLOW CNTL
- 2-FCV-67-346 PENT ROOM COOLER 2A-A ERCW SUP FLOW CNTL
- 2-FCV-67-350 PENT ROOM COOLER 2A-A ERCW SUP FLOW CNTL
- 2-FCV-67-354 PENT ROOM COOLER 1A-A ERCW SUP FLOW CNTL
- 2-FCV-67-336 EGTS ROOM COOLER 2A-A ERCW SUP FLOW CNTL
- 2-FCV-67-66 DG HS 2A1/2A2 ERCW SUP HDR 1A ISOL
- 2-FCV-67-143 CCS HX B OUTLET ERCW FLOW CNTL BYP
- 2-FCV-67-146 CCS HX B OUTLET ERCW FLOW CNTL
- 2-CKV-67-508A DG HX 2A1/2A2 ERCW SUP HDR 1A CHECK

1-SI-67-907-A, Valve Full Stroke Exercising During Plant Operation - Essential Raw Cooling Water (Train A)

Surveillance Instruction 1-SI-67-907-A performs IST testing of ERCW valves providing flow to Unit 1 Train A components. Similar to 2-SI-67-907-A, the test methodology for these valves involves open and closed stroke of each valve which perturbates the ERCW flow balance. As the ERCW pumps are common to both Units 1 and 2 and the headers are cross-tied, these valve strokes also have the potential to impact component cooling temperatures leading to RCP 2-2 seal thermal transients. The components below are impacted by 1-SI-67-907-A:

- 1-FCV-67-9A ERCW STRAINER 1A-A BACKWASH
- 1-FCV-67-9B ERCW STRAINER 1A-A FLUSH CONTROL
- 1-FCV-67-130 UPPER CNTMT VENT CLR 1A ERCW SUP HDR ISOL
- 1-FCV-67-131 UPPER CNTMT VENT CLR 1A ERCW RET HDR ISOL
- 1-FCV-67-133 UPPER CNTMT VENT CLR 1C ERCW SUP HDR ISOL
- 1-FCV-67-134 UPPER CNTMT VENT CLR 1C ERCW RET HDR ISOL
- 1-FCV-67-162 CCS/AFW PMP SPACE CLR 1A-A ERCW SUP FLOW CNTL
- 1-FCV-67-176 SIP ROOM COOLER 1A-A ERCW SUP FLOW CNTL
- 1-FCV-67-184 CSP ROOM COOLER 1A-A ERCW SUP FLOW CNTL
- 1-FCV-67-213 SFP/TBBP SPACE CLR 1A-A ERCW SUP FLOW CNTL
- 1-FCV-67-295 UPPER CNTMT VENT CLR 1A ERCW RET ISOL
- 1-FCV-67-296 UPPER CNTMT VENT CLR 1C ERCW RET ISOL
- 1-FCV-67-342 PIPE CHASE COOLER 1A-A ERCW SUP FLOW CNTL
- 1-FCV-67-346 PENT ROOM COOLER 1A-A ERCW SUP FLOW CNTL
- 1-FCV-67-350 PENT ROOM COOLER 1A-A ERCW SUP FLOW CNTL
- 1-FCV-67-354 PENT ROOM COOLER 1A-A ERCW SUP FLOW CNTL
- 0-FCV-67-205 STA AIR COMPR ERCW SUP HDR 1A ISOL
- 1-FCV-67-143 CCS HX A OUTLET ERCW FLOW CNTL BYP
- 1-FCV-67-66 DG HX 1A1/1A2 ERCW SUP HDR 1A ISOL
- 1-FCV-67-146 CCS HX A OUTLET ERCW FLOW CNTL
- 1-CKV-67-508A DG HX 1A1/1A2 ERCW SUP HDR 1A CHECK

2-SI-70-901-A, Component Cooling System Pump 2A-A Quarterly Performance Test

Surveillance Instruction 2-SI-70-901-A performs IST testing of the 2A CCS pump. The 2A and 2B CCS pumps are redundant pumps utilized to provide motive force for the 2A CCS header. The test methodology for the CCS pumps requires swapping pumps, thus perturbating flow through the 2A CCS header impacting header temperature. Additionally, 2-SI-70-901-A tests the open stroke of the 2A CCS pump discharge check valve and the closure of the 2B CCS pump discharge check valve. As such, these components are also included in the scope of the RFA. The components below are impacted by 2-SI-70-901-A:

- 2-PMP-70-59-A CCS PUMP 2A-A
- 2-CKV-70-504A CCS PUMP 2A-A DISCHARGE CHECK
- 2-CKV-70-504B CCS PUMP 2B-B DISCHARGE CHECK

2-SI-70-901-B, Component Cooling System Pump 2A-A Quarterly Performance Test

Surveillance Instruction 2-SI-70-901-B performs IST testing of the 2B Component Cooling System (CCS) Pump. The 2A and 2B CCS pumps are redundant pumps utilized to provide motive force for the 2A CCS header. The test methodology for the CCS pumps requires swapping pumps, thus perturbating flow through the 2A CCS header impacting header temperature. Additionally, 2-SI-70-901-B tests the open stroke of the 2B CCS pump discharge check valve and the closure of the 2A CCS pump discharge check valve. As such, these components are also included in the scope of the RFA. The components below are impacted by 2-SI-70-901-B:

- 2-PMP-70-33-B CCS PUMP 2B-B
- 2-CKV-70-504A CCS PUMP 2A-A DISCHARGE CHECK
- 2-CKV-70-504B CCS PUMP 2B-B DISCHARGE CHECK

2-SI-70-904-A, Valve Full Stroke Exercising During Plant Operation - Component Cooling Water (Train A)

Surveillance Instruction 2-SI-70-904-A performs IST testing of CCS valves providing flow to Unit 2 Train A components. The test methodology for these valves involves open and closed stroke of each valve, which perturbates the CCS 2A header flow balance and has the potential to impact component cooling temperatures leading to RCP 2-2 seal thermal transients. The components below are impacted by 2-SI-70-904-A:

- 2-FCV-70-156 RHR HEAT EXCHANGER 2A CCS OUTLET
- 2-FCV-70-215 SAMPLE HEAT EXCHANGER CCS INLET
- 2-FCV-70-183 SAMPLE HEAT EXCHANGER CCS OUTLET
- 0-FCV-70-194 SFP HEAT EXCHANGER B CCS SUPPLY

2-SI-62-901-A, Centrifugal Charging Pump 2A-A Quarterly Performance Test

Surveillance Instruction 2-SI-62-901-A performs IST testing of the 2A CCP. The 2A and 2B CCPs are redundant pumps utilized to provide both charging flow to the reactor coolant system (RCS) as well as seal injection flow to the RCP seals. The test methodology for the CCPs requires swapping pumps, thus perturbating seal injection flow to the RCP seals. Additionally, 2-SI-62-901-A tests the open stroke of the 2A CCP discharge check valve, the open stroke of the 2A CCP mini-flow check valve, the closure of the 2B CCP discharge check valve, and closure of the 2B CCP mini-flow check valve. As such, these components are also included in the scope of the RFA. The components below are impacted by 2-SI-62-901-A:

- 2-PMP-62-108-A CENTRIFUGAL CHARGING PUMP 2A-A
- 2-CKV-62-523 CCP 2A-A MINIFLOW CHECK
- 2-CKV-62-530 CCP 2B-B MINIFLOW CHECK
- 2-CKV-62-532 CCP 2 B-B DISCHARGE CHECK
- 2-CKV-62-525 CCP 2A-A DISCHARGE CHECK

2-SI-62-901-B, Centrifugal Charging Pump 2B-B Quarterly Performance Test

Surveillance Instruction 2-SI-62-901-B performs IST testing of the 2B CCP. The 2A and 2B CCPs are redundant pumps utilized to provide both charging flow to the RCS as well as seal injection flow to the RCP seals. The test methodology for the CCPs requires swapping pumps, thus perturbating seal injection flow to the RCP seals. Additionally, 2-SI-62-901-B tests the open stroke of the 2B CCP discharge check valve, the open stroke of the 2B CCP mini-flow check valve, the closure of the 2A CCP discharge check valve, and closure of the 2A CCP mini-flow check valve. As such, these components are also included in the scope of the RFA. The components below are impacted by 2-SI-62-901-B:

- 2-PMP-62-104-B CENTRIFUGAL CHARGING PUMP 2B-B
- 2-CKV-62-523 CCP 2A-A MINIFLOW CHECK
- 2-CKV-62-530 CCP 2B-B MINIFLOW CHECK
- 2-CKV-62-532 CCP 2 B-B DISCHARGE CHECK
- 2-CKV-62-525 CCP 2A-A DISCHARGE CHECK

Discussion of Testing in Lower Plant Operational Modes

During the U2R7 refueling outage, TVA will initiate surveillance testing of the components included in this request for alternative as early in the outage as plant conditions and configuration allow. For components that perform a credited safety function in lower modes of operation, conducting IST during the outage may require system alignments or plant evolutions that introduce unnecessary operational complexity, challenge safe outage conduct, or impact the operating unit. For these components, delaying testing until suitable and stable plant conditions exist avoids undesirable configuration changes and maintains appropriate defense-in-depth. All IST testing associated with this request will be completed before exiting the refueling outage.

Below is an overview of the impacted systems and when testing could be performed.

Essential Raw Cooling Water (ERCW) Pumps (0-PMP-67-28, -32, -36, -40) and associated valves: These components provide a heat sink for residual heat removal (RHR) system during outages, which in turn provides the primary method of cooling for the RCS in Modes 4, 5, and 6. Normal outage entry conditions have the unit shut down, cooled down, and in solid plant conditions for crud burst and degasification of the RCS in preparation for refueling. Performance of ERCW pump testing, including air release check valves (0-CKV-67-502A, B, C, and D) and pump discharge check valves (0-CKV-67-503A, B, C, and D) is possible in outage conditions, however, testing early in the outage is more difficult. Testing could be performed in Mode 3 after RCP 2-2 is shutdown, and prior to starting cooldown to Mode 4. This would cause an extension to the outage of about 3 hours due to test performance time.

- Performance of this test in Mode 4 or Mode 5 results in Technical Specification (TS) Limiting Condition For Operation (LCO) 3.7.17 not being met for the first 48 hours after Mode 3 entry.
- After the first 48 hours, while in Mode 5 there are periods when this testing can be completed without a TS entry (based on the status of RCS/steam generators).
- In Mode 6 one train of ERCW is required operable with two trains required during reduced cavity level.
- Following core offload, one train of ERCW is required available for spent fuel pool cooling.

In summary for ERCW, there are various points after the first 48 hours of shutdown that the required testing can be completed while complying with TS required actions or without requiring a TS entry (for the outage unit). The best time to test would be during core offload, reload, core empty period or in Mode 5 after core reload and when the RCS has been vented and pressurized (after RCP sweeps and vents) because the core cooling requirements are least restrictive during these times. The ERCW valves in Table 3 not discussed here either generically support system operability or have no additional safety function beyond what is required online.

Component Cooling System Pumps (2-PMP-70-59-A and 33-B) and associated valves: 2A and 2B CCS pumps are part of the intermediate cooling system that directly cools the RHR system. Performing required testing (2-SI-70-901-A and B) is possible in Mode 3 after unit shutdown and shut down of the RCP 2-2. This would add approximately 2 hours to the outage.

- Testing in modes 4 and 5 in the first 48 hours is prohibited by TS 3.7.16. RHR is placed in service in Mode 4 prior to Mode 5 entry.
- For CCS, as described above for ERCW, the most ideal window to test in an outage is during the core offload, the core reload, or in the core empty period. However, opportunities exist in all modes.

In summary for CCS, there are various points after the first 48 hours of shutdown that the required testing can be completed while complying with TS required actions or without requiring a TS entry (for the outage unit).

Centrifugal Charging Pumps (2-PMP-62-108-A and 104-B) and associated valves: Charging pumps provide outage support through inventory control and boration to the RCS. (2- CKV-62-523, 530, 525, and 532).

- Performing the required charging pump tests (2-SI-62-901-A and B) is possible in Mode 3 after unit shutdown and shutdown of the RCP 2-2. This would be expected to cause about a 1-hour delay in the outage.
- Performance of this testing during cooldown in Mode 4 and Mode 5 could also be performed with a slightly longer outage delay. This is an abnormal mode and plant condition for this testing. Testing in solid plant entry is prohibited since RCS pressure control is challenged.

In summary for CVCS, there are various points after the first 48 hours of shutdown that the required testing can be completed while complying with TS required actions or without requiring a TS entry (for the outage unit).

V. Proposed Alternative and Basis for Use

The components listed in Section I of this enclosure have been identified with requirements for IST that could cause perturbations with the potential to impact the number 1 seal for RCP 2-2. The components listed in Section I do not have any other current alternative requests associated with them for the current WBN IST interval. These components can be grouped into the following Surveillance Instructions (SI).

Description	Due Date Including the Extension Allowed by ASME OM Code Case OMN-20, "Inservice Test Frequency"	Total Number of Tests for Which an Alternative is Requested	Total Number of Days from Alternative Approval to Start of Outage[3]
2-SI-70-901-B CCS Pump 2B-B Quarterly Performance Test	7/3/2026	2	126
2-SI-62-901-A Centrifugal Charging Pump 2A-A Quarterly Performance Test -CVCS	7/4/2026	2	125
2-SI-70-901-A CCS Pump 2A-A Quarterly Performance Test	7/4/2026	2	125
2-SI-70-904-A Valve Full Stroke Exercising During Plant Operation Component Cooling Water (Train A) CCS	7/4/2026	2	125
0-SI-67-901-A ERCW Train A Pumps Performance Test	7/5/2026	2	124
2-SI-62-901-B Centrifugal Charging Pump 2B-B Quarterly Performance Test - CVCS	7/11/2026	2	118
1-SI-67-907-A Valve Full Stroke Exercising During Plant Operation - ERCW (Train A)	7/23/2026	1	106
2-SI-67-907-A Valve Full Stroke Exercising During Plant Operation - ERCW (Train 2A)	8/9/2026	1	89

The second column in the table is the regulatory due date for that surveillance including the extension allowed by OMN-20. The third column in the table is the total number of tests for that surveillance until the U2R7 refueling outage, for which an alternative is being requested. The fourth column is the total number of days for which an alternative is required.

TVA is proposing this alternative request pursuant to Title 10 of the *Code of Federal Regulations* 50.55a(z)(2), "Compliance with the specified requirements of this section would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety." As discussed in Section IV of this alternative request, testing of the components listed in Section I of this enclosure could adversely impact the number 1 seal for RCP 2-2, which could subsequently result in an unscheduled shutdown of WBN Unit 2. This would challenge safety systems, result in unnecessary dose for plant personnel, and result in an extended loss

[3] This column is based on the projected start date of the U2R7 outage.

of the WBN Unit 2 baseload generation capacity during a time of year when power demand is greatest.

TVA will perform increased vibration monitoring of the ERCW, CCP, and CCS pumps that are in operation as a means to identify unexpected degradation. Any step change in pump vibrations that could indicate abnormal performance characteristics for the bearings and/or impellers of the associated pumps will be investigated. Pump vibration monitoring is non-intrusive and can be completed without impacting the pump operation. In the event that a pump, within the scope of this alternative request, becomes inoperable during the alternative request period, actions will be taken to minimize impact to the RCP 2-2 seal in accordance with plant procedures. Any corrective actions will include post maintenance testing required to return the pump to operable status.

In the event that a valve, within the scope of this alternative request, becomes inoperable during the alternative request period, actions will be taken to minimize impact to the RCP 2-2 seal in accordance with plant procedures. Any corrective actions will include post maintenance testing required to return the valve to operable status.

Review of historical test data of components listed in Section I, as summarized in Enclosure 3, identified no adverse trends that would indicate that the components would not be able to perform their functions for the duration of the alternative request period. Test data for some components is near OM code defined acceptance criteria; however, there is sufficient margin to the design limits.

The proposed alternative provides an acceptable level of quality and safety, as the performance of the affected components has been acceptable with stable trends and there are no known issues to challenge acceptable operation for the duration of the proposed alternative. If any component within the scope of this alternative request is declared inoperable, TVA will take the required actions in accordance with the Technical Specifications. If any component fails or requires maintenance, it will be tested as required prior to being declared operable.

VI. Duration of Proposed Alternative

The duration of the proposed alternative begins upon NRC approval (requested date July 2, 2026) and extends through the period ending with generator synchronization to the grid following U2R7 refueling outage, which is planned before the current end date of the WBN IST interval.

As noted in Reference 1, the end date of the current WBN IST interval is scheduled for December 15, 2026, to align with the current end date for the Sequoyah Nuclear Plant IST interval. In the event it becomes apparent that generator synchronizing to the grid following U2R7 outage will be delayed beyond the planned the WBN IST interval end date of December 15, 2026, the interval will be extended as allowed by ISTA-3120(d) or ISTA-3120(e) to end after U2R7 is complete (generator synchronization to the grid). TVA will notify the NRC if the IST interval is extended.

VII. Precedents

The following precedents and associated requests for additional information were reviewed and found to be similar to the proposed alternative request in that they approved deferring the quarterly ISTs until the next refueling outage when plant conditions were suitable to perform the test.

- On December 19, 2024, the NRC approved a similar alternative request for the Farley Unit 2, 2A, 2B, and 2C charging pumps and mini-flow isolation valves (Reference 2).

- On January 16, 2025, the NRC approved a similar alternative request for the Vogtle Unit 2 charging pumps 2A and 2B (Reference 3).

- On April 10, 2025, the NRC approved a similar alternative request for the Prairie Island Unit 2 component cooling water system (Reference 4).

- On October 14, 2025, the NRC approved a similar alternative request for the Browns Ferry Unit 3 Standby Liquid Control Pumps 3A and 3B (Reference 5).

VIII. References

1. TVA Letter to NRC, CNL-26-014, “Sequoyah Nuclear Plant, Units 1 and 2 and Watts Bar Nuclear Plant, Units 1 and 2 - Alternative and Relief Requests for the Next Inservice Testing Intervals,” dated April 15, 2026 (ML26105A760)

2. NRC Letter to Southern Nuclear Operating Company, “Joseph M. Farley Nuclear Plant, Unit No. 2 – RE: Authorization of Proposed Alternative RR-PR-04 Inservice Testing of the 2A, 2B, and 2C Charging Pumps and Mini-Flow Isolation Valves (EPID L-2024-LLR-0068),” dated December 19, 2024 (ML24351A040)

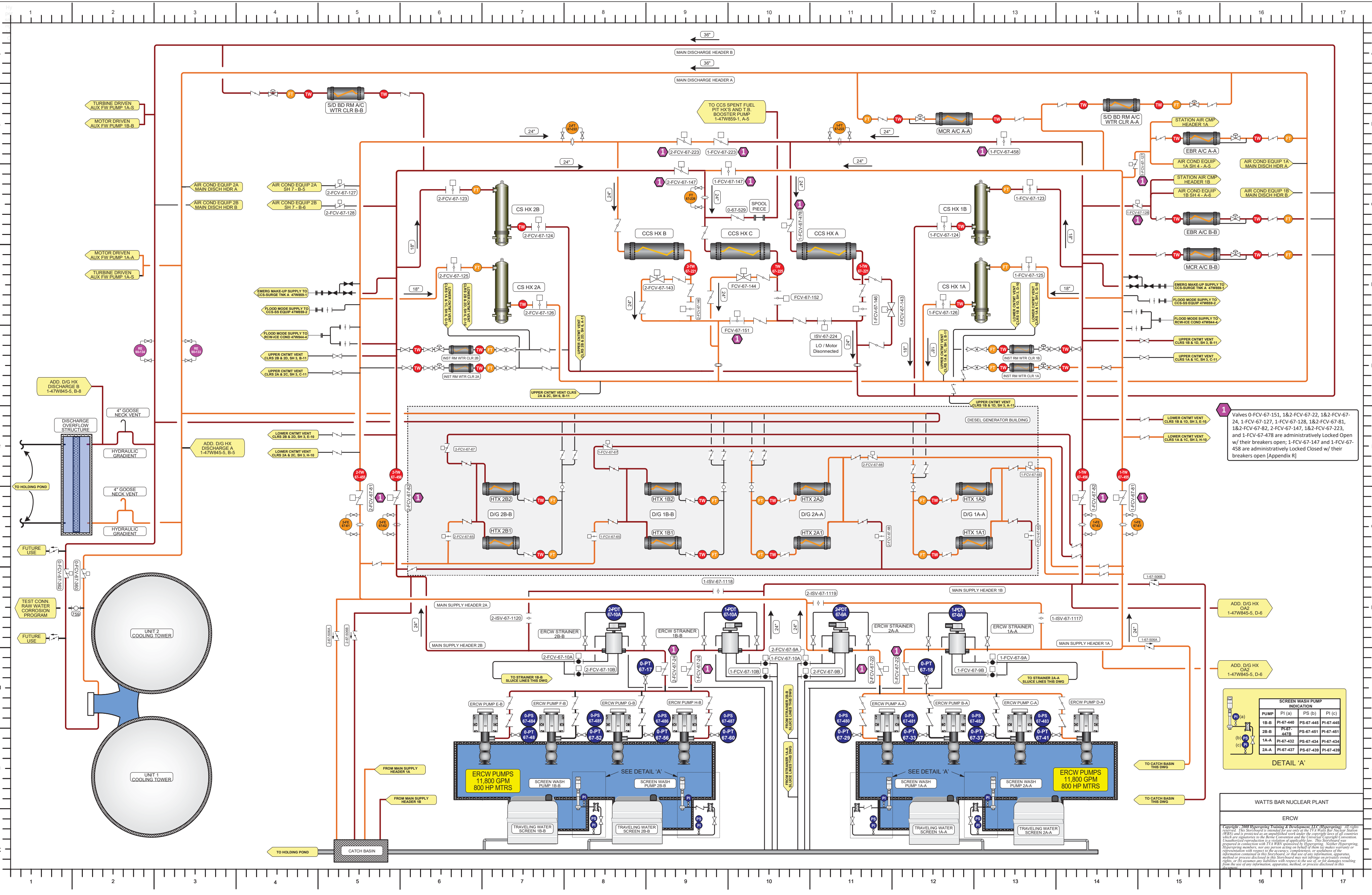
3. NRC Letter to Southern Nuclear Operating Company, “Vogtle Electric Generating Plant, Unit 2 – RE: Authorization of Proposed Alternative for Inservice Testing of the 2A and 2B Charging Pumps (EPID L-2025-LLR-0000),” dated January 16, 2025 (ML25010A381)

4. NRC letter to Northern States Power Company-Minnesota, “Prairie Island Nuclear Generating Plant, Unit 2 – Proposed Alternative RR-11 Regarding Component Cooling Water System Testing (EPID L-2025-LLR-0036),” dated April 10, 2025 (ML25099A288)

5. NRC letter to TVA, “Browns Ferry Nuclear Plant, Unit 3 - RE: Alternative Request BFN-IST-06 (EPID L-2025-LLR-0086),” dated October 14, 2025 (ML25287A025)

Enclosure 2

System Drawings for Essential Raw Cooling Water (ERCW) System
Chemical Volume and Control System (CVCS), and Component Cooling System (CCS)



1 Valves 0-FCV-67-151, 1&2-FCV-67-22, 1&2-FCV-67-24, 1-FCV-67-127, 1-FCV-67-128, 1&2-FCV-67-81, 1&2-FCV-67-82, 2-FCV-67-147, 1&2-FCV-67-223, and 1-FCV-67-478 are administratively Locked Open w/ their breakers open; 1-FCV-67-147 and 1-FCV-67-458 are administratively Locked Closed w/ their breakers open [Appendix R]

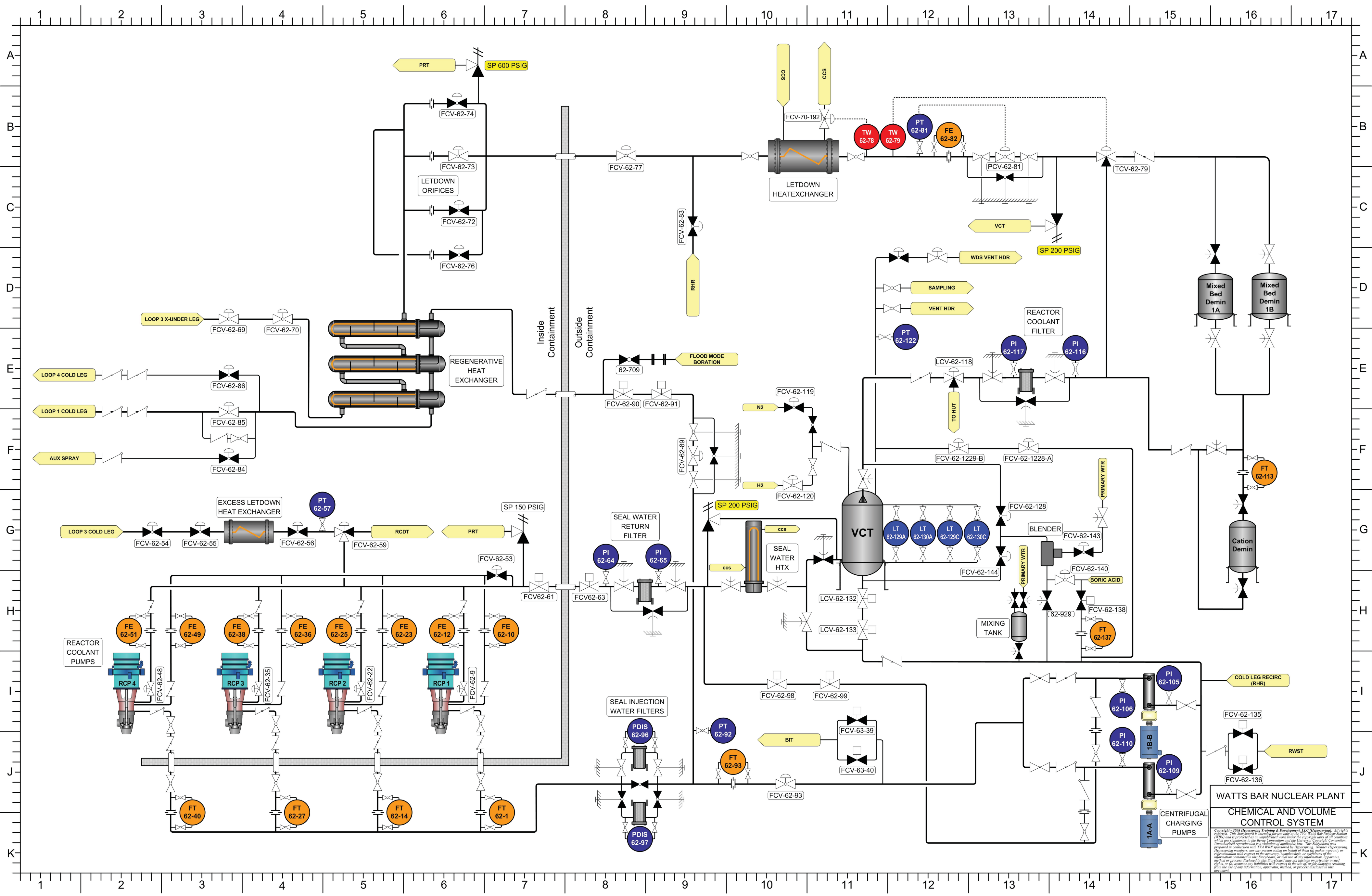
SCREEN WASH PUMP INDICATION

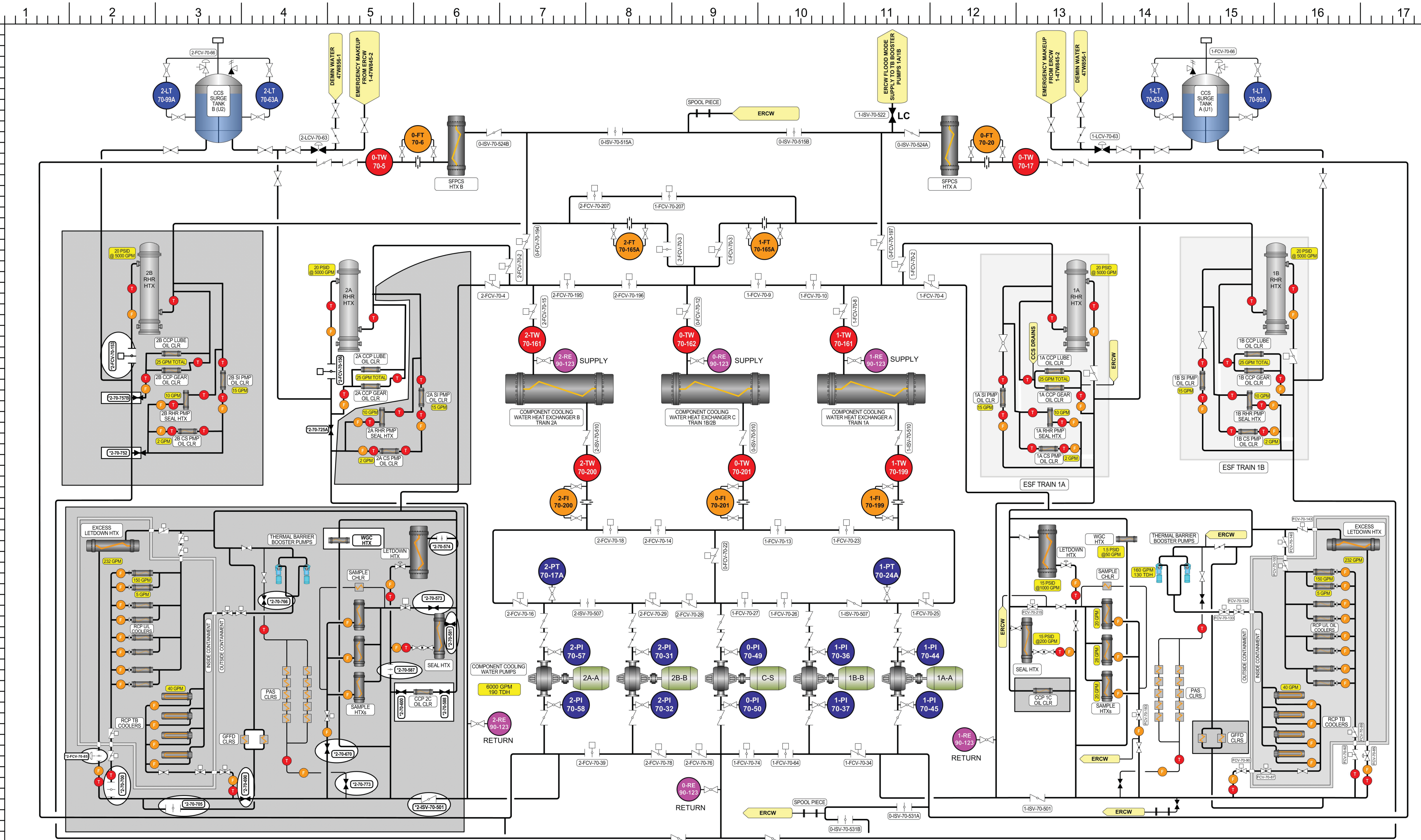
PUMP	PI (a)	PS (b)	PI (c)
1B-B	PI-67-440	PS-67-445	PI-67-445
2B-B	PI-67-447B	PS-67-451	PI-67-451
1A-A	PI-67-432	PS-67-434	PI-67-434
2A-A	PI-67-437	PS-67-439	PI-67-439

DETAIL 'A'

WATTS BAR NUCLEAR PLANT

ERCW


WATTS BAR NUCLEAR PLANT
CHEMICAL AND VOLUME CONTROL SYSTEM
PRT
SP 600 PSIG
FCV-62-74
FCV-62-73
LETDOWN ORIFICES
FCV-62-72
FCV-62-76
FCV-62-77
FCV-70-192
CCS
CCS
LETDOWN HEATEXCHANGER
TW 62-78
TW 62-79
PT 62-81
FE 62-82
PCV-62-81
TCV-62-79
VCT
SP 200 PSIG
FCV-62-83
RHR
WDS VENT HDR
SAMPLING
VENT HDR
PT 62-122
REACTOR COOLANT FILTER
PI 62-117
PI 62-116
LCV-62-118
TO HUT
Mixed Bed Demin 1A
Mixed Bed Demin 1B
LOOP 3 X-UNDER LEG
FCV-62-69
FCV-62-70
REGENERATIVE HEAT EXCHANGER
Inside Containment
Outside Containment
FLOOD MODE BORATION
62-709
FCV-62-90
FCV-62-91
LOOP 4 COLD LEG
FCV-62-86
LOOP 1 COLD LEG
FCV-62-85
AUX SPRAY
FCV-62-84
FCV-62-119
N2
H2
FCV-62-120
FCV-62-89
FCV-62-1229-B
FCV-62-1228-A
FT 62-113
EXCESS LETDOWN HEAT EXCHANGER
PT 62-57
LOOP 3 COLD LEG
FCV-62-54
FCV-62-55
FCV-62-56
FCV-62-59
RCDT
PRT
SP 150 PSIG
FCV-62-53
SEAL WATER RETURN FILTER
PI 62-64
PI 62-65
FCV62-61
FCV62-63
SP 200 PSIG
CCS
CCS
SEAL WATER HTX
VCT
LT 62-129A
LT 62-130A
LT 62-129C
LT 62-130C
FCV-62-128
FCV-62-144
BLENDER
FCV-62-143
PRIMARY WTR
PRIMARY WTR
FCV-62-140
BORIC ACID
62-929
FCV-62-138
FT 62-137
MIXING TANK
Cation Demin
LCV-62-132
LCV-62-133
REACTOR COOLANT PUMPS
FE 62-51
FE 62-49
FE 62-38
FE 62-36
FE 62-25
FE 62-23
FE 62-12
FE 62-10
RCP 4
RCP 3
RCP 2
RCP 1
FCV-62-48
FCV-62-35
FCV-62-22
FCV-62-9
FT 62-40
FT 62-27
FT 62-14
FT 62-1
FCV-62-98
FCV-62-99
SEAL INJECTION WATER FILTERS
PDIS 62-96
PDIS 62-97
PT 62-92
FT 62-93
FCV-62-93
BIT
FCV-63-39
FCV-63-40
PI 62-105
PI 62-106
PI 62-110
PI 62-109
1B-B
1A-A
CENTRIFUGAL CHARGING PUMPS
COLD LEG RECIRC (RHR)
FCV-62-135
RWST
FCV-62-136



NOTES:

1. Unit 2 Valves with a * indicates a Unit 1– Unit 2 Interface point which is controlled administratively.

2. The hashed marked areas indicate the system/components are not in service.

WATTS BAR NUCLEAR PLANT

COMPONENT COOLING WATER

Enclosure 3

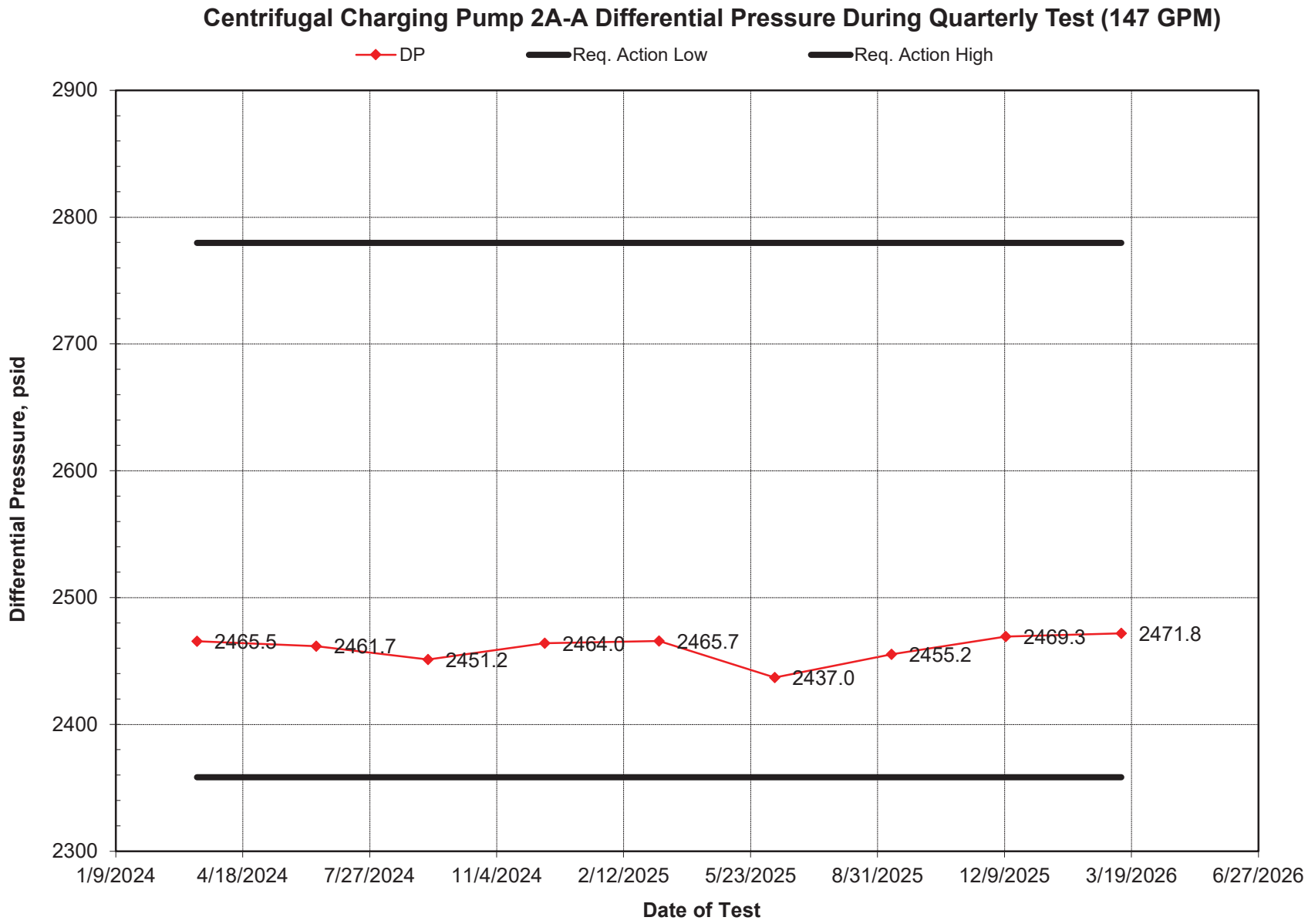
Performance Trend Data

Enclosure 3 provides the previous 2 years of test data and trend graphs for each pump and valve identified in Section I of the request for alternative (RFA).

All valve stroke times are measured in seconds.

Please note the valve test data and graphs in this enclosure use different terminology than American Society of Mechanical Engineers (ASME) Operation and Maintenance (OM) Code, Subsection ISTC, as explained below.

Enclosure 3 Term	Subsection ISTC Term	Comment
Alert Low	Acceptance Criteria - Low Percentage Value (e.g., -25% reference value)	
Alert High	Acceptance Criteria - High Percentage Value (e.g., +25% reference value)	
Req. Action Low	Limiting Value – Low	This is the lower design limit if one exists. Not all valves have a low limit.
Req. Action High	Limiting Value – High	This is the design limit if one exists or an Owner defined multiplier of the reference value.


Centrifugal Charging Pump 2A-A Differential Pressure During Quarterly Test (147 GPM)
DP
Req. Action Low
Req. Action High
Differential Pressure, psid
2900
2800
2700
2600
2500
2400
2300
2465.5
2461.7
2451.2
2464.0
2465.7
2437.0
2455.2
2469.3
2471.8
1/9/2024
4/18/2024
7/27/2024
11/4/2024
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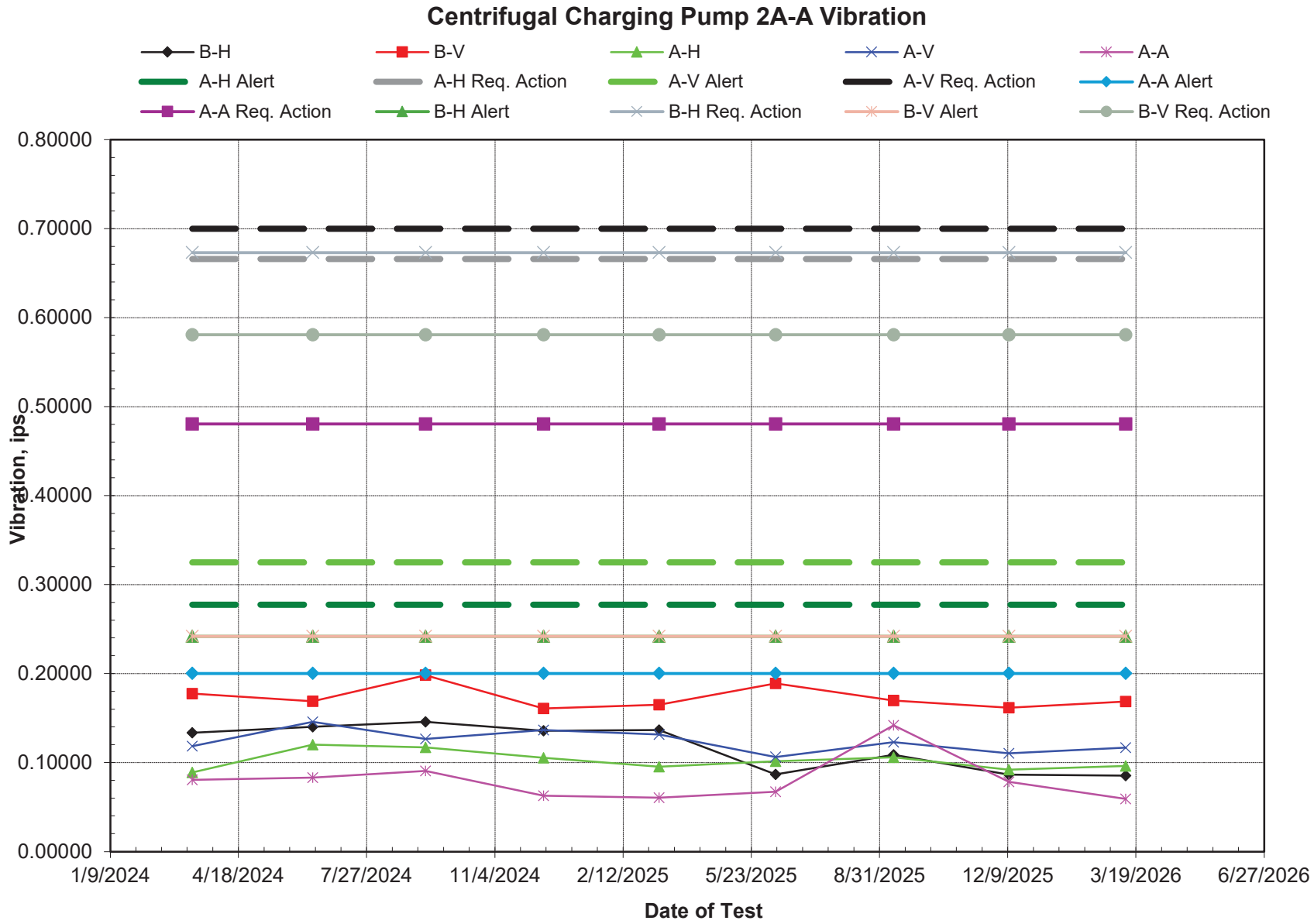
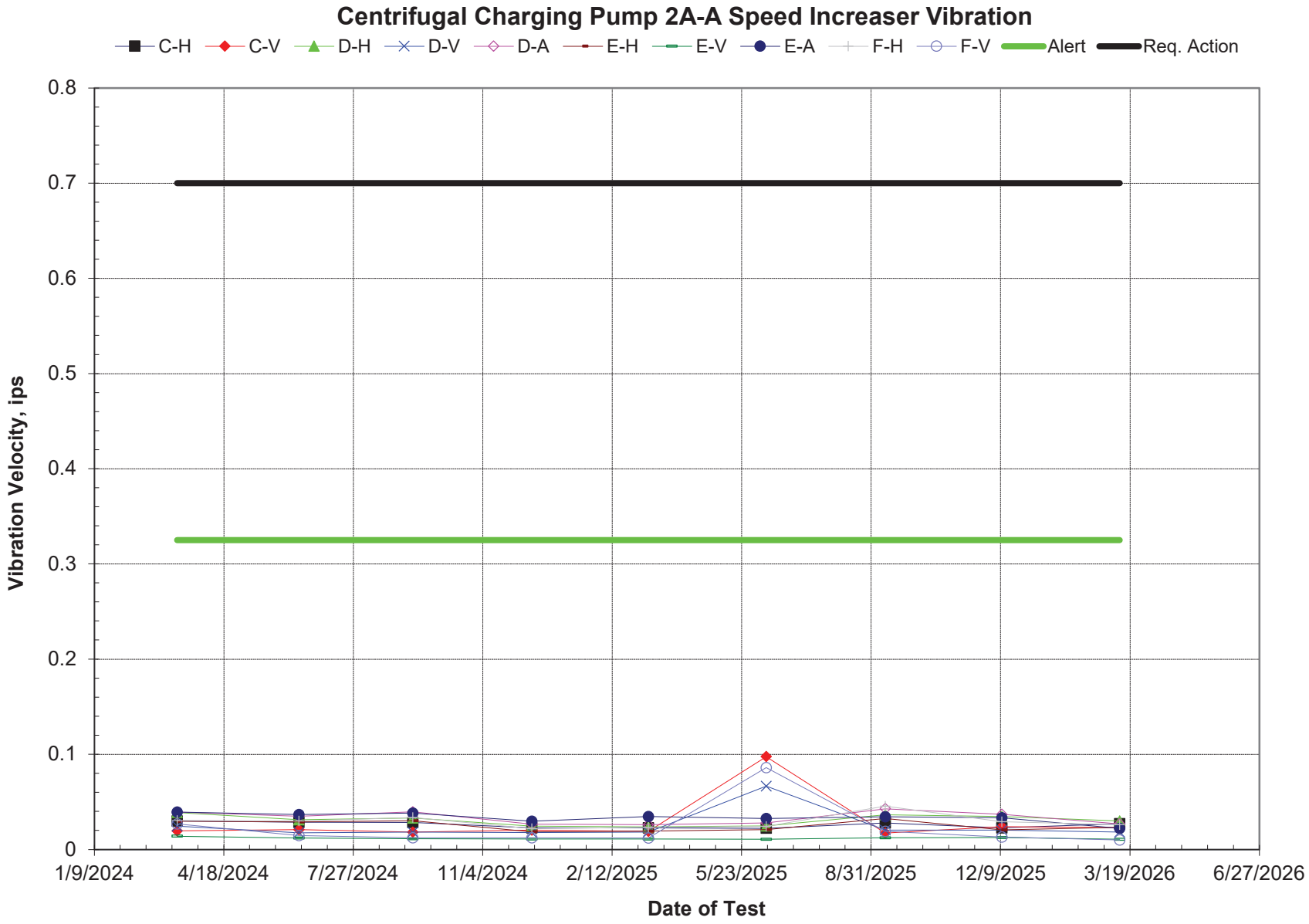
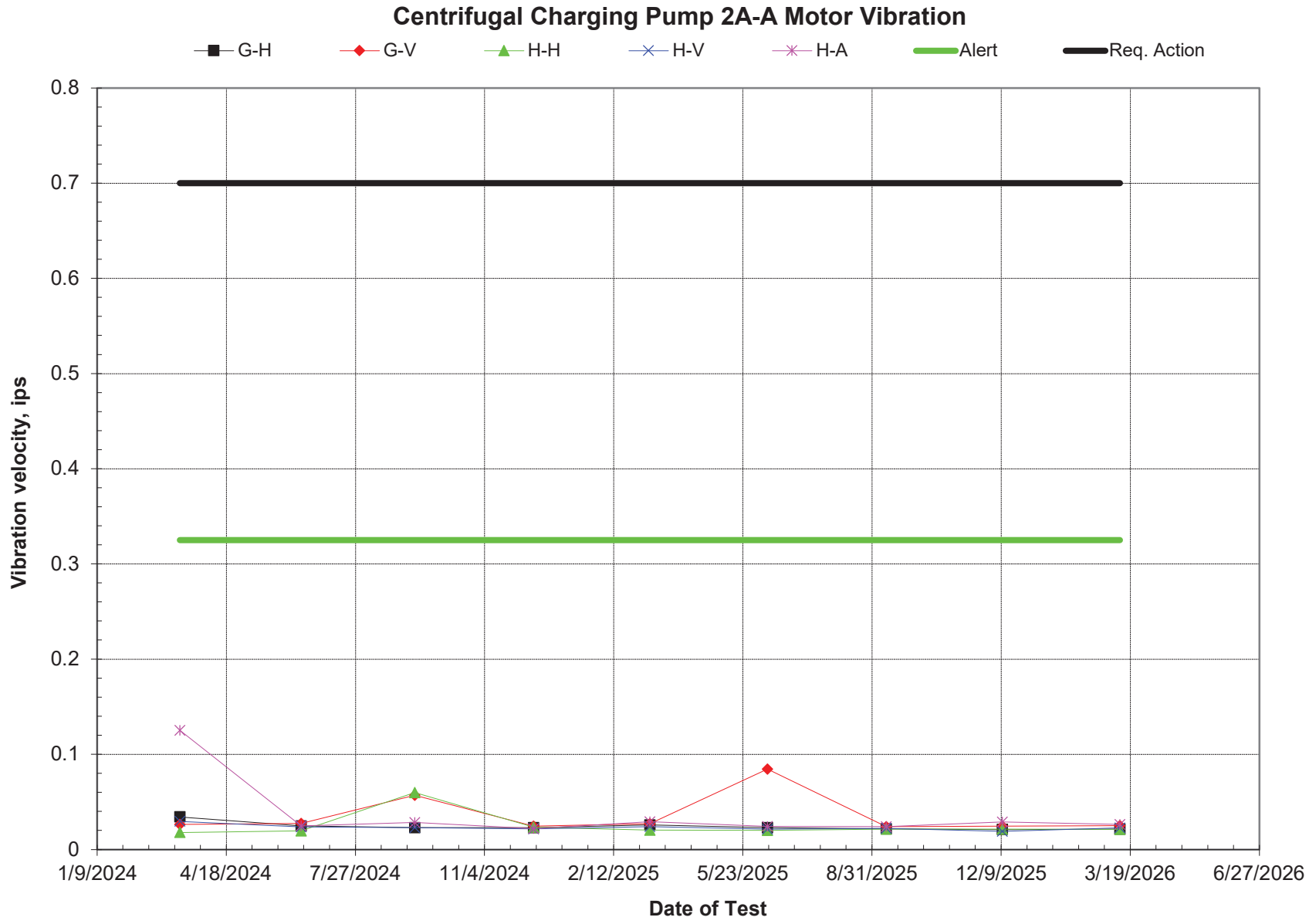
6/27/2026
Date of Test


Centrifugal Charging Pump 2A-A Vibration
B-H
B-V
A-H
A-V
A-A
A-H Alert
A-H Req. Action
A-V Alert
A-V Req. Action
A-A Alert
A-A Req. Action
B-H Alert
B-H Req. Action
B-V Alert
B-V Req. Action
0.80000
0.70000
0.60000
0.50000
0.40000
0.30000
0.20000
0.10000
0.00000
Vibration, ips
1/9/2024
4/18/2024
7/27/2024
11/4/2024
2/12/2025
5/23/2025
8/31/2025
12/9/2025
3/19/2026
6/27/2026
Date of Test


Centrifugal Charging Pump 2A-A Speed Increaser Vibration
C-H
C-V
D-H
D-V
D-A
E-H
E-V
E-A
F-H
F-V
Alert
Req. Action
Vibration Velocity, ips
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
1/9/2024
4/18/2024
7/27/2024
11/4/2024
2/12/2025
5/23/2025
8/31/2025
12/9/2025
3/19/2026
6/27/2026
Date of Test

