

2020
Annual
Radiological
Environmental
Operating
Report

Kewaunee Power Station
Part III, Corrective
Actions written during
reporting period

Dominion Energy Kewaunee, Inc.

Equipment Location

Equipment Description

2016 CR ID Short description K-1f environmental air sample pump found in degraded condition Site Kewaunee Discovery Date/Time 2/18/2020 7:20 AM Submitter ☐ Bart R Steckler (Dom Energy Kewaunee, Inc - 4) 2. Radiation Protection **Submitters Dept** Supervisor ☐ Dan J Shannon (Dom Energy Kewaunee, Inc - 4) Unit 1 Mode Unit ISFSI? No Revision # Long Description At approximately 0720 on 2/18/2020 the K-1f environmental air sample pump was found in a degraded condition during the weekly filter change out. The pump sounded as if it was failing and the flow indicator was not indicating any flow. **Initial Actions** Turned pump off. Restarted the pump and did not see any improvement. Turned pump off again. Changed out filter. Contacted system expert and informed of issue. Noted issue on sample collection data sheet. Recom Actions: Repair or replace pump. This is currently in progress. Create a CA to include this CR in the 2020 Annual Environmental Report. additional Contacts Tag #:

Plant System	
OP-AA-102 Review Reqd?	No
Operability Assesment	N/A
Operability Comments	
Functionality Assessment	N/A
Reportable Condition	No
Reportability Comments	
Is Equipment Important to Emergency Response WM-KW-100 values	No
O/R Comments	
Significance (screening)	3 .
Potential Repeat (screening)	Yes
Previous Issue	CR1696 LOSS OF POWER TO ENVIRONMENTAL AIR SAMPLER K-1F AND STATE AIR SAMPLER.
·	CR1768 ENVIRONMENTAL AIR SAMPLER FOUND OFF
	CR1880 Environmental Air Sampler K-1f found off due to blown fuse.
	CR1884 K-1f Environmental air sampler found off due to blown fuse
·	CR1914 Environmental Air Sampler K-1f found with reduced sample run time
CRT Comments	Pump was replaced 2/1/19
	CA753 (Steckler/Shannon) to include this event in the 2020 Annual Environmental Report
Work Order #	
Comments	
Status	Pending

Email Notification 2

Title	K-1f environmental air sample pump found in degraded condition
CA_ID	753
CR#	2016
Short Description	
DCAC	☐ Timothy P Olson (Dom Energy Kewaunee, Inc - 4)
Assignment type	CA
Priority	Per Schedule
Due Date	5/27/2021
Evaluator	☐ Bart R Steckler (Dom Energy Kewaunee, Inc - 4)
Assigned Dept	2. Radiation Protection
Supervisor	☐ Dan J Shannon (Dom Energy Kewaunee, Inc - 4)
Manager Review Required?	
Manager	
Additional Reviewer	
Detailed Assignment	Include this event in the 2020 Annual Environmental Operating Report
Response	
Num Appr Ext	
Site	Kewaunee
is this CA Req'd to resore full qualification or functionality	No
Is this an a(1) corrective action?	No
Review comments	
Comments	
Email Notification 1	

Due date -6	5/21/2021	
Status	Perform Action	
CR Short description	K-1f environmental air sample pump found in degraded condition	
Location		
CR#:Description (location)		
Content Type: Item Version: 6.0 Created at 2/19/2020 7:46 AM by Timothy P Olson (Dom Energy Kewaunee, Inc - 4) Last modified at 1/5/2021 12:01 PM by Amy Garvey (Services - 6)		

Functionality Assessment

CR_ID 2025 Short description K-8 Environmental air sampler found off with blown fuse Kewaunee Site Discovery Date/Time 3/10/2020 8:30 AM Submitter ☐ Mark A Peroutka (Dom Energy Kewaunee, Inc - 4) **Submitters Dept** 2. Radiation Protection Supervisor Dan J Shannon (Dom Energy Kewaunee, Inc - 4) Unit 1 Mode N/A Unit ISFSI? No Revision # Long Description Environmental air sampler (#6737) at location K-8 was found off with blown fuse. After the fuse was replaced, the pump was turned on and the motor would start but was seized up. The pump was immediately turned off prior to blowing a second fuse. The air sampler had operated for 44.34 hours prior to the fuse blowing. The air sample filter was changed out and will be sent to the vendor for analysis with a reduced sample volume. **Initial Actions** Removed K-8 environmental air sampler from service and replaced it with a calibrated air sampler. Recom Actions: Create a CA to include this CR in the 2020 Annual Environmental Report. additional Contacts Tag #: **Equipment Location Equipment Description** Plant System No OP-AA-102 Review Reqd? N/A Operability Assesment **Operability Comments** NA