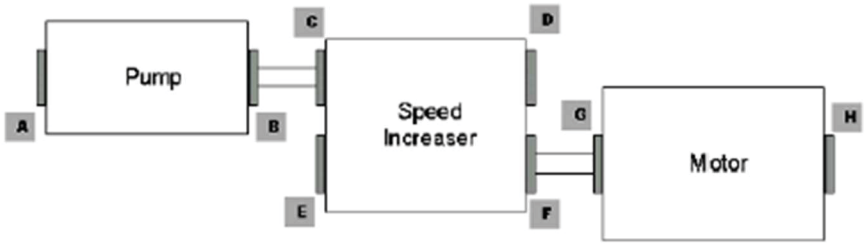

Centrifugal Charging Pump 2A-A Motor Vibration
G-H
G-V
H-H
H-V
H-A
Alert
Req. Action
Vibration velocity, ips
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
1/9/2024
4/18/2024
7/27/2024
11/4/2024
2/12/2025
5/23/2025
8/31/2025
12/9/2025
3/19/2026
6/27/2026
Date of Test

CCP 2A-A		Flow						
WID Number	Date	Recirc DP 2-FE-62-257	Recirc Flow	Chg DP FI 2-FE-62-93C	Charging Flow	Total Flow	Min. Flow	Max. Flow
123860020	3/13/2024	275.0	62.93	54.0	84.87	147.81	146.00	148.00
124092260	6/15/2024	271.0	62.47	53.0	84.09	146.56	146.00	148.00
124092263	9/11/2024	266.0	61.89	55.5	86.05	147.94	146.00	148.00
124351255	12/12/2024	270.0	62.36	53.0	84.09	146.44	146.00	148.00
124526846	3/12/2025	269.0	62.24	55.0	85.66	147.90	146.00	148.00
124558015	6/11/2025	269.0	62.24	53.5	93.83	156.08	146.00	148.00
124969243	9/11/2025	265.0	61.78	55.0	97.32	159.10	146.00	148.00
125146697	12/10/2025	267.0	62.01	55.0	85.66	147.67	146.00	148.00
125343591	3/11/2026	265.0	61.78	55.0	85.66	147.44	146.00	148.00

CCP 2A-A		Differential Pressure				
WID Number	Date	2-PI-62-110	2-PI-62-109	DP	Req. Action Low	Req. Action High
123860020	3/13/2024	2490.0	24.5	2465.5	2358.39	2779.70
124092260	6/15/2024	2490.0	28.3	2461.7	2358.39	2779.70
124092263	9/11/2024	2478.0	26.8	2451.2	2358.39	2779.70
124351255	12/12/2024	2490.0	26.0	2464.0	2358.39	2779.70
124526846	3/12/2025	2494.0	28.3	2465.7	2358.39	2779.70
124558015	6/11/2025	2463.5	26.5	2437.0	2358.39	2779.70
124969243	9/11/2025	2485.0	29.8	2455.2	2358.39	2779.70
125146697	12/10/2025	2498.0	28.7	2469.3	2358.39	2779.70
125343591	3/11/2026	2500.0	28.2	2471.8	2358.39	2779.70

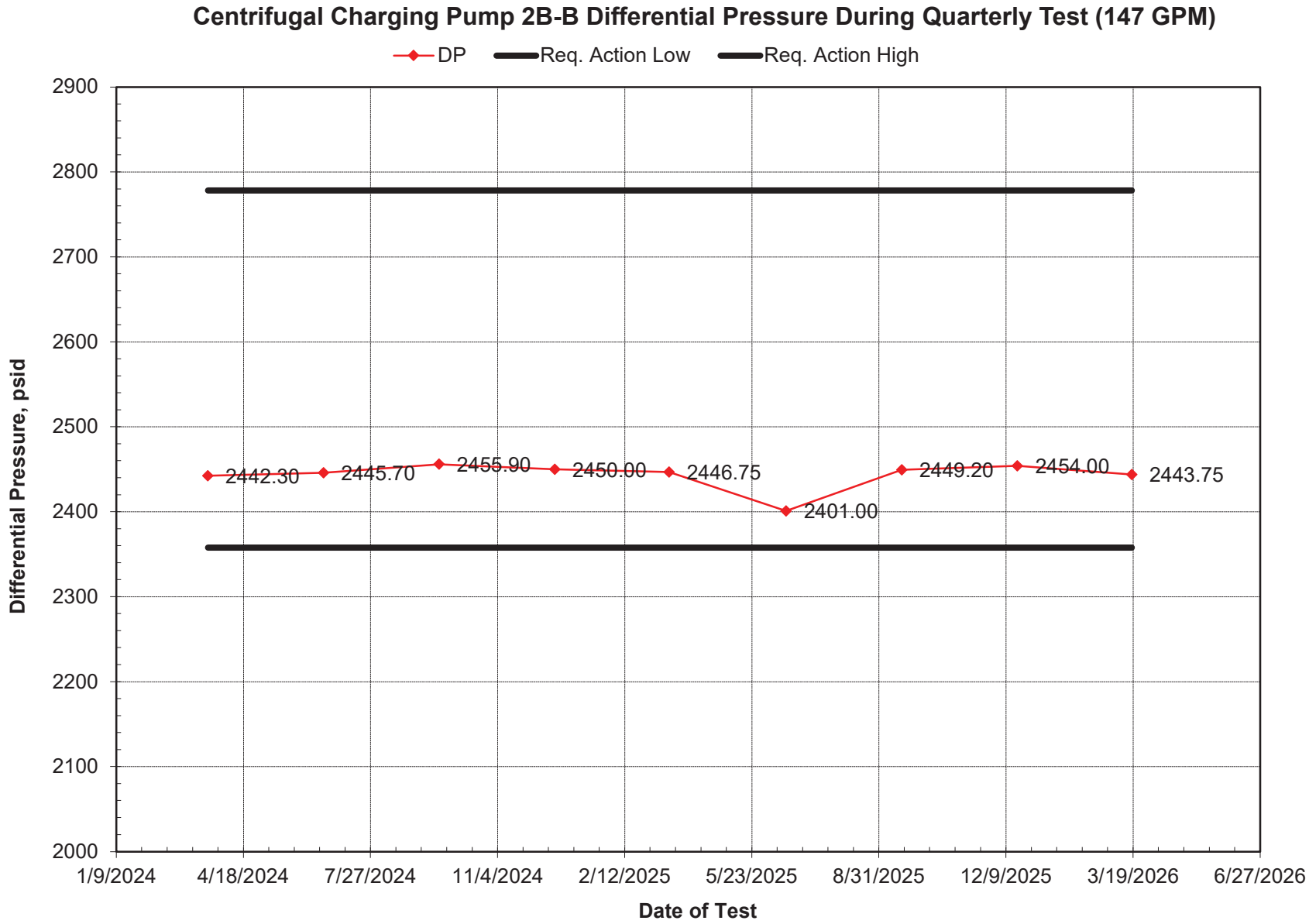
CCP 2A-A		Pump Vibration				
WID Number	Date	A-H	A-V	A-A	B-H	B-V
123860020	3/13/2024	0.08900	0.11840	0.08040	0.13340	0.17750
124092260	6/15/2024	0.12010	0.14580	0.08310	0.14010	0.16870
124092263	9/11/2024	0.11690	0.12650	0.09050	0.14580	0.19830
124351255	12/12/2024	0.10530	0.13650	0.06280	0.13570	0.16080
124526846	3/12/2025	0.09520	0.13140	0.06050	0.13640	0.16490
124558015	6/11/2025	0.10150	0.10640	0.06710	0.08660	0.18890
124969243	9/11/2025	0.10580	0.12300	0.14180	0.10860	0.16970
125146697	12/10/2025	0.09190	0.11030	0.07820	0.08630	0.16160
125343591	3/11/2026	0.09600	0.11670	0.05920	0.08530	0.16860

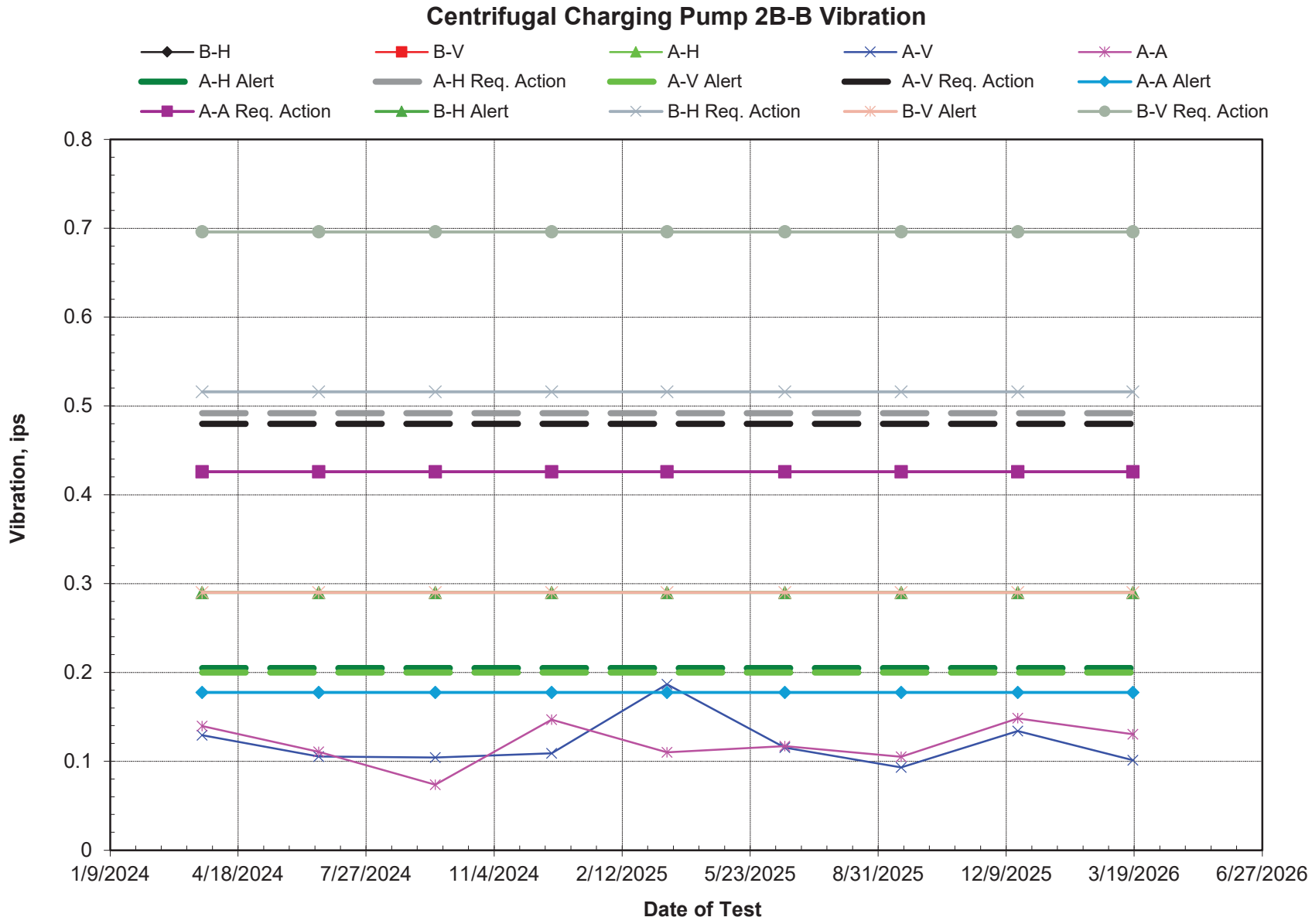
A-H A/C		A-V A/C		A-A A/C		B-H A/C		B-V A/C	
ALERT	REQ. ACTION	ALERT	REQ. ACTION	ALERT	REQ. ACTION	ALERT	REQ. ACTION	ALERT	REQ. ACTION
0.27750	0.66600	0.32500	0.70000	0.20025	0.48060	0.28050	0.67320	0.24200	0.58080

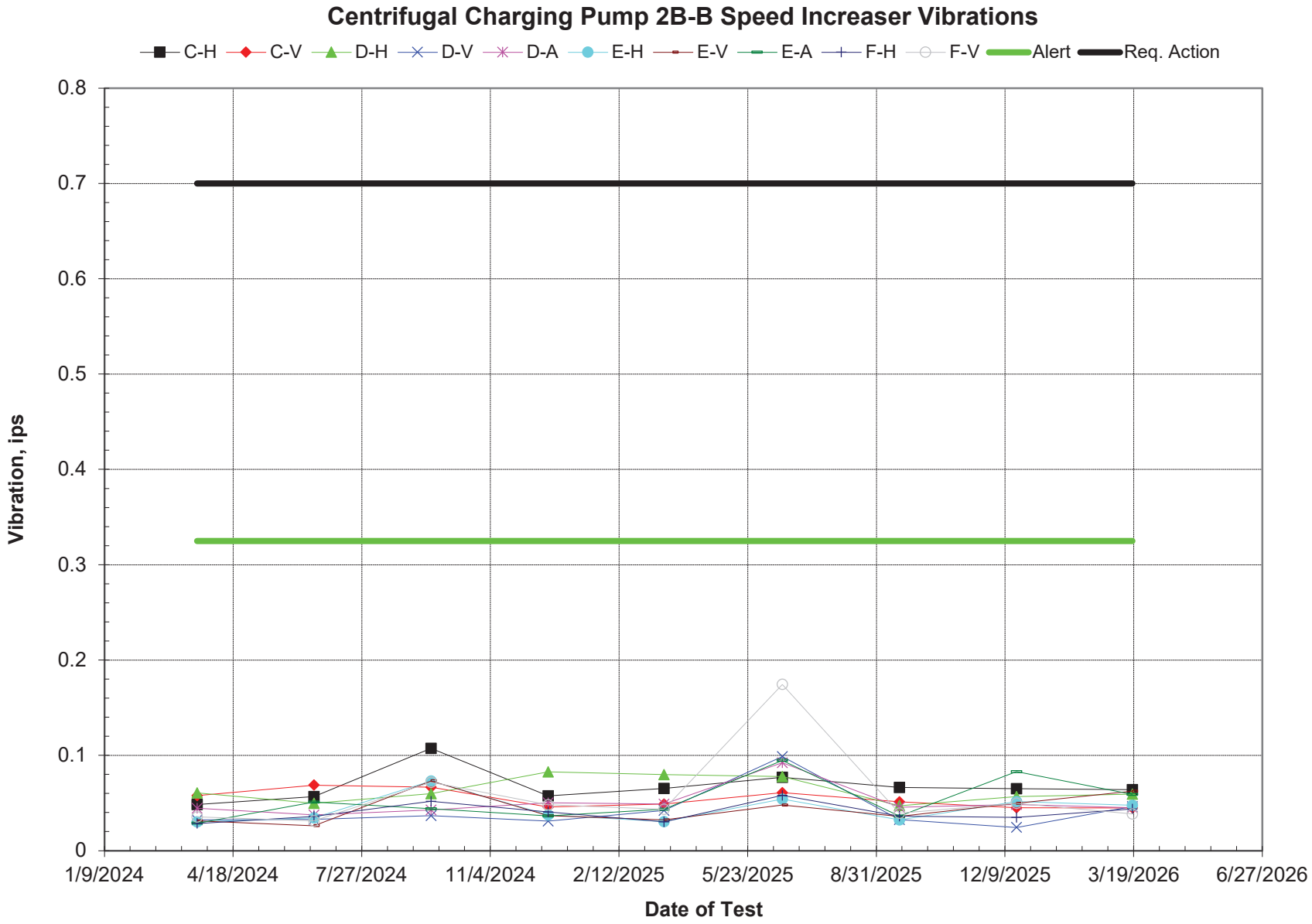


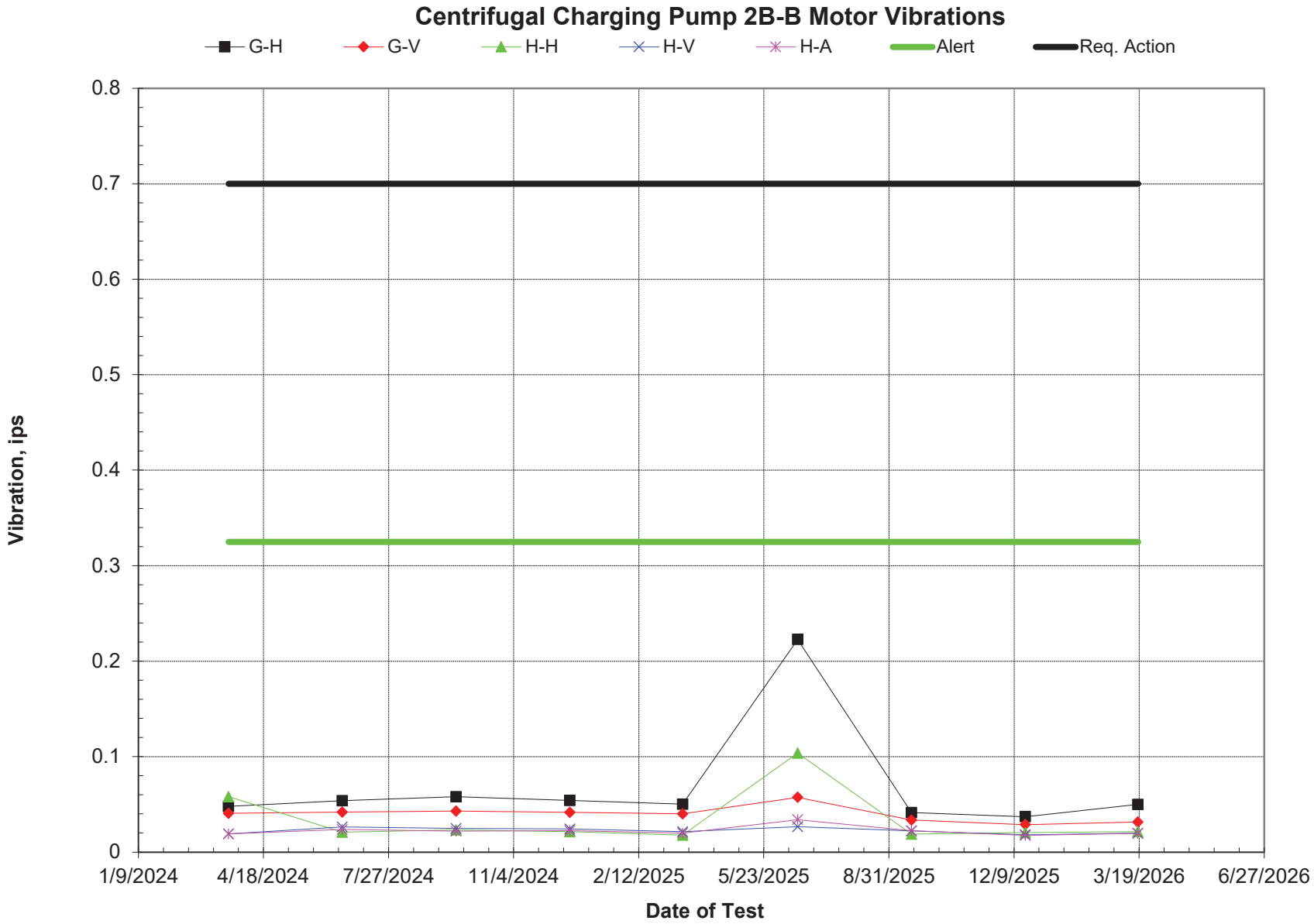
CCP 2A-A		Speed Increaser Vibration											
WID Number	Date	C-H	C-V	D-H	D-V	D-A	E-H	E-V	E-A	F-H	F-V	Alert	Req. Action
123860020	3/13/2024	0.03000	0.01960	0.03890	0.02450	0.03930	0.02970	0.01400	0.03930	0.03050	0.02690	0.32500	0.70000
124092260	6/15/2024	0.02870	0.02080	0.03110	0.01760	0.03480	0.02880	0.01210	0.03670	0.02990	0.01460	0.32500	0.70000
124092263	9/11/2024	0.02830	0.01810	0.03310	0.01830	0.03940	0.03020	0.01130	0.03830	0.03350	0.01230	0.32500	0.70000
124351255	12/12/2024	0.02270	0.02020	0.02440	0.01770	0.02660	0.01860	0.01100	0.02970	0.02190	0.01230	0.32500	0.70000
124526846	3/12/2025	0.02270	0.01900	0.02370	0.01820	0.02600	0.01920	0.01100	0.03460	0.02310	0.01200	0.32500	0.70000
124558015	6/11/2025	0.02230	0.09760	0.02460	0.06660	0.02770	0.02070	0.01070	0.03250	0.02430	0.08600	0.32500	0.70000
124969243	9/11/2025	0.02790	0.01720	0.03630	0.02020	0.04280	0.03260	0.01230	0.03430	0.04550	0.01900	0.32500	0.70000
125146697	12/10/2025	0.02250	0.02400	0.03450	0.02030	0.03690	0.02060	0.01260	0.03320	0.02920	0.01310	0.32500	0.70000
125343591	3/11/2026	0.02710	0.02300	0.03000	0.01820	0.02680	0.02320	0.01080	0.02220	0.02600	0.01000	0.32500	0.70000

CCP 2A-A		Motor Vibration						
WID Number	Date	G-H	G-V	H-H	H-V	H-A	Alert	Req. Action
123860020	3/13/2024	0.03420	0.02630	0.01790	0.02950	0.12520	0.32500	0.70000
124092260	6/15/2024	0.02480	0.02740	0.01950	0.02360	0.02480	0.32500	0.70000
124092263	9/11/2024	0.02290	0.05680	0.05980	0.02290	0.02820	0.32500	0.70000
124351255	12/12/2024	0.02290	0.02440	0.02340	0.02160	0.02190	0.32500	0.70000
124526846	3/12/2025	0.02580	0.02700	0.02020	0.02400	0.02920	0.32500	0.70000
124558015	6/11/2025	0.02300	0.08440	0.02010	0.02130	0.02410	0.32500	0.70000
124969243	9/11/2025	0.02150	0.02400	0.02140	0.02210	0.02400	0.32500	0.70000
125146697	12/10/2025	0.02100	0.02440	0.02140	0.01910	0.02880	0.32500	0.70000
125343591	3/11/2026	0.02140	0.02500	0.02100	0.02250	0.02630	0.32500	0.70000


Centrifugal Charging Pump 2B-B Differential Pressure During Quarterly Test (147 GPM)
DP
Req. Action Low
Req. Action High
Differential Pressure, psid
2900
2800
2700
2600
2500
2400
2300
2200
2100
2000
2442.30
2445.70
2455.90
2450.00
2446.75
2401.00
2449.20
2454.00
2443.75
1/9/2024
4/18/2024
7/27/2024
11/4/2024
2/12/2025
5/23/2025
8/31/2025
12/9/2025
3/19/2026
6/27/2026
Date of Test


Centrifugal Charging Pump 2B-B Vibration
B-H
B-V
A-H
A-V
A-A
A-H Alert
A-H Req. Action
A-V Alert
A-V Req. Action
A-A Alert
A-A Req. Action
B-H Alert
B-H Req. Action
B-V Alert
B-V Req. Action
Vibration, ips
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
1/9/2024
4/18/2024
7/27/2024
11/4/2024
2/12/2025
5/23/2025
8/31/2025
12/9/2025
3/19/2026
6/27/2026
Date of Test


Centrifugal Charging Pump 2B-B Speed Increaser Vibrations
C-H
C-V
D-H
D-V
D-A
E-H
E-V
E-A
F-H
F-V
Alert
Req. Action
Vibration, ips
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
1/9/2024
4/18/2024
7/27/2024
11/4/2024
2/12/2025
5/23/2025
8/31/2025
12/9/2025
3/19/2026
6/27/2026
Date of Test

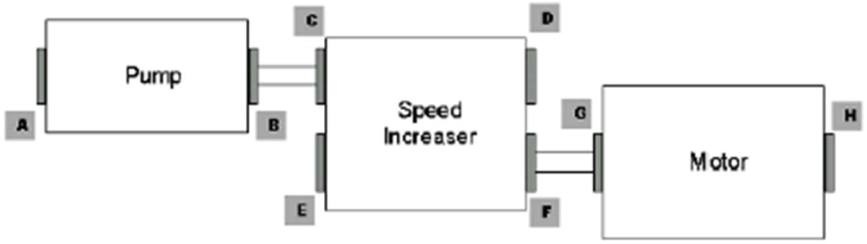

Centrifugal Charging Pump 2B-B Motor Vibrations
G-H
G-V
H-H
H-V
H-A
Alert
Req. Action
Vibration, ips
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
1/9/2024
4/18/2024
7/27/2024
11/4/2024
2/12/2025
5/23/2025
8/31/2025
12/9/2025
3/19/2026
6/27/2026
Date of Test

CCP 2B-B		Flow						
WID Number	Date	Recirc DP 2-FE-62-257	Recirc Flow	Chg Fl DP 2-FT-62-93C	Charging Flow	Total Flow	Min. Total Flow	Max. Total Flow
123860025	3/21/2024	276.0	63.05	54.0	84.87	147.92	146.30	148.30
124092266	6/20/2024	276.0	63.05	53.5	84.48	147.53	146.30	148.30
124092270	9/19/2024	282.0	63.73	52.0	83.29	147.02	146.30	148.30
124351258	12/19/2021	272.0	62.59	53.5	84.48	147.07	146.30	148.30
124526849	3/19/2025	272.0	62.59	54.5	85.27	147.86	146.30	148.30
124558018	6/19/2025	271.0	62.13	53.2	84.24	146.72	146.30	148.30
124969141	9/18/2025	272.0	62.59	54.0	84.87	147.46	146.30	148.30
125146700	12/18/2025	270.0	62.36	55.0	85.66	148.02	146.30	148.30
125343594	3/18/2026	270.0	62.36	53.5	84.48	146.84	146.30	148.30

CCP 2B-B		Differential Pressure				
WID Number	Date	2-PI-62-106	2-PI-62-105	DP	Req. Action Low	Req. Action High
123860025	3/21/2024	2470.00	27.70	2442.30	2357.92	2778.16
124092266	6/20/2024	2470.00	24.30	2445.70	2357.92	2778.16
124092270	9/19/2024	2482.00	26.10	2455.90	2357.92	2778.16
124351258	12/19/2021	2475.00	25.00	2450.00	2357.92	2778.16
124526849	3/19/2025	2475.00	28.25	2446.75	2357.92	2778.16
124558018	6/19/2025	2432.50	31.50	2401.00	2357.92	2778.16
124969141	9/18/2025	2480.00	30.80	2449.20	2357.92	2778.16
125146700	12/18/2025	2483.00	29.00	2454.00	2357.92	2778.16
125343594	3/18/2026	2472.70	28.95	2443.75	2357.92	2778.16

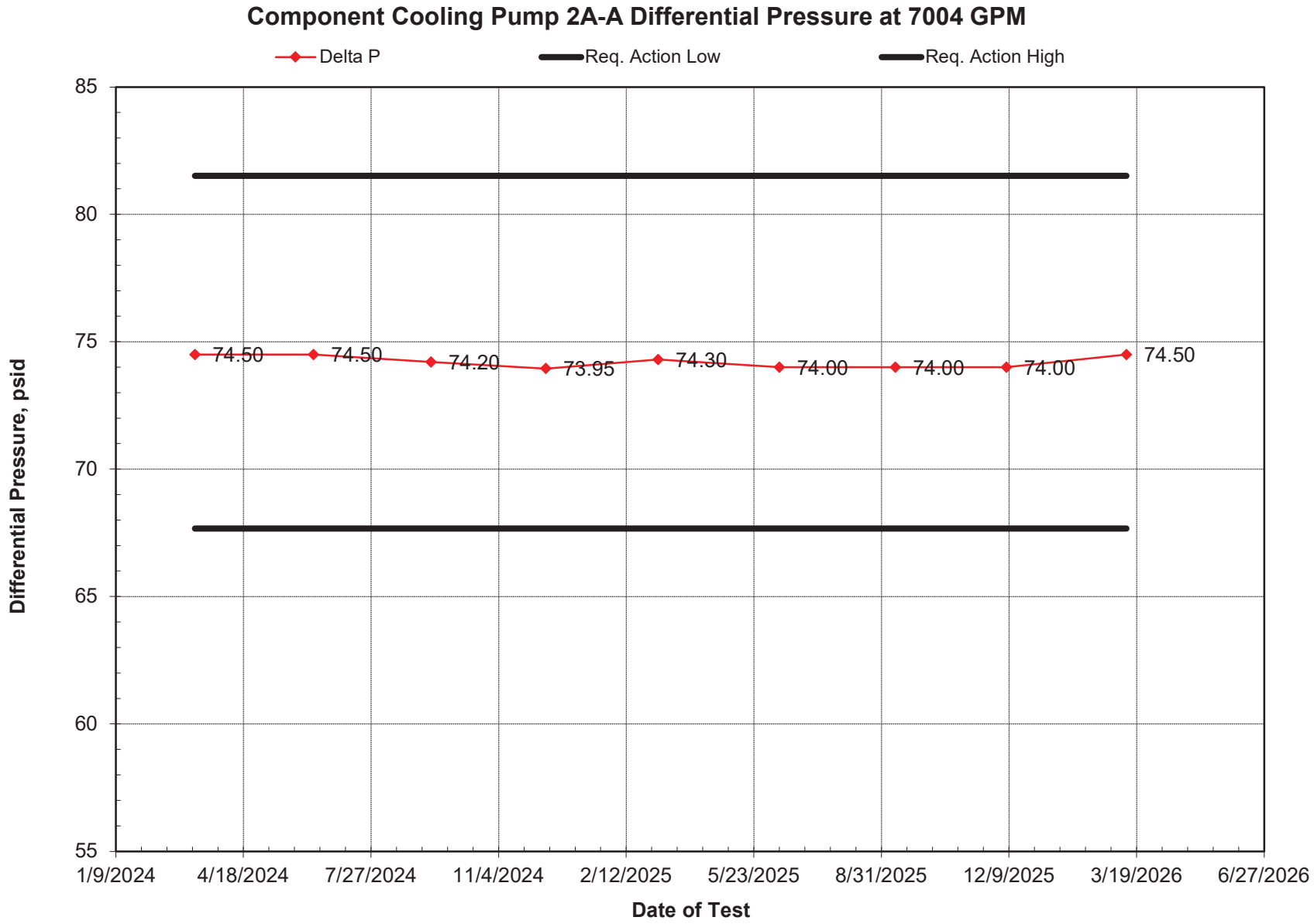
CCP 2B-B		Pump Vibration				
WID Number	Date	A-H	A-V	A-A	B-H	B-V
123860025	3/21/2024	0.08460	0.12920	0.13970	0.06890	0.11870
124092266	6/20/2024	0.08190	0.10520	0.11070	0.08870	0.17530
124092270	9/19/2024	0.08490	0.10420	0.07360	0.09650	0.22330
124351258	12/19/2024	0.08100	0.10890	0.14670	0.09750	0.13640
124526849	3/19/2025	0.10870	0.18670	0.11010	0.07670	0.16520
124558018	6/19/2025	0.06430	0.11530	0.11700	0.07000	0.11130
124969141	9/18/2025	0.05890	0.09310	0.10500	0.07150	0.11970
125146700	12/18/2025	0.08200	0.13390	0.14840	0.06610	0.12820
125343594	3/18/2026	0.06560	0.10100	0.13030	0.08090	0.17620

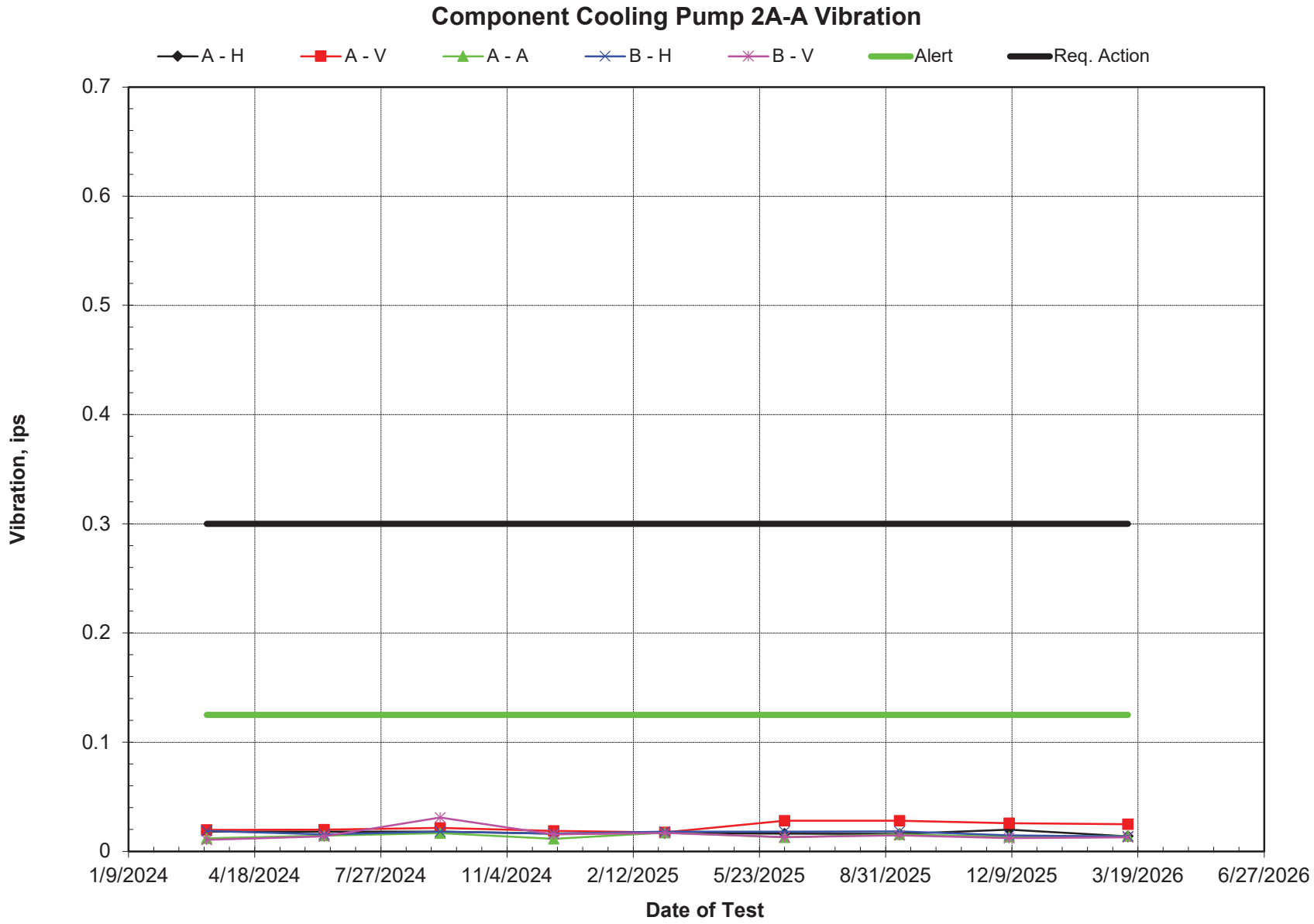
A-H A/C		A-V A/C		A-A A/C		B-H A/C		B-V A/C	
ALERT	REQ. ACTION	ALERT	REQ. ACTION	ALERT	REQ. ACTION	ALERT	REQ. ACTION	ALERT	REQ. ACTION
0.20500	0.49200	0.20000	0.48000	0.17750	0.42600	0.21500	0.51600	0.29000	0.69600

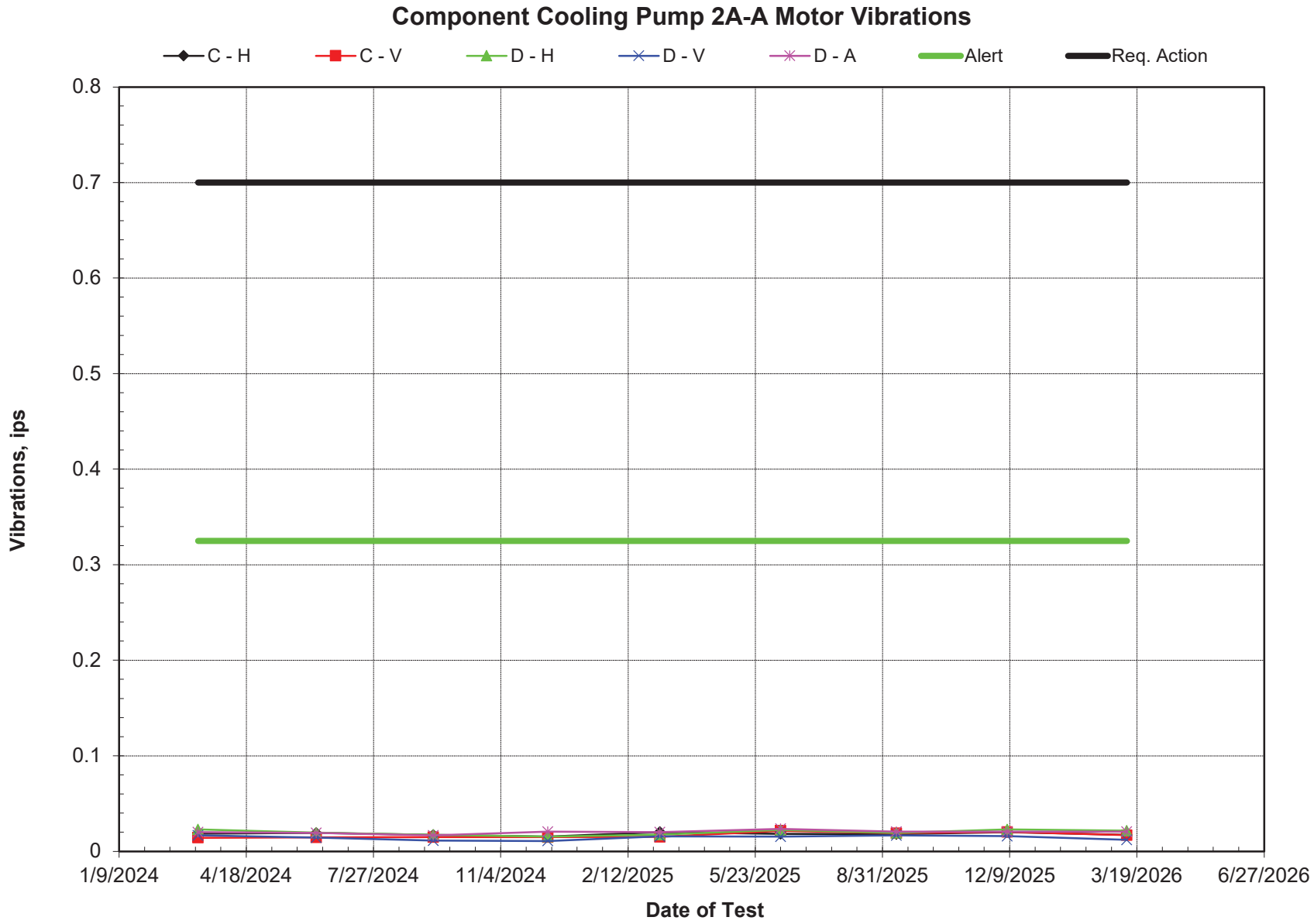


CCP 2B-B		Speed Increaser Vibration											
WID Number	Date	C-H	C-V	D-H	D-V	D-A	E-H	E-V	E-A	F-H	F-V	Alert	Req. Action
123860025	3/21/2024	0.04840	0.05780	0.06050	0.03230	0.04440	0.03030	0.03120	0.02890	0.02860	0.03550	0.32500	0.70000
124092266	6/20/2024	0.05680	0.06880	0.04980	0.03290	0.03760	0.03430	0.02620	0.05110	0.03600	0.03130	0.32500	0.70000
124092270	9/19/2024	0.10740	0.06650	0.05980	0.03670	0.04270	0.07310	0.07320	0.04410	0.05180	0.07180	0.32500	0.70000
124351258	12/19/2024	0.05750	0.04570	0.08270	0.03090	0.05010	0.03740	0.03680	0.03640	0.04060	0.04800	0.32500	0.70000
124526849	3/19/2025	0.06520	0.04900	0.07980	0.04220	0.04880	0.03050	0.03240	0.04340	0.03020	0.04350	0.32500	0.70000
124558018	6/19/2025	0.07690	0.06080	0.07780	0.09880	0.09230	0.05420	0.04780	0.09480	0.05810	0.17450	0.32500	0.70000
124969141	9/18/2025	0.06620	0.05120	0.04730	0.03260	0.04560	0.03230	0.03590	0.03610	0.03610	0.03920	0.32500	0.70000
125146700	12/18/2025	0.06500	0.04510	0.05660	0.02440	0.04840	0.05150	0.04980	0.08300	0.03480	0.04960	0.32500	0.70000
125343594	3/18/2026	0.06390	0.04500	0.05930	0.04630	0.04490	0.04760	0.06240	0.05890	0.04380	0.03840	0.32500	0.70000

CCP 2B-B		Motor Vibration						
WID Number	Date	G-H	G-V	H-H	H-V	H-A	Alert	Req. Action
123860025	3/21/2024	0.04790	0.04050	0.05810	0.01900	0.01900	0.32500	0.70000
124092266	6/20/2024	0.05380	0.04190	0.02100	0.02630	0.02380	0.32500	0.70000
124092270	9/19/2024	0.05810	0.04300	0.02330	0.02470	0.02200	0.32500	0.70000
124351258	12/19/2024	0.05410	0.04170	0.02130	0.02430	0.02230	0.32500	0.70000
124526849	3/19/2025	0.05030	0.04020	0.01780	0.02140	0.01990	0.32500	0.70000
124558018	6/19/2025	0.22280	0.05740	0.10370	0.02670	0.03400	0.32500	0.70000
124969141	9/18/2025	0.04140	0.03370	0.01880	0.02220	0.02230	0.32500	0.70000
125146700	12/18/2025	0.03710	0.02890	0.02030	0.01820	0.01750	0.32500	0.70000
125343594	3/18/2026	0.04990	0.03140	0.02150	0.01990	0.01950	0.32500	0.70000


Component Cooling Pump 2A-A Differential Pressure at 7004 GPM
Delta P
Req. Action Low
Req. Action High
Differential Pressure, psid
85
80
75
70
65
60
55
74.50
74.50
74.20
73.95
74.30
74.00
74.00
74.00
74.50
1/9/2024
4/18/2024
7/27/2024
11/4/2024
2/12/2025
5/23/2025
8/31/2025
12/9/2025
3/19/2026
6/27/2026
Date of Test

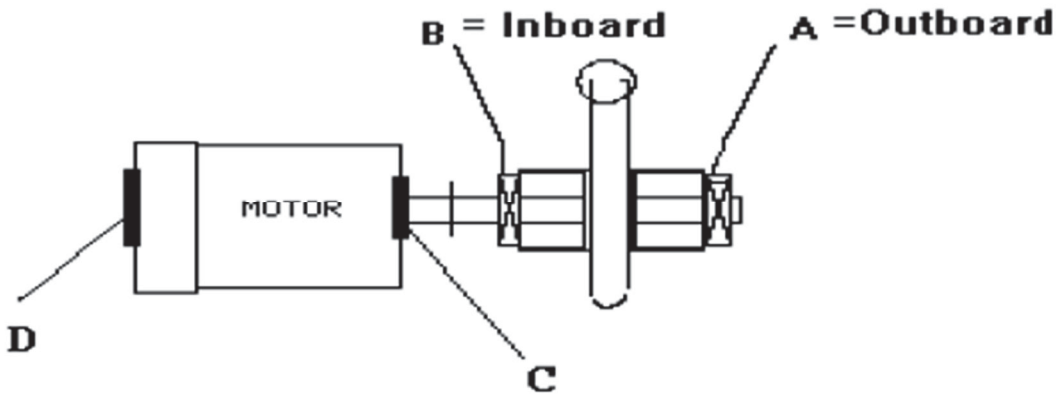

Component Cooling Pump 2A-A Vibration
A - H
A - V
A - A
B - H
B - V
Alert
Req. Action
Vibration, ips
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
1/9/2024
4/18/2024
7/27/2024
11/4/2024
2/12/2025
5/23/2025
8/31/2025
12/9/2025
3/19/2026
6/27/2026
Date of Test


Component Cooling Pump 2A-A Motor Vibrations
C - H
C - V
D - H
D - V
D - A
Alert
Req. Action
Vibrations, ips
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
1/9/2024
4/18/2024
7/27/2024
11/4/2024
2/12/2025
5/23/2025
8/31/2025
12/9/2025
3/19/2026
6/27/2026
Date of Test

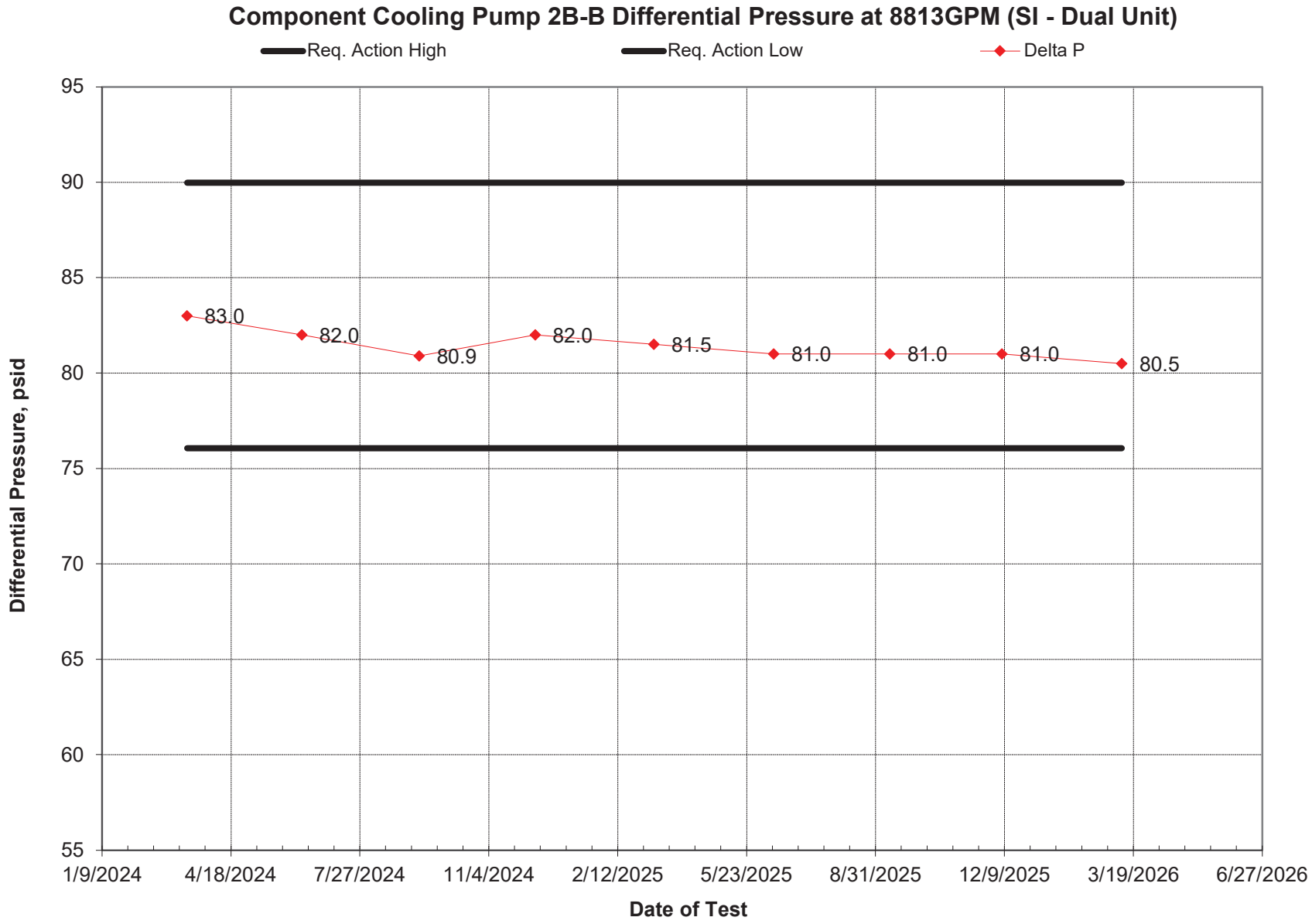
CCS Pump 2A-A		Head					FE	Target Flow	
WID Number	Date	2-PI-70-57	2-PI-70-58	Delta P	Req. Action Low	Req. Action High	2-FI-70-200	Min	Max
123860061	3/11/2024	94.5	20.0	74.50	67.67	81.51	90.0	89.0	90.8
124092336	6/12/2024	94.0	19.5	74.50	67.67	81.51	89.5	89.0	90.8
124092341	9/12/2024	94.3	20.1	74.20	67.67	81.51	90.0	89.0	90.8
124351325	12/11/2024	94.1	20.2	73.95	67.67	81.51	90.0	89.0	90.8
124527713	3/9/2025	94.4	20.1	74.30	67.67	81.51	90.0	89.0	90.8
124558046	6/12/2025	94.0	20.0	74.00	67.67	81.51	90.0	89.0	90.8
124969248	9/11/2025	94.0	20.0	74.00	67.67	81.51	90.2	89.0	90.8
125146727	12/7/2025	94.0	20.0	74.00	67.67	81.51	90.0	89.0	90.8
125343645	3/11/2026	95.0	20.5	74.50	67.67	81.51	90.0	89.0	90.8

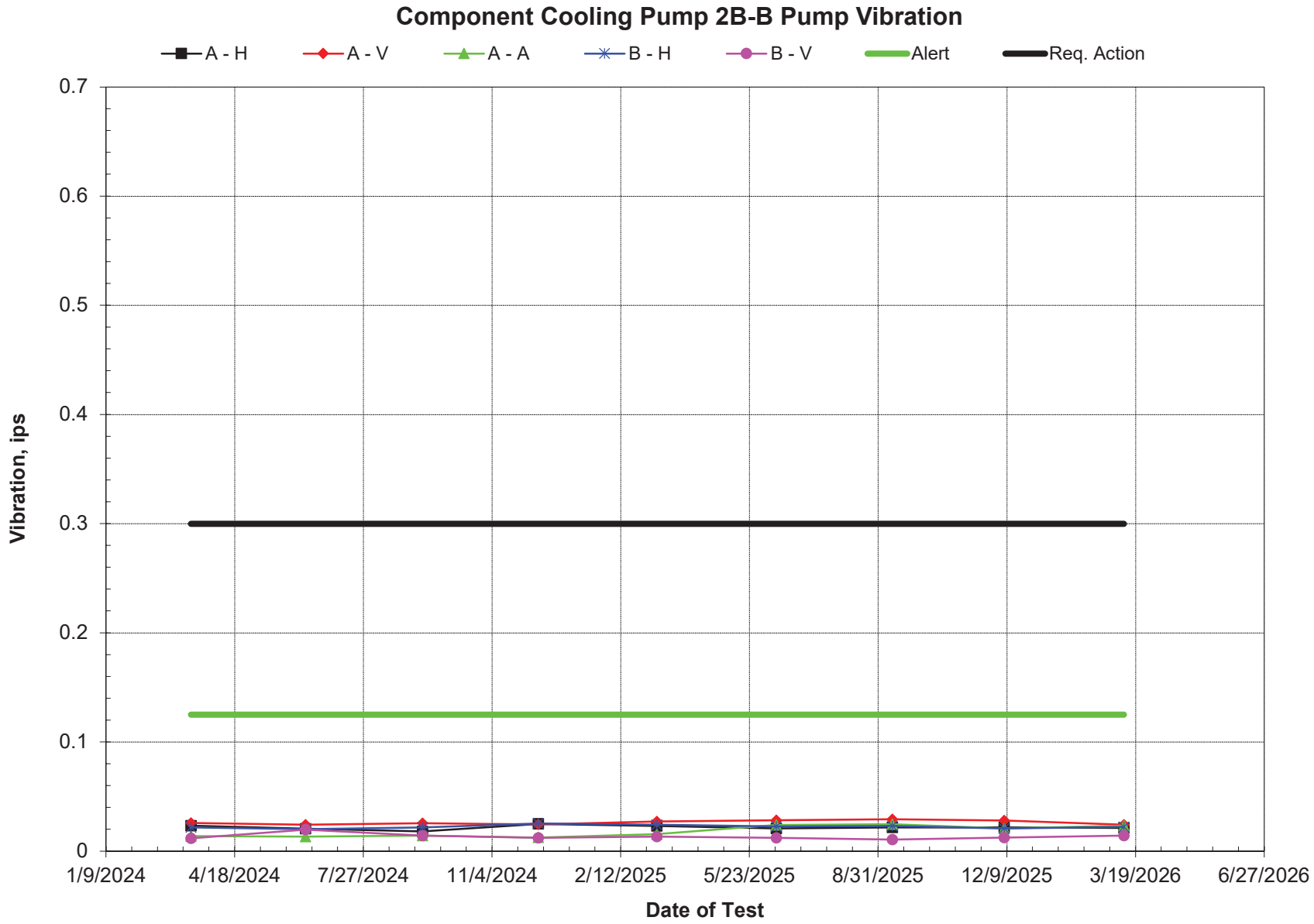
*NOTE: 2-FI-70-200 utilizes installed M&TE Pressure Gauges during the performance of 2-SI-70-901-A to collect a DP across the flow indicator to determine flows.

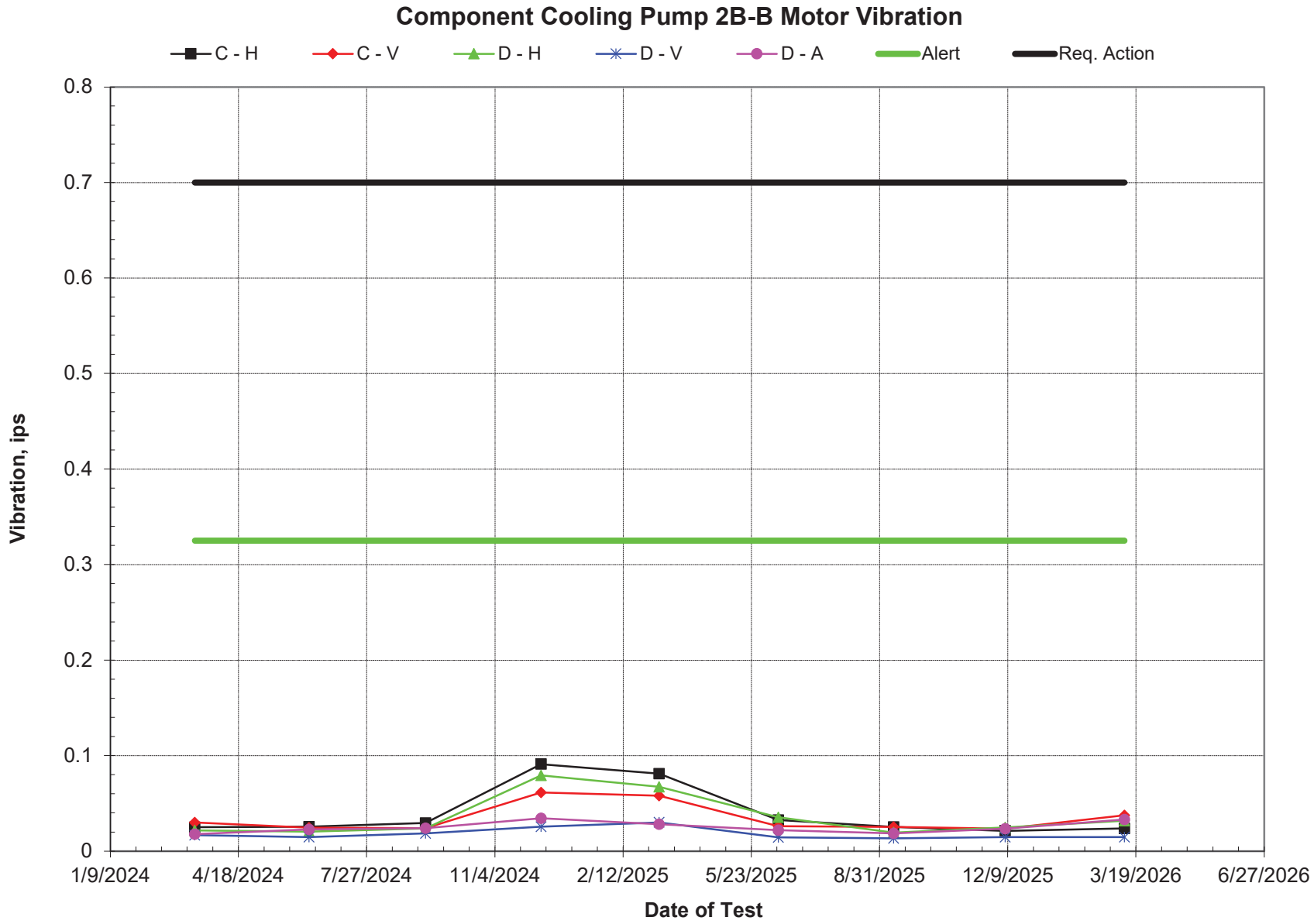
CCS Pump 2A-A		Pump Vibration					Pump A/C	
WID Number	Date	A - H	A - V	A - A	B - H	B - V	Alert	Req. Action
123860061	3/11/2024	0.01810	0.01960	0.01190	0.01870	0.01060	0.12500	0.30000
124092336	6/12/2024	0.01810	0.01990	0.01430	0.01540	0.01370	0.12500	0.30000
124092341	9/12/2024	0.01800	0.02140	0.01670	0.01800	0.03100	0.12500	0.30000
124351325	12/11/2024	0.01620	0.01880	0.01150	0.01630	0.01560	0.12500	0.30000
124527713	3/9/2025	0.01660	0.01740	0.01710	0.01800	0.01680	0.12500	0.30000
124558046	6/12/2025	0.01630	0.02810	0.01270	0.01810	0.01310	0.12500	0.30000
124969248	9/11/2025	0.01590	0.02810	0.01560	0.01820	0.01450	0.12500	0.30000
125146727	12/7/2025	0.02000	0.02580	0.01320	0.01450	0.01210	0.12500	0.30000
125343645	3/11/2026	0.01390	0.02480	0.01390	0.01360	0.01270	0.12500	0.30000



CCS Pump 2A-A		Motor Vibration					Motor A/C	
WID Number	Date	C - H	C - V	D - H	D - V	D - A	Alert	Req. Action
123860061	3/11/2024	0.01850	0.01430	0.02300	0.01670	0.02000	0.32500	0.70000
124092336	6/12/2024	0.01920	0.01460	0.01950	0.01440	0.01940	0.32500	0.70000
124092341	9/12/2024	0.01720	0.01480	0.01720	0.01120	0.01680	0.32500	0.70000
124351325	12/11/2024	0.01540	0.01500	0.01540	0.01090	0.02070	0.32500	0.70000
124527713	3/9/2025	0.02020	0.01510	0.01740	0.01570	0.02010	0.32500	0.70000
124558046	6/12/2025	0.01830	0.02150	0.02250	0.01540	0.02360	0.32500	0.70000
124969248	9/11/2025	0.01790	0.01890	0.01930	0.01670	0.02070	0.32500	0.70000
125146727	12/7/2025	0.02000	0.02020	0.02280	0.01590	0.02050	0.32500	0.70000
125343645	3/11/2026	0.01730	0.01690	0.02150	0.01210	0.02060	0.32500	0.70000


Component Cooling Pump 2B-B Differential Pressure at 8813GPM (SI - Dual Unit)
Req. Action High
Req. Action Low
Delta P
Differential Pressure, psid
95
90
85
80
75
70
65
60
55
83.0
82.0
80.9
82.0
81.5
81.0
81.0
81.0
80.5
1/9/2024
4/18/2024
7/27/2024
11/4/2024
2/12/2025
5/23/2025
8/31/2025
12/9/2025
3/19/2026
6/27/2026
Date of Test

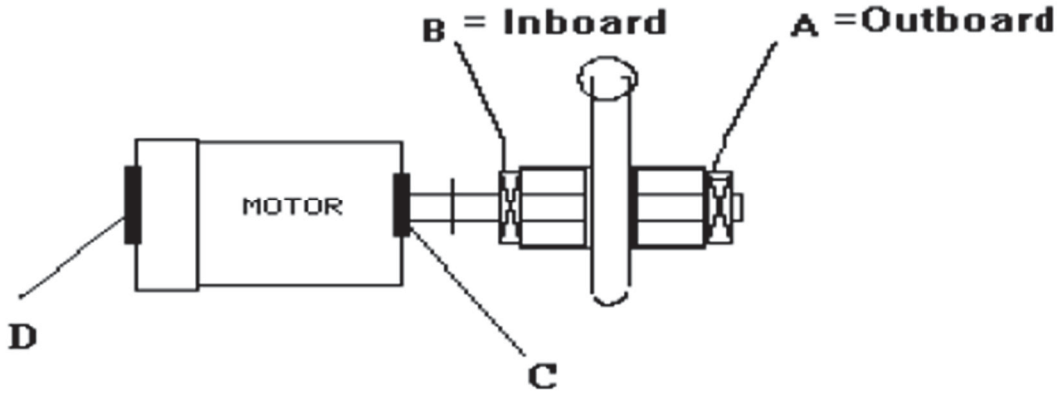

Component Cooling Pump 2B-B Pump Vibration
A - H
A - V
A - A
B - H
B - V
Alert
Req. Action
Vibration, ips
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
1/9/2024
4/18/2024
7/27/2024
11/4/2024
2/12/2025
5/23/2025
8/31/2025
12/9/2025
3/19/2026
6/27/2026
Date of Test


Component Cooling Pump 2B-B Motor Vibration
C - H
C - V
D - H
D - V
D - A
Alert
Req. Action
Vibration, ips
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
1/9/2024
4/18/2024
7/27/2024
11/4/2024
2/12/2025
5/23/2025
8/31/2025
12/9/2025
3/19/2026
6/27/2026
Date of Test

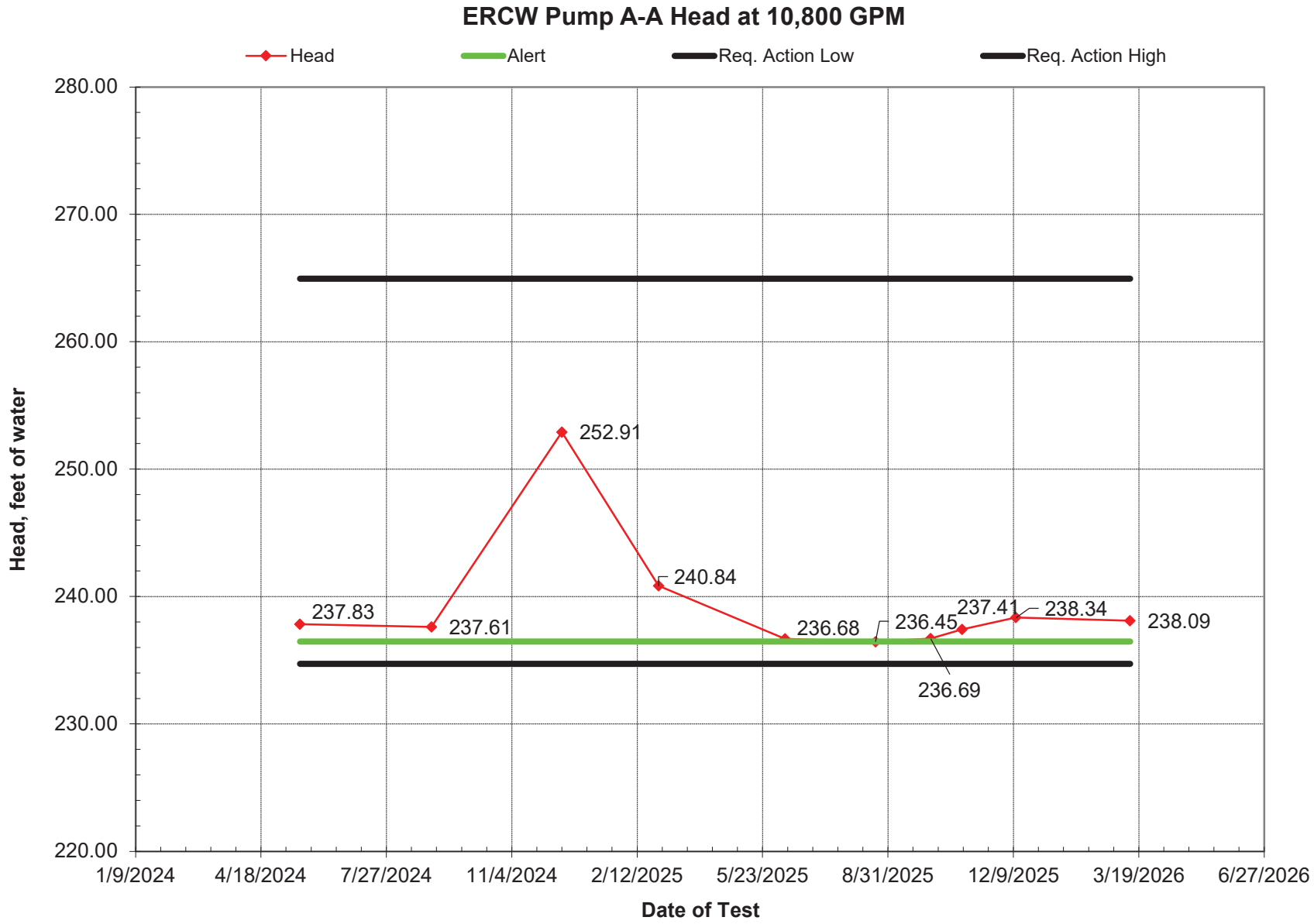
CCS Pump 2B-B		Head					Flow	Target Flow	
WID Number	Date	2-PI-70-32	2-PI-70-31	Delta P	Req. Action Low	Req. Action High	2-FI-70-200	Min	Max
123860069	3/15/2024	20.0	103.0	83.0	76.07	89.98	74.7	74.50	75.75
124092346	6/12/2024	20.5	102.5	82.0	76.07	89.98	74.5	74.50	75.75
124092351	9/11/2024	21.4	102.3	80.9	76.07	89.98	75.0	74.50	75.75
124351330	12/10/2024	21.0	103.0	82.0	76.07	89.98	75.0	74.50	75.75
124526938	3/12/2025	20.5	102.0	81.5	76.07	89.98	75.3	74.50	75.75
124558287	6/13/2025	21.0	102.0	81.0	76.07	89.98	75.0	74.50	75.75
124969264	9/11/2025	21.0	102.0	81.0	76.07	89.98	75.4	74.50	75.75
125146732	12/7/2025	22.0	103.0	81.0	76.07	89.98	75.0	74.50	75.75
125343650	3/10/2026	21.5	102.0	80.5	76.07	89.98	75.0	74.50	75.75

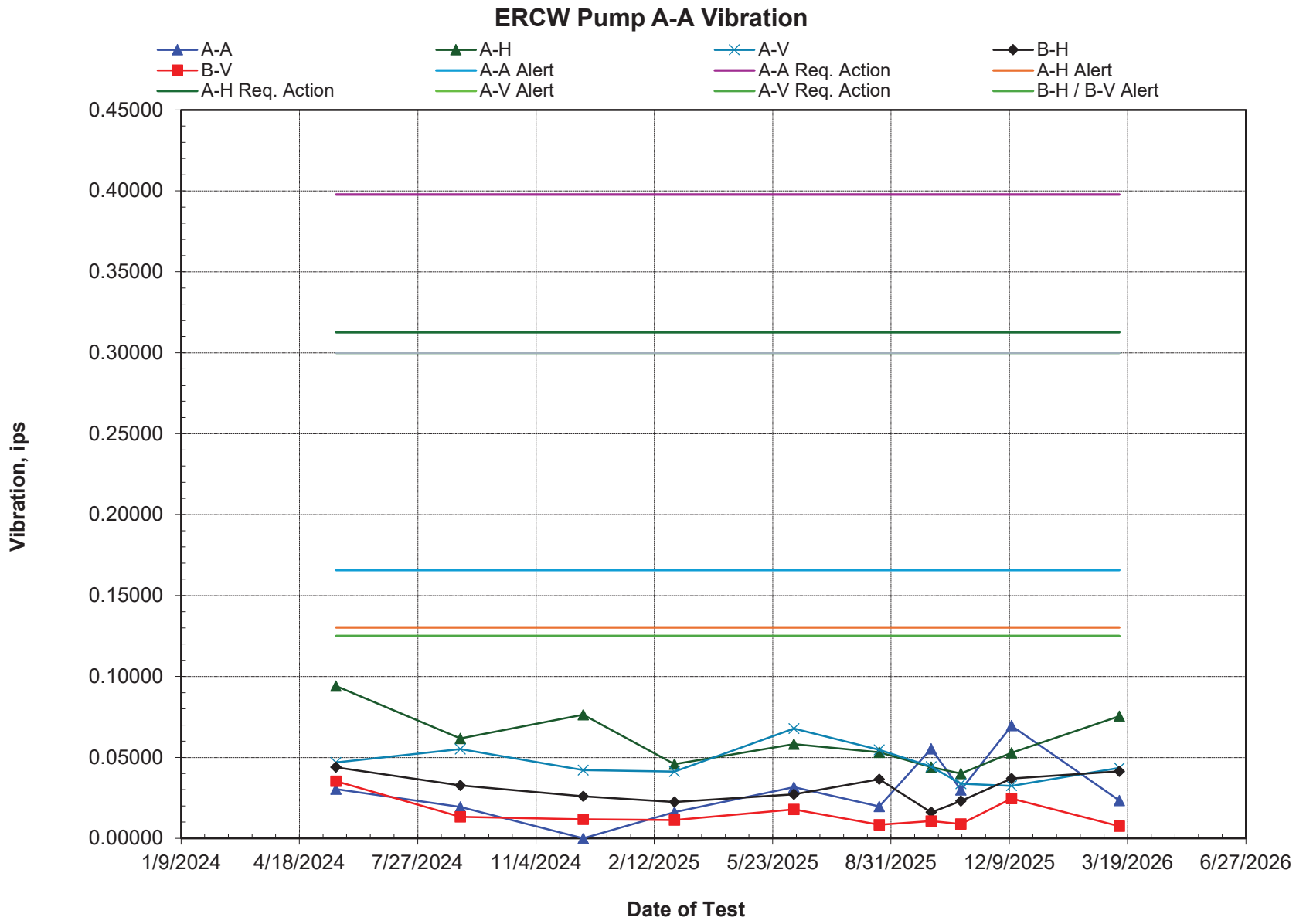
*NOTE: 2-FI-70-200 utilizes installed M&TE Pressure Gauges during the performance of 2-SI-70-901-A to collect a DP across the flow indicator to determine flows.

CCS Pump 2B-B		Pump Vibrations					Pump A/C	
WID Number	Date	A - H	A - V	A - A	B - H	B - V	Alert	Req. Action
123860069	3/15/2024	0.02330	0.02580	0.01370	0.02170	0.01170	0.12500	0.30000
124092346	6/12/2024	0.02050	0.02430	0.01340	0.02030	0.01980	0.12500	0.30000
124092351	9/11/2024	0.01810	0.02560	0.01420	0.02170	0.01410	0.12500	0.30000
124351330	12/10/2024	0.02500	0.02440	0.01260	0.02540	0.01210	0.12500	0.30000
124526938	3/12/2025	0.02300	0.02710	0.01560	0.02420	0.01320	0.12500	0.30000
124558287	6/13/2025	0.02070	0.02820	0.02390	0.02270	0.01210	0.12500	0.30000
124969264	9/11/2025	0.02160	0.02930	0.02470	0.02310	0.01060	0.12500	0.30000
125146732	12/7/2025	0.02180	0.02810	0.02080	0.02090	0.01230	0.12500	0.30000
125343650	3/10/2026	0.02120	0.02420	0.02330	0.02220	0.01410	0.12500	0.30000

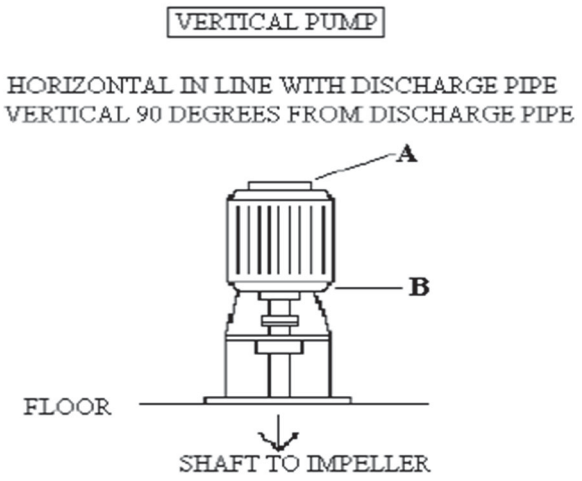


CCS Pump 2B-B		Motor Vibration					Motor A/C	
WID Number	Date	C - H	C - V	D - H	D - V	D - A	Alert	Req. Action
123860069	3/15/2024	0.02510	0.03010	0.02180	0.01670	0.01780	0.32500	0.70000
124092346	6/12/2024	0.02560	0.02450	0.02040	0.01460	0.02280	0.32500	0.70000
124092351	9/11/2024	0.02960	0.02410	0.02380	0.01870	0.02400	0.32500	0.70000
124351330	12/10/2024	0.09110	0.06150	0.07930	0.02570	0.03450	0.32500	0.70000
124526938	3/12/2025	0.08110	0.05810	0.06730	0.03020	0.02810	0.32500	0.70000
124558287	6/13/2025	0.03260	0.02600	0.03550	0.01440	0.02200	0.32500	0.70000
124969264	9/11/2025	0.02540	0.02520	0.01960	0.01340	0.01850	0.32500	0.70000
125146732	12/7/2025	0.02140	0.02360	0.02470	0.01460	0.02340	0.32500	0.70000
125343650	3/10/2026	0.02370	0.03750	0.03170	0.01470	0.03310	0.32500	0.70000

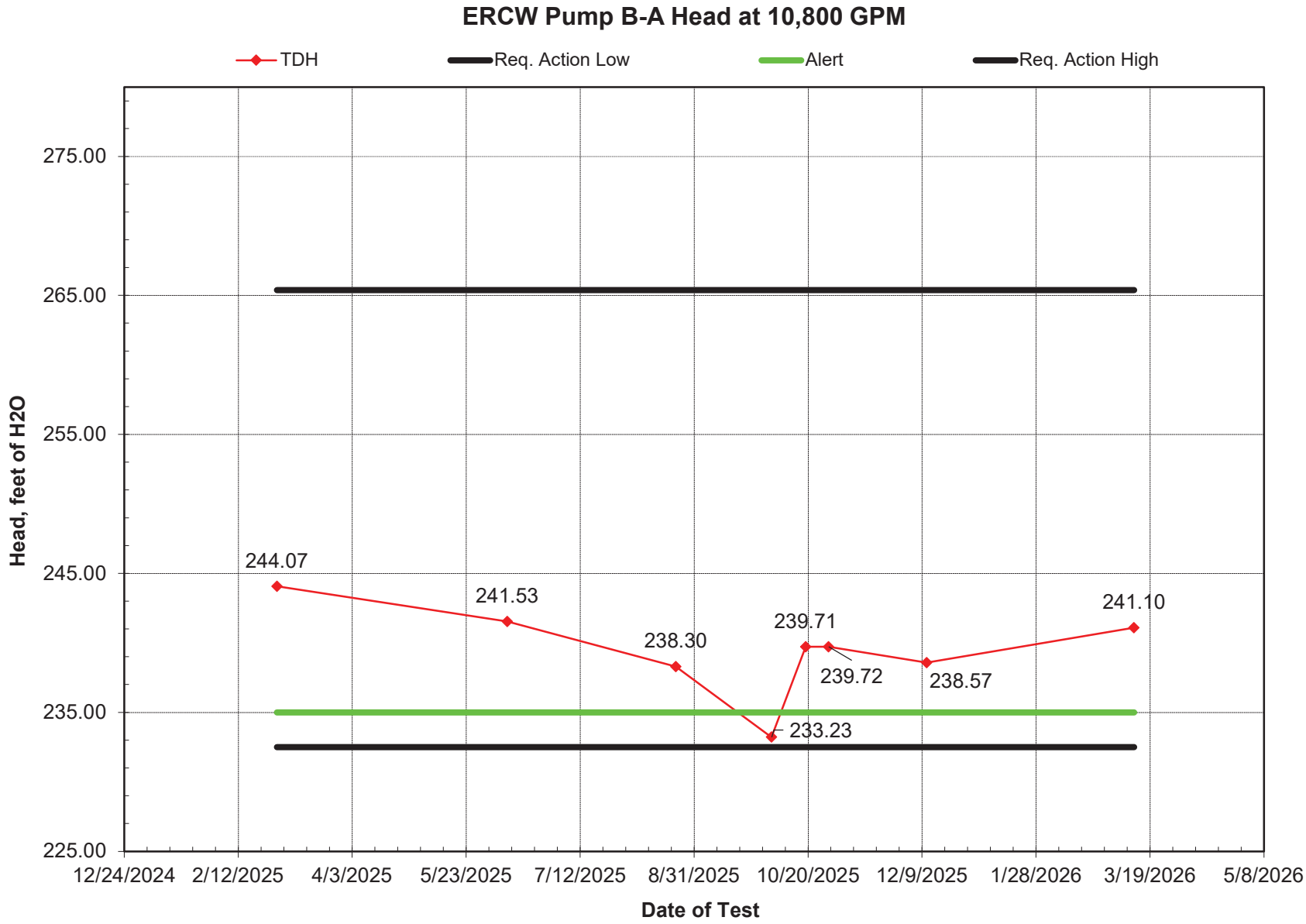

ERCW Pump A-A Head at 10,800 GPM
Head
Alert
Req. Action Low
Req. Action High
280.00
270.00
260.00
250.00
240.00
230.00
220.00
Head, feet of water
252.91
240.84
237.83
237.61
236.68
236.45
237.41
238.34
238.09
236.69
1/9/2024
4/18/2024
7/27/2024
11/4/2024
2/12/2025
5/23/2025
8/31/2025
12/9/2025
3/19/2026
6/27/2026
Date of Test

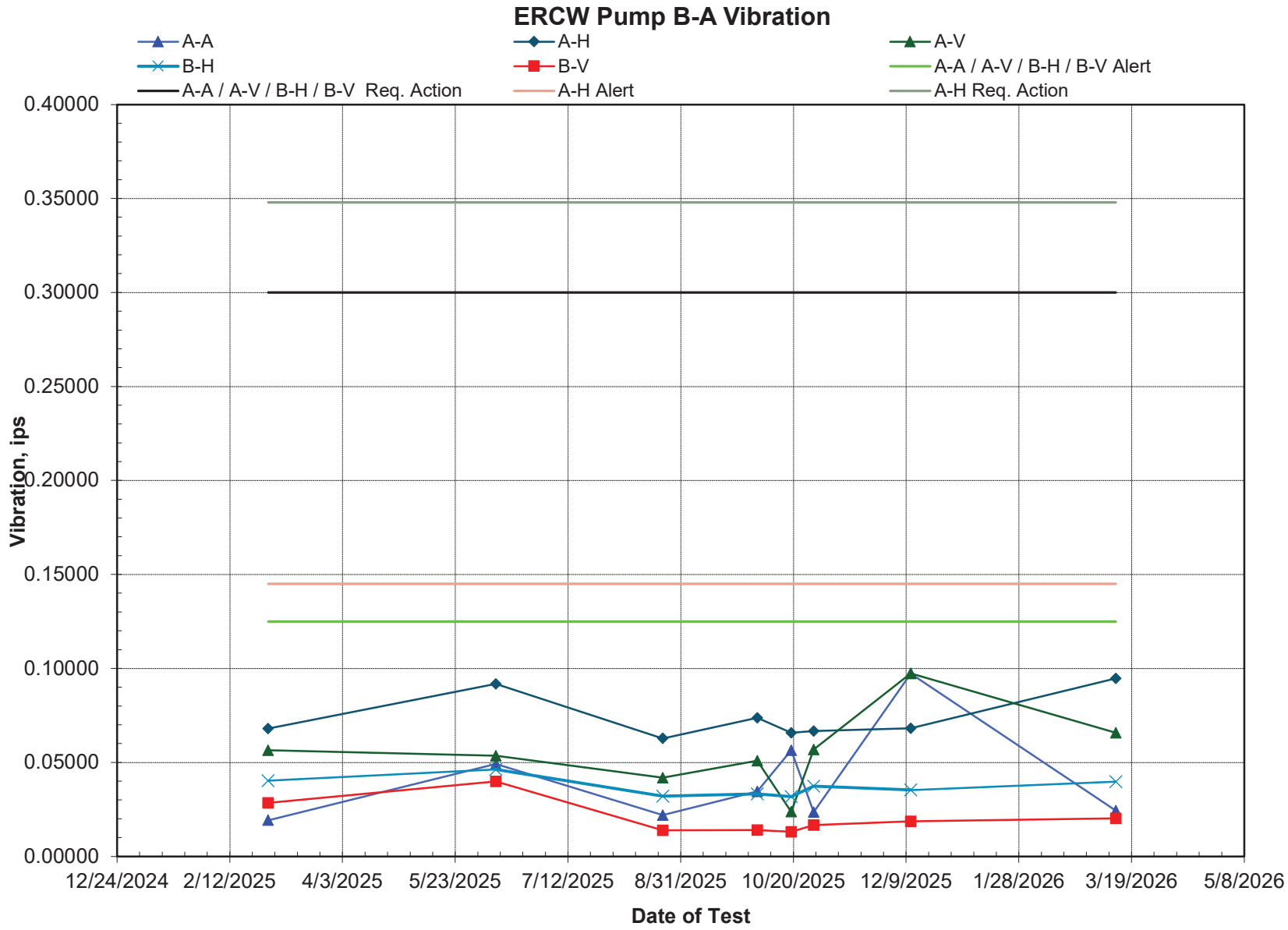

ERCW Pump A-A Vibration
A-A
A-H
A-V
B-H
B-V
A-A Alert
A-A Req. Action
A-H Alert
A-H Req. Action
A-V Alert
A-V Req. Action
B-H / B-V Alert
0.45000
0.40000
0.35000
0.30000
0.25000
0.20000
0.15000
0.10000
0.05000
0.00000
Vibration, ips
1/9/2024
4/18/2024
7/27/2024
11/4/2024
2/12/2025
5/23/2025
8/31/2025
12/9/2025
3/19/2026
6/27/2026
Date of Test

ERCW Pump A-A Test Data													
WID Number	Date	Head (ft wtr)						Vibration (ips)					
		River El.	Disch P	Head	Req. Action Low	Alert	Req. Action High	A-H	A-V	A-A	B-H	B-V
123992272	5/19/2024	682.52	83.9	237.83	234.72	236.48	264.96	0.09410	0.04680	0.03030	0.04390	0.03530
124090149	9/1/2024	682.05	83.6	237.61	234.72	236.48	264.96	0.06170	0.05510	0.01930	0.03260	0.01320
124349189	12/14/2024	677.38	88.2	252.91	234.72	236.48	264.96	0.07640	0.04220	,0176	0.02600	0.01180
124524720	3/1/2025	682.98	85.4	240.84	234.72	236.48	264.96	0.04580	0.04120	0.01610	0.02240	0.01130
124557374	6/10/2025	682.75	83.5	236.68	234.72	236.48	264.96	0.05810	0.06780	0.03160	0.02720	0.01790
124969917	8/21/2025	682.98	83.5	236.45	234.72	236.48	264.96	0.05310	0.05460	0.01970	0.03650	0.00840
124557942	10/4/2025	681.58	83.0	236.69	234.72	236.48	264.96	0.04390	0.04420	0.05520	0.01610	0.01070
125708559	10/29/2025	678.55	82.0	237.41	234.72	236.48	264.96	0.04000	0.03370	0.02990	0.02300	0.00890
125564828	12/11/2025	677.85	82.1	238.34	234.72	236.48	264.96	0.05280	0.03250	0.06960	0.03700	0.02460
126069790	3/12/2026	679.72	82.8	238.09	234.72	236.48	264.96	0.07540	0.04350	0.02340	0.04130	0.00750

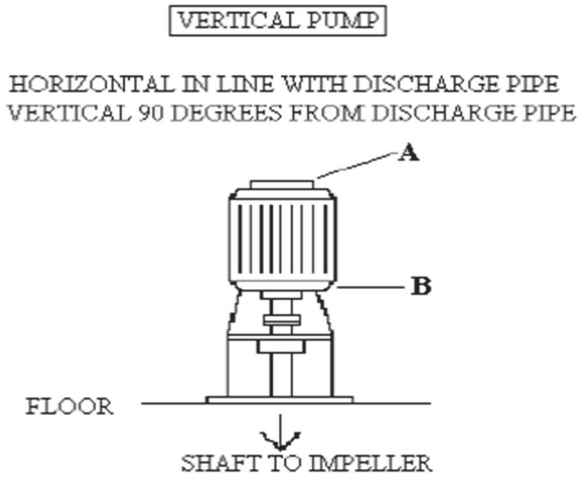


ERCW Pump A-A Vibration Acceptance Criteria (ips)							
A-A		A-H		A-V		B-H / B-V	
Alert	Req. Action	Alert	Req. Action	Alert	Req. Action	Alert	Req. Action
0.16572	0.39774	0.13030	0.31272	0.12500	0.30000	0.12500	0.30000

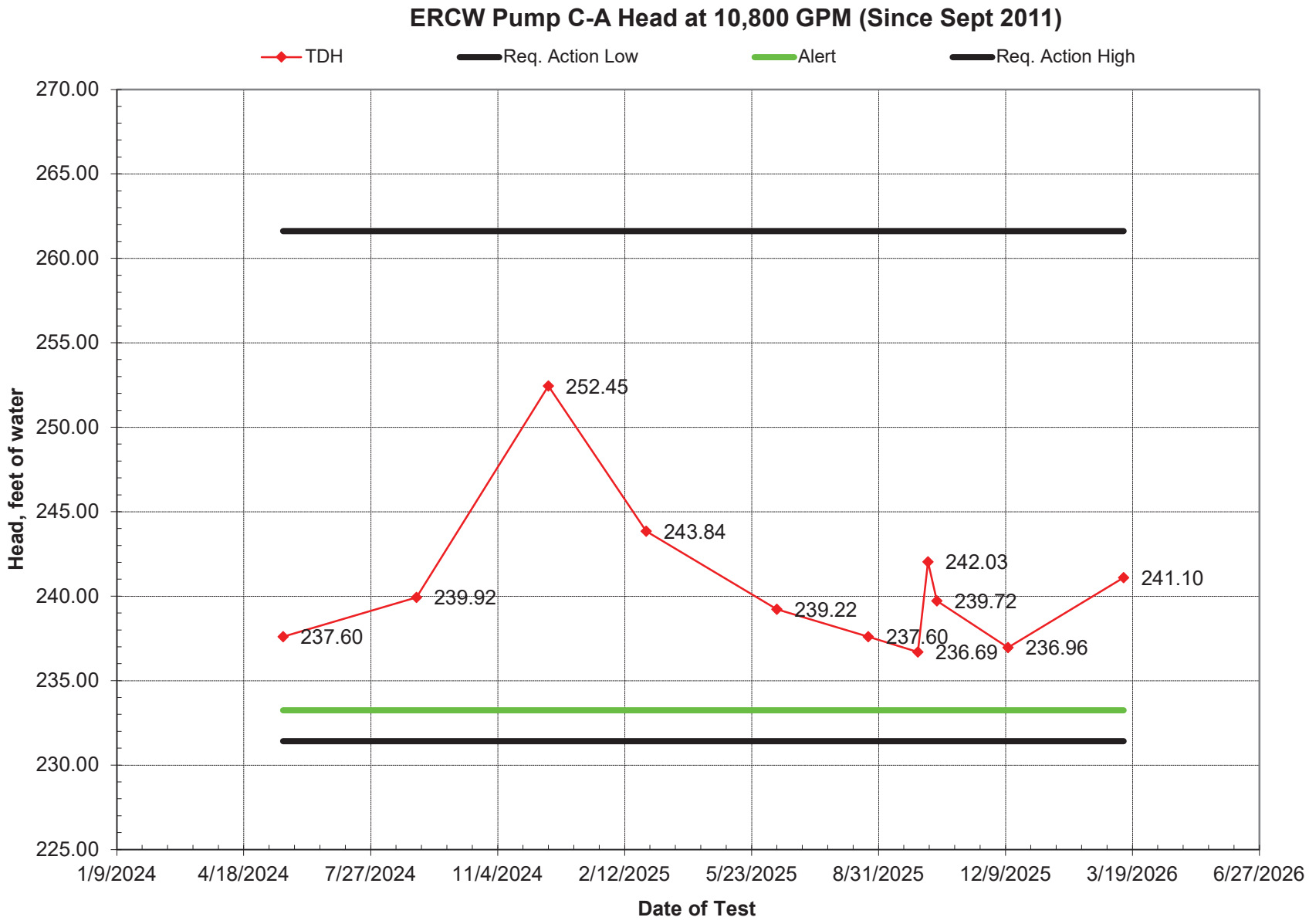

ERCW Pump B-A Head at 10,800 GPM
TDH
Req. Action Low
Alert
Req. Action High
Head, feet of H2O
275.00
265.00
255.00
245.00
235.00
225.00
244.07
241.53
238.30
233.23
239.71
239.72
238.57
241.10
12/24/2024
2/12/2025
4/3/2025
5/23/2025
7/12/2025
8/31/2025
10/20/2025
12/9/2025
1/28/2026
3/19/2026
5/8/2026
Date of Test

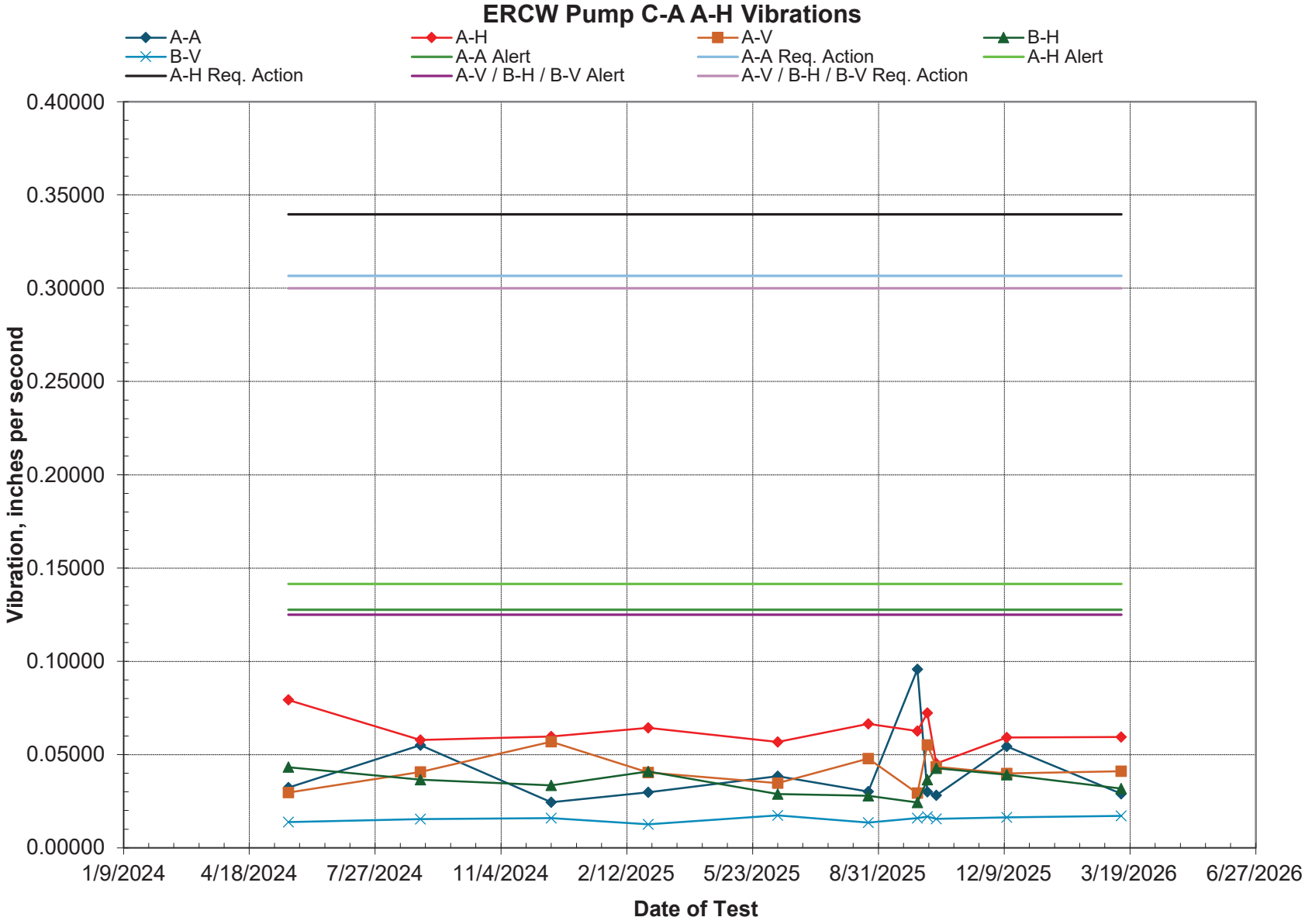

ERCW Pump B-A Vibration
A-A
A-H
A-V
B-H
B-V
A-A / A-V / B-H / B-V Alert
A-A / A-V / B-H / B-V Req. Action
A-H Alert
A-H Req. Action
0.40000
0.35000
0.30000
0.25000
0.20000
0.15000
0.10000
0.05000
0.00000
Vibration, ips
12/24/2024
2/12/2025
4/3/2025
5/23/2025
7/12/2025
8/31/2025
10/20/2025
12/9/2025
1/28/2026
3/19/2026
5/8/2026
Date of Test

ERCW Pump B-A Test Data													
WID Number	Date	Head (ft wtr)						Vibration (ips)					
		River El.	Disch P	Head	Req. Action Low	Alert	Req. Action High	A-H	A-V	A-A	B-H	B-V
124524720	3/1/2025	682.98	86.8	244.07	232.50	235.00	265.39	0.06800	0.05650	0.01930	0.04030	0.02840
124557374	6/10/2025	682.75	85.6	241.53	232.50	235.00	265.39	0.09180	0.05360	0.04910	0.04630	0.03990
124969917	8/23/2025	682.98	84.3	238.30	232.50	235.00	265.39	0.06280	0.04180	0.02190	0.03210	0.01390
124557942	10/4/2025	681.58	81.5	233.23	232.50	235.00	265.39	0.07370	0.05090	0.03460	0.03330	0.01400
125685828	10/19/2025	679.95	83.6	239.71	232.50	235.00	265.39	0.06570	0.02380	0.05640	0.03180	0.01310
125708559	10/29/2025	678.55	83.0	239.72	232.50	235.00	265.39	0.06670	0.05690	0.02350	0.03730	0.01660
125564828	12/11/2025	677.85	82.2	238.57	232.50	235.00	265.39	0.06810	0.09740	0.09730	0.03530	0.01860
126069790	3/12/2026	679.72	84.1	241.10	232.50	235.00	265.39	0.09470	0.06570	0.02430	0.03980	0.02020

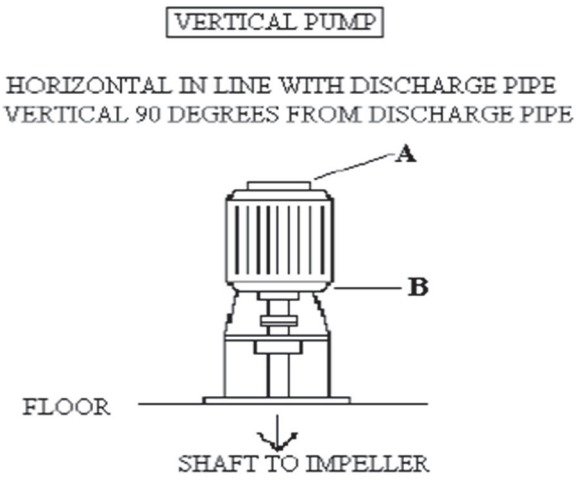


ERCW Pump B-A Vibration Acceptance Criteria (ips)			
A-H		A-A / A-V / B-H / B-V	
Alert	Req. Action	Alert	Req. Action
0.14500	0.34800	0.12500	0.30000

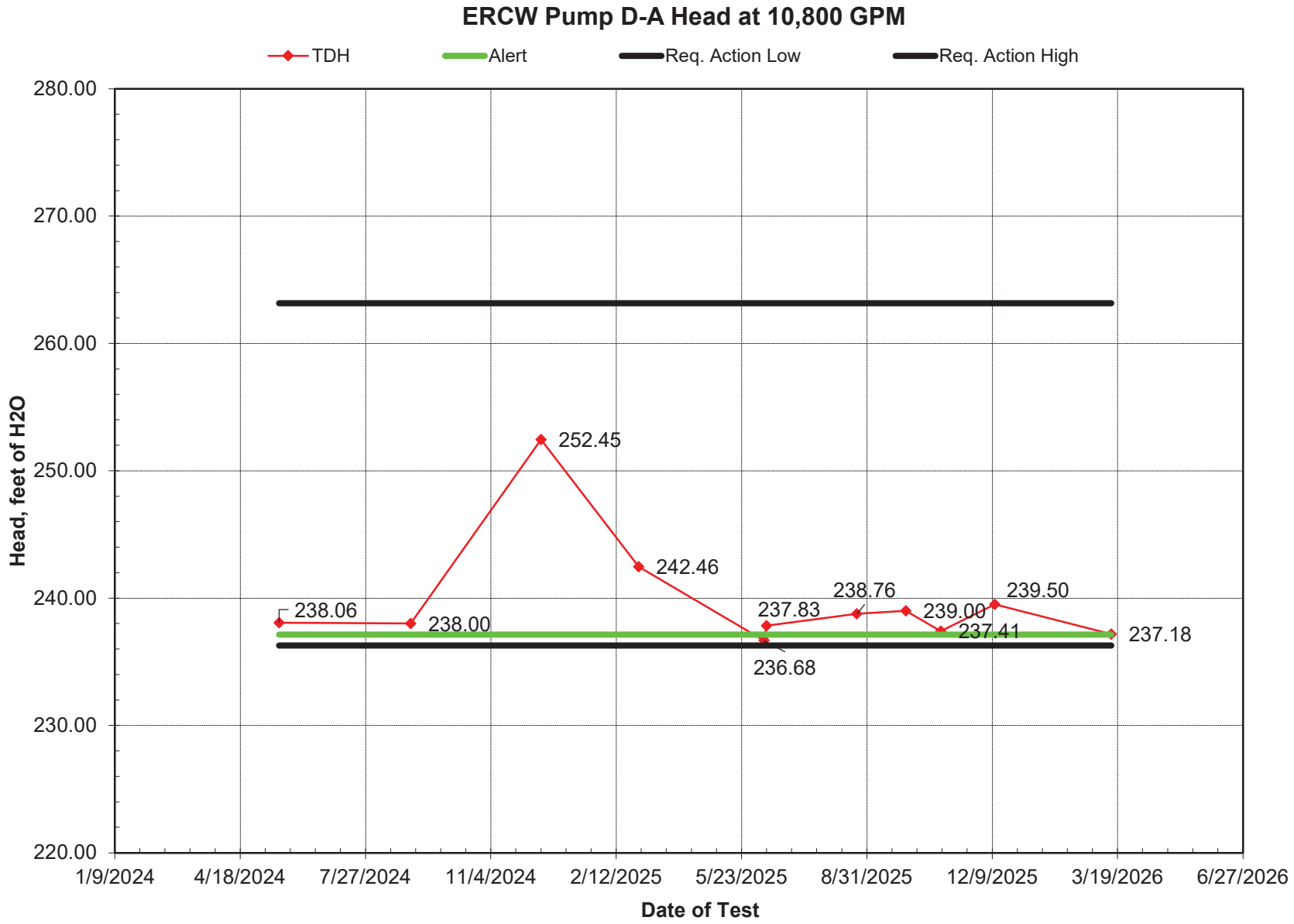

ERCW Pump C-A Head at 10,800 GPM (Since Sept 2011)
TDH
Req. Action Low
Alert
Req. Action High
Head, feet of water
270.00
265.00
260.00
255.00
250.00
245.00
240.00
235.00
230.00
225.00
1/9/2024
4/18/2024
7/27/2024
11/4/2024
2/12/2025
5/23/2025
8/31/2025
12/9/2025
3/19/2026
6/27/2026
Date of Test
237.60
239.92
252.45
243.84
239.22
237.60
236.69
242.03
239.72
236.96
241.10

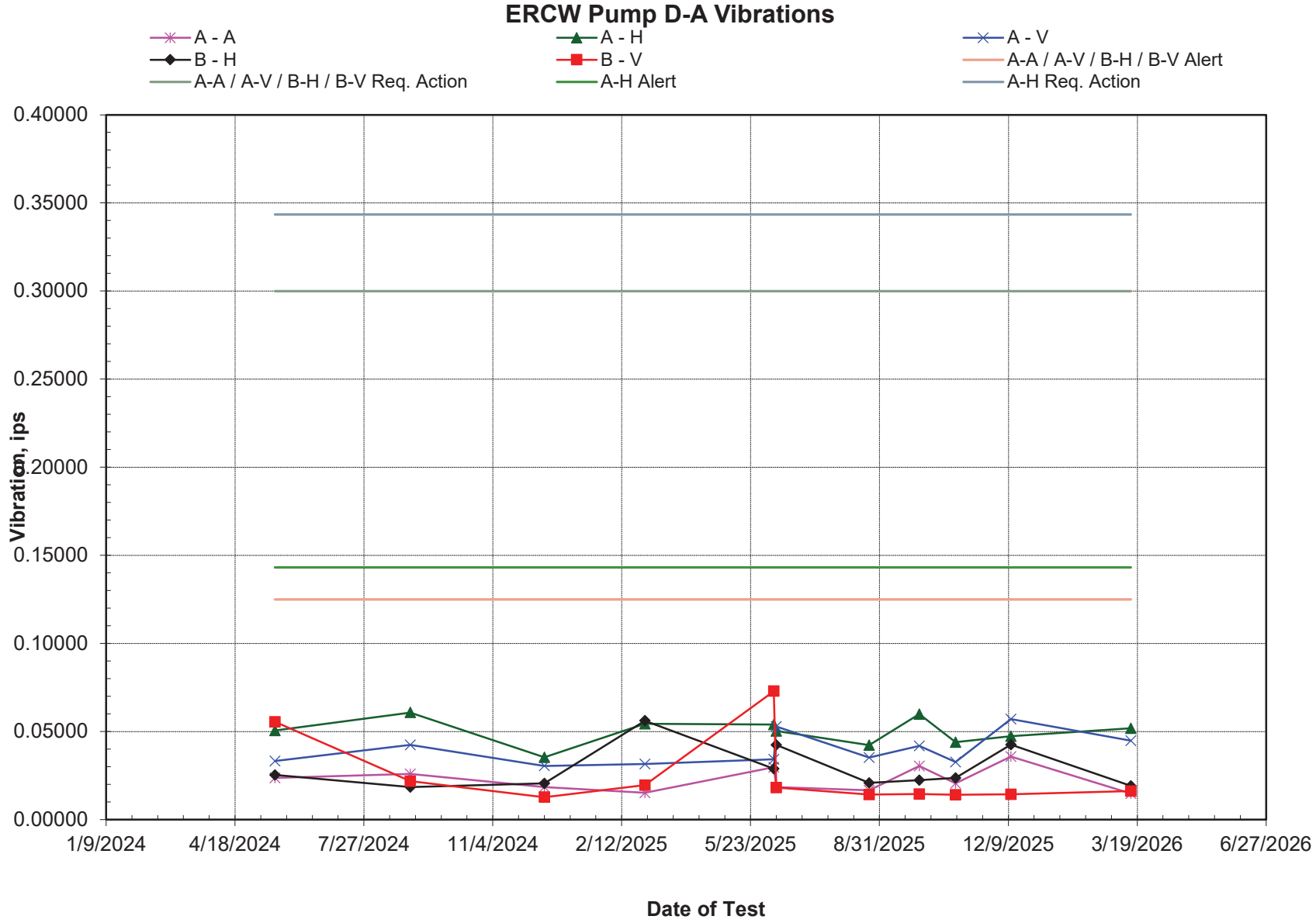

ERCW Pump C-A A-H Vibrations
A-A
A-H
A-V
B-H
B-V
A-A Alert
A-A Req. Action
A-H Alert
A-H Req. Action
A-V / B-H / B-V Alert
A-V / B-H / B-V Req. Action
0.40000
0.35000
0.30000
0.25000
0.20000
0.15000
0.10000
0.05000
0.00000
Vibration, inches per second
1/9/2024
4/18/2024
7/27/2024
11/4/2024
2/12/2025
5/23/2025
8/31/2025
12/9/2025
3/19/2026
6/27/2026
Date of Test