N/A

Reportable Condition	No
Reportability Comments	NA .
Is Equipment Important to Emergency Response WM-KW-100 values	s No
O/R Comments	Agree with recomendations
Significance (screening)	3
Potential Repeat (screening)	Yes
Previous Issue	CR784 K-8 REMP Environmental Air Samplers Found Not Running 9/20/16
	CR1285 K-8 Environmental Air Sampler found not running 6/26/17
	CR1741 Environmental Air sampler found off 7/24/18
	CR1749 Environmental Air sampler found off 7/31/18
	CR1904 K-8 environmental air sample pump found in degraded condition 7/9/19
	CR1927 K-8 location environmental air sample pump found not running due to blown fuse 8/13/19
	CR1940 Environmental air sample pump found off at location K-8
	CR1974 K-8 Location environmental air sample pump found not running due to breaker being open
CRT Comments	CA758 (Steckler/Shannon) to include CR2025 in 2020 annual Environmental Report
Work Order #	
Comments	
Status Content Type I tore	Pending
Content Type: Item Version: 11.0 Created at 3/10/2020 2:22 PM by □ Mark A Peroutka (Dom Energy Kewaur	nee, Inc - 4)

Last modified at 3/11/2020 8:23 AM by ☐ System Account

Status

,)	Title	K-8 Environmental air sampler found off with blown fuse
)	CA_ID	758
)	CR#	2025
)	Short Description	
,)	DCAC	☐ Timothy P Olson (Dom Energy Kewaunee, Inc - 4)
)	Assignment type	CA
	Priority	Per Schedule
	Due Date	5/27/2021
)	Evaluator	☐ Bart R Steckler (Dom Energy Kewaunee, Inc - 4)
)	Assigned Dept	2. Radiation Protection
	Supervisor	☐ Dan J-Shannon (Dom Energy Kewaunee, Inc - 4)
)	Manager Review Required?	
))	Manager	
)	Additional Reviewer	
)	Detailed Assignment	Include CR2025 in 2020 annual Environmental Report
)		
;)		
)	Responsé	
)		
)	Num Appr Ext	
)	Site	Kewaunee
)	is this CA Req'd to resore full qualification or functionality	No
)	Is this an a(1) corrective action ?	No
	Review comments	
)		
,)	Comments	
)		
)	Email Notification 1	
) 1	Email Notification 2	
,)	Due date -6	5/21/2021

Perform Action

CR Short description	K-8 Environmental air sampler found off with blow	n fuse
Location		
CR#:Description (location)		
Content Type: Item		
Version: 8.0		Class

Created at 3/11/2020 8:12 AM by [] Timothy P Olson (Dom Energy Kewaunee, Inc - 4)

Last modified at 1/5/2021 12:01 PM by ☐ Amy Garvey (Services - 6)

Close

CR ID

Short description

Site

Discovery Date/Time

Submitter

Submitters Dept

Supervisor

Unit 1 Mode

Unit ISFSI?

Revision #

Long Description

Initial Actions

2034

Environmental Air Particulate Sample at K-2 Not Collected

Kewaunee

4/28/2020 9:30 AM

☐ Dan J Shannon (Dom Energy Kewaunee, Inc - 4)

2. Radiation Protection

☐ Bart R Steckler (Dom Energy Kewaunee, Inc - 4)

N/A

No

While performing the weekly Environmental Air Sampler particulate filter change on 4/28/20, the air sampler head at location K-2 was found on the ground in front of the environmental air sampler. The air particulate filter was not discolored, indicating that the sampler head most likely fell off shortly after being changed on 4/21/20, and an environmental air particulate sample was not collected at location K-2 (control) for the week ending 4/28/20.

The most likely cause of the air sample head falling off the air sampler was due to the air sample head not being firmly latched in place after being exchanged on 4/21/20.

Installed an air sample head with a new particulate filter on the environmental air sampler at location K-2 in accordance with RP-KW-HSP-HPE-1164, Environmental Sample Collection. Verified that the air sampler head was latched in place.

Discussed event with RP personnel and reinforced the expectation to verify that the environmental air sampler head is latched firmly in place after being exchanged, as part of the post-filter change operational check required by RP-KW-HSP-HPE-164, Environmental Sample Collection.

Initiated CR to document the event.