ERCW Pump C-A Test Data												
WID Number	Date	Head (ft wtr)						Vibration (ips)				
		River El.	Disch P	Head	Req. Action Low	Alert	Req. Action High	A-H	A-V	A-A	B-H	B-V
123992272	5/19/2024	682.52	83.8	237.60	231.42	233.25	261.62	0.07930	0.02960	0.03230	0.04330	0.01380
124091049	9/1/2024	682.05	84.6	239.92	231.42	233.25	261.62	0.05780	0.04070	0.05500	0.03650	0.01540
124349189	12/14/2024	677.38	88.0	252.45	231.42	233.25	261.62	0.05970	0.05690	0.02450	0.03350	0.01590
124524720	3/1/2025	682.98	86.7	243.84	231.42	233.25	261.62	0.06430	0.04040	0.02980	0.04090	0.01260
124557374	6/12/2025	682.75	84.6	239.22	231.42	233.25	261.62	0.05670	0.03470	0.03840	0.02880	0.01740
124969917	8/23/2025	682.98	84.0	237.60	231.42	233.25	261.62	0.06650	0.04790	0.03010	0.02790	0.01350
125564816	10/1/2025	681.58	83.0	236.69	231.42	233.25	261.62	0.06260	0.02930	0.09570	0.02430	0.01590
125708559	10/9/2025	678.55	84.0	242.03	231.42	233.25	261.62	0.07230	0.05520	0.03000	0.03660	0.01670
125685828	10/16/2025	679.48	83.4	239.72	231.42	233.25	261.62	0.04520	0.04350	0.02820	0.04270	0.01550
125564828	12/11/2025	677.85	81.5	236.96	231.42	233.25	261.62	0.05910	0.03990	0.05440	0.03920	0.01630
126069790	3/12/2026	679.72	84.1	241.10	231.42	233.25	261.62	0.05940	0.04100	0.02900	0.03180	0.01710

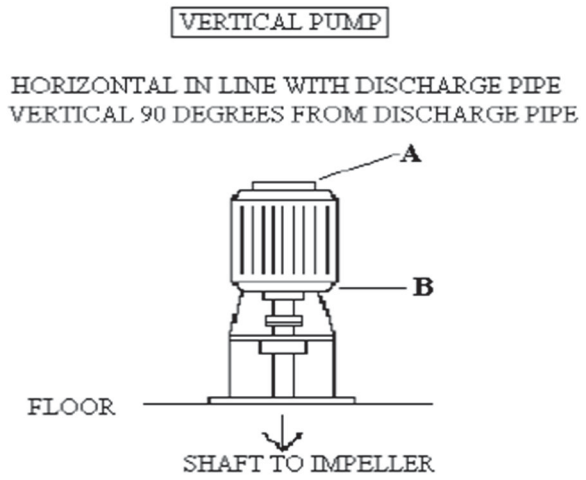


ERCW Pump C-A Vibration Acceptance Criteria (ips)					
A-A		A-H		A-V / B-H / B-V	
Alert	Req. Action	Alert	Req. Action	Alert	Req. Action
0.12770	0.30660	0.14150	0.33960	0.12500	0.30000


ERCW Pump D-A Head at 10,800 GPM
TDH
Alert
Req. Action Low
Req. Action High
280.00
270.00
260.00
250.00
240.00
230.00
220.00
Head, feet of H2O
1/9/2024
4/18/2024
7/27/2024
11/4/2024
2/12/2025
5/23/2025
8/31/2025
12/9/2025
3/19/2026
6/27/2026
Date of Test
238.06
238.00
252.45
242.46
236.68
237.83
238.76
239.00
237.41
239.50
237.18


ERCW Pump D-A Vibrations
A - A
A - H
A - V
B - H
B - V
A-A / A-V / B-H / B-V Alert
A-A / A-V / B-H / B-V Req. Action
A-H Alert
A-H Req. Action
0.40000
0.35000
0.30000
0.25000
0.20000
0.15000
0.10000
0.05000
0.00000
Vibration, ips
1/9/2024
4/18/2024
7/27/2024
11/4/2024
2/12/2025
5/23/2025
8/31/2025
12/9/2025
3/19/2026
6/27/2026
Date of Test

ERCW Pump D-A Test Data												
WID Number	Date	Head (ft wtr)						Vibration (ips)				
		River El.	Disch P	Head	Req. Action Low	Alert	Req. Action High	A-H	A-V	A-A	B-H	B-V
123992272	5/19/2024	682.52	84.0	238.06	236.29	237.14	263.16	0.05050	0.03330	0.02370	0.02540	0.05550
124091049	9/1/2024	683.05	84.2	238.00	236.29	237.14	263.16	0.06080	0.04240	0.02590	0.01850	0.02180
124349189	12/14/2024	677.38	88.0	252.45	236.29	237.14	263.16	0.03540	0.03050	0.01840	0.02060	0.01280
124524720	3/2/2025	682.75	86.0	242.46	236.29	237.14	263.16	0.05440	0.03160	0.01520	0.05620	0.01960
124557374	6/10/2025	682.52	83.4	236.68	236.29	237.14	263.16	0.05400	0.03430	0.02970	0.02890	0.07290
124557374	6/12/2025	682.75	84.0	237.83	236.29	237.14	263.16	0.05030	0.05280	0.01840	0.04240	0.01820
124969917	8/23/2025	682.98	84.5	238.76	236.29	237.14	263.16	0.04230	0.03520	0.01660	0.02090	0.01420
125564816	10/1/2025	681.58	84.0	239.00	236.29	237.14	263.16	0.05990	0.04180	0.03040	0.02240	0.01450
125708559	10/29/2025	678.55	82.0	237.41	236.29	237.14	263.16	0.04390	0.03270	0.02050	0.02370	0.01410
125564828	12/11/2025	677.85	82.6	239.50	236.29	237.14	263.16	0.04730	0.05710	0.03580	0.04260	0.01430
126096790	3/14/2026	679.48	82.3	237.18	236.29	237.14	263.16	0.05180	0.04480	0.01480	0.01910	0.01620



ERCW Pump D-A Vibration Acceptance Criteria (ips)			
A-H		A-A / A-V / B-H / B-V	
Alert	Req. Action	Alert	Req. Action
0.14315	0.34356	0.12500	0.30000

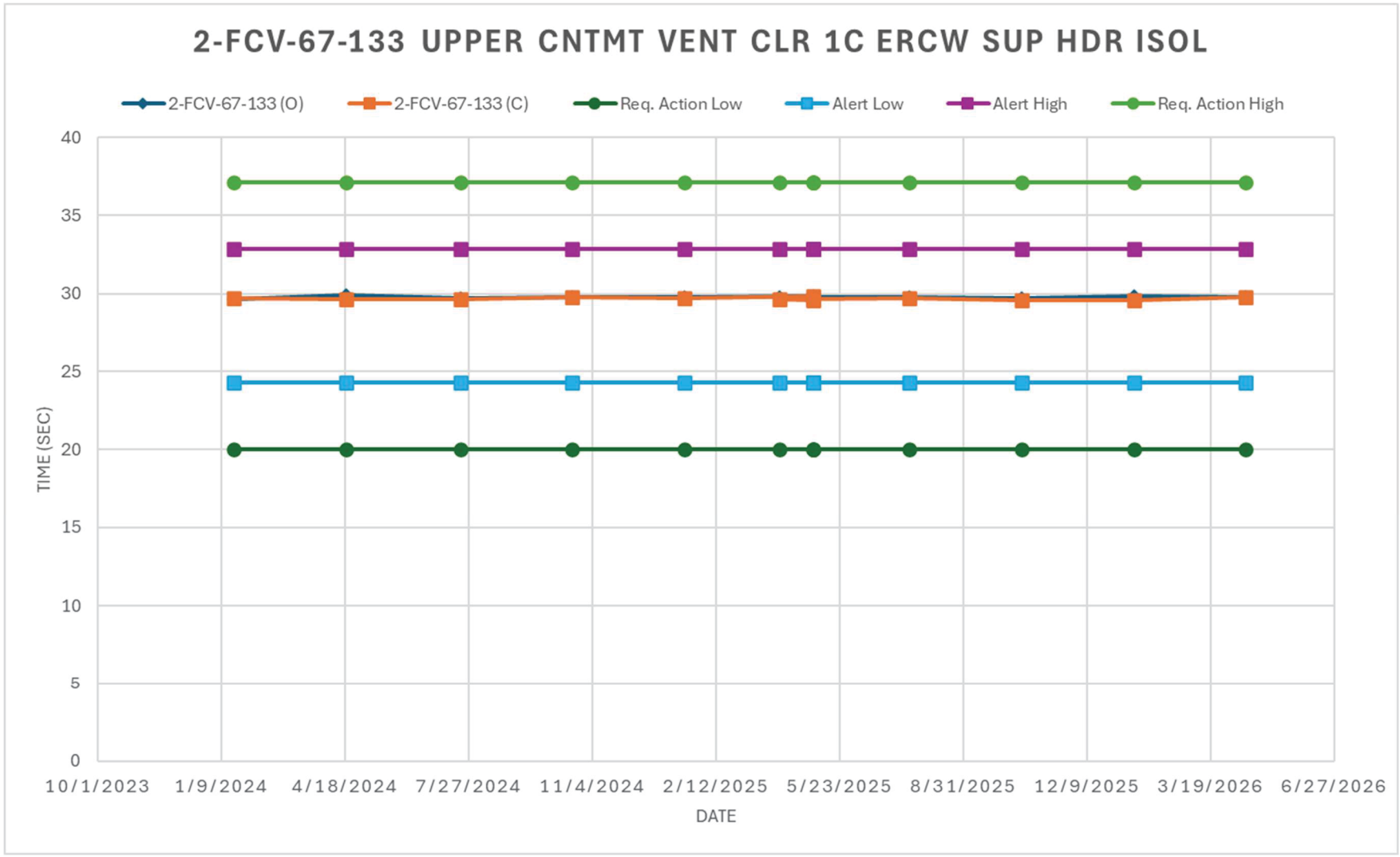
Note:

While ERCW Pump D-A is the lowest performing ERCW pump, a review of the trend data over the previous 24 months notes stable performance of total developed head. One performance, dated 6/10/25, was observed to be below the Alert limit for the pump but above the Required Action Low limit for the pump. A repeat performance of the testing conducted on 6/12/25 was performed with a total developed head above the Alert limit for the pump. A review of the Operations Narrative Logs for 6/12/25 noted that the test boundary was reason for the discrepancy, not pump performance. Trend lines (both linear and moving average) do not predict pump performance to fall below the Required Action Low limit for the pump during the RFA period.

It should also be noted that while each Train of ERCW contains 4 pumps, the Tech Spec Bases for TS 3.7.8 clarifies that 2 of the 4 pumps are adequate to supply worst case conditions while both units are online. Because ERCW is a common system, TS 3.7.17 for ERCW with 1 unit shut down requires 3 pumps per Train for the first 48 hours of Mode 3 to mitigate a potential accident on the non-shutdown unit. As such, there is inherent redundancy in the ERCW pumps for normal and shutdown operations.

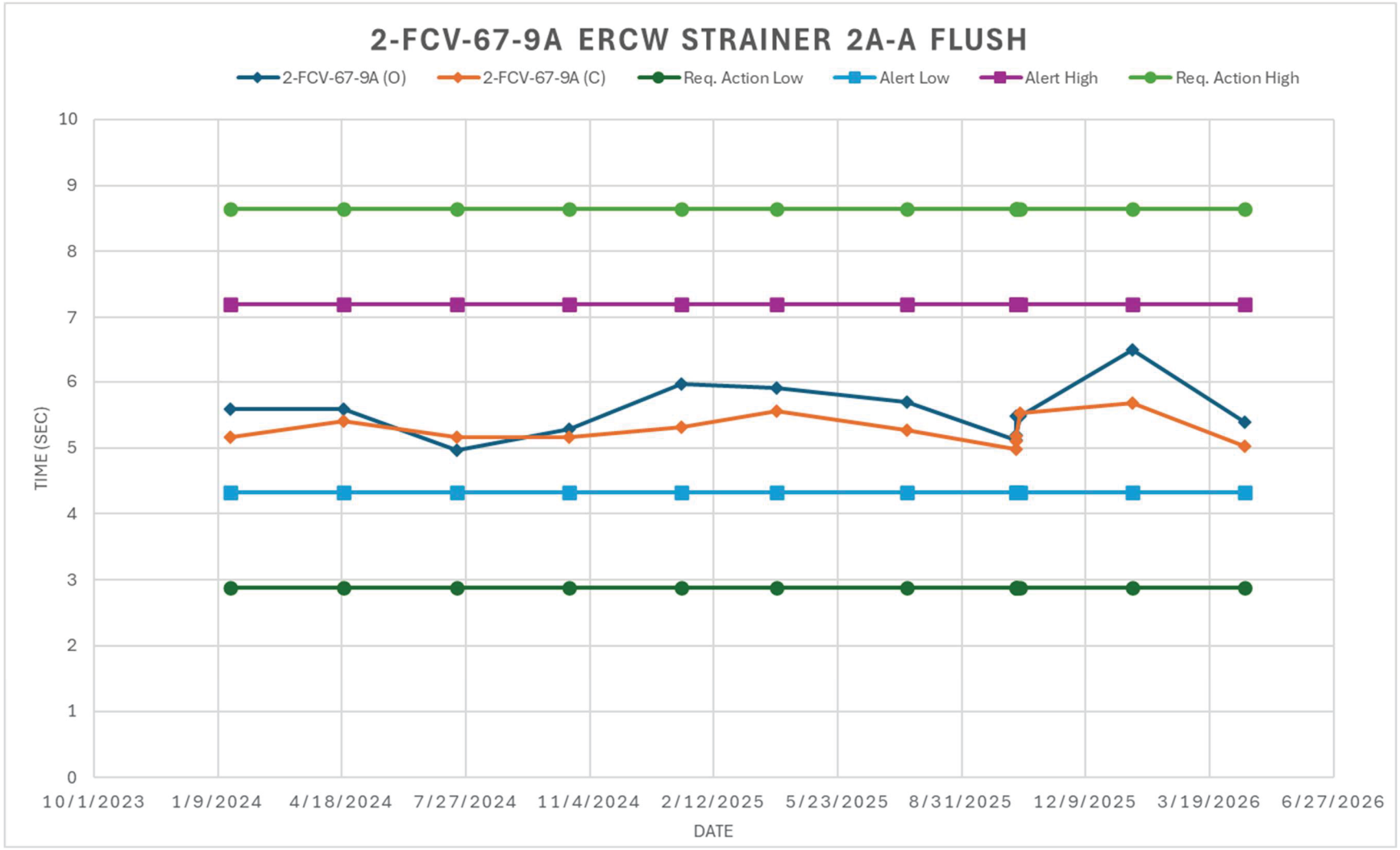
2-FCV-67-133 UPPER CNTMT VENT CLR 1C ERCW SUP HDR ISOL

Procedure	WID Number	Date	2-FCV-67-133-A (C)	2-FCV-67-133-A (O)	Req. Action Low	Alert Low	Alert High	Req. Action High
2-SI-67-907-A	123768213	1/19/2024	29.68	29.69	20.00	24.28	32.84	37.12
2-SI-67-907-A	123992506	4/19/2024	29.90	29.68	20.00	24.28	32.84	37.12
2-SI-67-907-A	124092178	7/20/2024	29.74	29.68	20.00	24.28	32.84	37.12
2-SI-67-907-A	124351183	10/18/2024	29.80	29.80	20.00	24.28	32.84	37.12
2-SI-67-907-A	124526768	1/17/2025	29.78	29.73	20.00	24.28	32.84	37.12
2-SI-67-907-A	125052103	5/1/2025	29.82	29.86	20.00	24.28	32.84	37.12
2-SI-67-907-A	125052103	5/1/2025	29.62	29.67	20.00	24.28	32.84	37.12
2-SI-67-907-A	125052103	5/1/2025	29.71	29.59	20.00	24.28	32.84	37.12
2-SI-67-907-A	124557999	4/4/2025	29.76	29.68	20.00	24.28	32.84	37.12
2-SI-67-907-A	124970966	7/18/2025	29.78	29.69	20.00	24.28	32.84	37.12
2-SI-67-907-A	125146680	10/17/2025	29.71	29.62	20.00	24.28	32.84	37.12
2-SI-67-907-A	125343578	1/16/2026	29.86	29.60	20.00	24.28	32.84	37.12
2-SI-67-907-A	125496569	4/16/2026	29.77	29.78	20.00	24.28	32.84	37.12


2-FCV-67-133 UPPER CNTMT VENT CLR 1C ERCW SUP HDR ISOL
2-FCV-67-133 (O)
2-FCV-67-133 (C)
Req. Action Low
Alert Low
Alert High
Req. Action High
TIME (SEC)
40
35
30
25
20
15
10
5
0
10/1/2023
1/9/2024
4/18/2024
7/27/2024
11/4/2024
2/12/2025
5/23/2025
8/31/2025
12/9/2025
3/19/2026
6/27/2026
DATE

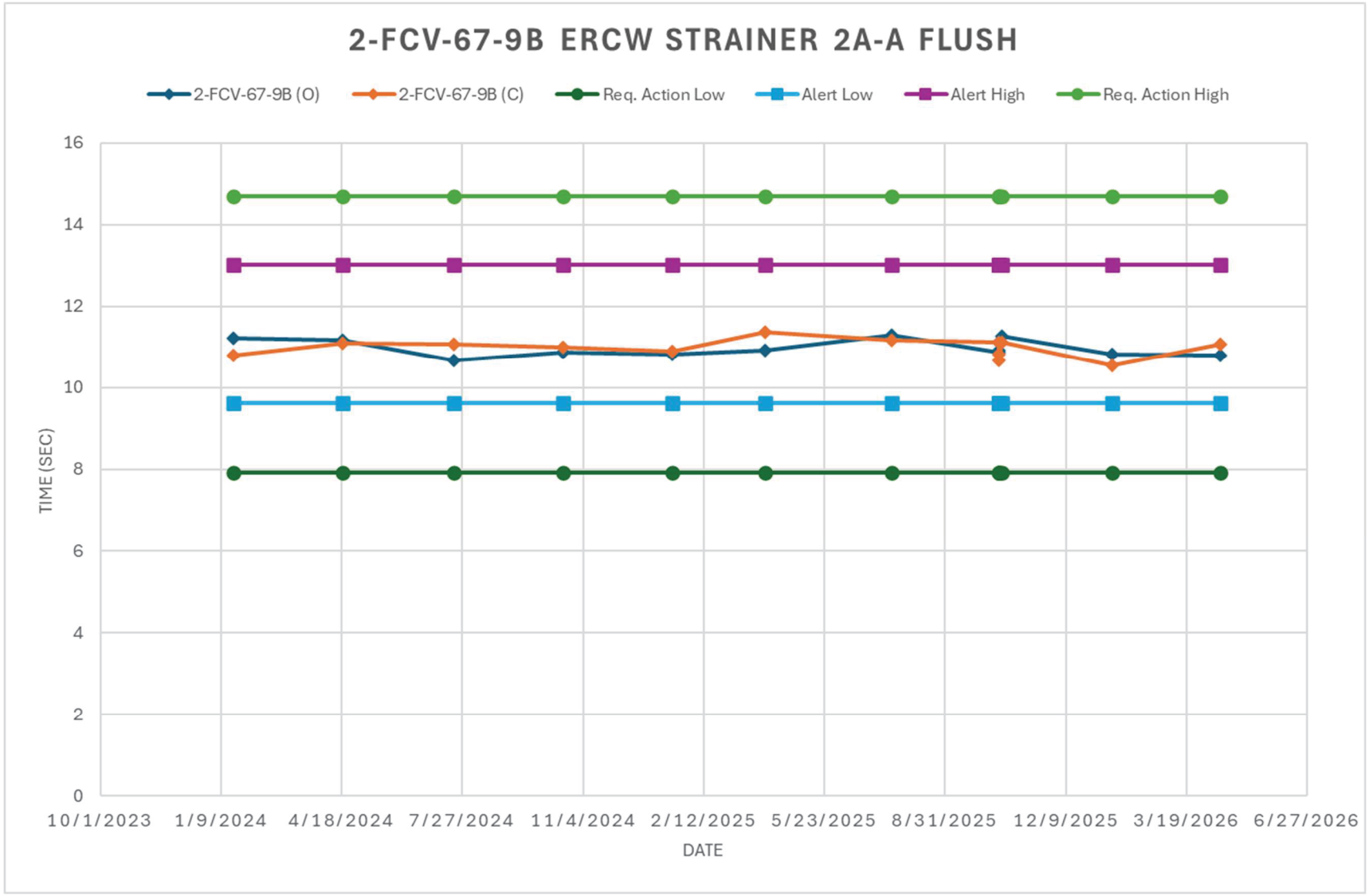
2-FCV-67-9A ERCW STRAINER 2A-A BACKWASH

Procedure	WID Number	Date	2-FCV-67-9A-A (O)	2-FCV-67-9A-A (C)	Req. Action Low	Alert Low	Alert High	Req. Action High
2-SI-67-907-A	123768213	1/19/2024	5.58	5.16	2.88	4.32	7.20	8.64
2-SI-67-907-A	123992506	4/19/2024	5.58	5.40	2.88	4.32	7.20	8.64
2-SI-67-907-A	124092178	7/20/2024	4.96	5.16	2.88	4.32	7.20	8.64
2-SI-67-907-A	124351183	10/18/2024	5.28	5.16	2.88	4.32	7.20	8.64
2-SI-67-907-A	124526768	1/17/2025	5.96	5.31	2.88	4.32	7.20	8.64
2-SI-67-907-A	124557999	4/4/2025	5.91	5.56	2.88	4.32	7.20	8.64
2-SI-67-907-A	124970966	7/18/2025	5.70	5.27	2.88	4.32	7.20	8.64
2-SI-67-907-A	125146680	10/17/2025	5.48	5.52	2.88	4.32	7.20	8.64
2-SI-67-907-A	125680518	10/14/2025	5.48	5.10	2.88	4.32	7.20	8.64
2-SI-67-907-A	125680518	10/14/2025	5.19	5.18	2.88	4.32	7.20	8.64
2-SI-67-907-A	125680518	10/14/2025	5.11	4.98	2.88	4.32	7.20	8.64
2-SI-67-907-A	125343578	1/16/2026	6.49	5.68	2.88	4.32	7.20	8.64
2-SI-67-907-A	125496569	4/16/2026	5.39	5.02	2.88	4.32	7.20	8.64


2-FCV-67-9A ERCW STRAINER 2A-A FLUSH
2-FCV-67-9A (O)
2-FCV-67-9A (C)
Req. Action Low
Alert Low
Alert High
Req. Action High
TIME (SEC)
10
9
8
7
6
5
4
3
2
1
0
10/1/2023
1/9/2024
4/18/2024
7/27/2024
11/4/2024
2/12/2025
5/23/2025
8/31/2025
12/9/2025
3/19/2026
6/27/2026
DATE

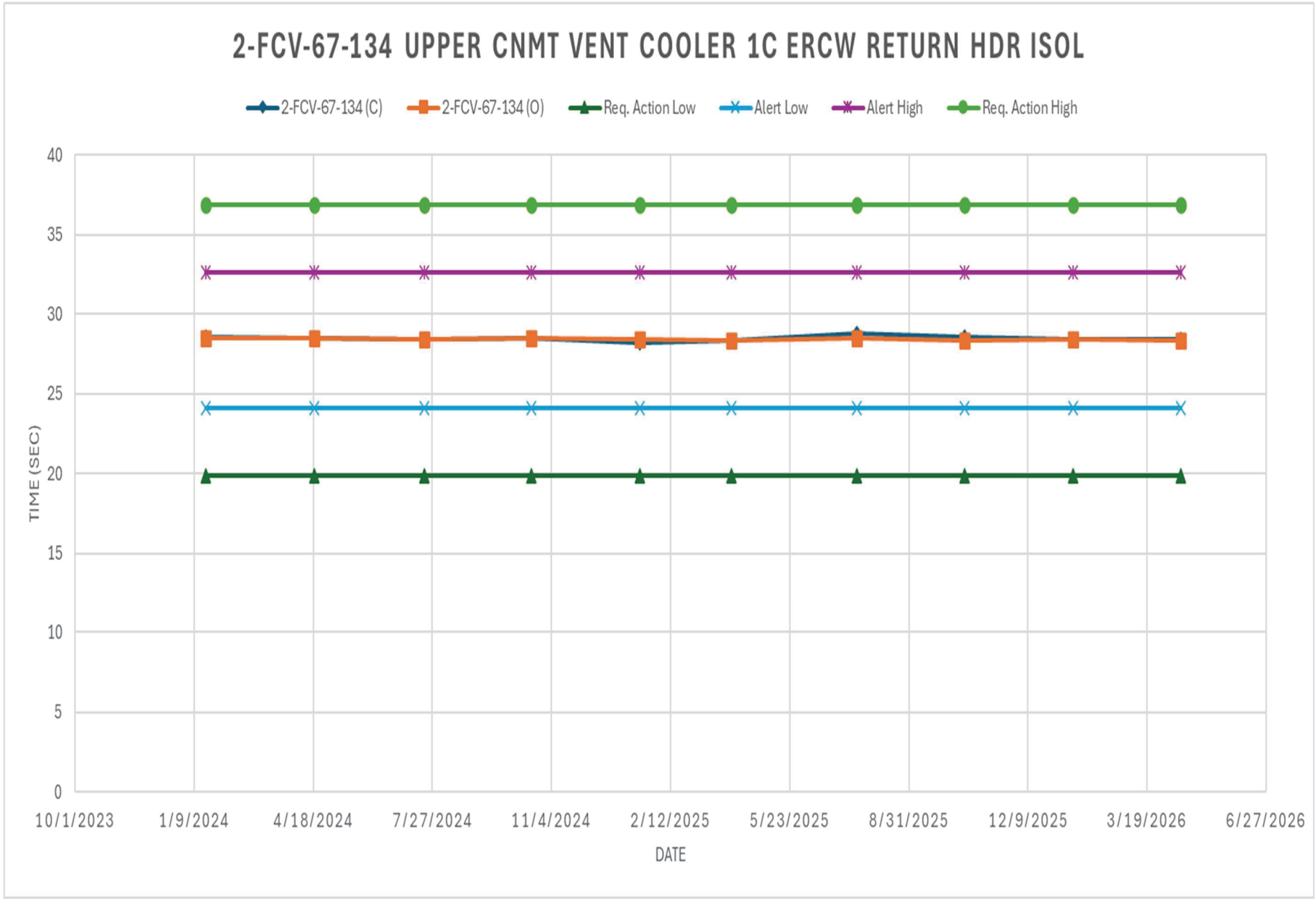
2-FCV-67-9B ERCW STRAINER 2B-A FLUSH

Procedure	WID Number	Date	2-FCV-67-9B-A (O)	2-FCV-67-9B-A (C)	Req. Action Low	Alert Low	Alert High	Req. Action High
2-SI-67-907-A	123768213	1/19/2024	11.23	10.80	7.92	9.61	13.01	14.70
2-SI-67-907-A	123992506	4/19/2024	11.18	11.10	7.92	9.61	13.01	14.70
2-SI-67-907-A	124092178	7/20/2024	10.68	11.08	7.92	9.61	13.01	14.70
2-SI-67-907-A	124351183	10/18/2024	10.88	10.99	7.92	9.61	13.01	14.70
2-SI-67-907-A	124526768	1/17/2025	10.81	10.90	7.92	9.61	13.01	14.70
2-SI-67-907-A	124557999	4/4/2025	10.91	11.38	7.92	9.61	13.01	14.70
2-SI-67-907-A	124970966	7/18/2025	11.30	11.18	7.92	9.61	13.01	14.70
2-SI-67-907-A	125146680	10/17/2025	11.27	11.12	7.92	9.61	13.01	14.70
2-SI-67-907-A	125680518	10/14/2025	11.12	10.81	7.92	9.61	13.01	14.70
2-SI-67-907-A	125680518	10/14/2025	10.92	10.68	7.92	9.61	13.01	14.70
2-SI-67-907-A	125680518	10/14/2025	10.88	11.11	7.92	9.61	13.01	14.70
2-SI-67-907-A	125343578	1/16/2026	10.82	10.55	7.92	9.61	13.01	14.70
2-SI-67-907-A	125496569	4/16/2026	10.80	11.08	7.92	9.61	13.01	14.70


2-FCV-67-9B ERCW STRAINER 2A-A FLUSH
2-FCV-67-9B (O)
2-FCV-67-9B (C)
Req. Action Low
Alert Low
Alert High
Req. Action High
TIME (SEC)
16
14
12
10
8
6
4
2
0
10/1/2023
1/9/2024
4/18/2024
7/27/2024
11/4/2024
2/12/2025
5/23/2025
8/31/2025
12/9/2025
3/19/2026
6/27/2026
DATE

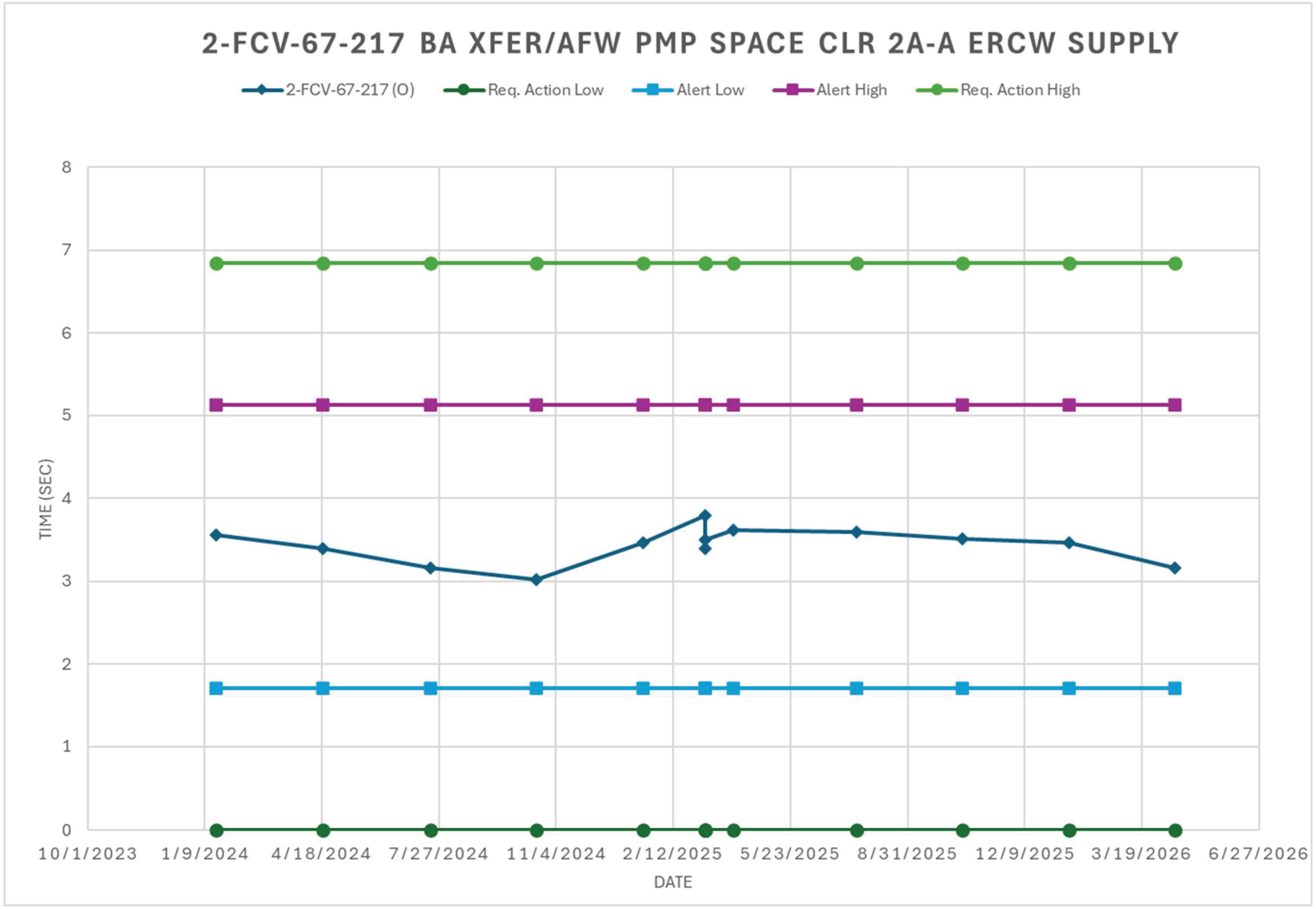
2-FCV-67-134 UPPER CNTMT VENT CLR 1C ERCW RET HDR ISOL

Procedure	WID Number	Date	2-FCV-67-134-B (C)	2-FCV-67-134-B (O)	Req. Action Low	Alert Low	Alert High	Req. Action High
2-SI-67-907-A	123768213	1/19/2024	28.52	28.45	19.87	24.13	32.63	36.89
2-SI-67-907-A	123992506	4/19/2024	28.46	28.49	19.87	24.13	32.63	36.89
2-SI-67-907-A	124092178	7/20/2024	28.40	28.41	19.87	24.13	32.63	36.89
2-SI-67-907-A	124351183	10/18/2024	28.50	28.50	19.87	24.13	32.63	36.89
2-SI-67-907-A	124526768	1/17/2025	28.21	28.39	19.87	24.13	32.63	36.89
2-SI-67-907-A	124557999	4/4/2025	28.31	28.36	19.87	24.13	32.63	36.89
2-SI-67-907-A	124970966	7/18/2025	28.74	28.47	19.87	24.13	32.63	36.89
2-SI-67-907-A	125146680	10/17/2025	28.53	28.36	19.87	24.13	32.63	36.89
2-SI-67-907-A	125343578	1/16/2026	28.40	28.38	19.87	24.13	32.63	36.89
2-SI-67-907-A	125496569	4/16/2026	28.42	28.32	19.87	24.13	32.63	36.89


2-FCV-67-134 UPPER CNMT VENT COOLER 1C ERCW RETURN HDR ISOL
2-FCV-67-134 (C)
2-FCV-67-134 (O)
Req. Action Low
Alert Low
Alert High
Req. Action High
TIME (SEC)
40
35
30
25
20
15
10
5
0
10/1/2023
1/9/2024
4/18/2024
7/27/2024
11/4/2024
2/12/2025
5/23/2025
8/31/2025
12/9/2025
3/19/2026
6/27/2026
DATE

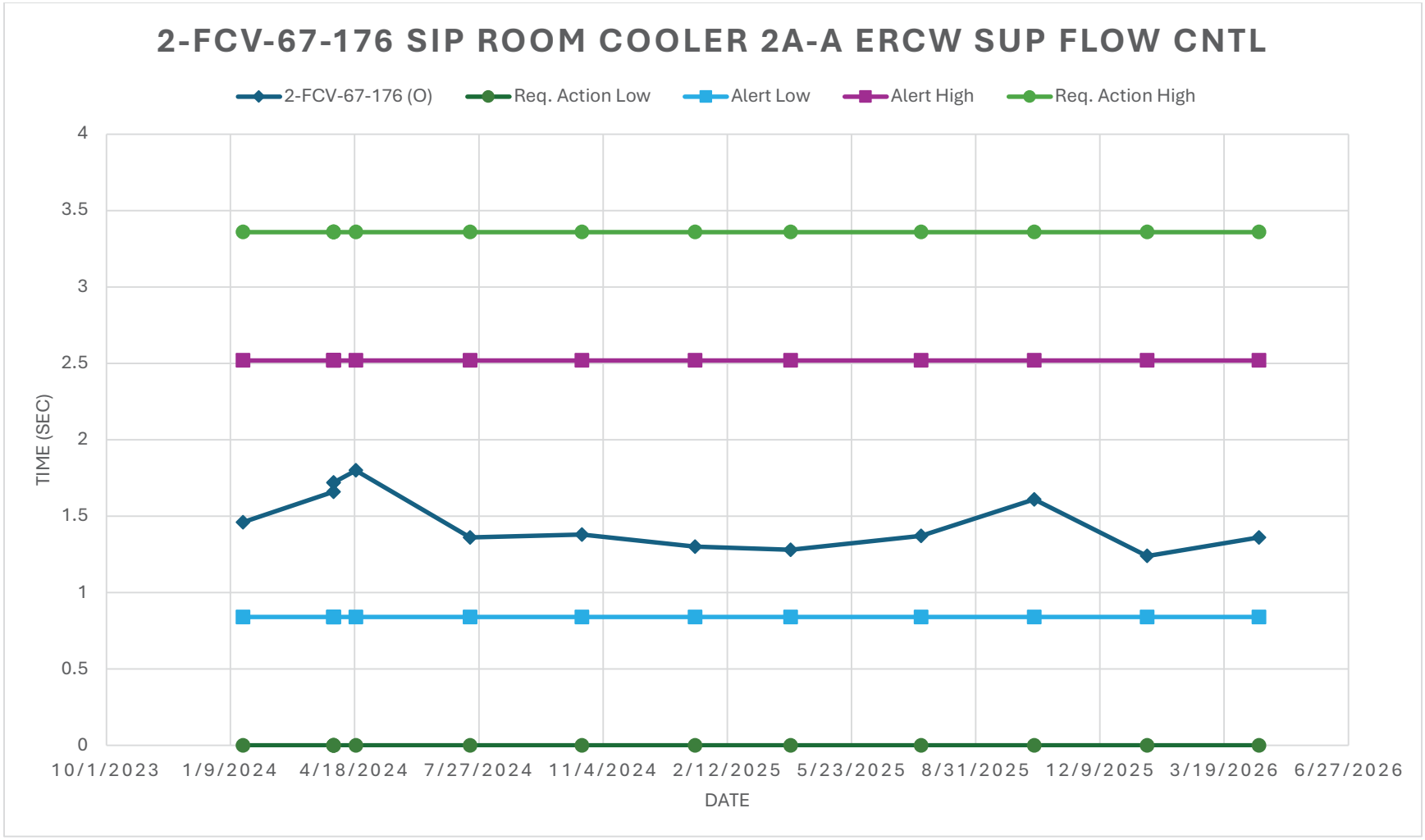
2-FCV-67-217 BA XFER/AFW PMP SPACE CLR 2A-A ERCW SUPPLY

Procedure	WID Number	Date	2-FCV-67-217 (O)	Req. Action Low	Alert Low	Alert High	Req. Action High
2-SI-67-907-A	123768213	1/19/2024	3.56	0.00	1.71	5.13	6.84
2-SI-67-907-A	123992506	4/19/2024	3.39	0.00	1.71	5.13	6.84
2-SI-67-907-A	124092178	7/20/2024	3.16	0.00	1.71	5.13	6.84
2-SI-67-907-A	124351183	10/18/2024	3.02	0.00	1.71	5.13	6.84
2-SI-67-907-A	124526768	1/17/2025	3.46	0.00	1.71	5.13	6.84
2-SI-67-907-A	124557999	4/4/2025	3.62	0.00	1.71	5.13	6.84
2-SI-67-907-A	125194266	3/11/2025	3.39	0.00	1.71	5.13	6.84
2-SI-67-907-A	125194266	3/11/2025	3.50	0.00	1.71	5.13	6.84
2-SI-67-907-A	125194266	3/11/2025	3.79	0.00	1.71	5.13	6.84
2-SI-67-907-A	124970966	7/18/2025	3.59	0.00	1.71	5.13	6.84
2-SI-67-907-A	125146680	10/17/2025	3.51	0.00	1.71	5.13	6.84
2-SI-67-907-A	125343578	1/16/2026	3.46	0.00	1.71	5.13	6.84
2-SI-67-907-A	125496569	4/16/2026	3.16	0.00	1.71	5.13	6.84


2-FCV-67-217 BA XFER/AFW PMP SPACE CLR 2A-A ERCW SUPPLY
2-FCV-67-217 (O)
Req. Action Low
Alert Low
Alert High
Req. Action High
TIME (SEC)
8
7
6
5
4
3
2
1
0
10/1/2023
1/9/2024
4/18/2024
7/27/2024
11/4/2024
2/12/2025
5/23/2025
8/31/2025
12/9/2025
3/19/2026
6/27/2026
DATE

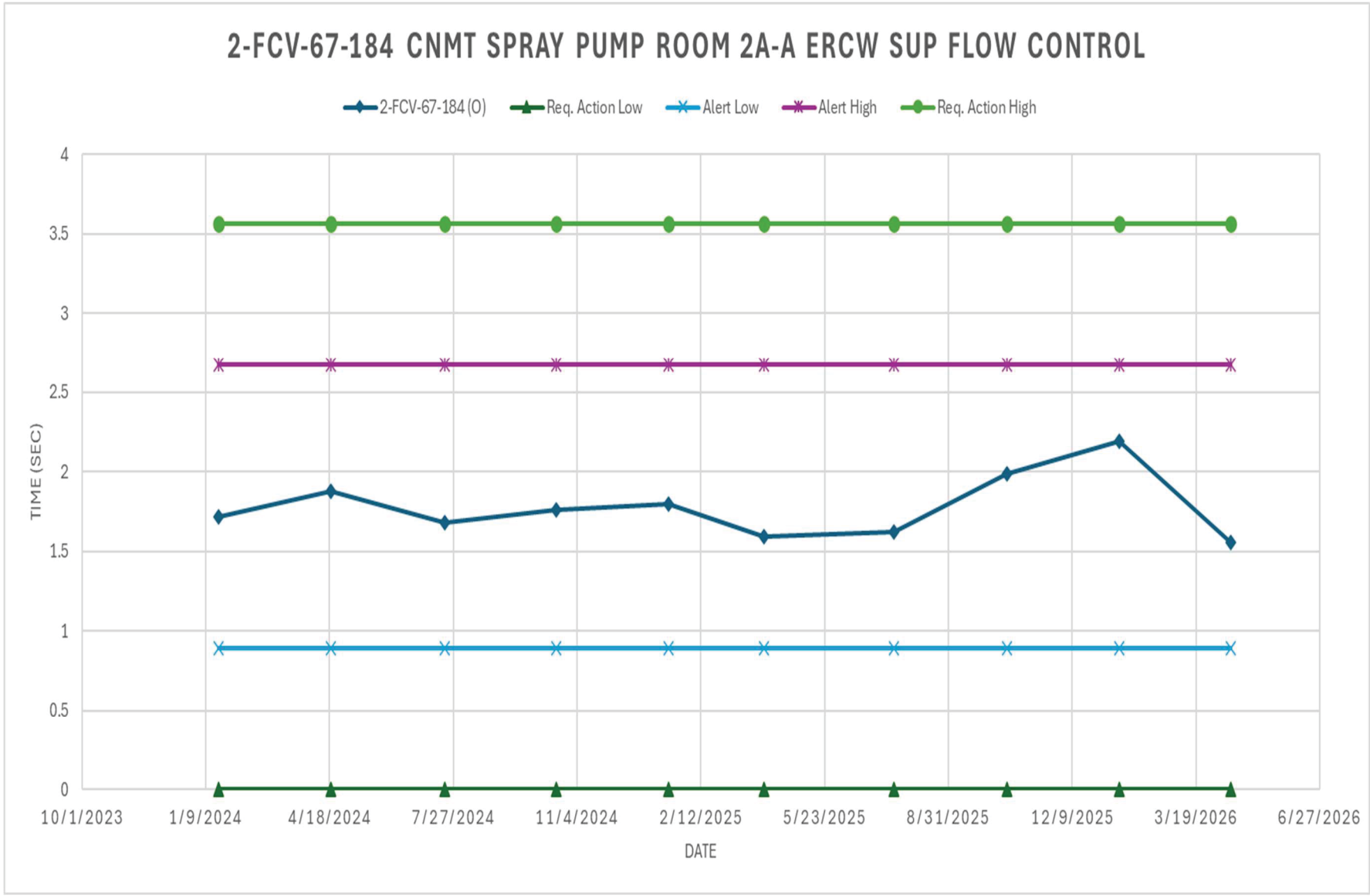
2-FCV-67-176 SIP ROOM COOLER 2A-A ERCW SUP FLOW CNTL

Procedure	WID Number	Date	2-FCV-67-176 (O)	Req. Action Low	Alert Low	Alert High	Req. Action High
2-SI-67-907-A	123768213	1/19/2024	1.46	0.00	0.84	2.52	3.36
2-SI-67-907-A	124408710	4/1/2024	1.72	0.00	0.84	2.52	3.36
2-SI-67-907-A	124408710	4/1/2024	1.72	0.00	0.84	2.52	3.36
2-SI-67-907-A	124408710	4/1/2024	1.66	0.00	0.84	2.52	3.36
2-SI-67-907-A	123992506	4/19/2024	1.80	0.00	0.84	2.52	3.36
2-SI-67-907-A	124092178	7/20/2024	1.36	0.00	0.84	2.52	3.36
2-SI-67-907-A	124351183	10/18/2024	1.38	0.00	0.84	2.52	3.36
2-SI-67-907-A	124526768	1/17/2025	1.30	0.00	0.84	2.52	3.36
2-SI-67-907-A	124557999	4/4/2025	1.28	0.00	0.84	2.52	3.36
2-SI-67-907-A	124970966	7/18/2025	1.37	0.00	0.84	2.52	3.36
2-SI-67-907-A	125146680	10/17/2025	1.61	0.00	0.84	2.52	3.36
2-SI-67-907-A	125343578	1/16/2026	1.24	0.00	0.84	2.52	3.36
2-SI-67-907-A	125496569	4/16/2026	1.36	0.00	0.84	2.52	3.36


2-FCV-67-176 SIP ROOM COOLER 2A-A ERCW SUP FLOW CNTL
2-FCV-67-176 (O)
Req. Action Low
Alert Low
Alert High
Req. Action High
TIME (SEC)
4
3.5
3
2.5
2
1.5
1
0.5
0
10/1/2023
1/9/2024
4/18/2024
7/27/2024
11/4/2024
2/12/2025
5/23/2025
8/31/2025
12/9/2025
3/19/2026
6/27/2026
DATE

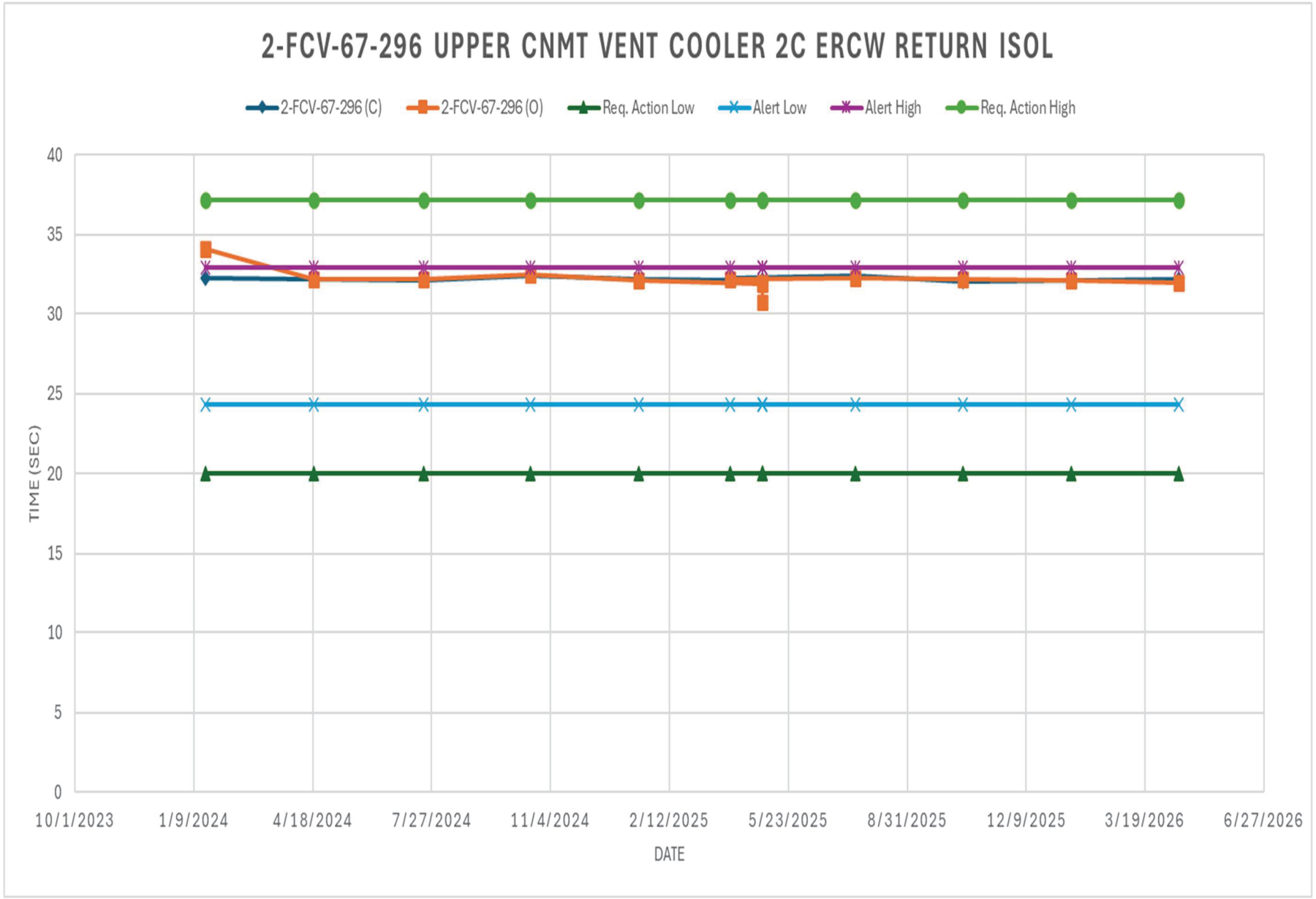
2-FCV-67-184 CSP ROOM COOLER 2A-A ERCW SUP FLOW CNTL

Procedure	WID Number	Date	2-FCV-67-184 (O)	Req. Action Low	Alert Low	Alert High	Req. Action High
2-SI-67-907-A	123768213	1/19/2024	1.72	0.00	0.89	2.67	3.56
2-SI-67-907-A	123992506	4/19/2024	1.88	0.00	0.89	2.67	3.56
2-SI-67-907-A	124092178	7/20/2024	1.68	0.00	0.89	2.67	3.56
2-SI-67-907-A	124351183	10/18/2024	1.76	0.00	0.89	2.67	3.56
2-SI-67-907-A	124526768	1/17/2025	1.80	0.00	0.89	2.67	3.56
2-SI-67-907-A	124557999	4/4/2025	1.59	0.00	0.89	2.67	3.56
2-SI-67-907-A	124970966	7/18/2025	1.62	0.00	0.89	2.67	3.56
2-SI-67-907-A	125146680	10/17/2025	1.99	0.00	0.89	2.67	3.56
2-SI-67-907-A	125343578	1/16/2026	2.19	0.00	0.89	2.67	3.56
2-SI-67-907-A	125496569	4/16/2026	1.56	0.00	0.89	2.67	3.56


2-FCV-67-184 CNMT SPRAY PUMP ROOM 2A-A ERCW SUP FLOW CONTROL
2-FCV-67-184 (O)
Req. Action Low
Alert Low
Alert High
Req. Action High
TIME (SEC)
4
3.5
3
2.5
2
1.5
1
0.5
0
10/1/2023
1/9/2024
4/18/2024
7/27/2024
11/4/2024
2/12/2025
5/23/2025
8/31/2025
12/9/2025
3/19/2026
6/27/2026
DATE

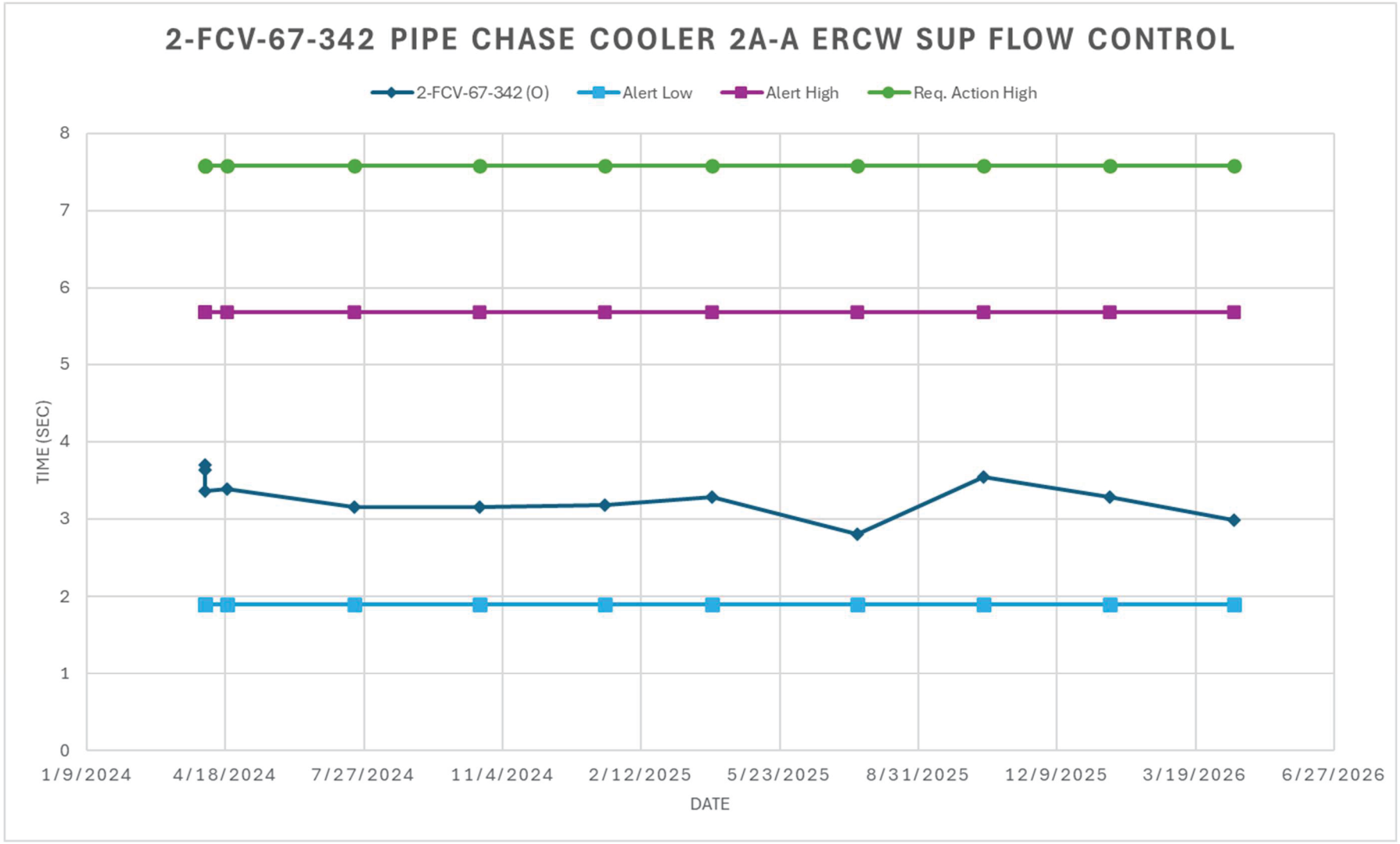
2-FCV-67-296 UPPER CNTMT VENT CLR 2C ERCW RET ISOL

Procedure	WID Number	Date	2-FCV-67-296-A (C)	2-FCV-67-296-A (O)	Req. Action Low	Alert Low	Alert High	Req. Action High
2-SI-67-907-A	123768213	1/19/2024	32.26	34.08	20.03	24.32	32.90	37.19
2-SI-67-907-A	123992506	4/19/2024	32.22	32.18	20.03	24.32	32.90	37.19
2-SI-67-907-A	124092178	7/20/2024	32.16	32.22	20.03	24.32	32.90	37.19
2-SI-67-907-A	124351183	10/18/2024	32.40	32.50	20.03	24.32	32.90	37.19
2-SI-67-907-A	124526768	1/17/2025	32.19	32.11	20.03	24.32	32.90	37.19
2-SI-67-907-A	125052103	5/1/2025	32.10	31.94	20.03	24.32	32.90	37.19
2-SI-67-907-A	125052103	5/1/2025	32.08	30.75	20.03	24.32	32.90	37.19
2-SI-67-907-A	125052103	5/1/2025	32.16	31.99	20.03	24.32	32.90	37.19
2-SI-67-907-A	124557999	4/4/2025	32.26	32.17	20.03	24.32	32.90	37.19
2-SI-67-907-A	124970966	7/18/2025	32.42	32.28	20.03	24.32	32.90	37.19
2-SI-67-907-A	125146680	10/17/2025	32.08	32.19	20.03	24.32	32.90	37.19
2-SI-67-907-A	125343578	1/16/2026	32.12	32.11	20.03	24.32	32.90	37.19
2-SI-67-907-A	125496569	4/16/2026	32.20	31.96	20.03	24.32	32.90	37.19


2-FCV-67-296 UPPER CNMT VENT COOLER 2C ERCW RETURN ISOL
2-FCV-67-296 (C)
2-FCV-67-296 (O)
Req. Action Low
Alert Low
Alert High
Req. Action High
TIME (SEC)
40
35
30
25
20
15
10
5
0
10/1/2023
1/9/2024
4/18/2024
7/27/2024
11/4/2024
2/12/2025
5/23/2025
8/31/2025
12/9/2025
3/19/2026
6/27/2026
DATE

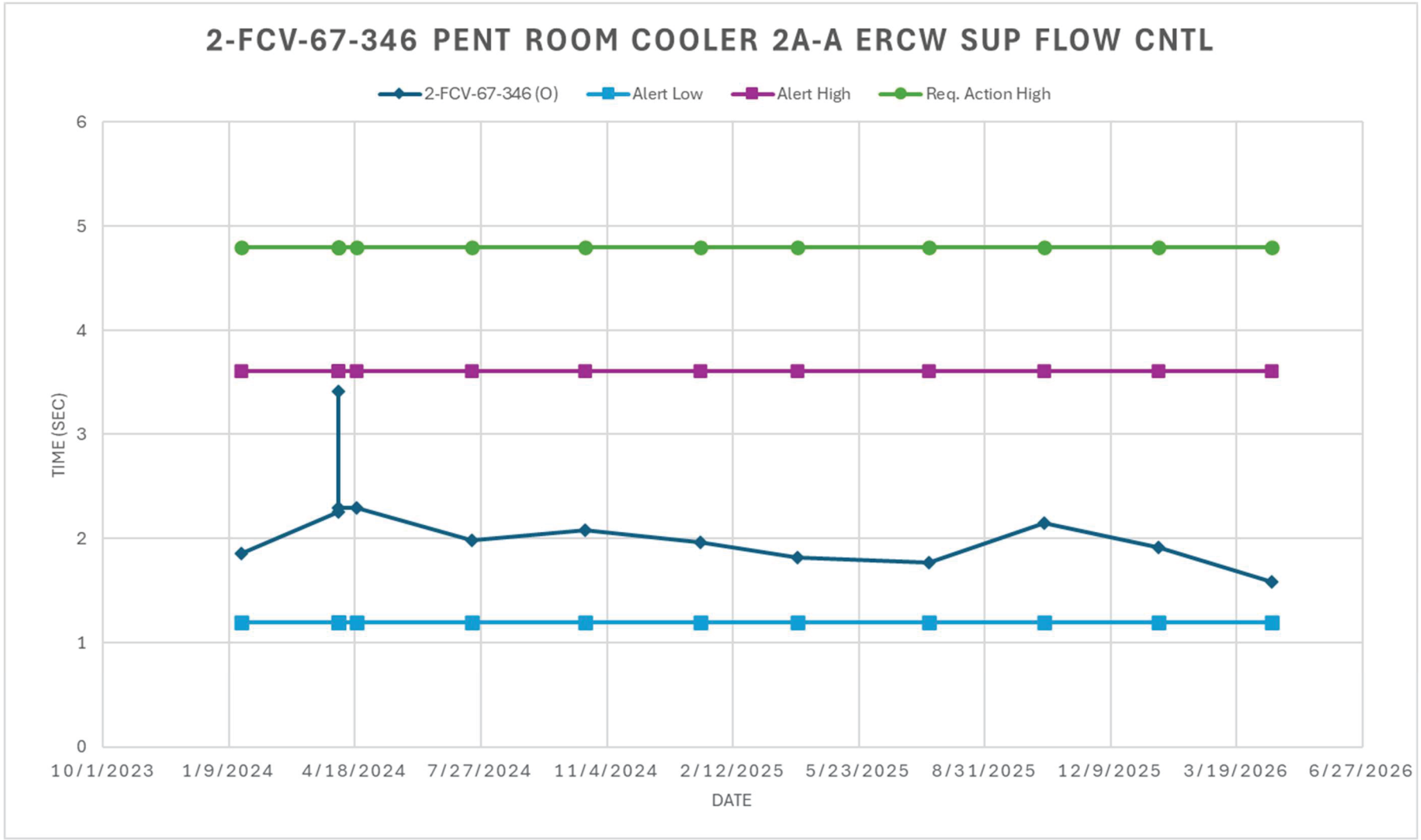
2-FCV-67-342 PIPE CHASE COOLER 2A-A ERCW SUP FLOW CNTL

Procedure	WID Number	Date	2-FCV-67-342 (O)	Alert Low	Alert High	Req. Action High
2-SI-67-907-A	124410041	4/3/2024	3.70	1.90	5.68	7.58
2-SI-67-907-A	124410041	4/3/2024	3.36	1.90	5.68	7.58
2-SI-67-907-A	124410041	4/3/2024	3.64	1.90	5.68	7.58
2-SI-67-907-A	123992506	4/19/2024	3.39	1.90	5.68	7.58
2-SI-67-907-A	124092178	7/20/2024	3.16	1.90	5.68	7.58
2-SI-67-907-A	124351183	10/18/2024	3.16	1.90	5.68	7.58
2-SI-67-907-A	124526768	1/17/2025	3.18	1.90	5.68	7.58
2-SI-67-907-A	124557999	4/4/2025	3.28	1.90	5.68	7.58
2-SI-67-907-A	124970966	7/18/2025	2.80	1.90	5.68	7.58
2-SI-67-907-A	125146680	10/17/2025	3.55	1.90	5.68	7.58
2-SI-67-907-A	125343578	1/16/2026	3.29	1.90	5.68	7.58
2-SI-67-907-A	125496569	4/16/2026	2.99	1.90	5.68	7.58


2-FCV-67-342 PIPE CHASE COOLER 2A-A ERCW SUP FLOW CONTROL
2-FCV-67-342 (O)
Alert Low
Alert High
Req. Action High
TIME (SEC)
0
1
2
3
4
5
6
7
8
1/9/2024
4/18/2024
7/27/2024
11/4/2024
2/12/2025
5/23/2025
8/31/2025
12/9/2025
3/19/2026
6/27/2026
DATE

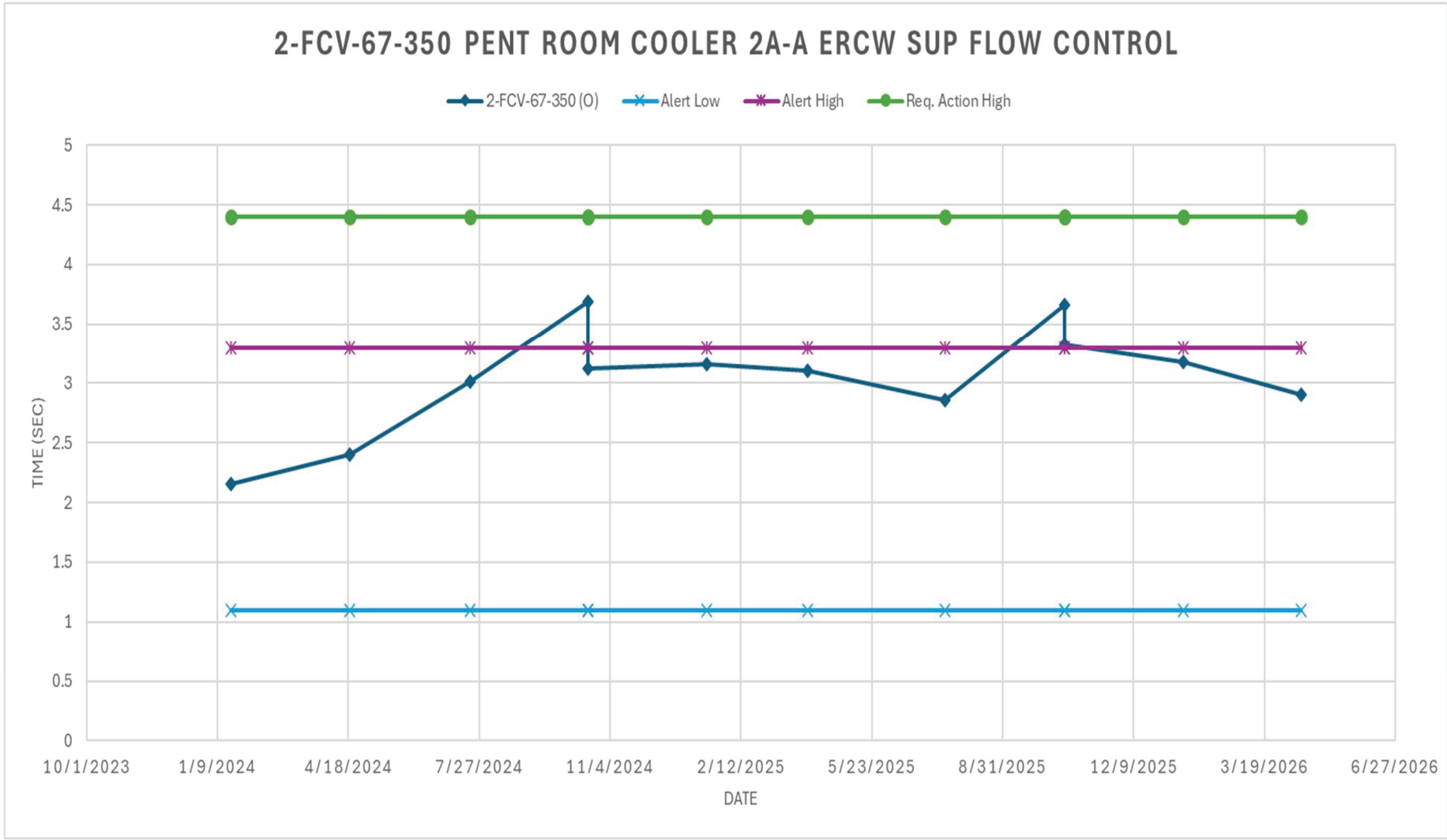
2-FCV-67-346 PENT ROOM COOLER 2A-A ERCW SUP FLOW CNTL

Procedure	WID Number	Date	2-FCV-67-346 (O)	Alert Low	Alert High	Req. Action High
2-SI-67-907-A	123768213	1/19/2024	1.86	1.20	3.60	4.80
2-SI-67-907-A	124415558	4/5/2024	3.41	1.20	3.60	4.80
2-SI-67-907-A	124415558	4/5/2024	2.29	1.20	3.60	4.80
2-SI-67-907-A	124415558	4/5/2024	2.26	1.20	3.60	4.80
2-SI-67-907-A	123992506	4/19/2024	2.29	1.20	3.60	4.80
2-SI-67-907-A	124092178	7/20/2024	1.98	1.20	3.60	4.80
2-SI-67-907-A	124351183	10/18/2024	2.08	1.20	3.60	4.80
2-SI-67-907-A	124526768	1/17/2025	1.96	1.20	3.60	4.80
2-SI-67-907-A	124557999	4/4/2025	1.82	1.20	3.60	4.80
2-SI-67-907-A	124970966	7/18/2025	1.77	1.20	3.60	4.80
2-SI-67-907-A	125146680	10/17/2025	2.15	1.20	3.60	4.80
2-SI-67-907-A	125343578	1/16/2026	1.92	1.20	3.60	4.80
2-SI-67-907-A	125496569	4/16/2026	1.59	1.20	3.60	4.80


2-FCV-67-346 PENT ROOM COOLER 2A-A ERCW SUP FLOW CNTL
2-FCV-67-346 (O)
Alert Low
Alert High
Req. Action High
TIME (SEC)
0
1
2
3
4
5
6
10/1/2023
1/9/2024
4/18/2024
7/27/2024
11/4/2024
2/12/2025
5/23/2025
8/31/2025
12/9/2025
3/19/2026
6/27/2026
DATE

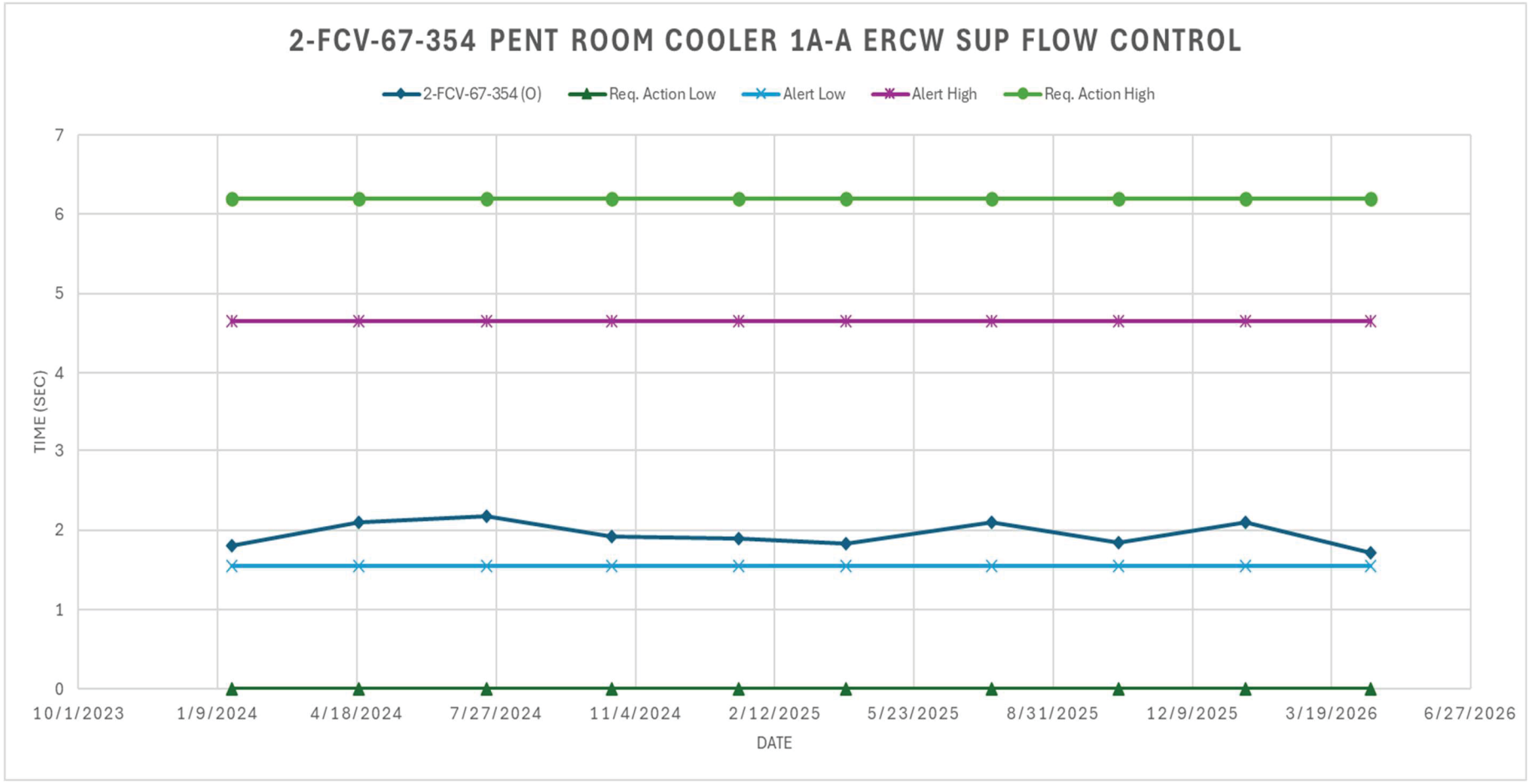
2-FCV-67-350 PENT ROOM COOLER 2A-A ERCW SUP FLOW CNTL

Procedure	WID Number	Date	2-FCV-67-350 (O)	Alert Low	Alert High	Req. Action High
2-SI-67-907-A	123768213	1/19/2024	2.16	1.10	3.30	4.40
2-SI-67-907-A	123992506	4/19/2024	2.40	1.10	3.30	4.40
2-SI-67-907-A	124092178	7/20/2024	3.01	1.10	3.30	4.40
2-SI-67-907-A	124351183	10/18/2024	3.69	1.10	3.30	4.40
2-SI-67-907-A	124351183	10/18/2024	3.12	1.10	3.30	4.40
2-SI-67-907-A	124526768	1/17/2025	3.16	1.10	3.30	4.40
2-SI-67-907-A	124557999	4/4/2025	3.10	1.10	3.30	4.40
2-SI-67-907-A	124970966	7/18/2025	2.86	1.10	3.30	4.40
2-SI-67-907-A	125146680	10/17/2025	3.66	1.10	3.30	4.40
2-SI-67-907-A	125146680	10/17/2025	3.32	1.10	3.30	4.40
2-SI-67-907-A	125343578	1/16/2026	3.18	1.10	3.30	4.40
2-SI-67-907-A	125496569	4/16/2026	2.90	1.10	3.30	4.40


2-FCV-67-350 PENT ROOM COOLER 2A-A ERCW SUP FLOW CONTROL
2-FCV-67-350 (O)
Alert Low
Alert High
Req. Action High
TIME (SEC)
5
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
10/1/2023
1/9/2024
4/18/2024
7/27/2024
11/4/2024
2/12/2025
5/23/2025
8/31/2025
12/9/2025
3/19/2026
6/27/2026
DATE

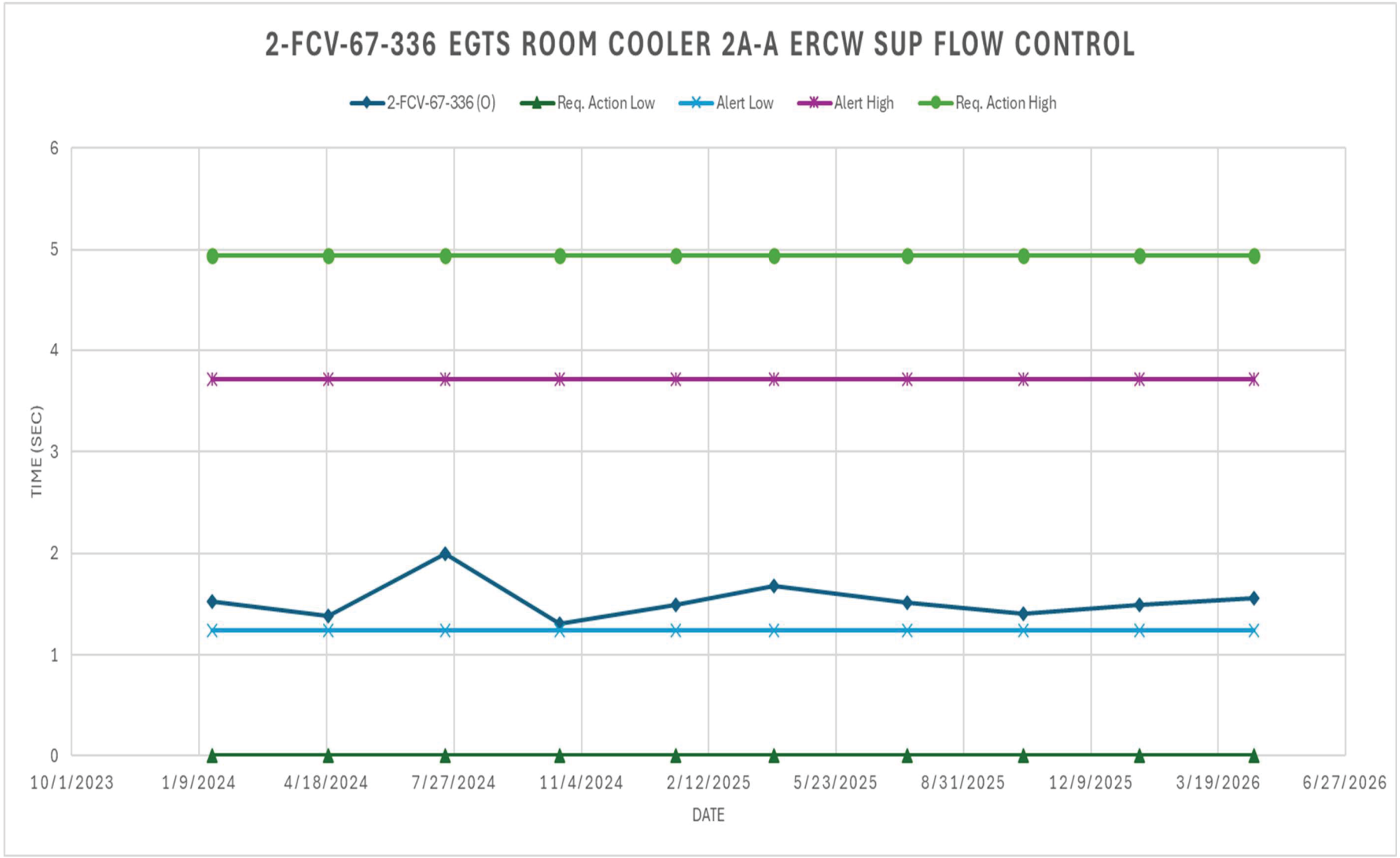
2-FCV-67-354 PENT ROOM COOLER 1A-A ERCW SUP FLOW CNTL

Procedure	WID Number	Date	2-FCV-67-354 (O)	Req. Action Low	Alert Low	Alert High	Req. Action High
2-SI-67-907-A	123768213	1/19/2024	1.81	0.00	1.55	4.65	6.20
2-SI-67-907-A	123992506	4/19/2024	2.10	0.00	1.55	4.65	6.20
2-SI-67-907-A	124092178	7/20/2024	2.18	0.00	1.55	4.65	6.20
2-SI-67-907-A	124351183	10/18/2024	1.92	0.00	1.55	4.65	6.20
2-SI-67-907-A	124526768	1/17/2025	1.89	0.00	1.55	4.65	6.20
2-SI-67-907-A	124557999	4/4/2025	1.83	0.00	1.55	4.65	6.20
2-SI-67-907-A	124970966	7/18/2025	2.10	0.00	1.55	4.65	6.20
2-SI-67-907-A	125146680	10/17/2025	1.84	0.00	1.55	4.65	6.20
2-SI-67-907-A	125343578	1/16/2026	2.10	0.00	1.55	4.65	6.20
2-SI-67-907-A	125496569	4/16/2026	1.71	0.00	1.55	4.65	6.20


2-FCV-67-354 PENT ROOM COOLER 1A-A ERCW SUP FLOW CONTROL
2-FCV-67-354 (O)
Req. Action Low
Alert Low
Alert High
Req. Action High
TIME (SEC)
0
1
2
3
4
5
6
7
10/1/2023
1/9/2024
4/18/2024
7/27/2024
11/4/2024
2/12/2025
5/23/2025
8/31/2025
12/9/2025
3/19/2026
6/27/2026
DATE

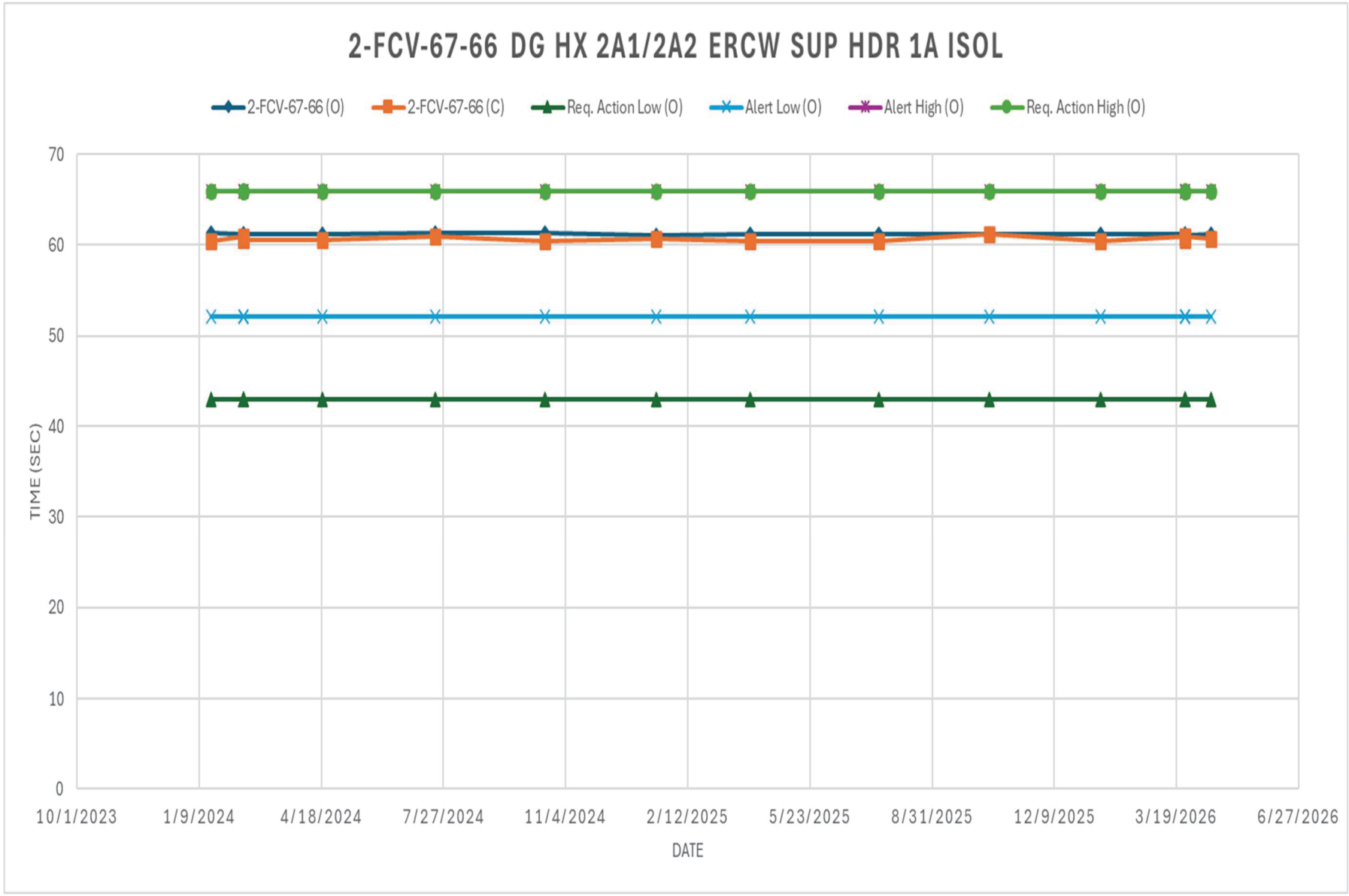
2-FCV-67-336 EGTS ROOM COOLER 2A-A ERCW SUP FLOW CNTL

Procedure	WID Number	Date	2-FCV-67-336 (O)	Req. Action Low	Alert Low	Alert High	Req. Action High
2-SI-67-907-A	123768213	1/19/2024	1.52	0.00	1.24	3.71	4.94
2-SI-67-907-A	123992506	4/19/2024	1.38	0.00	1.24	3.71	4.94
2-SI-67-907-A	124092178	7/20/2024	2.00	0.00	1.24	3.71	4.94
2-SI-67-907-A	124351183	10/18/2024	1.31	0.00	1.24	3.71	4.94
2-SI-67-907-A	124526768	1/17/2025	1.49	0.00	1.24	3.71	4.94
2-SI-67-907-A	124557999	4/4/2025	1.68	0.00	1.24	3.71	4.94
2-SI-67-907-A	124970966	7/18/2025	1.51	0.00	1.24	3.71	4.94
2-SI-67-907-A	125146680	10/17/2025	1.41	0.00	1.24	3.71	4.94
2-SI-67-907-A	125343578	1/16/2026	1.49	0.00	1.24	3.71	4.94
2-SI-67-907-A	125496569	4/16/2026	1.56	0.00	1.24	3.71	4.94


2-FCV-67-336 EGTS ROOM COOLER 2A-A ERCW SUP FLOW CONTROL
2-FCV-67-336 (O)
Req. Action Low
Alert Low
Alert High
Req. Action High
TIME (SEC)
0
1
2
3
4
5
6
10/1/2023
1/9/2024
4/18/2024
7/27/2024
11/4/2024
2/12/2025
5/23/2025
8/31/2025
12/9/2025
3/19/2026
6/27/2026
DATE

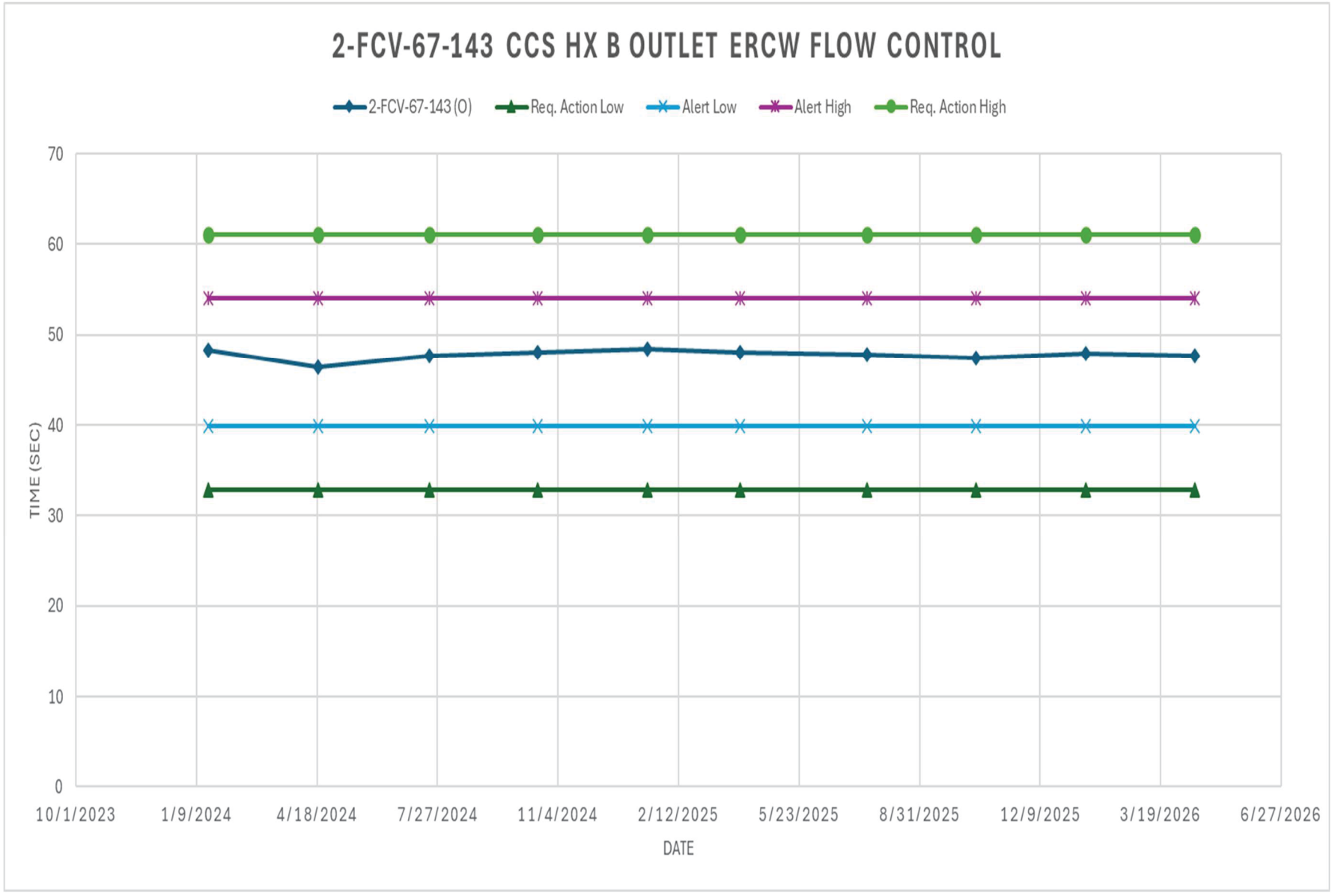
2-FCV-67-66 DG HX 2A1/2A2 ERCW SUP HDR 1A ISOL

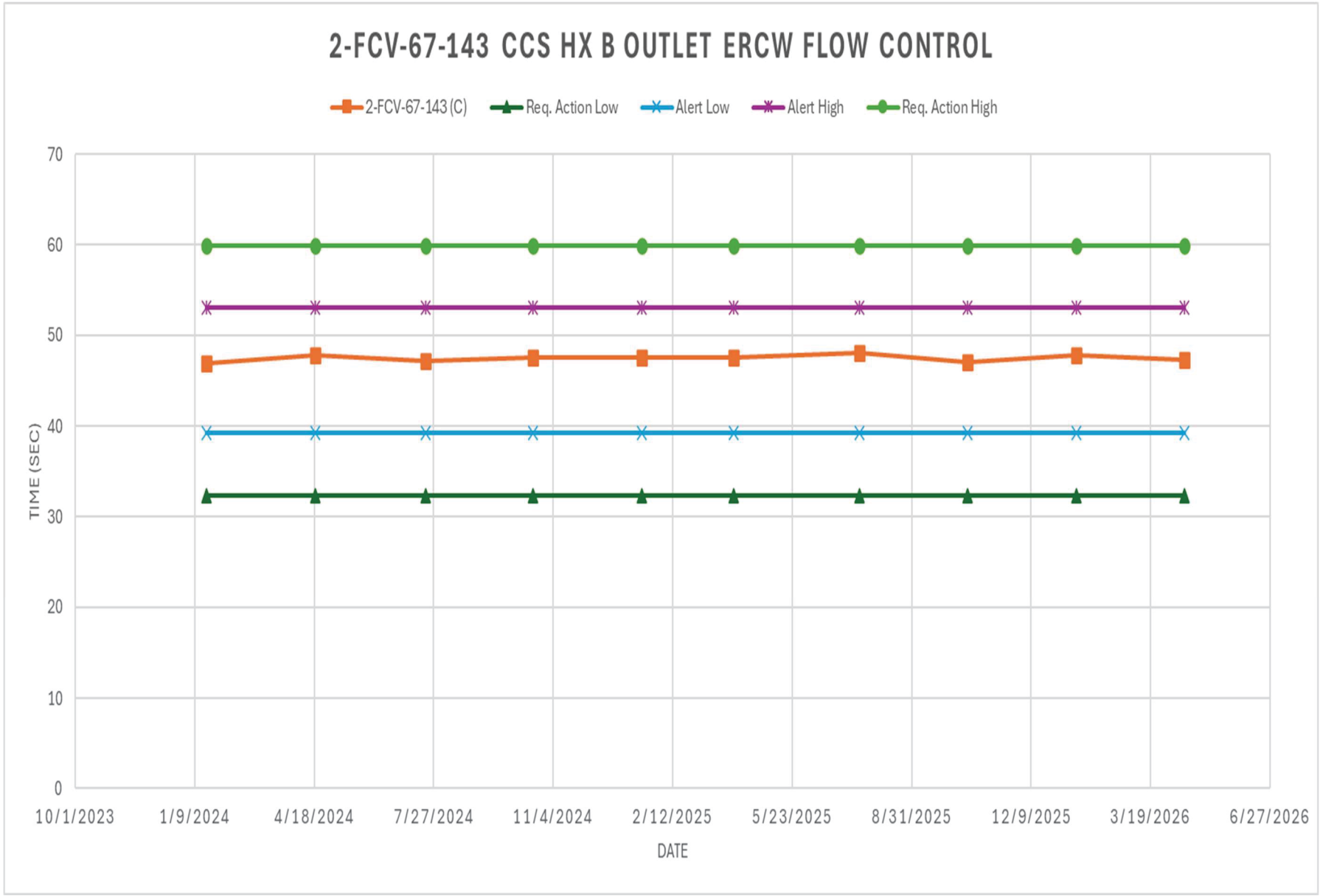
Procedure	WID Number	Date	2-FCV-67-66 [O]	2-FCV-67-66 [C]	Req. Action Low [O]	Alert Low [O]	Alert High [O]	Req. Action High [O]
2-SI-67-907-A	123768213	1/19/2024	61.28	60.50	42.91	52.11	66.00	66.00
2-SI-67-907-A	124291440	2/14/2024	61.26	61.00	42.91	52.11	66.00	66.00
2-SI-67-907-A	124291440	2/14/2024	61.18	60.55	42.91	52.11	66.00	66.00
2-SI-67-907-A	124291440	2/14/2024	61.16	60.54	42.91	52.11	66.00	66.00
2-SI-67-907-A	123992506	4/19/2024	61.19	60.61	42.91	52.11	66.00	66.00
2-SI-67-907-A	124092178	7/20/2024	61.39	60.96	42.91	52.11	66.00	66.00
2-SI-67-907-A	124351183	10/18/2024	61.36	60.50	42.91	52.11	66.00	66.00
2-SI-67-907-A	124526768	1/17/2025	61.12	60.66	42.91	52.11	66.00	66.00
2-SI-67-907-A	124557999	4/4/2025	61.20	60.49	42.91	52.11	66.00	66.00
2-SI-67-907-A	124970966	7/18/2025	61.26	60.50	42.91	52.11	66.00	66.00
2-SI-67-907-A	125146680	10/17/2025	61.20	61.24	42.91	52.11	66.00	66.00
2-SI-67-907-A	125343578	1/16/2026	61.17	60.42	42.91	52.11	66.00	66.00
2-SI-67-907-A	126193135	3/26/2026	61.21	61.00	42.91	52.11	66.00	66.00
2-SI-67-907-A	126193135	3/26/2026	61.19	60.62	42.91	52.11	66.00	66.00
2-SI-67-907-A	126193135	3/26/2026	61.13	60.92	42.91	52.11	66.00	66.00
2-SI-67-907-A	125496569	4/16/2026	61.16	60.68	42.91	52.11	66.00	66.00


2-FCV-67-66 DG HX 2A1/2A2 ERCW SUP HDR 1A ISOL
2-FCV-67-66 (O)
2-FCV-67-66 (C)
Req. Action Low (O)
Alert Low (O)
Alert High (O)
Req. Action High (O)
TIME (SEC)
70
60
50
40
30
20
10
0
10/1/2023
1/9/2024
4/18/2024
7/27/2024
11/4/2024
2/12/2025
5/23/2025
8/31/2025
12/9/2025
3/19/2026
6/27/2026
DATE

2-FCV-67-143 CCS HX B OUTLET ERCW FLOW CNTL

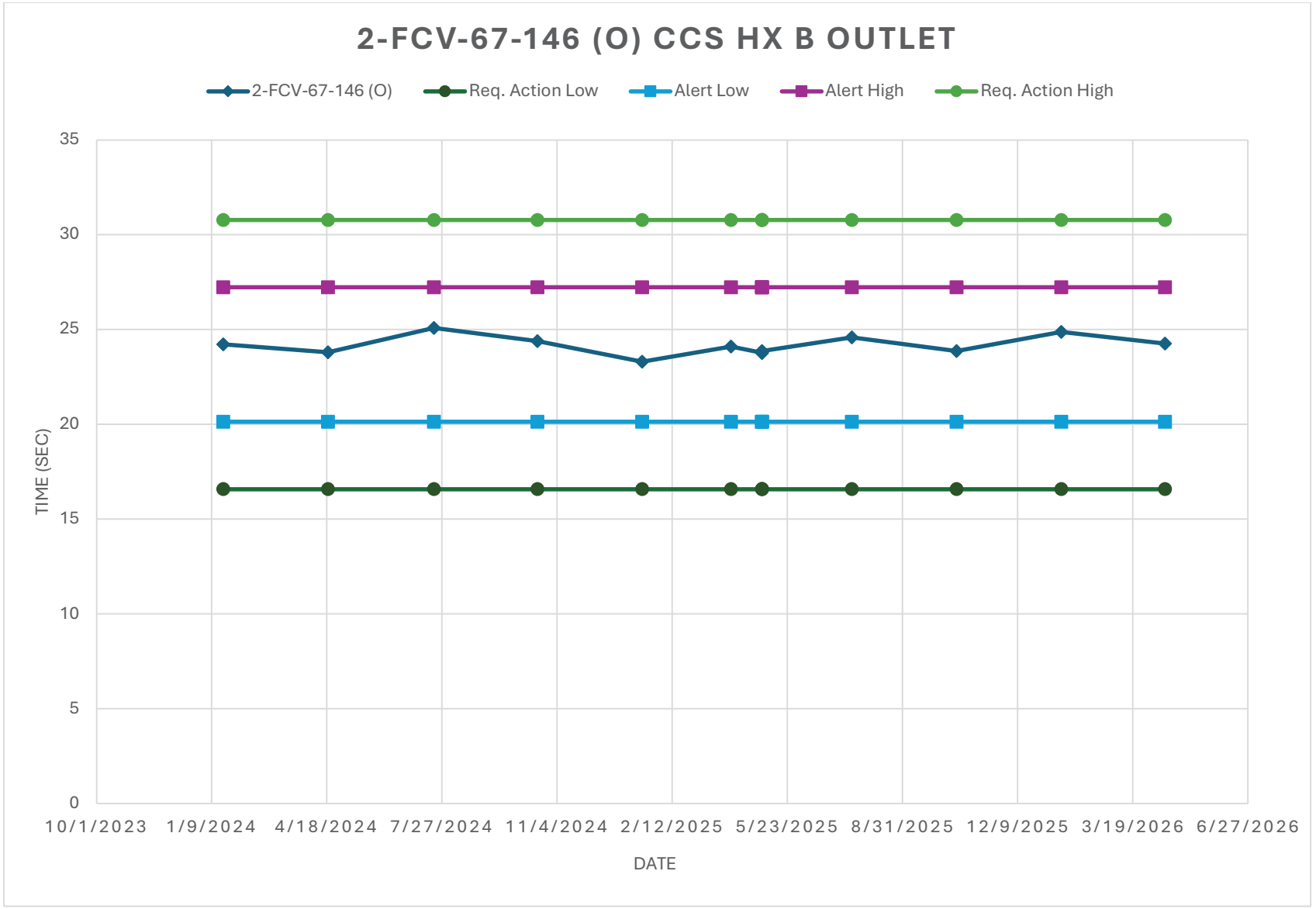
Procedure	WID Number	Date	2-FCV-67-143 [O]	Req. Action Low [O]	Alert Low [O]	Alert High [O]	Req. Action High [O]	2-FCV-67-143 [C]	Req. Action Low [C]	Alert Low [C]	Alert High [C]	Req. Action High [C]
2-SI-67-907-A	123768213	1/19/2024	48.26	32.89	39.93	54.02	61.07	46.96	32.30	39.22	53.04	59.96
2-SI-67-907-A	123992506	4/19/2024	46.36	32.89	39.93	54.02	61.07	47.82	32.30	39.22	53.04	59.96
2-SI-67-907-A	124092178	7/20/2024	47.67	32.89	39.93	54.02	61.07	47.20	32.30	39.22	53.04	59.96
2-SI-67-907-A	124351183	10/18/2024	48.04	32.89	39.93	54.02	61.07	47.51	32.30	39.22	53.04	59.96
2-SI-67-907-A	124526768	1/17/2025	48.48	32.89	39.93	54.02	61.07	47.58	32.30	39.22	53.04	59.96
2-SI-67-907-A	124557999	4/4/2025	48.10	32.89	39.93	54.02	61.07	47.49	32.30	39.22	53.04	59.96
2-SI-67-907-A	124970966	7/18/2025	47.79	32.89	39.93	54.02	61.07	48.03	32.30	39.22	53.04	59.96
2-SI-67-907-A	125146680	10/17/2025	47.41	32.89	39.93	54.02	61.07	47.10	32.30	39.22	53.04	59.96
2-SI-67-907-A	125343578	1/16/2026	47.92	32.89	39.93	54.02	61.07	47.76	32.30	39.22	53.04	59.96
2-SI-67-907-A	125496569	4/16/2026	47.68	32.89	39.93	54.02	61.07	47.26	32.30	39.22	53.04	59.96

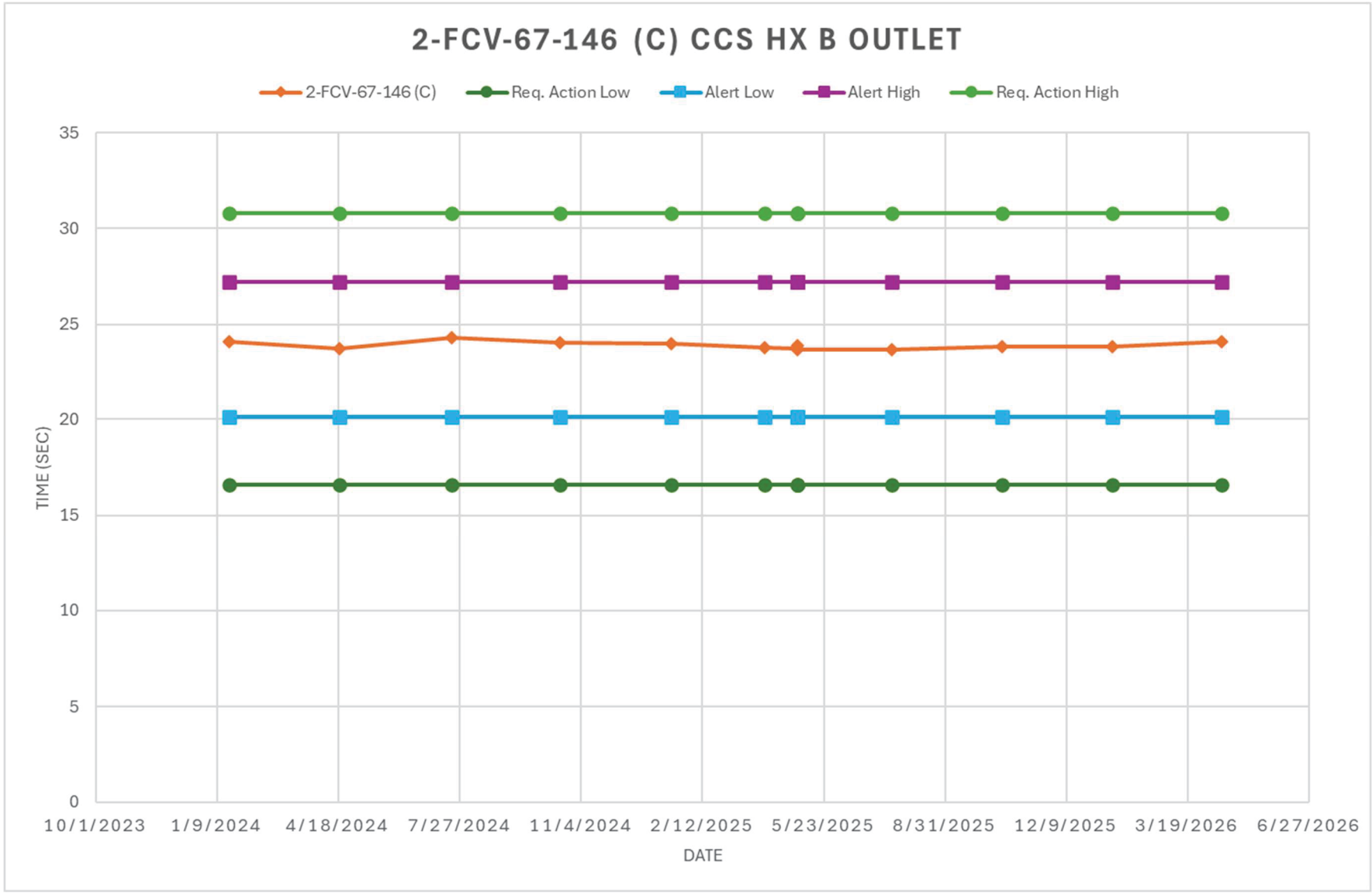

2-FCV-67-143 CCS HX B OUTLET ERCW FLOW CONTROL
2-FCV-67-143 (O)
Req. Action Low
Alert Low
Alert High
Req. Action High
TIME (SEC)
70
60
50
40
30
20
10
0
10/1/2023
1/9/2024
4/18/2024
7/27/2024
11/4/2024
2/12/2025
5/23/2025
8/31/2025
12/9/2025
3/19/2026
6/27/2026
DATE