Recom Actions:	CA to RP to include this CR in the 2020 Annual Radiological Environmental Operating Report
additional Contacts	
Tag #:	
Equipment Location	
Equipment Description	
Plant System	
OP-AA-102 Review Reqd?	No
Operability Assesment	N/A
Operability Comments	
Functionality Assessment	N/A
Reportable Condition	No
Reportability Comments	
Is Equipment Important to Emergency Response WM-KW-100 values	No
O/R Comments	
Significance (screening)	3
Potential Repeat (screening)	Yes
Previous Issue	CR88 K-2 ENVIROMENTAL AIR SAMPLER FOUND NOT WORKING CR689 POWER FOUND OFF AT K-2 ENVIRONMENTAL AIR SAMPLER CR1898 Environmental air sampler K-2 (WPS building) found off due to blown fuse
CRT Comments	CA763 (Steckler/Shannon) to include CR2034 in the 2020 Annual Radiological Environmental Operating Report
Work Order #	
Comments	No additional comments
Status	Pending
Content Type: Item Version: 15.0 Created at 4/28/2020 12:47 PM by Dan J Shannon (Dom Energy Kewaun)	ee, Inc - 4)

Email Notification 2

Due date -6

Title	Environmental Air Particulate Sample at K-2 Not Collected
CA_ID	763
CR#	2034
Short Description	
DCAC	☐ Timothy P Olson (Dom Energy Kewaunee, Inc - 4)
Assignment type	CA
Priority	Per Schedule
Due Date	5/27/2021
Evaluator	☐ Bart R Steckler (Dom Energy Kewaunee, Inc - 4)
Assigned Dept	2. Radiation Protection
Supervisor	☐ Dan J Shannon (Dom Energy Kewaunee, Inc - 4)
Manager Review Required?	
Manager	
Additional Reviewer	
Detailed Assignment	Include CR2034 in the 2020 Annual Radiological Environmental Operating Report
Response	
Num Appr Ext	
Site	Kewaunee
is-this CA-Req'd to resore full qualification or functionality	y No
Is this an a(1) corrective action ?	No
Review comments	
Comments	
Email Notification 1	

5/21/2021

Status

Perform Action

CR Short description

Environmental Air Particulate Sample at K-2 Not Collected

Location

CR#:Description (location)

Content Type: Item Version: 6.0

Created at 5/6/2020 7:48 AM by ☐ Timothy P Olson (Dom Energy Kewaunee, Inc - 4)

Last modified at 1/5/2021 12:01 PM by ☐ Amy Garvey (Services - 6)

Close

Equipment Location

CR_ID 2063 Short description Power lost to environmental air sampler K-1f. Site Kewaunee Discovery Date/Time 7/14/2020 7:45 AM Submitter ☐ Bart R Steckler (Dom Energy Kewaunee, Inc - 4) 2. Radiation Protection **Submitters Dept** Supervisor ☐ Dan J Shannon (Dom Energy Kewaunee, Inc - 4) Unit 1 Mode Unit ISFSI? No Revision # On July 14th at 0745 the K-1f environmental air sampler Long Description was found off. Upon investigation of the issue the power to the Maintenance Material Storage Building was found off, which supplies power to the air sampler. The approximate time of this happening based on the reading from the Run Time Indicator was 0000 Monday. **Initial Actions** Informed the ISFSI Shift Supervisor (ISS). Changed out the sample filter. Noted the problem on the Environmental Sample Collection Data Sheet. Create corrective action to include this CR in the 2020 **Recom Actions:** Annual Environmental Report. additional Contacts Tag #:

Equipment Description	
Plant System	
OP-AA-102 Review Reqd?	No
Operability Assesment	N/A
Operability Comments	
Functionality Assessment	N/A
Reportable Condition	No
Reportability Comments	
Is Equipment Important to Emergency Response WM-KW-100 values	No
O/R Comments	
Significance (screening)	3
Potential Repeat (screening)	Yes
Previous Issue	CR1696 LOSS OF POWER TO ENVIRONMENTAL AIR SAMPLER K-1F AND STATE AIR SAMPLER. CR1768 ENVIRONMENTAL AIR SAMPLER FOUND OFF CR1880 Environmental Air Sampler K-1f found off due to blown fuse. CR1884 K-1f Environmental air sampler found off due to blown fuse CR1914 Environmental Air Sampler K-1f found with reduced sample run time CR2016 K-1f environmental air sample pump found in degraded condition
CRT Comments	CA771 (Steckler/Shannon) to include this event in the 2020 Annual Environmental Report
Work Order #	
Comments	
Status	Pending
Content Type: Item Version: 12.0	·

Created at 7/14/2020 11:51 AM by C Bart D Charles (Dam Energy Vayannas Inc. A)

Close

Due date -6

Title	Power lost to environmental air sampler K-1f.
CA_ID	771
CR#	2063
Short Description	
DCAC	☐ Timothy P Olson (Dom Energy Kewaunee, Inc - 4)
Assignment type	CA
Priority	Per Schedule
Due Date	5/27/2021
Evaluator	☐ Bart R Steckler (Dom Energy Kewaunee, Inc - 4)
Assigned Dept	2. Radiation Protection
Supervisor	☐ Dan J Shannon (Dom Energy Kewaunee, Inc - 4)
Manager Review Required?	
Manager	
Additional Reviewer	
Detailed Assignment	Include this event in the 2020 Annual Environmental Operating Report
Pagnanga	
Response	
Num Appr Ext	
Site	Kewaunee
is this CA Req'd to resore full qualification or functionality	No
ls this an a(1) corrective action ?	No
Review comments	
Comments	
Email Notification 1	
Email Notification 2	

5/21/2021

Status	Perform Action
CR Short description	Power lost to environmental air sampler K-1f.
Location	
CR#:Description (location)	
Content Type: Item	

Version: 6.0

Created at 7/15/2020 8:27 AM by □ Timothy P Olson (Dom Energy Kewaunee, Inc - 4)

Last modified at 1/5/2021 12:01 PM by □ Amy Garvey (Services - 6)

Close

CR_ID	2076
Short description	Air Sampler near woodshed not working
Site	Kewaunee
Discovery Date/Time	7/26/2020 7:00 AM
Submitter	☐ Jesse C Arcand (Dom Energy Kewaunee, Inc - 4)
Submitters Dept	1. Operations
Supervisor	☐ Timothy P Olson (Dom Energy Kewaunee, Inc - 4)
Unit 1 Mode	N/A
Unit ISFSI?	No
Revision #	
Long Description	Found the K-1 air sampler near the woodshed was not working. The building has power and no breakers are tripped to the receptacles. There was also power verified in the pump housing with the installed light. Time of failure was not determined.
Initial Actions	Notified RPM via text.
Recom Actions:	Repair the air sampler pump.
	Determine the out of service time and include in annual report.
additional Contacts	
Tag #:	
Equipment Location	
Equipment Description	·
Plant System	i e e e e e e e e e e e e e e e e e e e
OP-AA-102 Review Reqd?	No
Operability Assesment	N/A
Operability Comments	N/A
Functionality Accomment	NI/A

runctionality Assessment	IVA	
Reportable Condition	No	
Reportability Comments	N/A	
Is Equipment Important to Emergency Response WM-KW-100 values	No	
O/R Comments	N/A	
Significance (screening)	3	
Potential Repeat (screening)	Yes	
Previous Issue	CR1696 LOSS OF POWER TO ENVIRONMENTAL AT SAMPLER K-1F AND STATE AIR SAMPLER. CR1768 ENVIRONMENTAL AIR SAMPLER FOUND CCR1880 Environmental Air Sampler K-1f found off blown fuse. CR1884 K-1f Environmental air sampler found off blown fuse CR1914 Environmental Air Sampler K-1f found wis sample run time CR2016 K-1f environmental air sample pump foundegraded condition CR2063 Power lost to environmental air sample	OFF f due to due to th reduced nd in
CRT Comments	Air sampler not working as a result of a blown was replaced on 7/26/20 and the air sampler w returned to service. CA775 (Steckler/Shannon) this event in the 2020 Annual Radiological Effluxelease Report	vas to include
Work Order #		
Comments		
Status	Pending	
Content Type: Item Version: 8.0 Created at 7/26/2020 8:45 AM, by lesse C Arcand (Dom Energy Kewaune)	a Inc - 4)	Close

Last modified at 7/27/2020 10:01 AM by ☐ System Account

Email Notification 2

Due date -6

Title	Air Sampler near woodshed not working
CA_ID	775
CR#	2076
Short Description	
DCAC	☐ Timothy P Olson (Dom Energy Kewaunee, Inc - 4)
Assignment type	CA
Priority	Per Schedule
Due Date	5/27/2021
Evaluator	☐ Bart R Steckler (Dom Energy Kewaunee, Inc - 4)
Assigned Dept	2. Radiation Protection
Supervisor	☐ Dan J Shannon (Dom Energy Kewaunee, Inc - 4)
Manager Review Required?	
Manager	
Additional Reviewer	
Detailed Assignment	Include this event in the 2020 Annual Radiological Effluent Release Report
Response	
·	
Num Appr Ext	
Site	Kewaunee
is this CA Req'd to resore full qualification or functionality	No
Is this an a(1) corrective action ?	No No
Review comments	
Comments	
Email Notification 1	