2-FCV-67-143 CCS HX B OUTLET ERCW FLOW CONTROL
2-FCV-67-143 (C)
Req. Action Low
Alert Low
Alert High
Req. Action High
70
60
50
40
30
20
10
0
TIME (SEC)
10/1/2023
1/9/2024
4/18/2024
7/27/2024
11/4/2024
2/12/2025
5/23/2025
8/31/2025
12/9/2025
3/19/2026
6/27/2026
DATE

2-FCV-67-146 CCS HX B OUTLET

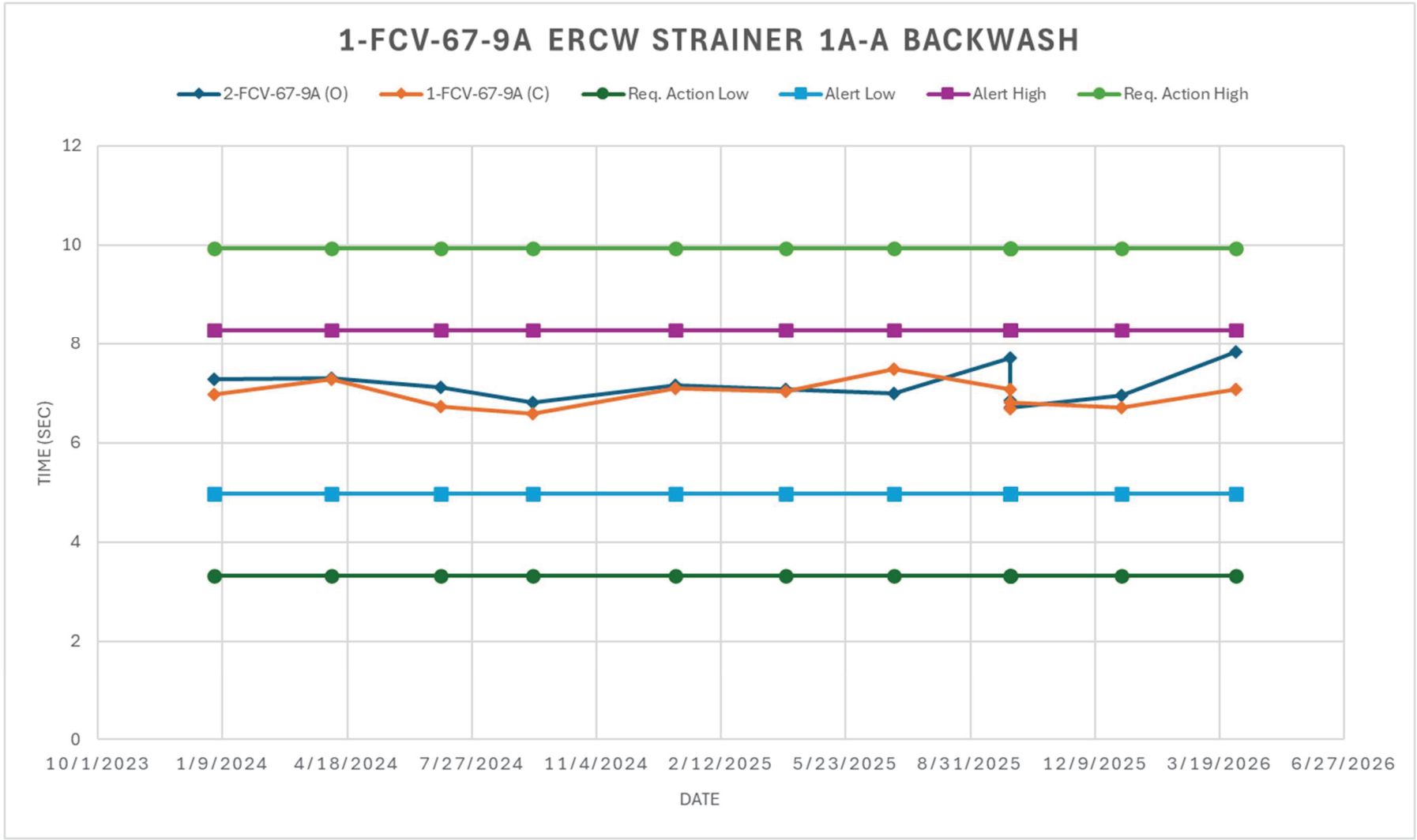
Procedure	WID Number	Date	2-FCV-67-146 [O]	Req. Action Low [O]	Alert Low [O]	Alert High [O]	Req. Action High [O]	2-FCV-67-146 [C]	Req. Action Low [C]	Alert Low [C]	Alert High [C]	Req. Action High [C]
2-SI-67-907-A	123768213	1/19/2024	24.21	16.58	20.13	27.23	30.78	24.11	16.58	20.13	27.23	30.78
2-SI-67-907-A	123992506	4/19/2024	23.79	16.58	20.13	27.23	30.78	23.76	16.58	20.13	27.23	30.78
2-SI-67-907-A	124092178	7/20/2024	25.08	16.58	20.13	27.23	30.78	24.34	16.58	20.13	27.23	30.78
2-SI-67-907-A	124351183	10/18/2024	24.38	16.58	20.13	27.23	30.78	24.08	16.58	20.13	27.23	30.78
2-SI-67-907-A	124526768	1/17/2025	23.30	16.58	20.13	27.23	30.78	23.98	16.58	20.13	27.23	30.78
2-SI-67-907-A	124557999	4/4/2025	24.10	16.58	20.13	27.23	30.78	23.79	16.58	20.13	27.23	30.78
2-SI-67-907-A	125052103	5/1/2025	23.77	16.58	20.13	27.23	30.78	23.76	16.58	20.13	27.23	30.78
2-SI-67-907-A	125052103	5/1/2025	23.76	16.58	20.13	27.23	30.78	23.88	16.58	20.13	27.23	30.78
2-SI-67-907-A	125052103	5/1/2025	23.86	16.58	20.13	27.23	30.78	23.70	16.58	20.13	27.23	30.78
2-SI-67-907-A	124970966	7/18/2025	24.58	16.58	20.13	27.23	30.78	23.71	16.58	20.13	27.23	30.78
2-SI-67-907-A	125146680	10/17/2025	23.86	16.58	20.13	27.23	30.78	23.86	16.58	20.13	27.23	30.78
2-SI-67-907-A	125343578	1/16/2026	24.87	16.58	20.13	27.23	30.78	23.86	16.58	20.13	27.23	30.78
2-SI-67-907-A	125496569	4/16/2026	24.26	16.58	20.13	27.23	30.78	24.12	16.58	20.13	27.23	30.78


2-FCV-67-146 (O) CCS HX B OUTLET
2-FCV-67-146 (O)
Req. Action Low
Alert Low
Alert High
Req. Action High
35
30
25
20
15
10
5
0
TIME (SEC)
10/1/2023
1/9/2024
4/18/2024
7/27/2024
11/4/2024
2/12/2025
5/23/2025
8/31/2025
12/9/2025
3/19/2026
6/27/2026
DATE


2-FCV-67-146 (C) CCS HX B OUTLET
2-FCV-67-146 (C)
Req. Action Low
Alert Low
Alert High
Req. Action High
TIME (SEC)
35
30
25
20
15
10
5
0
10/1/2023
1/9/2024
4/18/2024
7/27/2024
11/4/2024
2/12/2025
5/23/2025
8/31/2025
12/9/2025
3/19/2026
6/27/2026
DATE

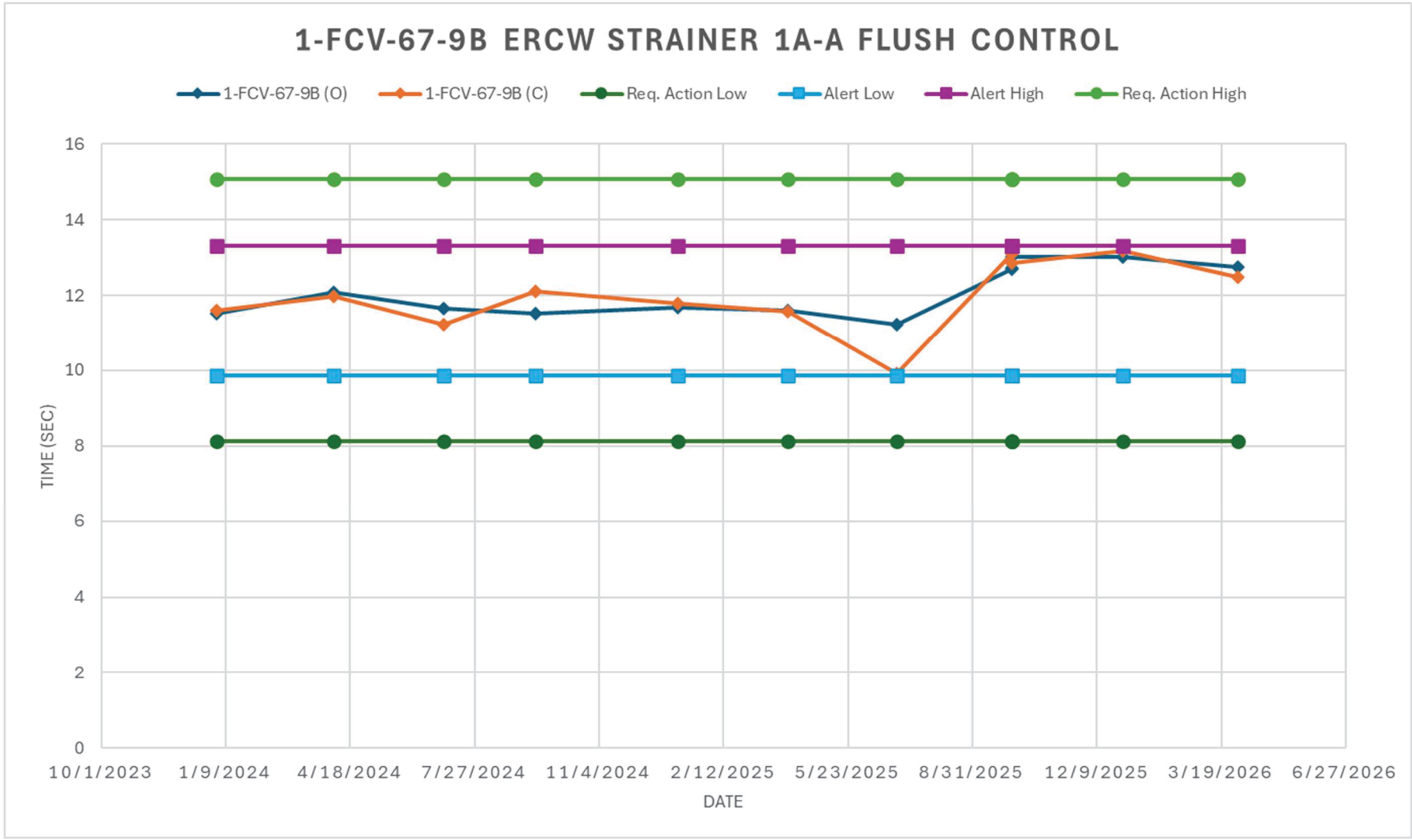
1-FCV-67-9A ERCW STRAINER 1A-A BACKWASH

Procedure	WID Number	Date	1-FCV-67-9A-A (O)	1-FCV-67-9A-A (C)	Req. Action Low	Alert Low	Alert High	Req. Action High
1-SI-67-907-A	123767861	1/2/2024	7.27	6.97	3.32	4.98	8.28	9.94
1-SI-67-907-A	123859631	4/5/2024	7.30	7.28	3.32	4.98	8.28	9.94
1-SI-67-907-A	124090178	7/2/2024	7.12	6.72	3.32	4.98	8.28	9.94
1-SI-67-907-A	124349213	9/14/2024	6.81	6.58	3.32	4.98	8.28	9.94
1-SI-67-907-A	124524744	1/6/2025	7.16	7.10	3.32	4.98	8.28	9.94
1-SI-67-907-A	124557403	4/5/2025	7.08	7.03	3.32	4.98	8.28	9.94
1-SI-67-907-A	124972539	7/1/2025	6.99	7.49	3.32	4.98	8.28	9.94
1-SI-67-907-A	125145809	10/2/2025	7.71	7.08	3.32	4.98	8.28	9.94
1-SI-67-907-A	125145809	10/2/2025	6.86	6.68	3.32	4.98	8.28	9.94
1-SI-67-907-A	125145809	10/2/2025	6.70	6.81	3.32	4.98	8.28	9.94
1-SI-67-907-A	125342425	12/30/2025	6.96	6.70	3.32	4.98	8.28	9.94
1-SI-67-907-A	125495703	4/1/2026	7.83	7.08	3.32	4.98	8.28	9.94


1-FCV-67-9A ERCW STRAINER 1A-A BACKWASH
2-FCV-67-9A (O)
1-FCV-67-9A (C)
Req. Action Low
Alert Low
Alert High
Req. Action High
TIME (SEC)
12
10
8
6
4
2
0
10/1/2023
1/9/2024
4/18/2024
7/27/2024
11/4/2024
2/12/2025
5/23/2025
8/31/2025
12/9/2025
3/19/2026
6/27/2026
DATE

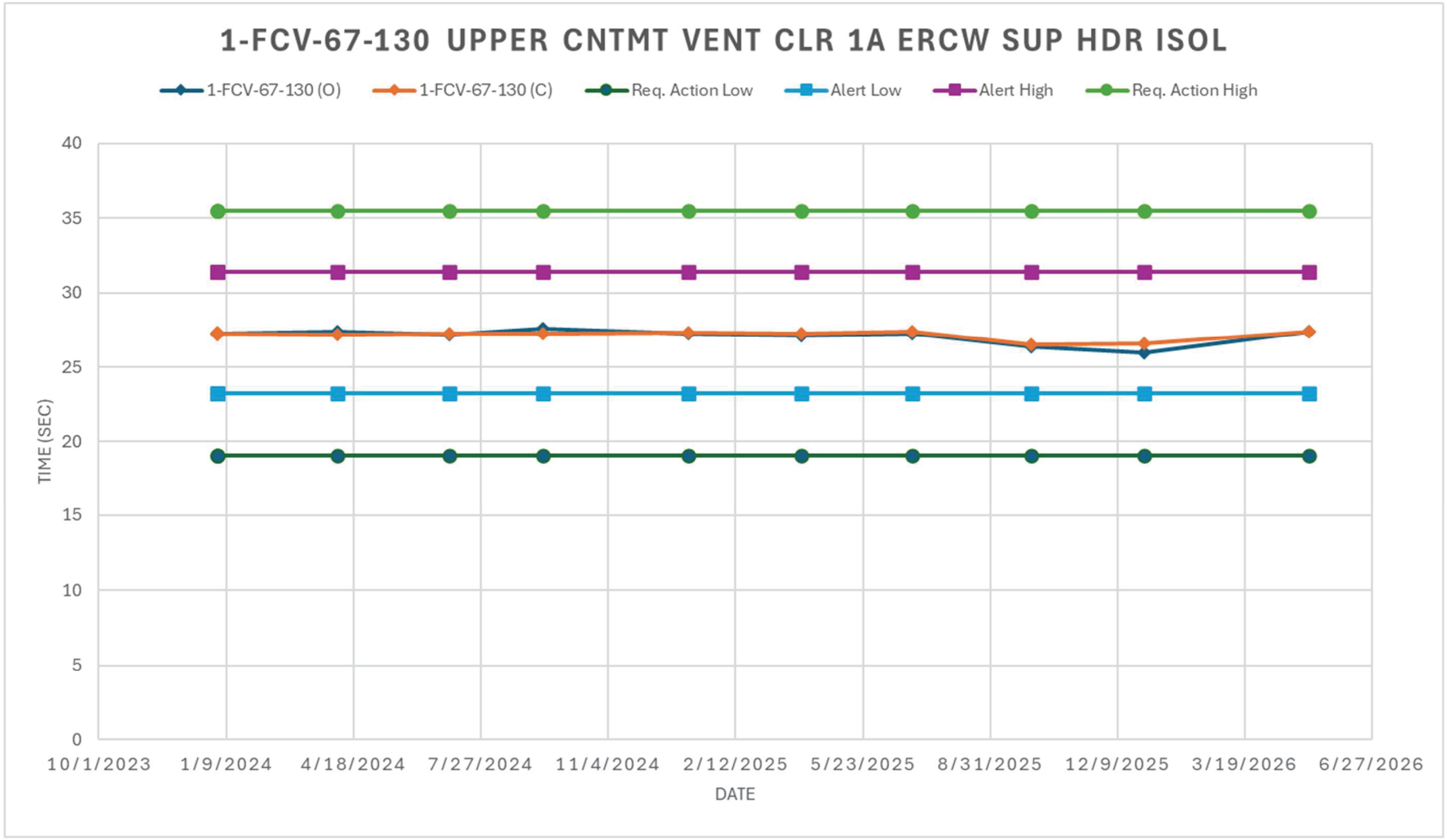
1-FCV-67-9B ERCW STRAINER 1A-A FLUSH CONTROL

Procedure	WID Number	Date	1-FCV-67-9B-A (O)	1-FCV-67-9B-A (C)	Req. Action Low	Alert Low	Alert High	Req. Action High
1-SI-67-907-A	123767861	1/2/2024	11.52	11.60	8.12	9.86	13.32	15.06
1-SI-67-907-A	123859631	4/5/2024	12.08	11.98	8.12	9.86	13.32	15.06
1-SI-67-907-A	124090178	7/2/2024	11.66	11.23	8.12	9.86	13.32	15.06
1-SI-67-907-A	124349213	9/14/2024	11.51	12.11	8.12	9.86	13.32	15.06
1-SI-67-907-A	124524744	1/6/2025	11.68	11.78	8.12	9.86	13.32	15.06
1-SI-67-907-A	124557403	4/5/2025	11.59	11.57	8.12	9.86	13.32	15.06
1-SI-67-907-A	124972539	7/1/2025	11.23	9.91	8.12	9.86	13.32	15.06
1-SI-67-907-A	125145809	10/2/2025	12.70	13.10	8.12	9.86	13.32	15.06
1-SI-67-907-A	125145809	10/2/2025	12.72	13.22	8.12	9.86	13.32	15.06
1-SI-67-907-A	125145809	10/2/2025	13.01	12.86	8.12	9.86	13.32	15.06
1-SI-67-907-A	125342425	12/30/2025	13.01	13.18	8.12	9.86	13.32	15.06
1-SI-67-907-A	125495703	4/1/2026	12.76	12.48	8.12	9.86	13.32	15.06


1-FCV-67-9B ERCW STRAINER 1A-A FLUSH CONTROL
1-FCV-67-9B (O)
1-FCV-67-9B (C)
Req. Action Low
Alert Low
Alert High
Req. Action High
TIME (SEC)
16
14
12
10
8
6
4
2
0
10/1/2023
1/9/2024
4/18/2024
7/27/2024
11/4/2024
2/12/2025
5/23/2025
8/31/2025
12/9/2025
3/19/2026
6/27/2026
DATE

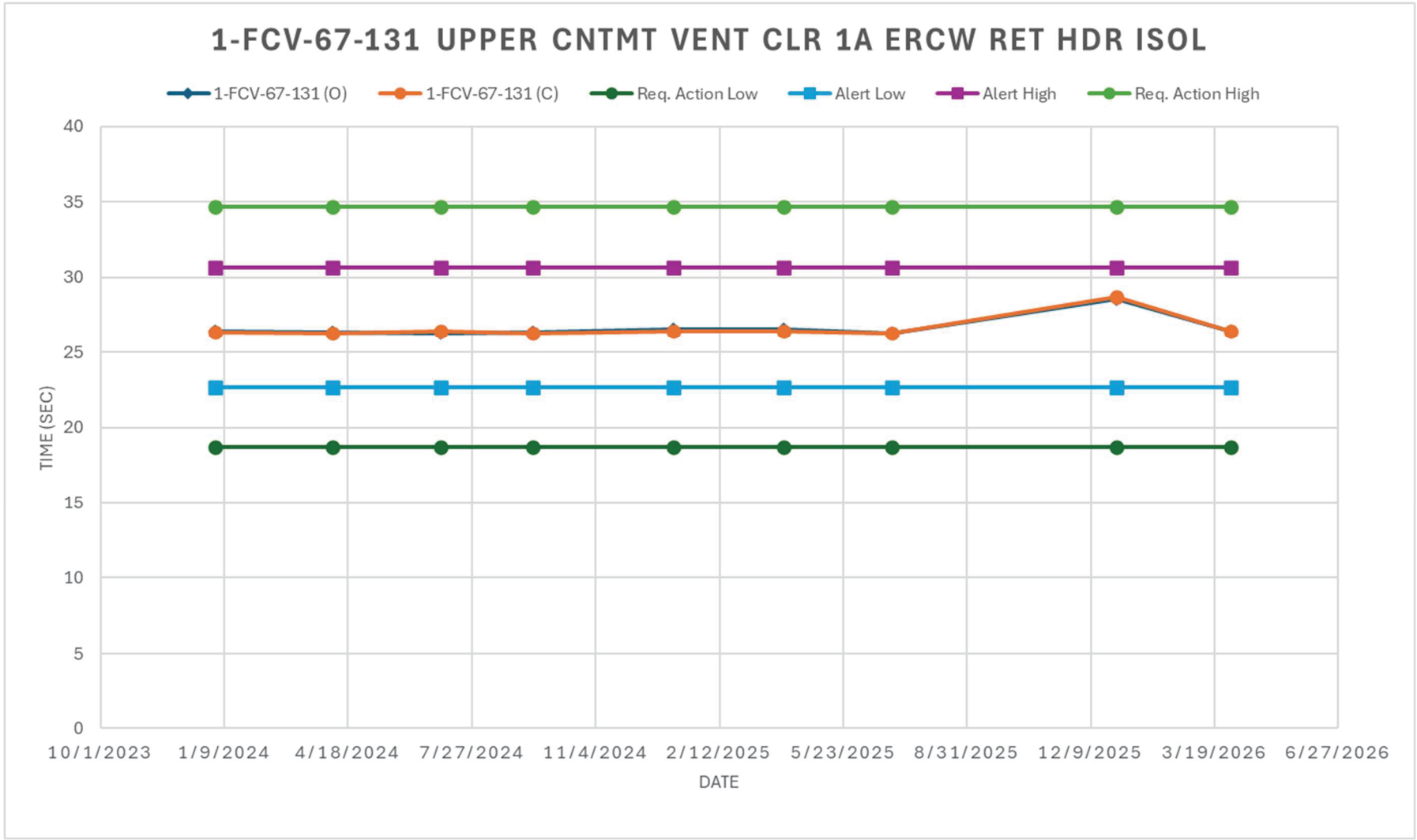
1-FCV-67-130 UPPER CNTMT VENT CLR 1A ERCW SUP HDR ISOL

Procedure	WID Number	Date	1-FCV-67-130-A (C)	1-FCV-67-130-A (O)	Req. Action Low	Alert Low	Alert High	Req. Action High
1-SI-67-907-A	123767861	1/2/2024	27.20	27.22	19.11	23.21	31.39	35.49
1-SI-67-907-A	123767861	1/2/2024	27.29	27.22	19.11	23.21	31.39	35.49
1-SI-67-907-A	123767861	1/2/2024	27.26	27.27	19.11	23.21	31.39	35.49
1-SI-67-907-A	123859631	4/5/2024	27.18	27.38	19.11	23.21	31.39	35.49
1-SI-67-907-A	124090178	7/2/2024	27.22	27.18	19.11	23.21	31.39	35.49
1-SI-67-907-A	124349213	9/14/2024	27.28	27.57	19.11	23.21	31.39	35.49
1-SI-67-907-A	124524744	1/6/2025	27.30	27.28	19.11	23.21	31.39	35.49
1-SI-67-907-A	124557403	4/5/2025	27.28	27.10	19.11	23.21	31.39	35.49
1-SI-67-907-A	124972539	7/1/2025	27.36	27.24	19.11	23.21	31.39	35.49
1-SI-67-907-A	125145809	10/2/2025	26.48	26.36	19.11	23.21	31.39	35.49
1-SI-67-907-A	125342425	12/30/2025	26.56	25.96	19.11	23.21	31.39	35.49
1-SI-67-907-A	126216748	5/8/2026	27.36	27.41	19.11	23.21	31.39	35.49


1-FCV-67-130 UPPER CNTMT VENT CLR 1A ERCW SUP HDR ISOL
1-FCV-67-130 (O)
1-FCV-67-130 (C)
Req. Action Low
Alert Low
Alert High
Req. Action High
TIME (SEC)
40
35
30
25
20
15
10
5
0
10/1/2023
1/9/2024
4/18/2024
7/27/2024
11/4/2024
2/12/2025
5/23/2025
8/31/2025
12/9/2025
3/19/2026
6/27/2026
DATE

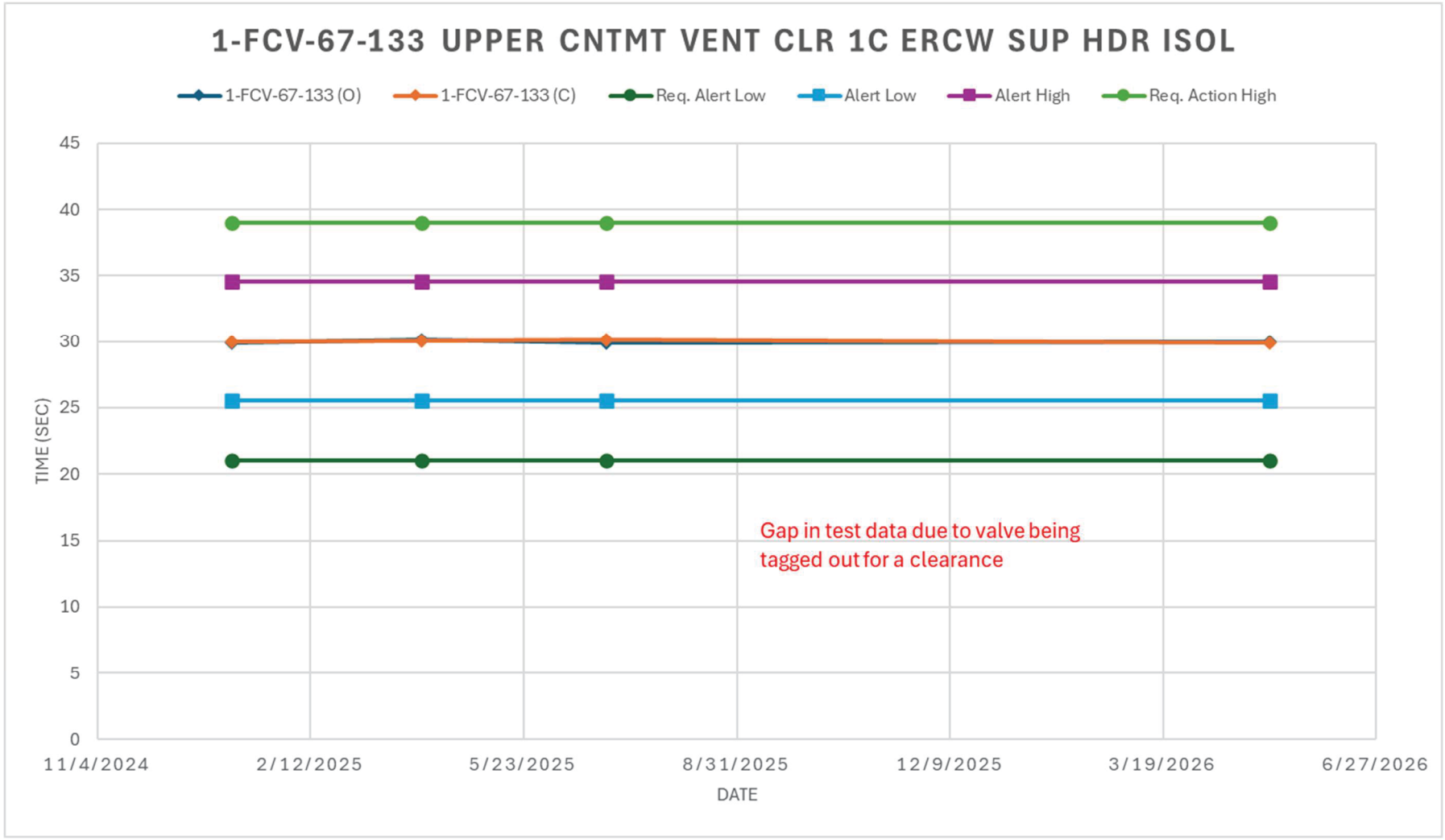
1-FCV-67-131 UPPER CNTMT VENT CLR 1A ERCW RET HDR ISOL

Procedure	WID Number	Date	1-FCV-67-131-B (C)	1-FCV-67-131-B (O)	Req. Action Low	Alert Low	Alert High	Req. Action High
1-SI-67-907-A	123767861	1/2/2024	26.38	26.41	18.67	22.67	30.65	34.65
1-SI-67-907-A	123859631	4/5/2024	26.26	26.38	18.67	22.67	30.65	34.65
1-SI-67-907-A	124090178	7/2/2024	26.40	26.31	18.67	22.67	30.65	34.65
1-SI-67-907-A	124349213	9/14/2024	26.29	26.36	18.67	22.67	30.65	34.65
1-SI-67-907-A	124524744	1/6/2025	26.41	26.58	18.67	22.67	30.65	34.65
1-SI-67-907-A	124557403	4/5/2025	26.39	26.58	18.67	22.67	30.65	34.65
1-SI-67-907-A	124972539	7/1/2025	26.26	26.27	18.67	22.67	30.65	34.65
1-SI-67-907-A	125342425	12/30/2025	28.73	28.56	18.67	22.67	30.65	34.65
1-SI-67-907-A	125495703	4/1/2026	26.41	26.42	18.67	22.67	30.65	34.65


1-FCV-67-131 UPPER CNTMT VENT CLR 1A ERCW RET HDR ISOL
1-FCV-67-131 (O)
1-FCV-67-131 (C)
Req. Action Low
Alert Low
Alert High
Req. Action High
40
35
30
25
20
15
10
5
0
TIME (SEC)
10/1/2023
1/9/2024
4/18/2024
7/27/2024
11/4/2024
2/12/2025
5/23/2025
8/31/2025
12/9/2025
3/19/2026
6/27/2026
DATE

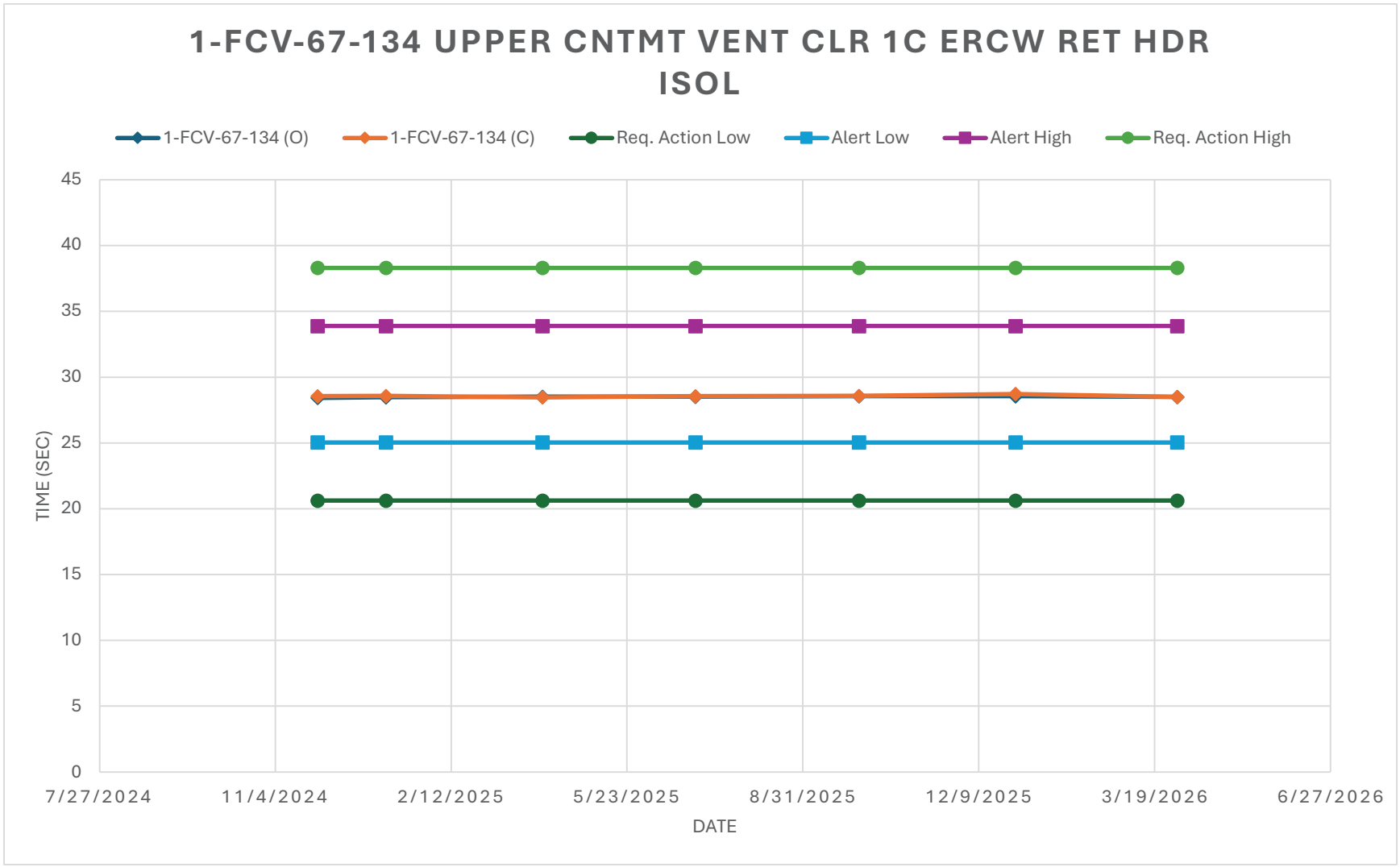
1-FCV-67-133 UPPER CNTMT VENT CLR 1C ERCW SUP HDR ISOL

Procedure	WID Number	Date	1-FCV-67-133-A (C)	1-FCV-67-133-A (O)	Req. Action Low	Alert Low	Alert High	Req. Action High
1-SI-67-907-A	124524744	1/6/2025	29.98	29.89	21.02	25.52	34.52	39.02
1-SI-67-907-A	124557403	4/5/2025	30.01	30.09	21.02	25.52	34.52	39.02
1-SI-67-907-A	124972539	7/1/2025	30.12	29.91	21.02	25.52	34.52	39.02
1-SI-67-907-A	126216748	5/8/2026	29.87	29.94	21.02	25.52	34.52	39.02


1-FCV-67-133 UPPER CNTMT VENT CLR 1C ERCW SUP HDR ISOL
1-FCV-67-133 (O)
1-FCV-67-133 (C)
Req. Alert Low
Alert Low
Alert High
Req. Action High
TIME (SEC)
45
40
35
30
25
20
15
10
5
0
11/4/2024
2/12/2025
5/23/2025
8/31/2025
12/9/2025
3/19/2026
6/27/2026
DATE
Gap in test data due to valve being tagged out for a clearance

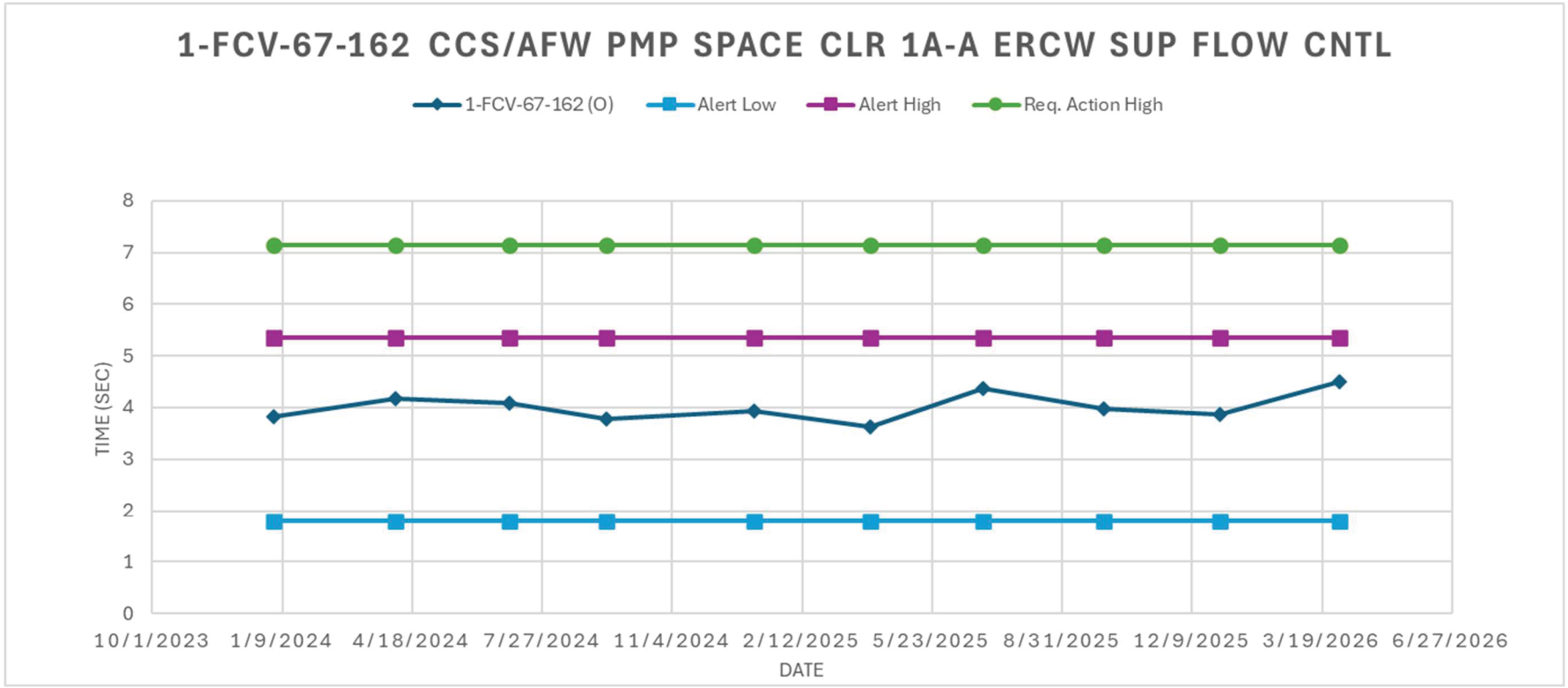
1-FCV-67-134 UPPER CNTMT VENT CLR 1C ERCW RET HDR ISOL

Procedure	WID Number	Date	1-FCV-67-134-B (O)	1-FCV-67-134-B (C)	Req. Action Low	Alert Low	Alert High	Req. Action High
1-SI-67-907-A	124039849	11/28/2024	28.44	28.56	20.63	25.05	33.89	38.31
1-SI-67-907-A	124524744	1/6/2025	28.49	28.57	20.63	25.05	33.89	38.31
1-SI-67-907-A	124557403	4/5/2025	28.52	28.48	20.63	25.05	33.89	38.31
1-SI-67-907-A	124972539	7/1/2025	28.52	28.56	20.63	25.05	33.89	38.31
1-SI-67-907-A	125145809	10/2/2025	28.56	28.57	20.63	25.05	33.89	38.31
1-61-67-907-A	125342425	12/30/2025	28.56	28.73	20.63	25.05	33.89	38.31
1-SI-67-907-A	125495703	4/1/2026	28.5	28.5	20.63	25.05	33.89	38.31


1-FCV-67-134 UPPER CNTMT VENT CLR 1C ERCW RET HDR ISOL
1-FCV-67-134 (O)
1-FCV-67-134 (C)
Req. Action Low
Alert Low
Alert High
Req. Action High
45
40
35
30
25
20
15
10
5
0
TIME (SEC)
7/27/2024
11/4/2024
2/12/2025
5/23/2025
8/31/2025
12/9/2025
3/19/2026
6/27/2026
DATE

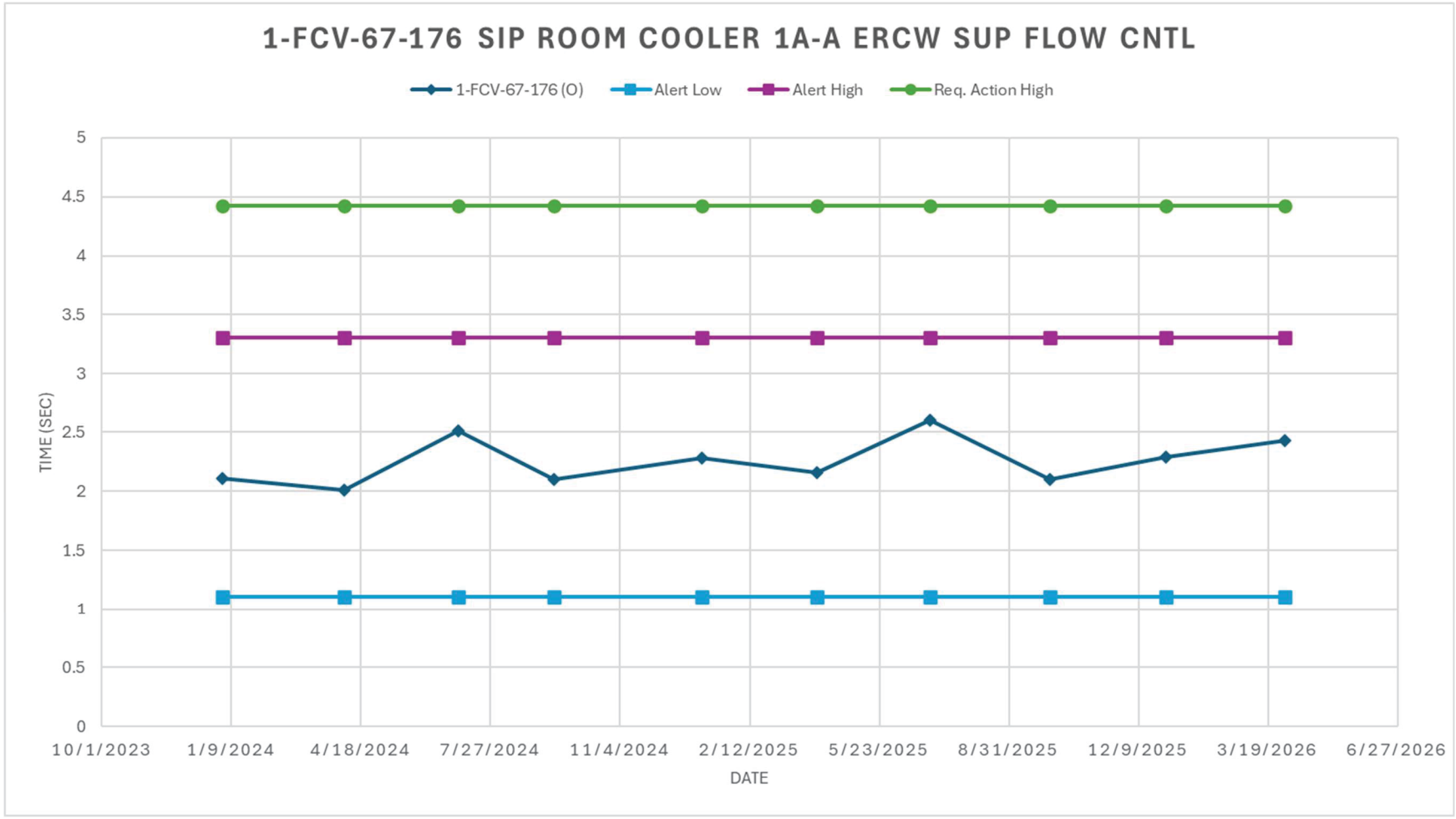
1-FCV-67-162 CCS/AFW PMP SPACE CLR 1A-A ERCW SUP FLOW CNTL

Procedure	WID Number	Date	1-FCV-67-162 (O)	Alert Low	Alert High	Req. Action High
1-SI-67-907-A	123767861	1/2/2024	3.82	1.79	5.35	7.14
1-SI-67-907-A	123859631	4/5/2024	4.18	1.79	5.35	7.14
1-SI-67-907-A	124090178	7/2/2024	4.08	1.79	5.35	7.14
1-SI-67-907-A	124349213	9/14/2024	3.78	1.79	5.35	7.14
1-SI-67-907-A	124524744	1/6/2025	3.94	1.79	5.35	7.14
1-SI-67-907-A	124557403	4/5/2025	3.62	1.79	5.35	7.14
1-SI-67-907-A	124972539	7/1/2025	4.36	1.79	5.35	7.14
1-SI-67-907-A	125145809	10/2/2025	3.97	1.79	5.35	7.14
1-SI-67-907-A	125342425	12/30/2025	3.86	1.79	5.35	7.14
1-SI-67-907-A	125495703	4/1/2026	4.51	1.79	5.35	7.14


1-FCV-67-162 CCS/AFW PMP SPACE CLR 1A-A ERCW SUP FLOW CNTL
1-FCV-67-162 (O)
Alert Low
Alert High
Req. Action High
TIME (SEC)
0
1
2
3
4
5
6
7
8
10/1/2023
1/9/2024
4/18/2024
7/27/2024
11/4/2024
2/12/2025
5/23/2025
8/31/2025
12/9/2025
3/19/2026
6/27/2026
DATE

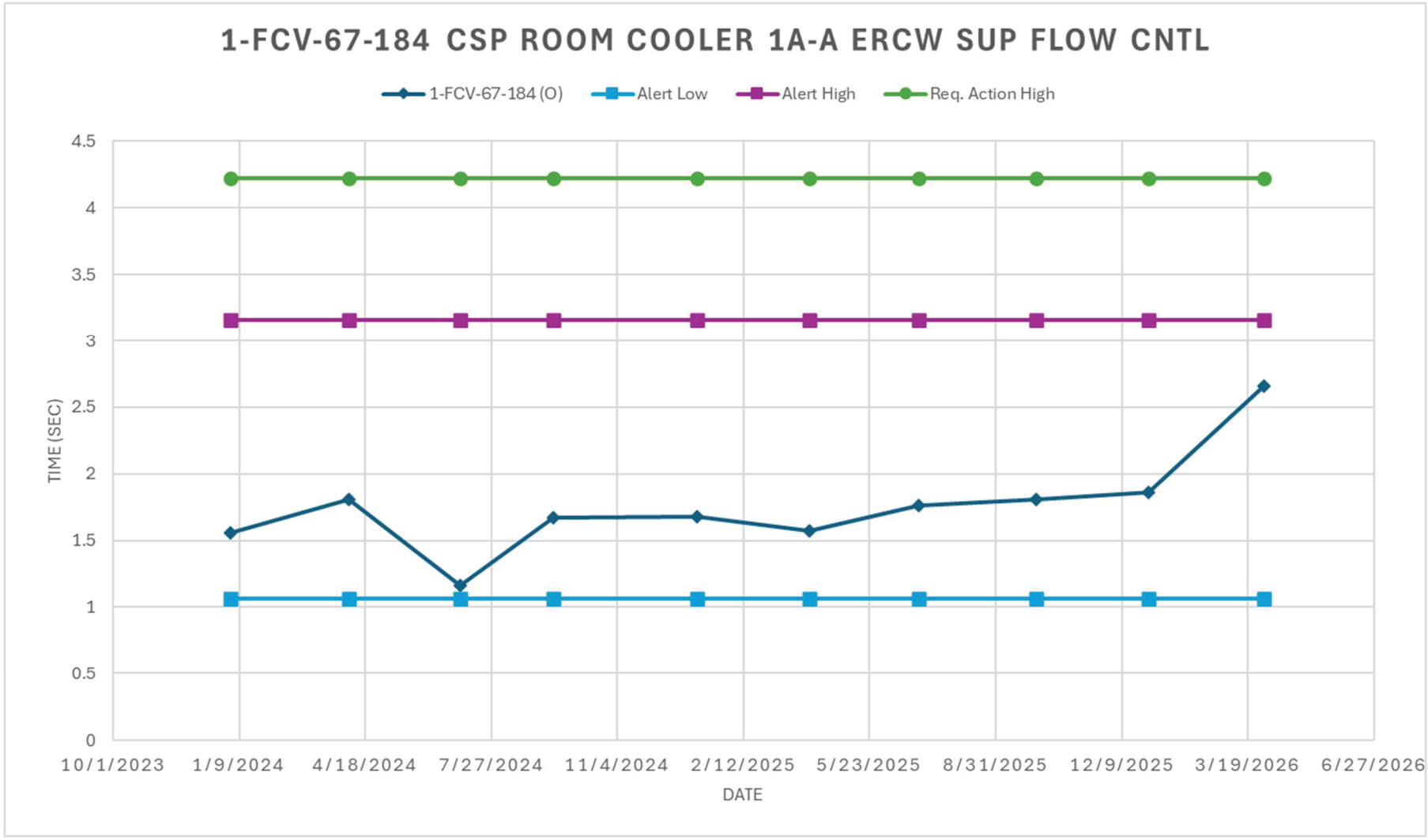
1-FCV-67-176 SIP ROOM COOLER 1A-A ERCW SUP FLOW CNTL

Procedure	WID Number	Date	1-FCV-67-176 (O)	Alert Low	Alert High	Req. Action High
1-SI-67-907-A	123767861	1/2/2024	2.11	1.11	3.31	4.42
1-SI-67-907-A	123859631	4/5/2024	2.01	1.11	3.31	4.42
1-SI-67-907-A	124090178	7/2/2024	2.51	1.11	3.31	4.42
1-SI-67-907-A	124349213	9/14/2024	2.10	1.11	3.31	4.42
1-SI-67-907-A	124524744	1/6/2025	2.28	1.11	3.31	4.42
1-SI-67-907-A	124557403	4/5/2025	2.16	1.11	3.31	4.42
1-SI-67-907-A	124972539	7/1/2025	2.60	1.11	3.31	4.42
1-SI-67-907-A	125145809	10/2/2025	2.10	1.11	3.31	4.42
1-SI-67-907-A	125342425	12/30/2025	2.29	1.11	3.31	4.42
1-SI-67-907-A	125495703	4/1/2026	2.43	1.11	3.31	4.42


1-FCV-67-176 SIP ROOM COOLER 1A-A ERCW SUP FLOW CNTL
1-FCV-67-176 (O)
Alert Low
Alert High
Req. Action High
TIME (SEC)
5
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
10/1/2023
1/9/2024
4/18/2024
7/27/2024
11/4/2024
2/12/2025
5/23/2025
8/31/2025
12/9/2025
3/19/2026
6/27/2026
DATE

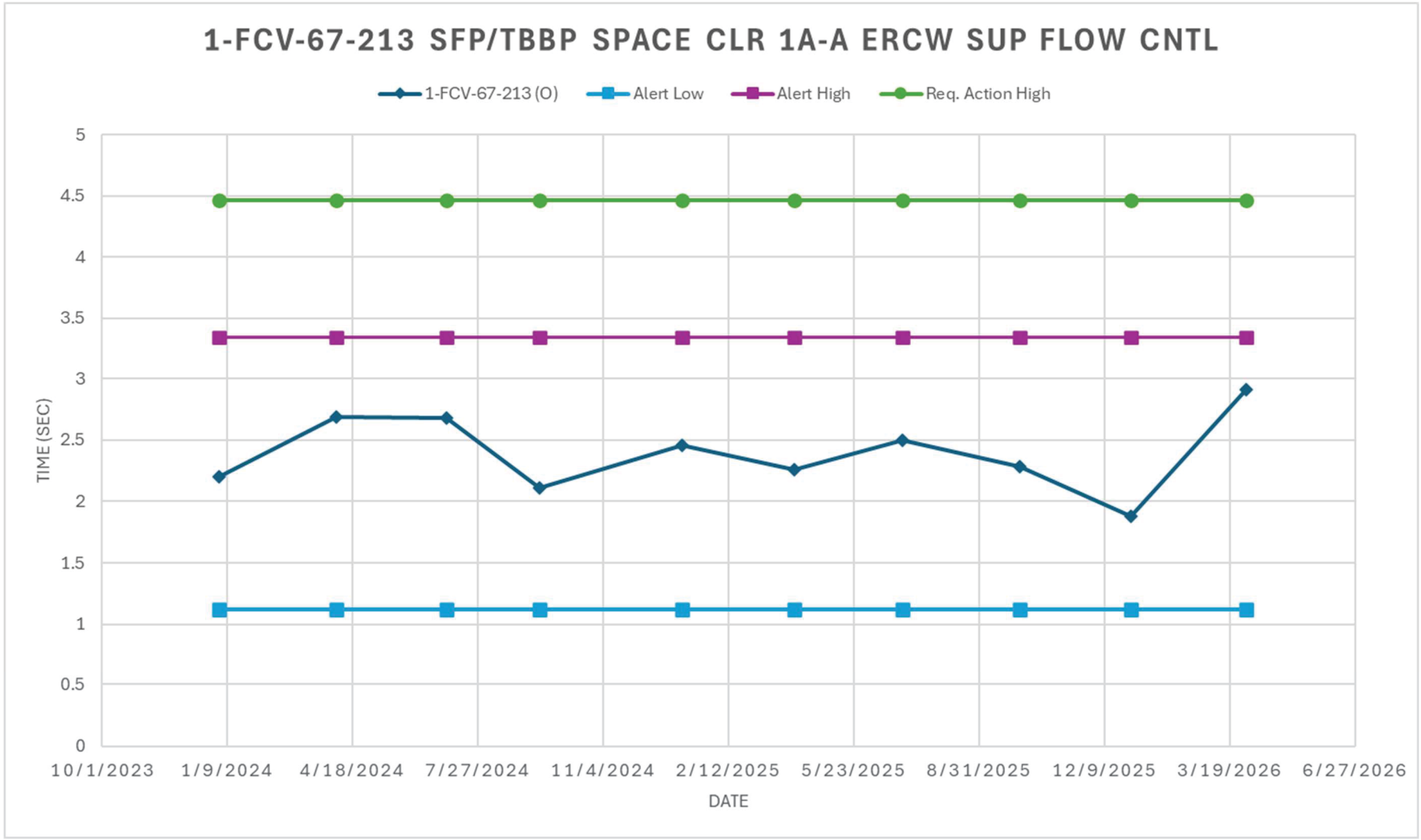
1-FCV-67-184 CSP ROOM COOLER 1A-A ERCW SUP FLOW CNTL

Procedure	WID Number	Date	1-FCV-67-184 (O)	Alert Low	Alert High	Req. Action High
1-SI-67-907-A	123767861	1/2/2024	1.56	1.06	3.16	4.22
1-SI-67-907-A	123859631	4/5/2024	1.81	1.06	3.16	4.22
1-SI-67-907-A	124090178	7/2/2024	1.16	1.06	3.16	4.22
1-SI-67-907-A	124349213	9/14/2024	1.67	1.06	3.16	4.22
1-SI-67-907-A	124524744	1/6/2025	1.68	1.06	3.16	4.22
1-SI-67-907-A	124557403	4/5/2025	1.57	1.06	3.16	4.22
1-SI-67-907-A	124972539	7/1/2025	1.76	1.06	3.16	4.22
1-SI-67-907-A	125145809	10/2/2025	1.81	1.06	3.16	4.22
1-SI-67-907-A	125342425	12/30/2025	1.86	1.06	3.16	4.22
1-SI-67-907-A	125495703	4/1/2026	2.66	1.06	3.16	4.22


1-FCV-67-184 CSP ROOM COOLER 1A-A ERCW SUP FLOW CNTL
1-FCV-67-184 (O)
Alert Low
Alert High
Req. Action High
TIME (SEC)
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
10/1/2023
1/9/2024
4/18/2024
7/27/2024
11/4/2024
2/12/2025
5/23/2025
8/31/2025
12/9/2025
3/19/2026
6/27/2026
DATE

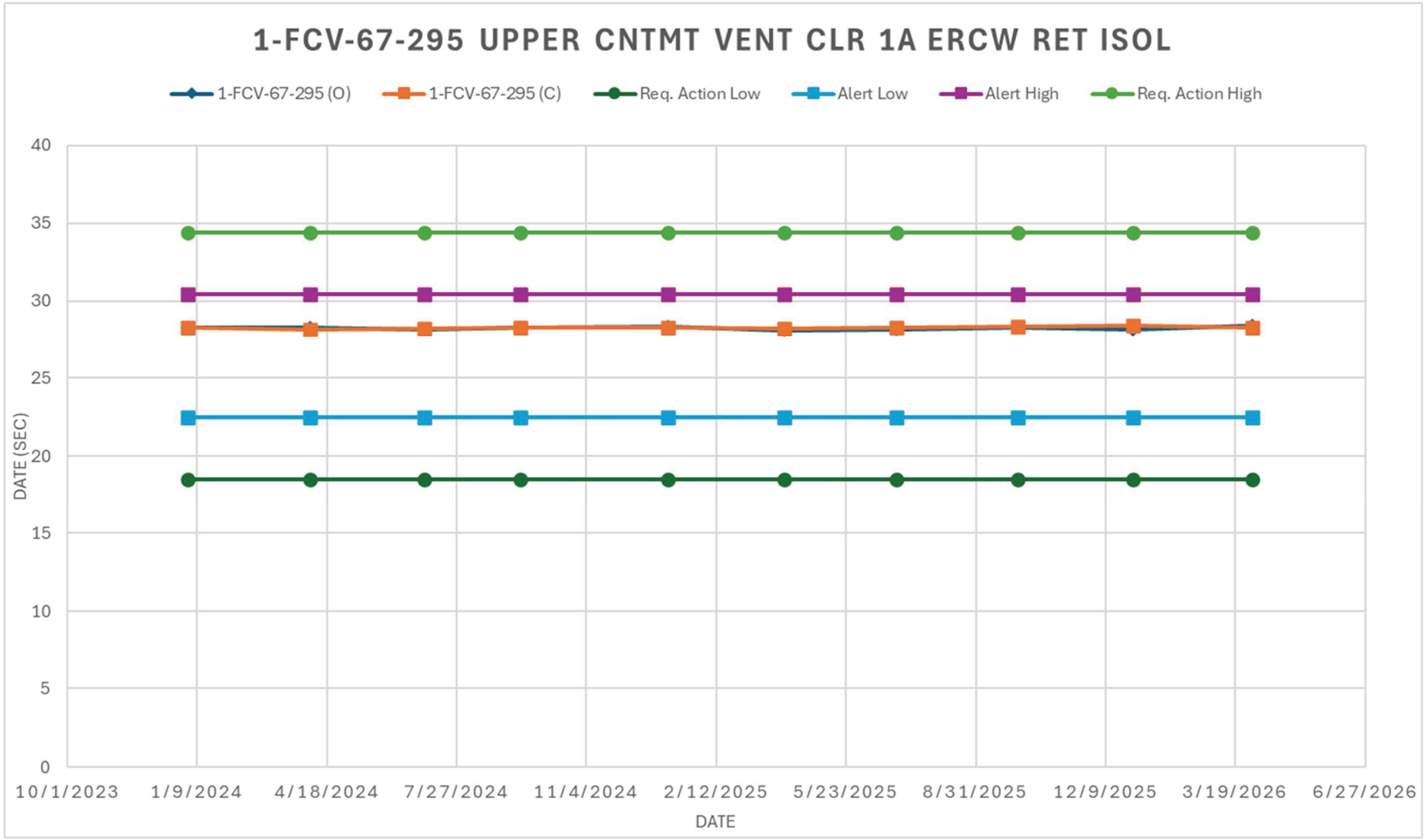
1-FCV-67-213 SFP/TBBP SPACE CLR 1A-A ERCW SUP FLOW CNTL

Procedure	WID Number	Date	1-FCV-67-213 (O)	Alert Low	Alert High	Req. Action High
1-SI-67-907-A	123767861	1/2/2024	2.20	1.12	3.34	4.46
1-SI-67-907-A	123859631	4/5/2024	2.69	1.12	3.34	4.46
1-SI-67-907-A	124090178	7/2/2024	2.68	1.12	3.34	4.46
1-SI-67-907-A	124349213	9/14/2024	2.11	1.12	3.34	4.46
1-SI-67-907-A	124524744	1/6/2025	2.46	1.12	3.34	4.46
1-SI-67-907-A	124557403	4/5/2025	2.26	1.12	3.34	4.46
1-SI-67-907-A	124972539	7/1/2025	2.50	1.12	3.34	4.46
1-SI-67-907-A	125145809	10/2/2025	2.28	1.12	3.34	4.46
1-SI-67-907-A	125342425	12/30/2025	1.88	1.12	3.34	4.46
1-SI-67-907-A	125495703	4/1/2026	2.91	1.12	3.34	4.46


1-FCV-67-213 SFP/TBBP SPACE CLR 1A-A ERCW SUP FLOW CNTL
1-FCV-67-213 (O)
Alert Low
Alert High
Req. Action High
TIME (SEC)
5
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
10/1/2023
1/9/2024
4/18/2024
7/27/2024
11/4/2024
2/12/2025
5/23/2025
8/31/2025
12/9/2025
3/19/2026
6/27/2026
DATE

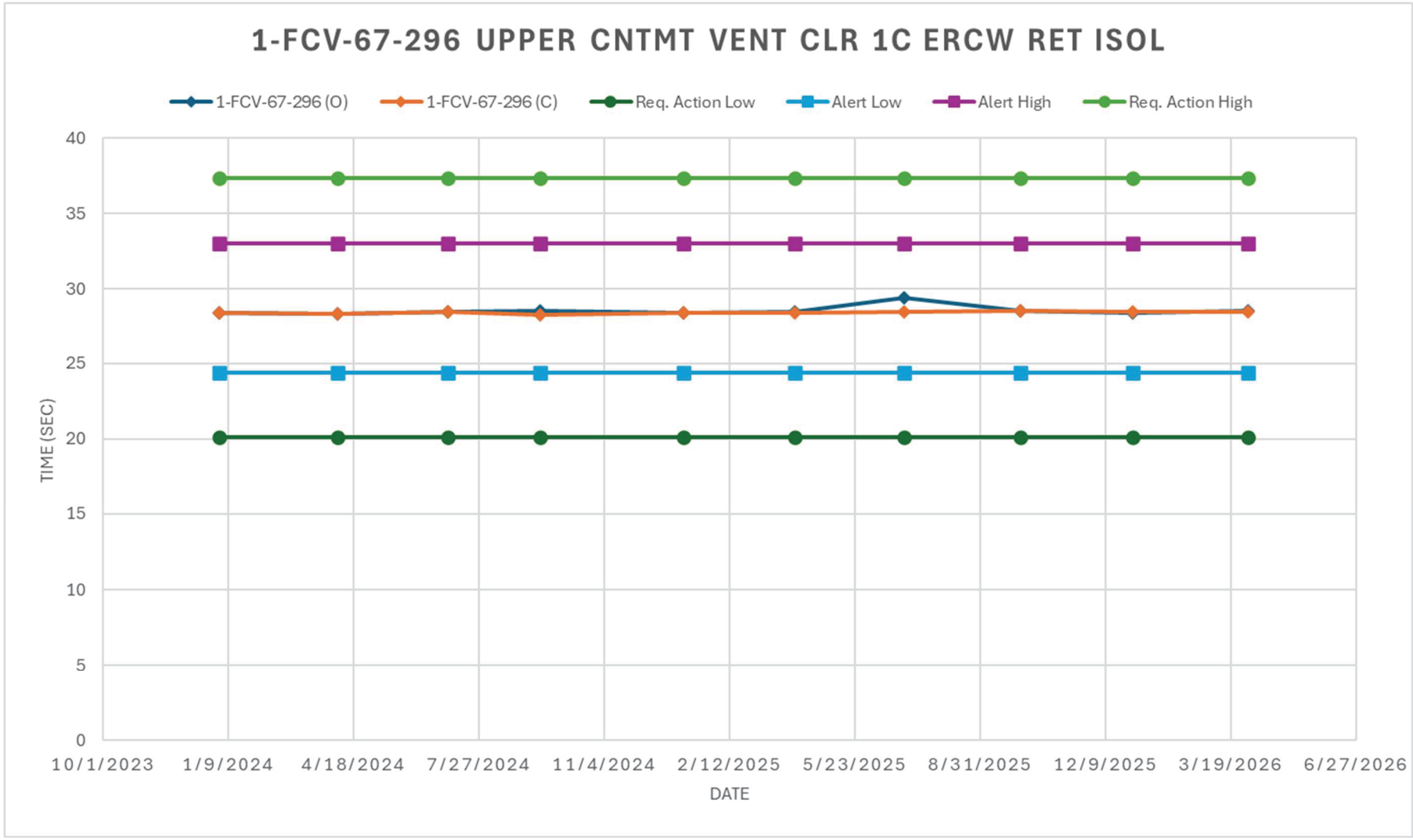
1-FCV-67-295 UPPER CNTMT VENT CLR 1A ERCW RET ISOL

Procedure	WID Number	Date	1-FCV-67-295-A (C)	1-FCV-67-295-A (O)	Req. Action Low	Alert Low	Alert High	Req. Action High
1-SI-67-907-A	123767861	1/2/2024	28.28	28.27	18.52	22.49	30.43	34.40
1-SI-67-907-A	123859631	4/5/2024	28.16	28.27	18.52	22.49	30.43	34.40
1-SI-67-907-A	124090178	7/2/2024	28.20	28.18	18.52	22.49	30.43	34.40
1-SI-67-907-A	124349213	9/14/2024	28.30	28.29	18.52	22.49	30.43	34.40
1-SI-67-907-A	124524744	1/6/2025	28.30	28.32	18.52	22.49	30.43	34.40
1-SI-67-907-A	124557403	4/5/2025	28.22	28.10	18.52	22.49	30.43	34.40
1-SI-67-907-A	124972539	7/1/2025	28.26	28.16	18.52	22.49	30.43	34.40
1-SI-67-907-A	125145809	10/2/2025	28.36	28.30	18.52	22.49	30.43	34.40
1-SI-67-907-A	125342425	12/30/2025	28.41	28.16	18.52	22.49	30.43	34.40
1-SI-67-907-A	125495703	4/1/2026	28.27	28.38	18.52	22.49	30.43	34.40


1-FCV-67-295 UPPER CNTMT VENT CLR 1A ERCW RET ISOL
1-FCV-67-295 (O)
1-FCV-67-295 (C)
Req. Action Low
Alert Low
Alert High
Req. Action High
DATE (SEC)
40
35
30
25
20
15
10
5
0
10/1/2023
1/9/2024
4/18/2024
7/27/2024
11/4/2024
2/12/2025
5/23/2025
8/31/2025
12/9/2025
3/19/2026
6/27/2026
DATE

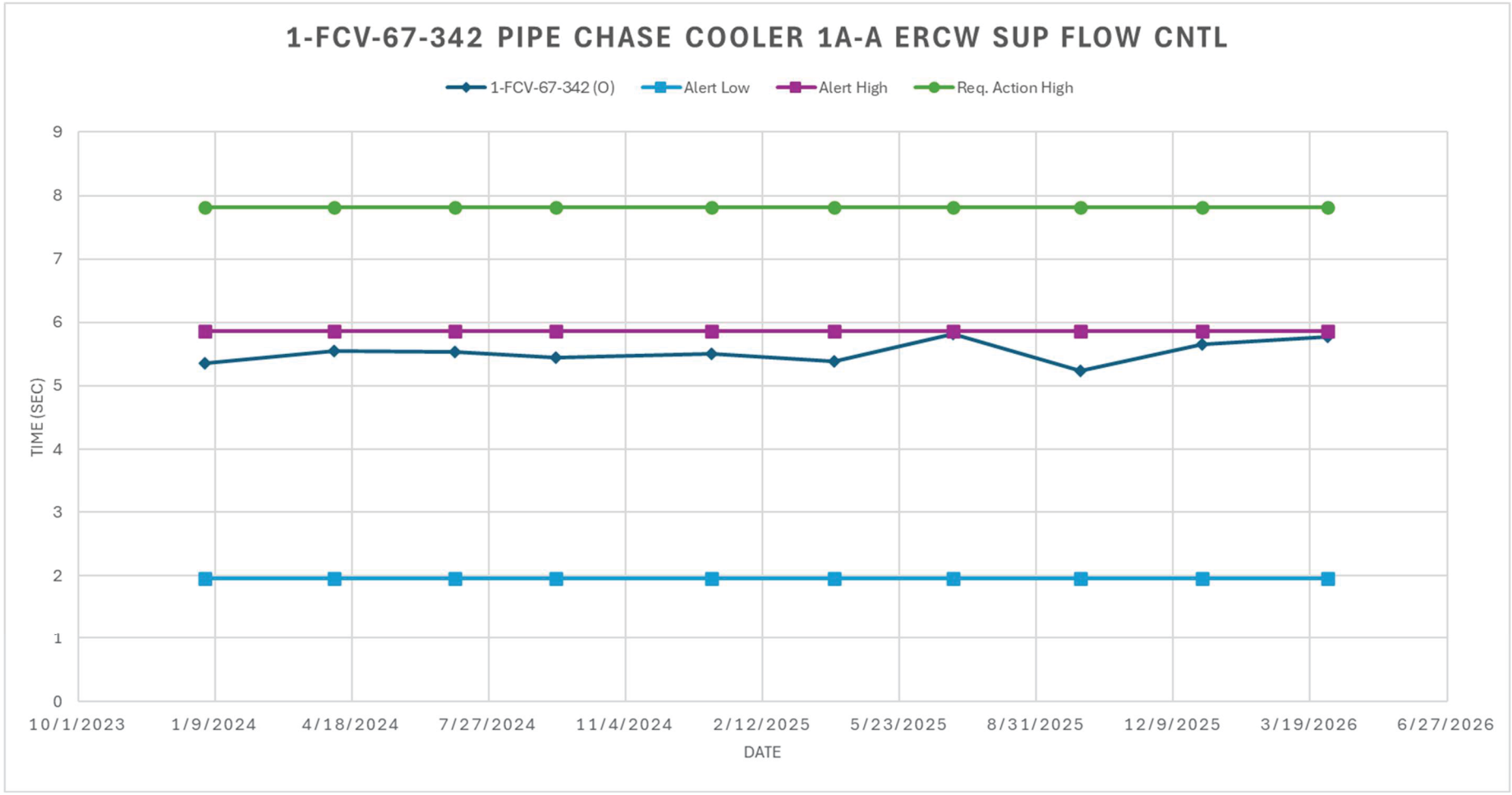
1-FCV-67-296 UPPER CNTMT VENT CLR 1C ERCW RET ISOL

Procedure	WID Number	Date	1-FCV-67-296-A (C)	1-FCV-67-296-A (O)	Req. Action Low	Alert Low	Alert High	Req. Action High
1-SI-67-907-A	123767861	1/2/2024	28.46	28.42	20.10	24.40	33.02	37.32
1-SI-67-907-A	123859631	4/5/2024	28.38	28.36	20.10	24.40	33.02	37.32
1-SI-67-907-A	124090178	7/2/2024	28.53	28.48	20.10	24.40	33.02	37.32
1-SI-67-907-A	124349213	9/14/2024	28.29	28.56	20.10	24.40	33.02	37.32
1-SI-67-907-A	124524744	1/6/2025	28.46	28.46	20.10	24.40	33.02	37.32
1-SI-67-907-A	124557403	4/5/2025	28.46	28.48	20.10	24.40	33.02	37.32
1-SI-67-907-A	124972539	7/1/2025	28.49	29.41	20.10	24.40	33.02	37.32
1-SI-67-907-A	125145809	10/2/2025	28.58	28.59	20.10	24.40	33.02	37.32
1-SI-67-907-A	125342425	12/30/2025	28.53	28.46	20.10	24.40	33.02	37.32
1-SI-67-907-A	125495703	4/1/2026	28.49	28.58	20.10	24.40	33.02	37.32


1-FCV-67-296 UPPER CNTMT VENT CLR 1C ERCW RET ISOL
1-FCV-67-296 (O)
1-FCV-67-296 (C)
Req. Action Low
Alert Low
Alert High
Req. Action High
TIME (SEC)
40
35
30
25
20
15
10
5
0
10/1/2023
1/9/2024
4/18/2024
7/27/2024
11/4/2024
2/12/2025
5/23/2025
8/31/2025
12/9/2025
3/19/2026
6/27/2026
DATE

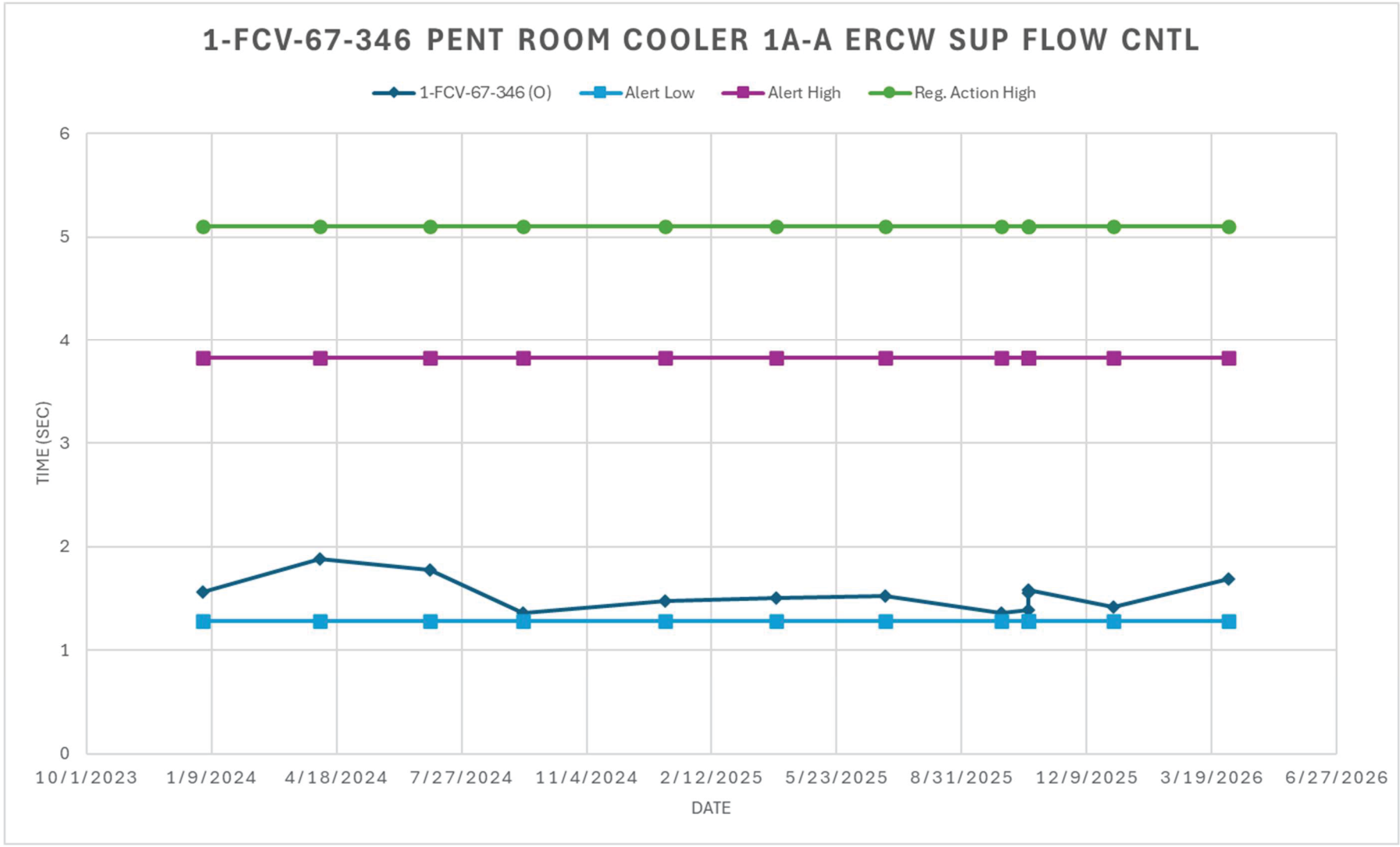
1-FCV-67-342 PIPE CHASE COOLER 1A-A ERCW SUP FLOW CNTL

Procedure	WID Number	Date	1-FCV-67-342 (O)	Alert Low	Alert High	Req. Action High
1-SI-67-907-A	123767861	1/2/2024	5.36	1.96	5.87	7.82
1-SI-67-907-A	123859631	4/5/2024	5.55	1.96	5.87	7.82
1-SI-67-907-A	124090178	7/2/2024	5.53	1.96	5.87	7.82
1-SI-67-907-A	124349213	9/14/2024	5.45	1.96	5.87	7.82
1-SI-67-907-A	124524744	1/6/2025	5.50	1.96	5.87	7.82
1-SI-67-907-A	124557403	4/5/2025	5.38	1.96	5.87	7.82
1-SI-67-907-A	124972539	7/1/2025	5.82	1.96	5.87	7.82
1-SI-67-907-A	125145809	10/2/2025	5.23	1.96	5.87	7.82
1-SI-67-907-A	125342425	12/30/2025	5.66	1.96	5.87	7.82
1-SI-67-907-A	125495703	4/1/2026	5.78	1.96	5.87	7.82


1-FCV-67-342 PIPE CHASE COOLER 1A-A ERCW SUP FLOW CNTL
1-FCV-67-342 (O)
Alert Low
Alert High
Req. Action High
TIME (SEC)
0
1
2
3
4
5
6
7
8
9
10/1/2023
1/9/2024
4/18/2024
7/27/2024
11/4/2024
2/12/2025
5/23/2025
8/31/2025
12/9/2025
3/19/2026
6/27/2026
DATE

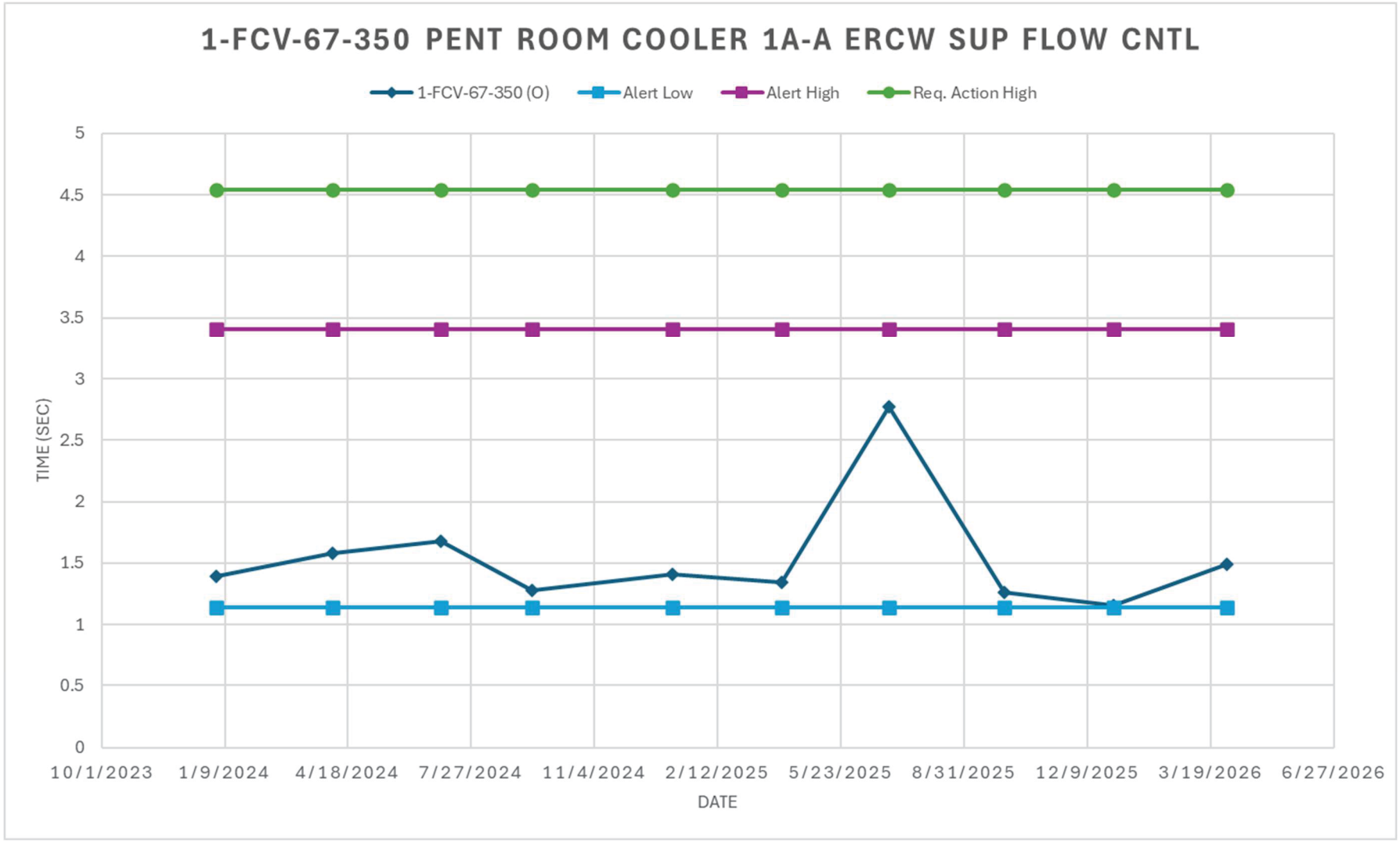
1-FCV-67-346 PENT ROOM COOLER 1A-A ERCW SUP FLOW CNTL

Procedure	WID Number	Date	1-FCV-67-346 (O)	Alert Low	Alert High	Req. Action High
1-SI-67-907-A	123767861	1/2/2024	1.56	1.28	3.83	5.10
1-SI-67-907-A	123859631	4/5/2024	1.88	1.28	3.83	5.10
1-SI-67-907-A	124090178	7/2/2024	1.78	1.28	3.83	5.10
1-SI-67-907-A	124349213	9/14/2024	1.36	1.28	3.83	5.10
1-SI-67-907-A	124524744	1/6/2025	1.48	1.28	3.83	5.10
1-SI-67-907-A	124557403	4/5/2025	1.51	1.28	3.83	5.10
1-SI-67-907-A	124972539	7/1/2025	1.52	1.28	3.83	5.10
1-SI-67-907-A	125145809	10/2/2025	1.36	1.28	3.83	5.10
1-SI-67-907-A	125342425	12/30/2025	1.42	1.28	3.83	5.10
1-SI-67-907-A	125709384	10/23/2025	1.55	1.28	3.83	5.10
1-SI-67-907-A	125709384	10/23/2025	1.58	1.28	3.83	5.10
1-SI-67-907-A	125709384	10/23/2025	1.39	1.28	3.83	5.10
1-SI-67-907-A	125495703	4/1/2026	1.69	1.28	3.83	5.10


1-FCV-67-346 PENT ROOM COOLER 1A-A ERCW SUP FLOW CNTL
1-FCV-67-346 (O)
Alert Low
Alert High
Reg. Action High
TIME (SEC)
0
1
2
3
4
5
6
10/1/2023
1/9/2024
4/18/2024
7/27/2024
11/4/2024
2/12/2025
5/23/2025
8/31/2025
12/9/2025
3/19/2026
6/27/2026
DATE

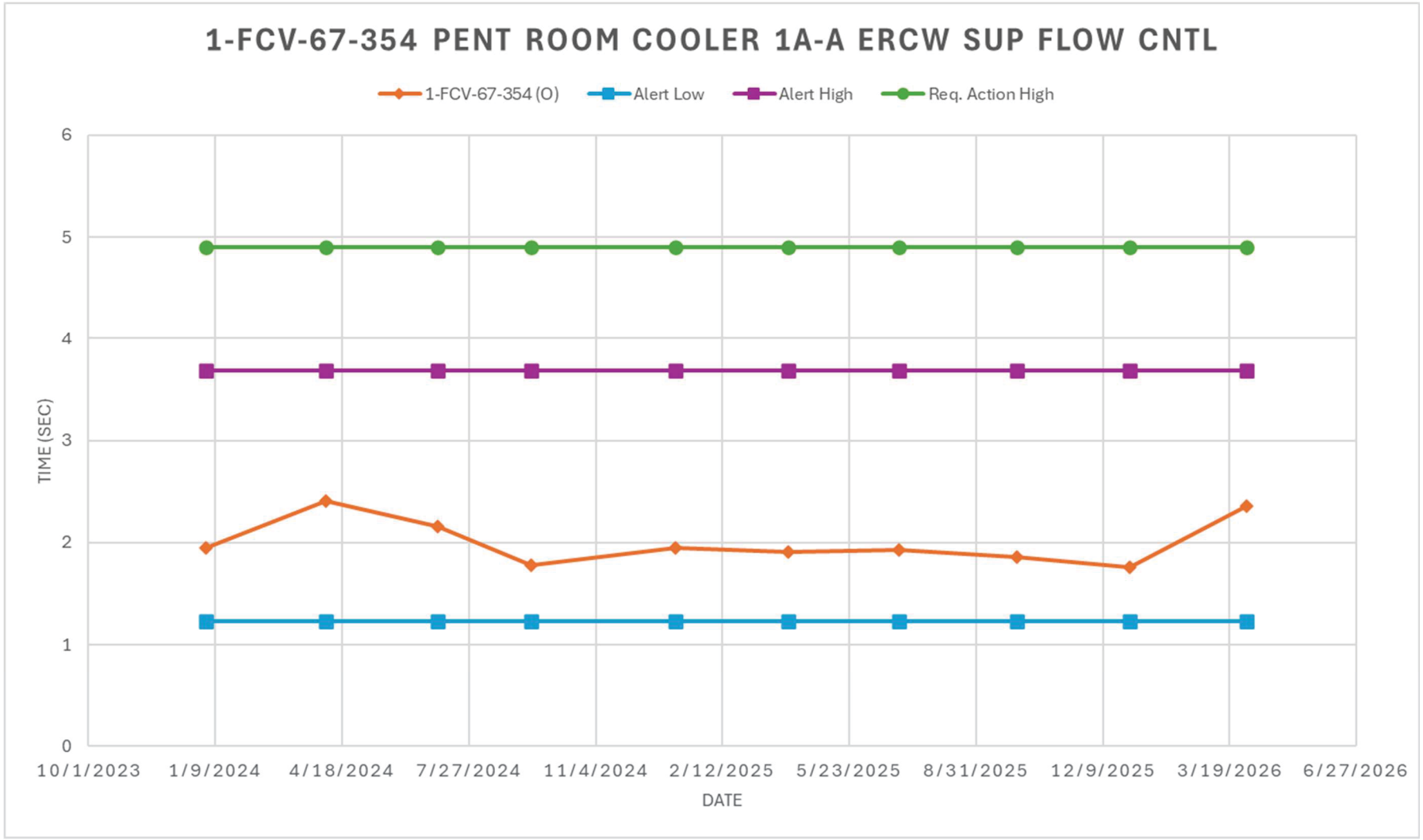
1-FCV-67-350 PENT ROOM COOLER 1A-A ERCW SUP FLOW CNTL

Procedure	WID Number	Date	1-FCV-67-350 (O)	Alert Low	Alert High	Req. Action High
1-SI-67-907-A	123767861	1/2/2024	1.39	1.14	3.41	4.54
1-SI-67-907-A	123859631	4/5/2024	1.58	1.14	3.41	4.54
1-SI-67-907-A	124090178	7/2/2024	1.68	1.14	3.41	4.54
1-SI-67-907-A	124349213	9/14/2024	1.28	1.14	3.41	4.54
1-SI-67-907-A	124524744	1/6/2025	1.41	1.14	3.41	4.54
1-SI-67-907-A	124557403	4/5/2025	1.34	1.14	3.41	4.54
1-SI-67-907-A	124972539	7/1/2025	2.77	1.14	3.41	4.54
1-SI-67-907-A	125145809	10/2/2025	1.26	1.14	3.41	4.54
1-SI-67-907-A	125342425	12/30/2025	1.16	1.14	3.41	4.54
1-SI-67-907-A	125495703	4/1/2026	1.49	1.14	3.41	4.54


1-FCV-67-350 PENT ROOM COOLER 1A-A ERCW SUP FLOW CNTL
1-FCV-67-350 (O)
Alert Low
Alert High
Req. Action High
TIME (SEC)
5
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
10/1/2023
1/9/2024
4/18/2024
7/27/2024
11/4/2024
2/12/2025
5/23/2025
8/31/2025
12/9/2025
3/19/2026
6/27/2026
DATE

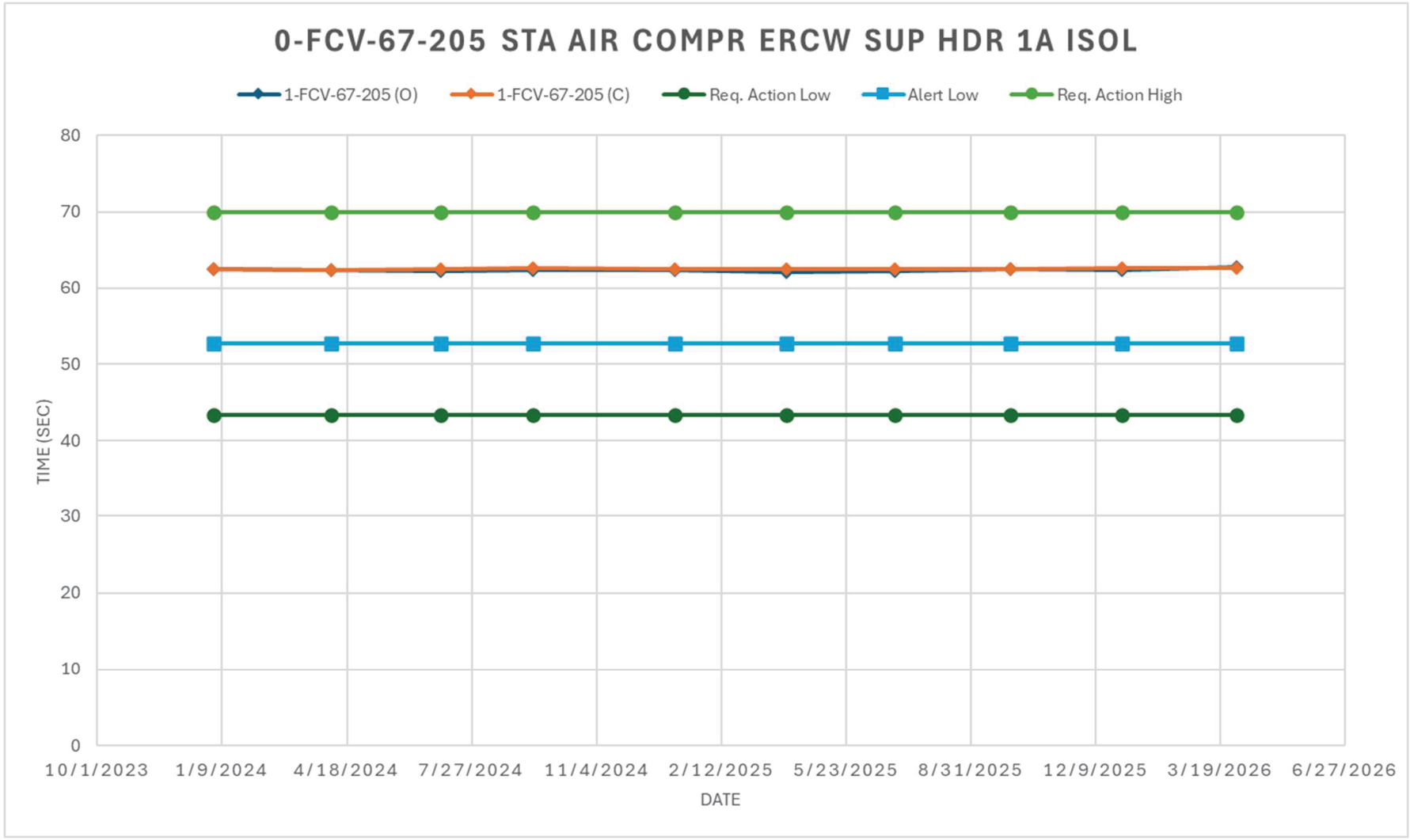
1-FCV-67-354 PENT ROOM COOLER 1A-A ERCW SUP FLOW CNTL

Procedure	WID Number	Date	1-FCV-67-354 (O)	Alert Low	Alert High	Req. Action High
1-SI-67-907-A	123767861	1/2/2024	1.95	1.23	3.68	4.90
1-SI-67-907-A	123859631	4/5/2024	2.41	1.23	3.68	4.90
1-SI-67-907-A	124090178	7/2/2024	2.16	1.23	3.68	4.90
1-SI-67-907-A	124349213	9/14/2024	1.78	1.23	3.68	4.90
1-SI-67-907-A	124524744	1/6/2025	1.95	1.23	3.68	4.90
1-SI-67-907-A	124557403	4/5/2025	1.91	1.23	3.68	4.90
1-SI-67-907-A	124972539	7/1/2025	1.93	1.23	3.68	4.90
1-SI-67-907-A	125145809	10/2/2025	1.86	1.23	3.68	4.90
1-SI-67-907-A	125342425	12/30/2025	1.76	1.23	3.68	4.90
1-SI-67-907-A	125495703	4/1/2026	2.36	1.23	3.68	4.90


1-FCV-67-354 PENT ROOM COOLER 1A-A ERCW SUP FLOW CNTL
1-FCV-67-354 (O)
Alert Low
Alert High
Req. Action High
TIME (SEC)
0
1
2
3
4
5
6
10/1/2023
1/9/2024
4/18/2024
7/27/2024
11/4/2024
2/12/2025
5/23/2025
8/31/2025
12/9/2025
3/19/2026
6/27/2026
DATE

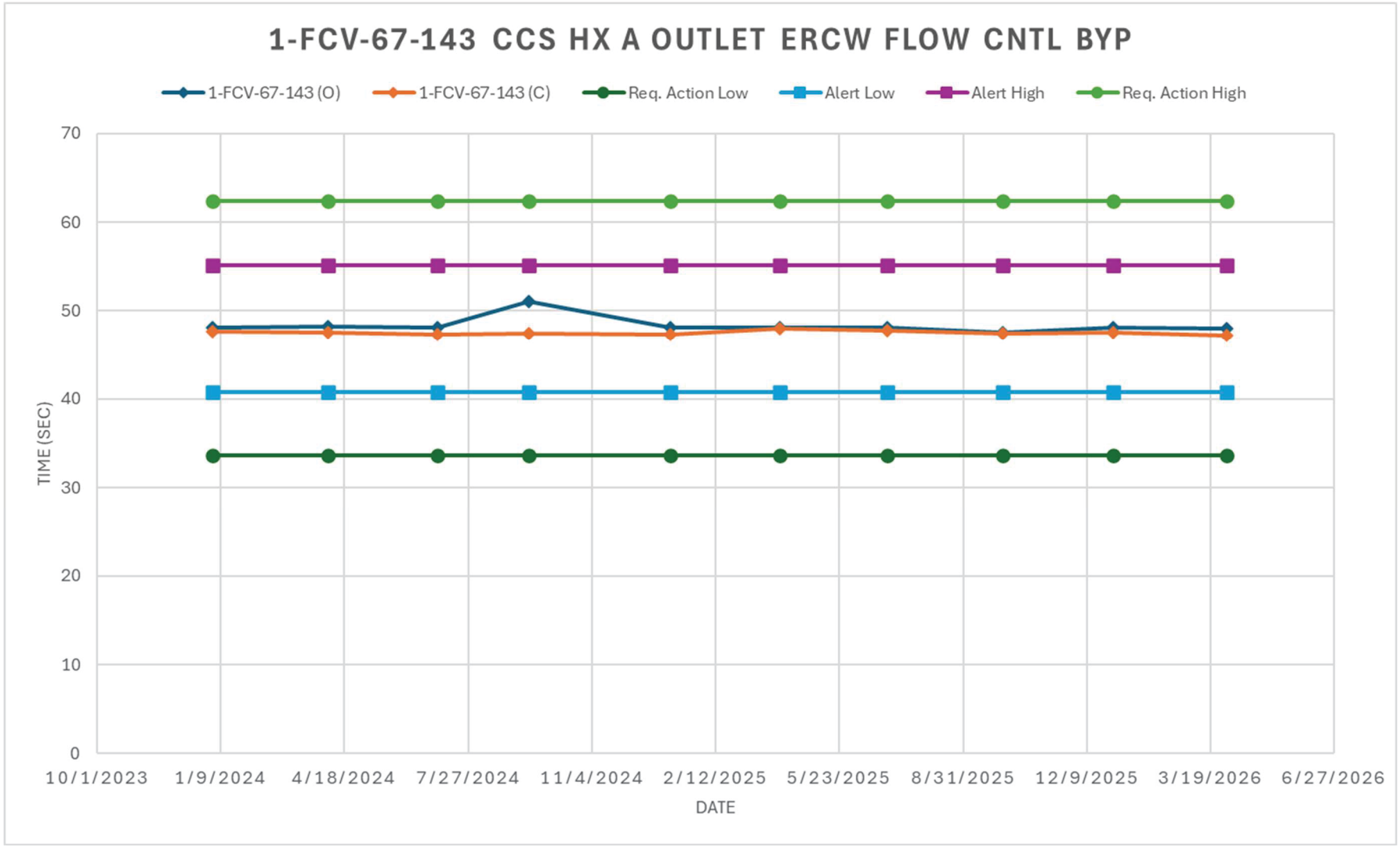
0-FCV-67-205 STA AIR COMPR ERCW SUP HDR 1A ISOL

Procedure	WID Number	Date	0-FCV-67-205-A (C)	0-FCV-67-205-A (O)	Req. Action Low	Alert Low	Req. Action High
1-SI-67-907-A	123767861	1/2/2024	62.49	62.46	43.40	52.70	70.00
1-SI-67-907-A	123859631	4/5/2024	62.39	62.35	43.40	52.70	70.00
1-SI-67-907-A	124090178	7/2/2024	62.53	62.28	43.40	52.70	70.00
1-SI-67-907-A	124349213	9/14/2024	62.70	62.37	43.40	52.70	70.00
1-SI-67-907-A	124524744	1/6/2025	62.46	62.40	43.40	52.70	70.00
1-SI-67-907-A	124557403	4/5/2025	62.46	62.10	43.40	52.70	70.00
1-SI-67-907-A	124972539	7/1/2025	62.56	62.31	43.40	52.70	70.00
1-SI-67-907-A	125145809	10/2/2025	62.57	62.46	43.40	52.70	70.00
1-SI-67-907-A	125342425	12/30/2025	62.66	62.38	43.40	52.70	70.00
1-SI-67-907-A	125495703	4/1/2026	62.61	62.78	43.40	52.70	70.00


0-FCV-67-205 STA AIR COMPR ERCW SUP HDR 1A ISOL
1-FCV-67-205 (O)
1-FCV-67-205 (C)
Req. Action Low
Alert Low
Req. Action High
TIME (SEC)
80
70
60
50
40
30
20
10
0
10/1/2023
1/9/2024
4/18/2024
7/27/2024
11/4/2024
2/12/2025
5/23/2025
8/31/2025
12/9/2025
3/19/2026
6/27/2026
DATE

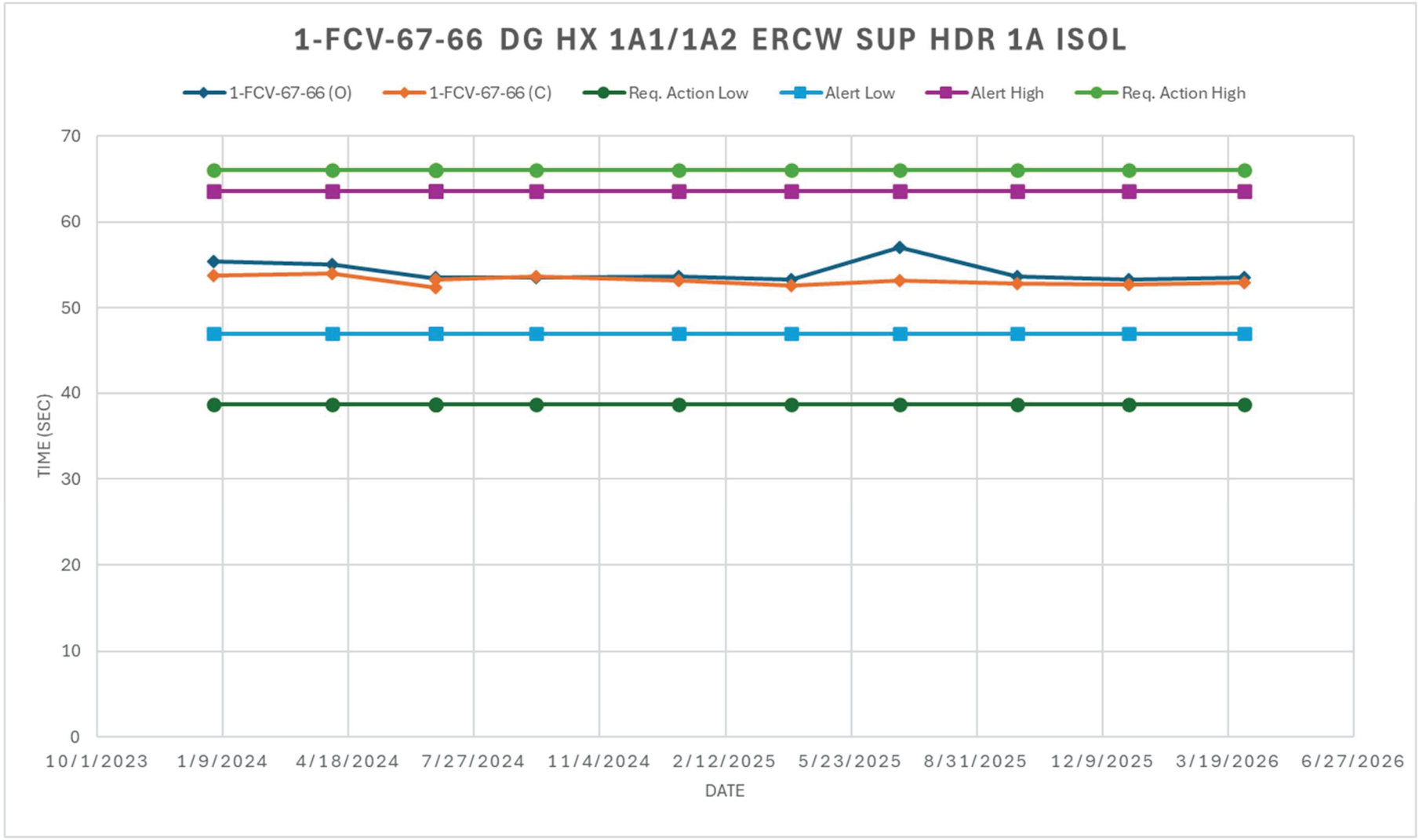
1-FCV-67-143 CCS HX A OUTLET ERCW FLOW CNTL BYP

Procedure	WID Number	Date	1-FCV-67-143 [C]	1-FCV-67-143 [O]	Req. Action Low	Alert Low	Alert High	Req. Action High
1-SI-67-907-A	123767861	1/2/2024	47.62	48.13	33.60	40.80	55.20	62.40
1-SI-67-907-A	123859631	4/5/2024	47.56	48.26	33.60	40.80	55.20	62.40
1-SI-67-907-A	124090178	7/2/2024	47.37	48.08	33.60	40.80	55.20	62.40
1-SI-67-907-A	124349213	9/14/2024	47.41	51.10	33.60	40.80	55.20	62.40
1-SI-67-907-A	124524744	1/6/2025	47.38	48.10	33.60	40.80	55.20	62.40
1-SI-67-907-A	124557403	4/5/2025	47.97	48.08	33.60	40.80	55.20	62.40
1-SI-67-907-A	124972539	7/1/2025	47.76	48.10	33.60	40.80	55.20	62.40
1-SI-67-907-A	125145809	10/2/2025	47.47	47.51	33.60	40.80	55.20	62.40
1-SI-67-907-A	125342425	12/30/2025	47.58	48.12	33.60	40.80	55.20	62.40
1-SI-67-907-A	125495703	4/1/2026	47.22	47.96	33.60	40.80	55.20	62.40


1-FCV-67-143 CCS HX A OUTLET ERCW FLOW CNTL BYP
1-FCV-67-143 (O)
1-FCV-67-143 (C)
Req. Action Low
Alert Low
Alert High
Req. Action High
70
60
50
40
30
20
10
0
TIME (SEC)
10/1/2023
1/9/2024
4/18/2024
7/27/2024
11/4/2024
2/12/2025
5/23/2025
8/31/2025
12/9/2025
3/19/2026
6/27/2026
DATE

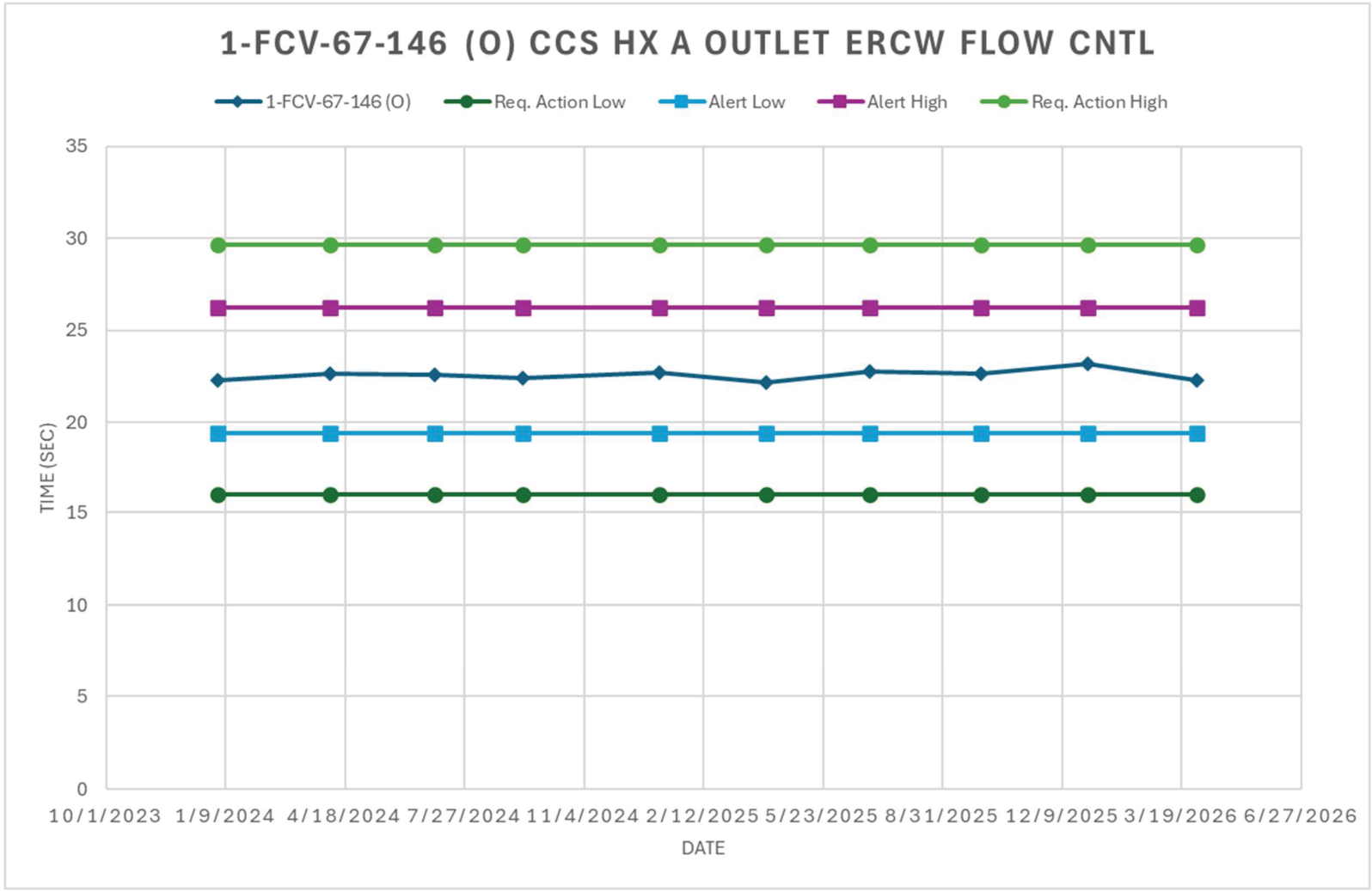
1-FCV-67-66 DG HX 1A1/1A2 ERCW SUP HDR 1A ISOL

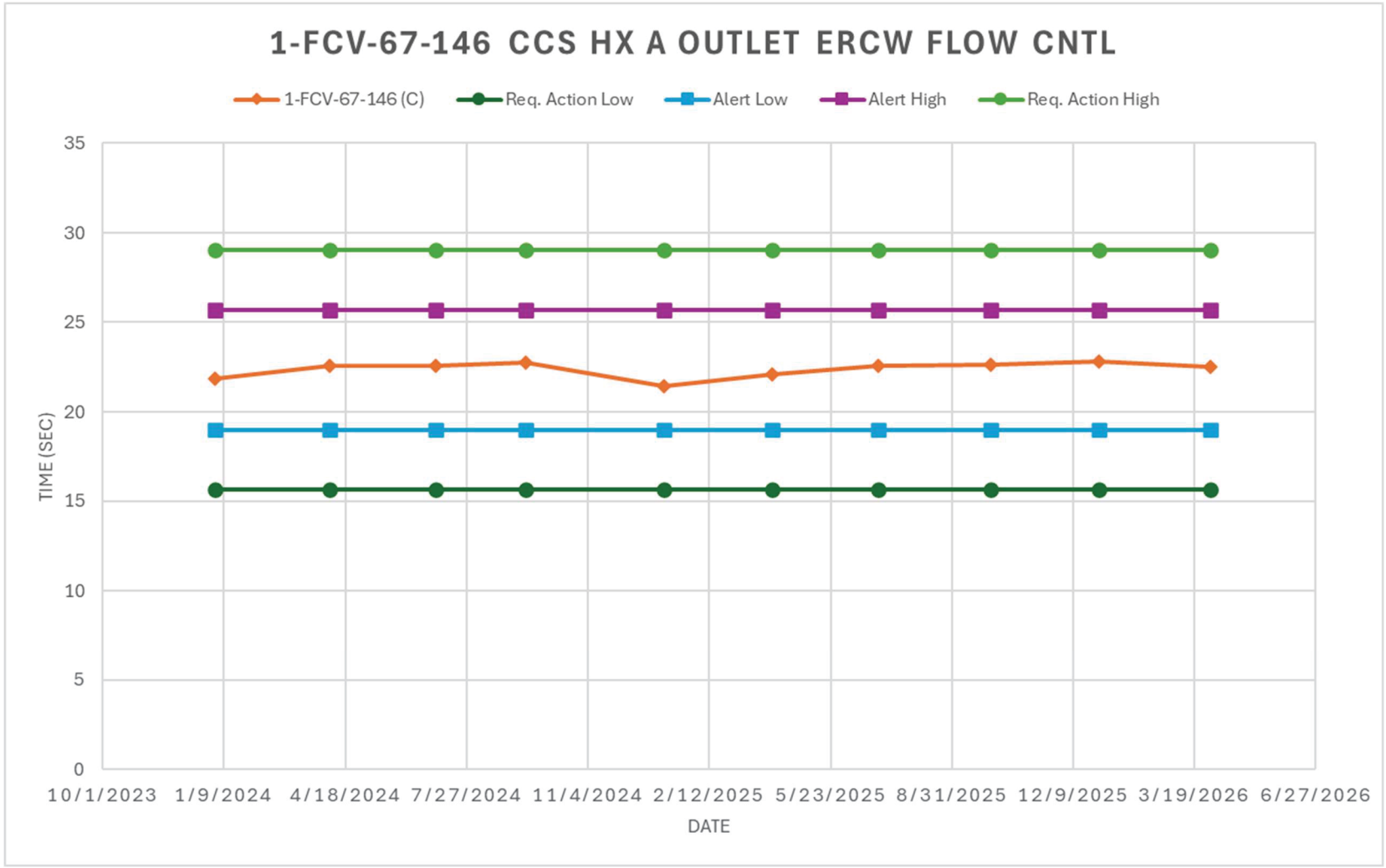
Procedure	WID Number	Date	1-FCV-67-66 [O]	1-FCV-67-66 [C]	Req. Action Low [O]	Alert Low [O]	Alert High [O]	Req. Action High [O]
1-SI-67-907-A	123767861	1/2/2024	55.35	53.78	38.70	46.99	63.57	66.00
1-SI-67-907-A	123859631	4/5/2024	55.08	53.99	38.70	46.99	63.57	66.00
1-SI-67-907-A	124581212	6/26/2024	53.47	52.39	38.70	46.99	63.57	66.00
1-SI-67-907-A	124581212	6/26/2024	53.38	53.28	38.70	46.99	63.57	66.00
1-SI-67-907-A	124581212	6/26/2024	53.49	53.27	38.70	46.99	63.57	66.00
1-SI-67-907-A	124349213	9/14/2024	53.52	53.68	38.70	46.99	63.57	66.00
1-SI-67-907-A	124524744	1/6/2025	53.66	53.22	38.70	46.99	63.57	66.00
1-SI-67-907-A	124557403	4/5/2025	53.29	52.57	38.70	46.99	63.57	66.00
1-SI-67-907-A	124972539	7/1/2025	57.08	53.22	38.70	46.99	63.57	66.00
1-SI-67-907-A	125145809	10/2/2025	53.59	52.87	38.70	46.99	63.57	66.00
1-SI-67-907-A	125342425	12/30/2025	53.26	52.69	38.70	46.99	63.57	66.00
1-SI-67-907-A	125495703	4/1/2026	53.52	52.97	38.70	46.99	63.57	66.00


1-FCV-67-66 DG HX 1A1/1A2 ERCW SUP HDR 1A ISOL
1-FCV-67-66 (O)
1-FCV-67-66 (C)
Req. Action Low
Alert Low
Alert High
Req. Action High
TIME (SEC)
70
60
50
40
30
20
10
0
10/1/2023
1/9/2024
4/18/2024
7/27/2024
11/4/2024
2/12/2025
5/23/2025
8/31/2025
12/9/2025
3/19/2026
6/27/2026
DATE

1-FCV-67-146 CCS HX A OUTLET ERCW FLOW CNTL

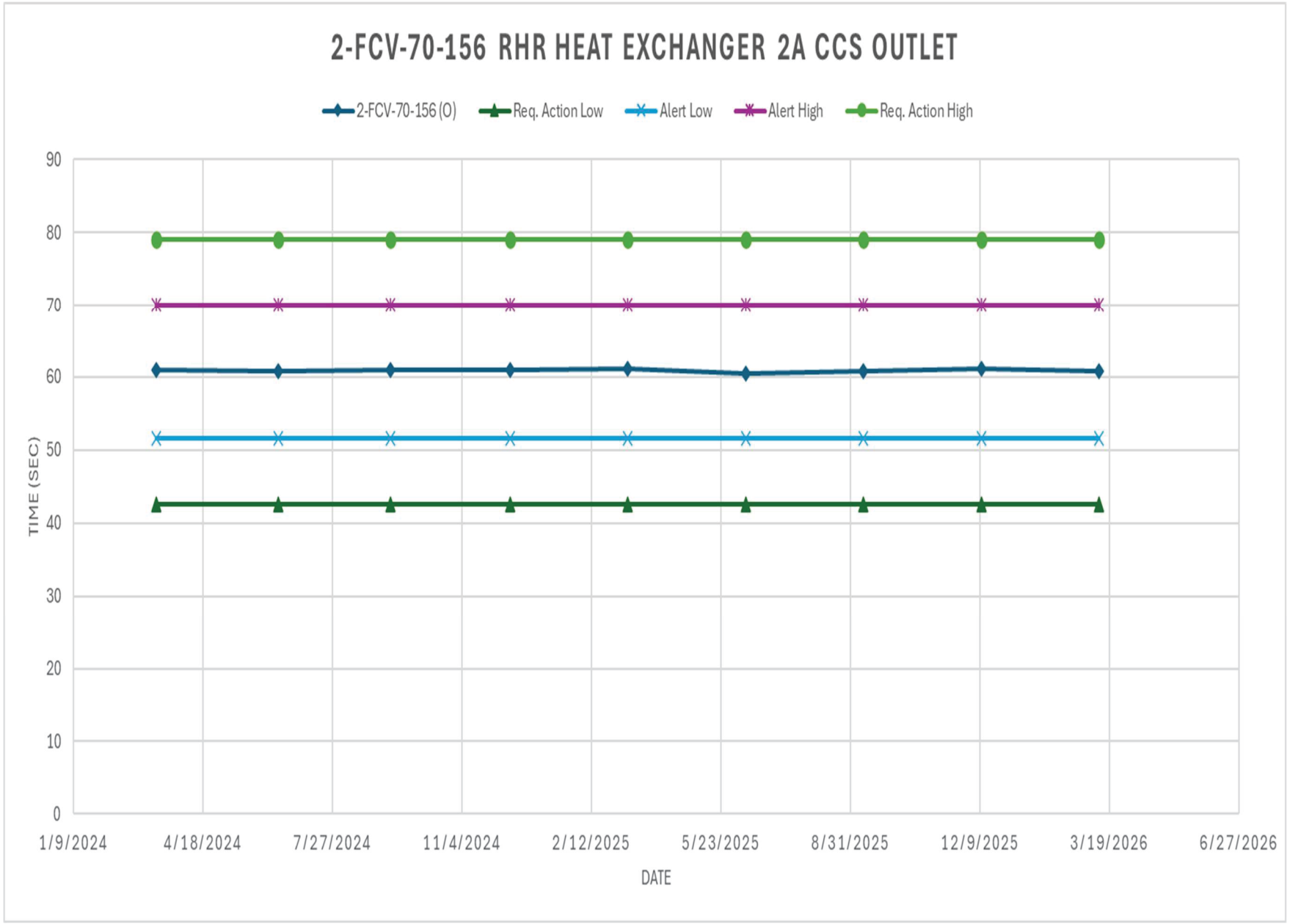
Procedure	WID Number	Date	1-FCV-67-146 [O]	Req. Action Low [O]	Alert Low [O]	Alert High [O]	Req. Action High [O]	1-FCV-67-146 [C]	Req. Action Low [C]	Alert Low [C]	Alert High [C]	Req. Action High [C]
1-SI-67-907-A	123767861	1/2/2024	22.26	15.97	19.39	26.23	29.65	21.86	15.66	19.01	25.71	29.06
1-SI-67-907-A	123859631	4/5/2024	22.66	15.97	19.39	26.23	29.65	22.58	15.66	19.01	25.71	29.06
1-SI-67-907-A	124090178	7/2/2024	22.57	15.97	19.39	26.23	29.65	22.56	15.66	19.01	25.71	29.06
1-SI-67-907-A	124349213	9/14/2024	22.41	15.97	19.39	26.23	29.65	22.78	15.66	19.01	25.71	29.06
1-SI-67-907-A	124524744	1/6/2025	22.68	15.97	19.39	26.23	29.65	21.46	15.66	19.01	25.71	29.06
1-SI-67-907-A	124557403	4/5/2025	22.18	15.97	19.39	26.23	29.65	22.10	15.66	19.01	25.71	29.06
1-SI-67-907-A	124972539	7/1/2025	22.76	15.97	19.39	26.23	29.65	22.56	15.66	19.01	25.71	29.06
1-SI-67-907-A	125145809	10/2/2025	22.65	15.97	19.39	26.23	29.65	22.64	15.66	19.01	25.71	29.06
1-SI-67-907-A	125342425	12/30/2025	23.16	15.97	19.39	26.23	29.65	22.84	15.66	19.01	25.71	29.06
1-SI-67-907-A	125495703	4/1/2026	22.25	15.97	19.39	26.23	29.65	22.54	15.66	19.01	25.71	29.06

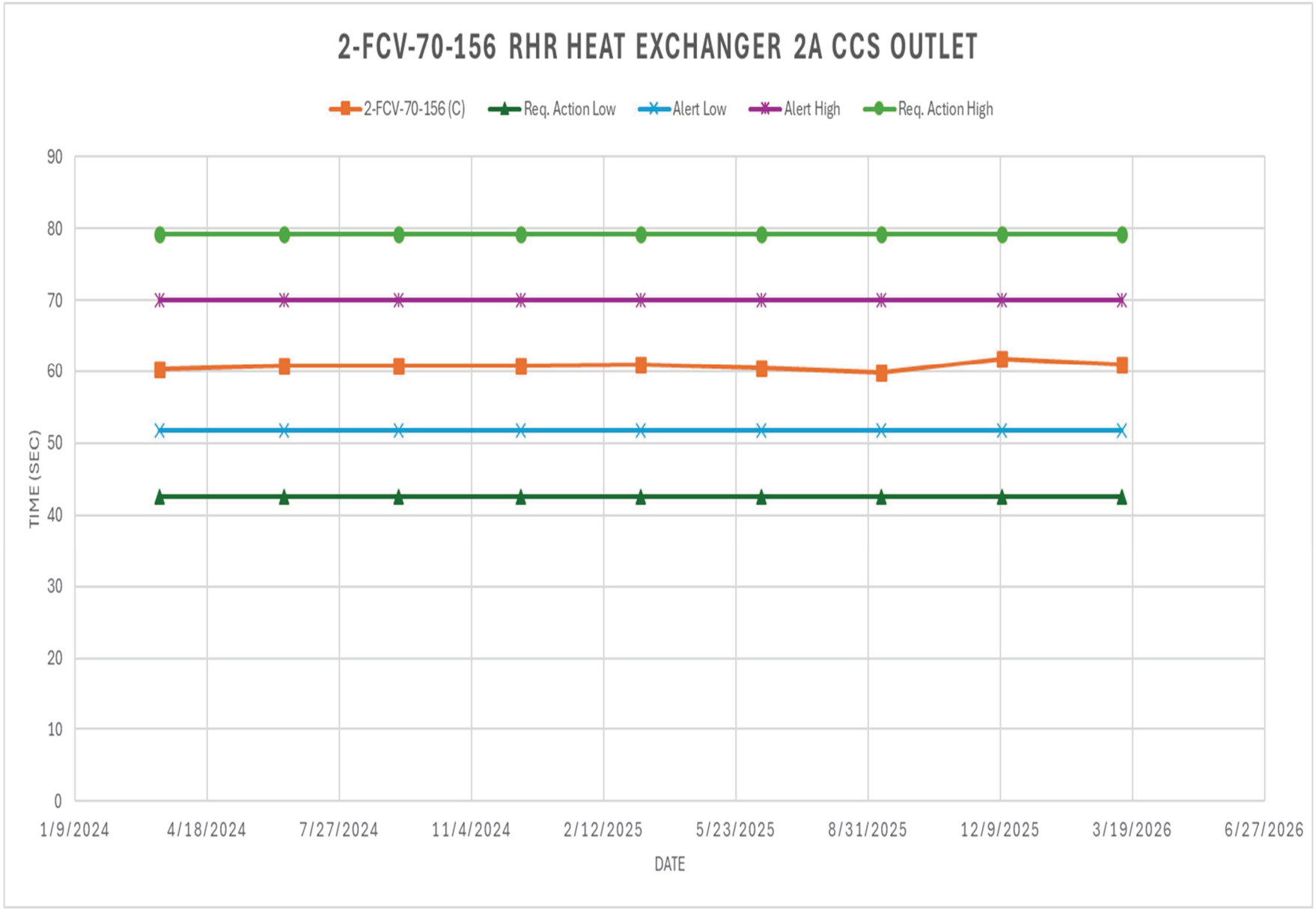

1-FCV-67-146 (O) CCS HX A OUTLET ERCW FLOW CNTL
1-FCV-67-146 (O)
Req. Action Low
Alert Low
Alert High
Req. Action High
35
30
25
20
15
10
5
0
TIME (SEC)
10/1/2023
1/9/2024
4/18/2024
7/27/2024
11/4/2024
2/12/2025
5/23/2025
8/31/2025
12/9/2025
3/19/2026
6/27/2026
DATE


1-FCV-67-146 CCS HX A OUTLET ERCW FLOW CNTL
1-FCV-67-146 (C)
Req. Action Low
Alert Low
Alert High
Req. Action High
35
30
25
20
15
10
5
0
TIME (SEC)
10/1/2023
1/9/2024
4/18/2024
7/27/2024
11/4/2024
2/12/2025
5/23/2025
8/31/2025
12/9/2025
3/19/2026
6/27/2026
DATE

2-FCV-70-156 RHR HEAT EXCHANGER 2A CCS OUTLET

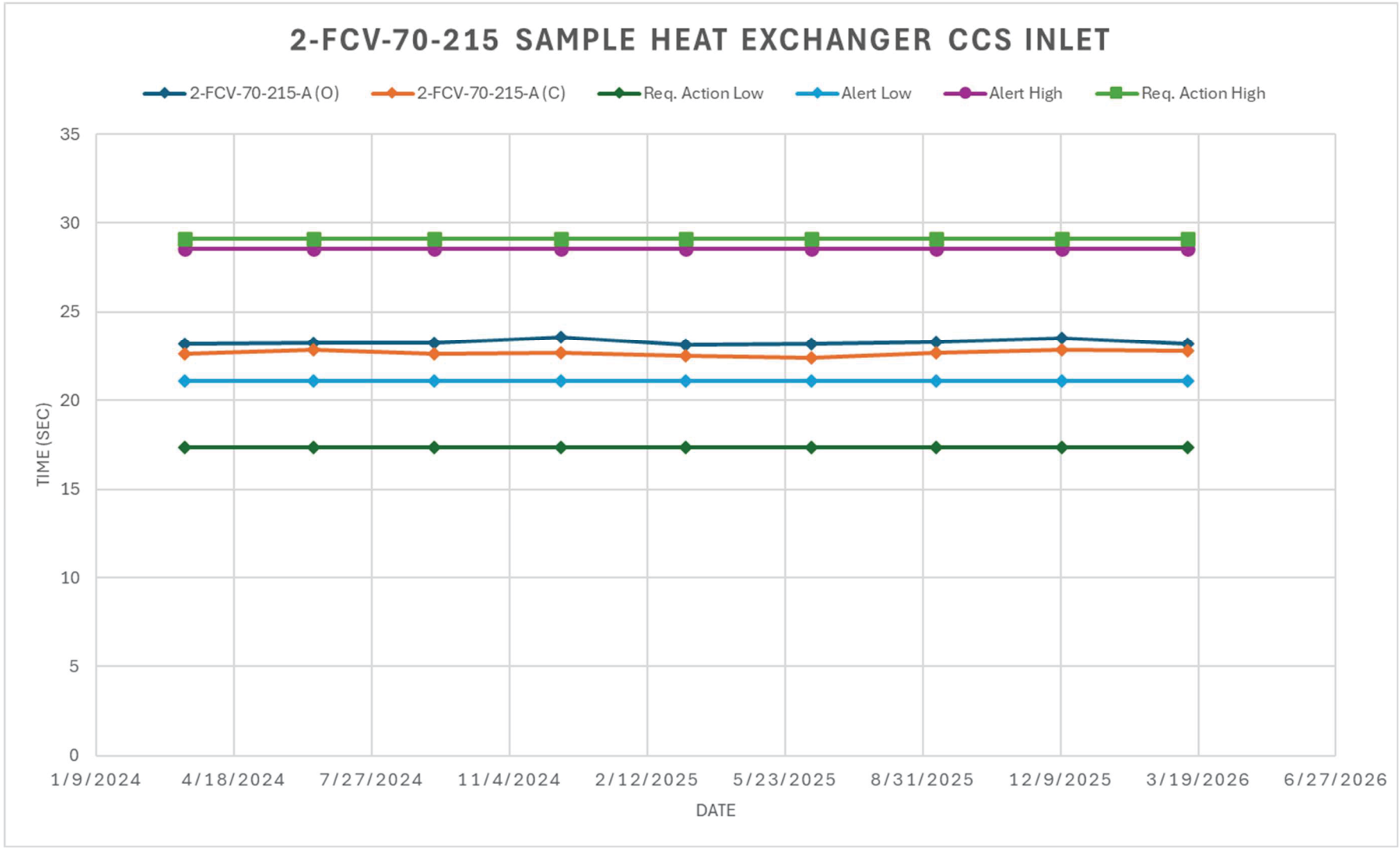
Procedure	WID Number	Date	2-FCV-70-156-A (O)	Req. Action Low (O)	Alert Low (O)	Alert High (O)	Req. Action High (O)	2-FCV-70-156-A (C)	Req. Action Low (C)	Alert Low (C)	Alert High (C)	Req. Action High (C)
2-SI-70-904-A	123860074	3/13/2024	61.02	42.57	51.69	69.93	79.05	60.33	42.63	51.77	70.03	79.17
2-SI-70-904-A	124092356	6/15/2024	60.82	42.57	51.69	69.93	79.05	60.80	42.63	51.77	70.03	79.17
2-SI-70-904-A	124092357	9/10/2024	60.94	42.57	51.69	69.93	79.05	60.88	42.63	51.77	70.03	79.17
2-SI-70-904-A	124351335	12/11/2024	60.92	42.57	51.69	69.93	79.05	60.87	42.63	51.77	70.03	79.17
2-SI-70-904-A	124526944	3/12/2025	61.11	42.57	51.69	69.93	79.05	60.96	42.63	51.77	70.03	79.17
2-SI-70-904-A	124558056	6/11/2025	60.48	42.57	51.69	69.93	79.05	60.46	42.63	51.77	70.03	79.17
2-SI-70-904-A	124969247	9/10/2025	60.80	42.57	51.69	69.93	79.05	59.86	42.63	51.77	70.03	79.17
2-SI-70-904-A	125146738	12/10/2025	61.20	42.57	51.69	69.93	79.05	61.79	42.63	51.77	70.03	79.17
2-SI-70-904-A	125343655	3/11/2026	60.81	42.57	51.69	69.93	79.05	60.91	42.63	51.77	70.03	79.17


2-FCV-70-156 RHR HEAT EXCHANGER 2A CCS OUTLET
2-FCV-70-156 (O)
Req. Action Low
Alert Low
Alert High
Req. Action High
TIME (SEC)
90
80
70
60
50
40
30
20
10
0
1/9/2024
4/18/2024
7/27/2024
11/4/2024
2/12/2025
5/23/2025
8/31/2025
12/9/2025
3/19/2026
6/27/2026
DATE


2-FCV-70-156 RHR HEAT EXCHANGER 2A CCS OUTLET
2-FCV-70-156 (C)
Req. Action Low
Alert Low
Alert High
Req. Action High
TIME (SEC)
90
80
70
60
50
40
30
20
10
0
1/9/2024
4/18/2024
7/27/2024
11/4/2024
2/12/2025
5/23/2025
8/31/2025
12/9/2025
3/19/2026
6/27/2026
DATE

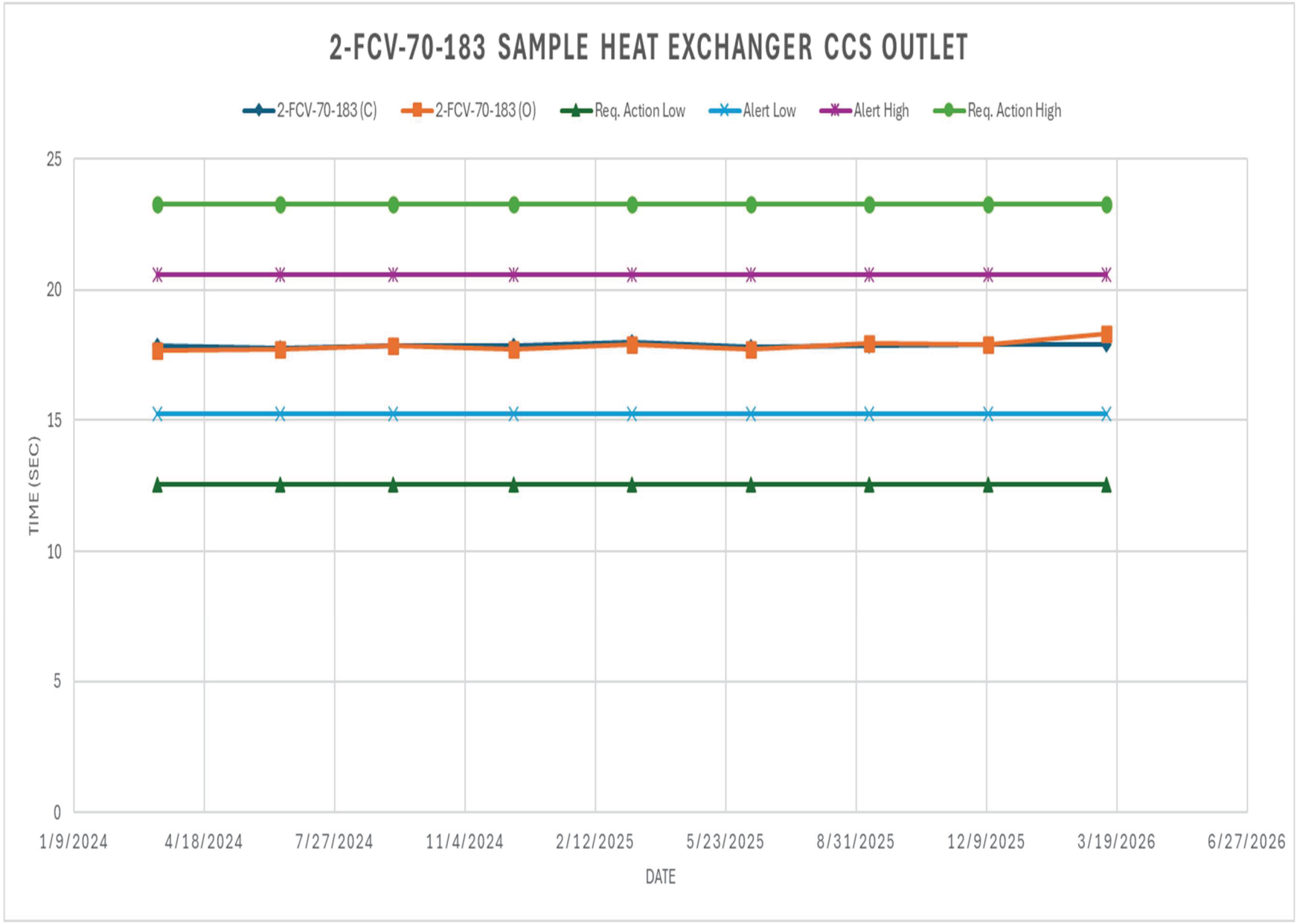
2-FCV-70-215 SAMPLE HEAT EXCHANGER CCS INLET

Procedure	WID Number	Date	2-FCV-70-215-A (C)	2-FCV-70-215-A (O)	Req. Action Low	Alert Low	Alert High	Req. Action High
2-SI-70-904-A	123860074	3/13/2024	22.61	23.19	17.38	21.10	28.54	29.10
2-SI-70-904-A	124092356	6/15/2024	22.82	23.26	17.38	21.10	28.54	29.10
2-SI-70-904-A	124092357	9/10/2024	22.62	23.26	17.38	21.10	28.54	29.10
2-SI-70-904-A	124351335	12/11/2024	22.68	23.56	17.38	21.10	28.54	29.10
2-SI-70-904-A	124526944	3/12/2025	22.48	23.10	17.38	21.10	28.54	29.10
2-SI-70-904-A	124558056	6/11/2025	22.40	23.16	17.38	21.10	28.54	29.10
2-SI-70-904-A	124969247	9/10/2025	22.68	23.30	17.38	21.10	28.54	29.10
2-SI-70-904-A	125146738	12/10/2025	22.86	23.50	17.38	21.10	28.54	29.10
2-SI-70-904-A	125343655	3/11/2026	22.77	23.20	17.38	21.10	28.54	29.10


2-FCV-70-215 SAMPLE HEAT EXCHANGER CCS INLET
2-FCV-70-215-A (O)
2-FCV-70-215-A (C)
Req. Action Low
Alert Low
Alert High
Req. Action High
TIME (SEC)
35
30
25
20
15
10
5
0
1/9/2024
4/18/2024
7/27/2024
11/4/2024
2/12/2025
5/23/2025
8/31/2025
12/9/2025
3/19/2026
6/27/2026
DATE

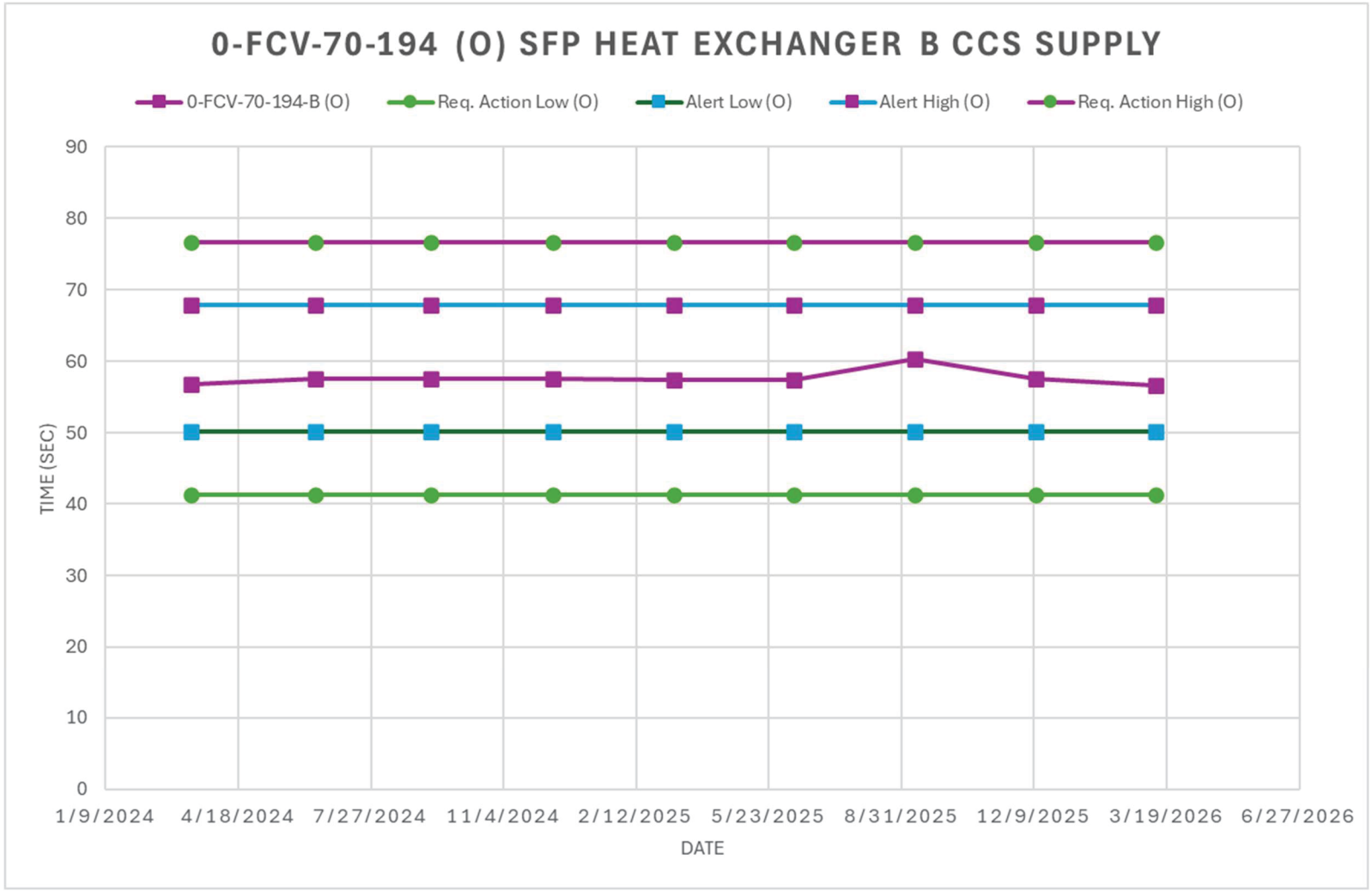
2-FCV-70-183 SAMPLE HEAT EXCHANGER CCS OUTLET

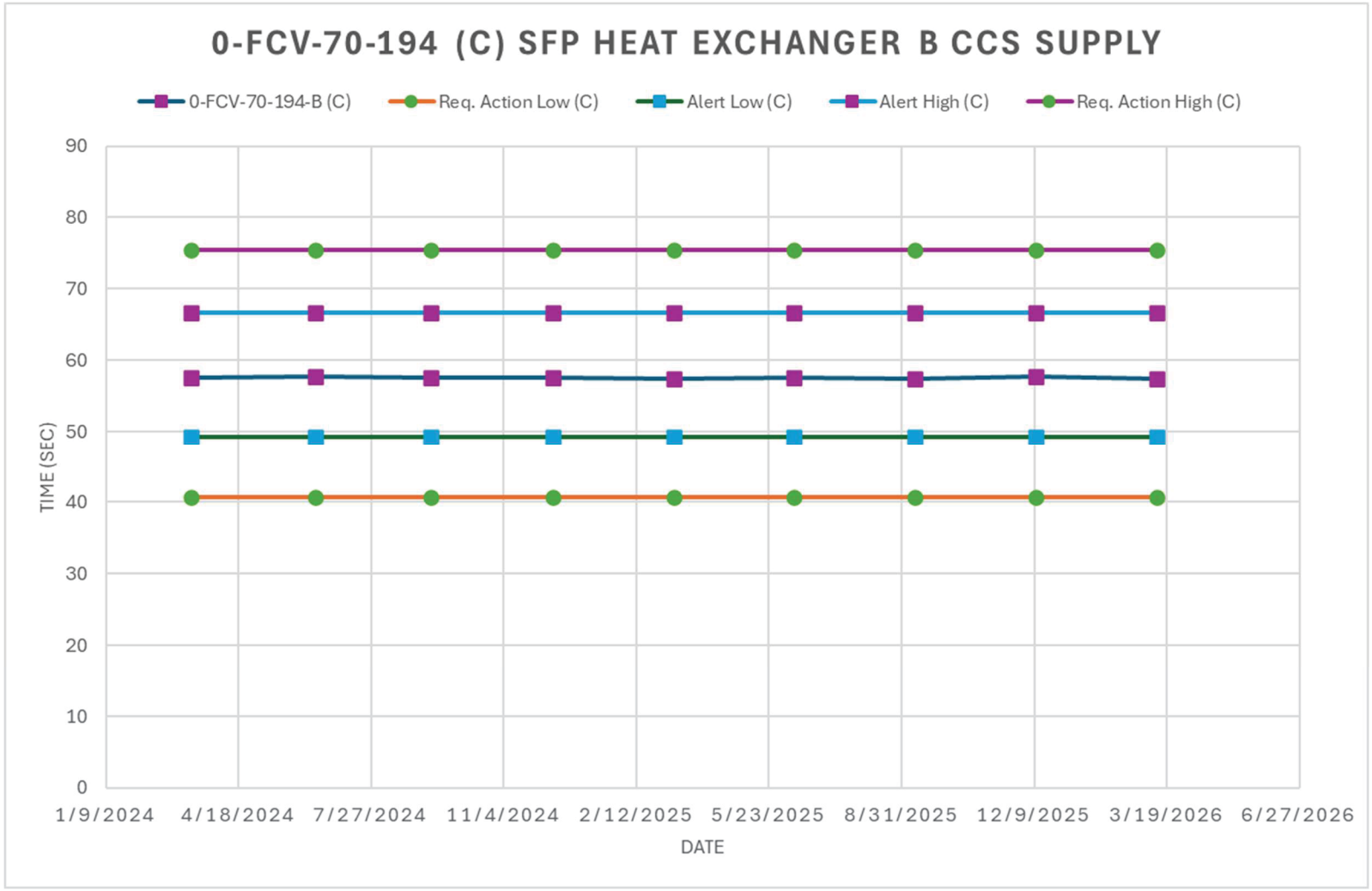
Procedure	WID Number	Date	2-FCV-70-183-A (C)	2-FCV-70-183-A (O)	Req. Action Low	Alert Low	Alert High	Req. Action High
2-SI-70-904-A	123860074	3/13/2024	17.86	17.66	12.55	15.24	20.60	23.29
2-SI-70-904-A	124092356	6/15/2024	17.77	17.70	12.55	15.24	20.60	23.29
2-SI-70-904-A	124092357	9/10/2024	17.86	17.86	12.55	15.24	20.60	23.29
2-SI-70-904-A	124351335	12/11/2024	17.87	17.70	12.55	15.24	20.60	23.29
2-SI-70-904-A	124526944	3/12/2025	17.98	17.88	12.55	15.24	20.60	23.29
2-SI-70-904-A	124558056	6/11/2025	17.79	17.73	12.55	15.24	20.60	23.29
2-SI-70-904-A	124969247	9/10/2025	17.84	17.96	12.55	15.24	20.60	23.29
2-SI-70-904-A	125146738	12/10/2025	17.91	17.88	12.55	15.24	20.60	23.29
2-SI-70-904-A	125343655	3/11/2026	17.89	18.30	12.55	15.24	20.60	23.29


2-FCV-70-183 SAMPLE HEAT EXCHANGER CCS OUTLET
2-FCV-70-183 (C)
2-FCV-70-183 (O)
Req. Action Low
Alert Low
Alert High
Req. Action High
TIME (SEC)
25
20
15
10
5
0
1/9/2024
4/18/2024
7/27/2024
11/4/2024
2/12/2025
5/23/2025
8/31/2025
12/9/2025
3/19/2026
6/27/2026
DATE

0-FCV-70-194 SFP HEAT EXCHANGER B CCS SUPPLY

Procedure	WID Number	Date	0-FCV-70-194-B (C)	Req. Action Low (C)	Alert Low (C)	Alert High (C)	Req. Action High (C)	0-FCV-70-194-B (O)	Req. Action Low (O)	Alert Low (O)	Alert High (O)	Req. Action High (O)
2-SI-70-904-A	123860074	3/13/2024	57.59	40.60	49.30	66.70	75.40	56.82	41.30	50.15	67.85	76.70
2-SI-70-904-A	124092356	6/15/2024	57.68	40.60	49.30	66.70	75.40	57.62	41.30	50.15	67.85	76.70
2-SI-70-904-A	124092357	9/10/2024	57.60	40.60	49.30	66.70	75.40	57.60	41.30	50.15	67.85	76.70
2-SI-70-904-A	124351335	12/11/2024	57.62	40.60	49.30	66.70	75.40	57.58	41.30	50.15	67.85	76.70
2-SI-70-904-A	124526944	3/12/2025	57.48	40.60	49.30	66.70	75.40	57.46	41.30	50.15	67.85	76.70
2-SI-70-904-A	124558056	6/11/2025	57.56	40.60	49.30	66.70	75.40	57.38	41.30	50.15	67.85	76.70
2-SI-70-904-A	124969247	9/10/2025	57.39	40.60	49.30	66.70	75.40	60.39	41.30	50.15	67.85	76.70
2-SI-70-904-A	125146738	12/10/2025	57.76	40.60	49.30	66.70	75.40	57.64	41.30	50.15	67.85	76.70
2-SI-70-904-A	125343655	3/11/2026	57.49	40.60	49.30	66.70	75.40	56.58	41.30	50.15	67.85	76.70


0-FCV-70-194 (O) SFP HEAT EXCHANGER B CCS SUPPLY
0-FCV-70-194-B (O)
Req. Action Low (O)
Alert Low (O)
Alert High (O)
Req. Action High (O)
TIME (SEC)
90
80
70
60
50
40
30
20
10
0
1/9/2024
4/18/2024
7/27/2024
11/4/2024
2/12/2025
5/23/2025
8/31/2025
12/9/2025
3/19/2026
6/27/2026
DATE


0-FCV-70-194 (C) SFP HEAT EXCHANGER B CCS SUPPLY
0-FCV-70-194-B (C)
Req. Action Low (C)
Alert Low (C)
Alert High (C)
Req. Action High (C)
TIME (SEC)
90
80
70
60
50
40
30
20
10
0
1/9/2024
4/18/2024
7/27/2024
11/4/2024
2/12/2025
5/23/2025
8/31/2025
12/9/2025
3/19/2026
6/27/2026
DATE

CVCS Check Valves

2-CKV-62-523-A CENT CHRG PMP MINI CK

Check valve 2-CKV-62-523-A is tested during performance testing of the Unit 2 Charging Pumps. The open stroke test is validated by confirming that recirculation flow from 2-PMP-62-108-A, CENTRIFUGAL CHARGING PMP 2A-A, is greater than or equal to 60 gallons per minute as demonstrated in 2-SI-62-901-A. The closing stroke test is validated by confirming that the differential pressure across 2-PMP-62-104-B, CENTRIFUGAL CHARGING PMP 2B-B, is in the acceptable range per 2-SI-62-901-B. Pump data for 2-PMP-62-108-A and 2-PMP-62-104-B have been provided separately.

2-CKV-62-525-A CENT CHRG PMP DISC CK

Check valve 2-CKV-62-525-A is tested during performance testing of the Unit 2 Charging Pumps. The open stroke test is validated by confirming that total discharge flow from 2-PMP-62-108-A, CENTRIFUGAL CHARGING PMP 2A-A, is in the acceptable range per 2-SI-62-901-A. The closing stroke test is validated by confirming that the differential pressure across 2-PMP-62-104-B, CENTRIFUGAL CHARGING PMP 2B-B, is in the acceptable range per 2-SI-62-901-B. Pump data for 2-PMP-62-108-A and 2-PMP-62-104-B have been provided separately.

2-CKV-62-530-B CENT CHRG PMP MINI CK

Check valve 2-CKV-62-530-B is tested during performance testing of the Unit 2 Charging Pumps. The open stroke test is validated by confirming that recirculation flow from 2-PMP-62-104-B, CENTRIFUGAL CHARGING PMP 2B-B, is greater than or equal to 60 gallons per minute as demonstrated in 2-SI-62-901-B. The closing stroke test is validated by confirming that the differential pressure across 2-PMP-62-108-A, CENTRIFUGAL CHARGING PMP 2A-A, is in the acceptable range per 2-SI-62-901-A. Pump data for 2-PMP-62-108-A and 2-PMP-62-104-B have been provided separately.

2-CKV-62-532-B CENT CHRG PMP DISC CK

Check valve 2-CKV-62-532-B is tested during performance testing of the Unit 2 Charging Pumps. The open stroke test is validated by confirming that total discharge flow from 2-PMP-62-104-B, CENTRIFUGAL CHARGING PMP 2B-B, is in the acceptable range per 2-SI-62-901-B. The closing stroke test is validated by confirming that the differential pressure across 2-PMP-62-108-A, CENTRIFUGAL CHARGING PMP 2A-A, is in the acceptable range per 2-SI-62-901-A. Pump data for 2-PMP-62-108-A and 2-PMP-62-104-B have been provided separately.

ERCW Pump Check Valves

The following check valves are ERCW Pump Air Vent Line Check Valves:

- 0-CKV-67-502A, ERCW Pump A-A Air Vent Line Check
- 0-CKV-67-502B, ERCW Pump B-A Air Vent Line Check
- 0-CKV-67-502C, ERCW Pump C-A Air Vent Line Check
- 0-CKV-67-502D, ERCW Pump D-A Air Vent Line Check

These valves are tested during performance testing of the ERCW Pumps. The open stroke is validated by ensuring that the pump column drains into the pump bay once the pump is secured. The closing stroke test is validated by confirming that the discharge pressure of the associated ERCW pump is in the acceptable range per 0-SI-67-901-A. Pump data for the ERCW pumps tested in 0-SI-67-901-A have been provided separately.

The following check valves are ERCW Pump Discharge Check Valves:

- 0-CKV-67-503A, ERCW Pump A-A Discharge Check
- 0-CKV-67-503B, ERCW Pump B-A Discharge Check
- 0-CKV-67-503C, ERCW Pump C-A Discharge Check
- 0-CKV-67-503D, ERCW Pump D-A Discharge Check

These valves are tested during performance of the ERCW pumps. The check valve on the discharge of the pump under test is verified to open stoke as required when the tested pump is in the acceptable range per 0-SI-67-901-A. The check valves on the idle ERCW pumps that are interconnected with the tested pump are verified to close stroke as require when the tested pump is in the acceptable range per 0-SI-0-910-A. Pump data for the ERCW pumps tested in 0-SI-67-901-A have been provided separately.

ERCW DG Heat Exchanger Supply Check Valves

1-CKV-67-508A, DG HX 1A1/1A2 ERCW SUP HDR 1A CHECK

Check Valve 1-CKV-67-508A is located in the ERCW supply header to the 2A Emergency Diesel Generator. It is validated to stroke full open during performance of 1-SI-67-907-A in conjunction with the valve stroke testing of 1-FCV-67-66, with full open validation indicated by flow greater than or equal to 1000 gpm. The data below shows performance history of 1-CKV-67-508A.

Procedure	WID Number	Date	1-FCV-67-508A [O]	Req. Action Low [O]
1-SI-67-907-A	123767861	1/2/2024	1500 gpm	1000 gpm
1-SI-67-907-A	123859631	4/5/2024	1580 gpm	1000 gpm
1-SI-67-907-A	124972539	7/1/2024	1580 gpm	1000 gpm
1-SI-67-907-A	124349213	9/14/2024	1600 gpm	1000 gpm
1-SI-67-907-A	124524744	1/6/2025	1500 gpm	1000 gpm
1-SI-67-907-A	124557403	4/5/2025	1530 gpm	1000 gpm
1-SI-67-907-A	124972539	7/1/2025	1580 gpm	1000 gpm
1-SI-67-907-A	125145809	10/2/2025	1580 gpm	1000 gpm
1-SI-67-907-A	125342425	12/30/2025	1550 gpm	1000 gpm
1-SI-67-907-A	125495703	4/1/2026	1550 gpm	1000 gpm

2-CKV-67-508A, DG HX 2A1/2A2 ERCW SUP HDR 1A CHECK

Check Valve 2-CKV-67-508A is located in the ERCW supply header to the 2A Emergency Diesel Generator. It is validated to stroke full open during performance of 2-SI-67-907-A in conjunction with the valve stroke testing of 2-FCV-67-66, with full open validation indicated by flow greater than or equal to 1000 gpm. The data below shows performance history of 2-CKV-67-508A.

Procedure	WID Number	Date	2-CKV-67-508A [O]	Req. Action Low [O]
2-SI-67-907-A	123768213	1/19/2024	1480 gpm	1000 gpm
2-SI-67-907-A	124291440	2/14/2024	1460 gpm	1000 gpm
2-SI-67-907-A	123992506	4/19/2024	1440 gpm	1000 gpm
2-SI-67-907-A	124092178	7/20/2024	1500 gpm	1000 gpm
2-SI-67-907-A	124351183	10/18/2024	1520 gpm	1000 gpm
2-SI-67-907-A	124526768	1/17/2025	1440 gpm	1000 gpm
2-SI-67-907-A	124557999	4/4/2025	1440 gpm	1000 gpm
2-SI-67-907-A	124970966	7/18/2025	1450 gpm	1000 gpm
2-SI-67-907-A	125146680	10/17/2025	1520 gpm	1000 gpm
2-SI-67-907-A	125343578	1/16/2026	1460 gpm	1000 gpm
2-SI-67-907-A	126193135	3/26/2026	1500 gpm	1000 gpm
2-SI-67-907-A	125496569	4/16/2026	1500 gpm	1000 gpm

CCS Pump Check Valves

The following check valves are CCS Pump Discharge Check Valves:

- 2-CKV-70-504A, CCS Pump 2A Discharge Check Valve
- 2-CKV-70-504B, CCS Pump 2B Discharge Check Valve

These valves are tested during performance of the 2A-A and 2B-B CCS pumps. The check valve on the discharge of the pump under test is verified to open stoke as required when the tested pump is in the acceptable range per 2-SI-70-901-A or 2-SI-70-901-B as applicable. The check valve on the idle CCS pump that is interconnected with the tested pump is verified to close stroke as required when the tested pump is in the acceptable range per 2-SI-70-901-A or 2-SI-70-901-B. Pump data for the CCS Pumps tested in 2-SI-70-901-A or 2-SI-70-901-B have been provided separately.