5/21/2021

Status	Perform Action	
CR Short description	Air Sampler near woodshed not working	
Location		
CR#:Description (location)		
Content Type: Item Version: 6.0 Created at 7/27/2020 9:56 AM by □ Timothy P Olson (Dom Ene	ergy Kewaunee, Inc - 4)	e

Last modified at 1/5/2021 12:01 PM by ☐ Amy Garvey (Services - 6)

2081 CR ID **Environmental Air Sampler Totalizer Indication Blank at** Short description K-43 and K-8 Site Kewaunee Discovery Date/Time 8/4/2020 10:00 AM Submitter ☐ Dan J Shannon (Dom Energy Kewaunee, Inc - 4) **Submitters Dept** 2. Radiation Protection Supervisor ☐ Darrell L Basken (Dom Energy Kewaunee, Inc - 4) Unit 1 Mode N/A Unit ISFSI? No Revision # Long Description During the collection of the weekly environmental air samples, the run time totalizer indications at locations K-43 and K-8 were blank (no indication of run time displayed). The air sampler flow rate indication was satisfactory (30 LPM) and the sample filter loading was normal at K-43 and K-8 (i.e., filter discoloration was similar to the sample filters collected at location K-1f and K-2). Pre and post filter change out operational checks were satisfactory. **Initial Actions** Calculated total run time for the weekly air samples at K-43 and K-8 using filter service (change) dates/times and documented the results on RP-KW-HSP-HPE-164, Attachment B, Environmental Sample Collection Data Sheet. Initiated CR to document event.

Recom Actions:

Replace the environmental air sampler run time totalizers at locations K-43 and K-8 following weekly collection/change out of the air sample filter during the week of August 10, 2020, and calculate the total run time for those weekly air samples using the filter service (change) dates/times.

Notified RP personnel responsible for instrument

calibration and maintenance.

CA to RP to include this CR in the 2020 Annual Radiological Environmental Operation Report.

additional Contacts	
Tag #:	
Equipment Location	
Equipment Description	
Plant System	
OP-AA-102 Review Reqd?	No
Operability Assesment	N/A
Operability Comments	NA
Functionality Assessment	N/A
Reportable Condition	None
Reportability Comments	NA
Is Equipment Important to Emergency Response WM-KW-100 values	s No
O/R Comments	Replace runtime meters, and determine if remaining samplers in the field should have the runtime meters replaced prior to failure.
Significance (screening)	3
Potential Repeat (screening)	No .
Previous Issue	No previous history
CRT Comments	CA780 (Basken/Shannon) to replace the environmental air sampler run time totalizers at locations K-43 and K-8 following weekly collection/change out of the air sample filter during the week of August 10, 2020, and calculate the total run time for those weekly air samples using the filter service (change) dates/times. CA781 (Steckler/Shannon) to include this CR in the 2020 Annual Radiological Environmental Operation Report.
Work Order # Comments	
Status	Pending
Content Type: Item	— -

Title Environmental Air Sampler Totalizer Indication Blank at K-43 and K-8 CA_ID 780 2081 CR# **Short Description** DCAC ☐ Timothy P Olson (Dom Energy Kewaunee, Inc - 4) CA Assignment type Priority Low 8/27/2020 **Due Date** Evaluator ☐ Darrell L Basken (Dom Energy Kewaunee, Inc - 4) 2. Radiation Protection **Assigned Dept** ☐ Dan J Shannon (Dom Energy Kewaunee, Inc - 4) Supervisor Manager Review Required? Manager Additional Reviewer **Detailed Assignment** Replace the environmental air sampler run time totalizers at locations K-43 and K-8 following weekly collection/change out of the air sample filter during the week of August 10, 2020, and calculate the total run time for those weekly air samples using the filter service (change) dates/times. Replaced environmental air samplers K-43 and K-8 with new Response run time totalizers on 8-11-2020 and verified operation 8-18-2020. Run time for the weekly air samples for collected on 8-11-20 at these locations was calculated using the filter service (change) dates/times and documented on RP-KW-HSP-HPE-164, Attachment B, Environmental Sample Collection Data Sheet.

Num Appr Ext

Site Kewaunee

is this CA Reg'd to resore full qualification or functionality No

Is this an a(1) corrective action?	No
Review comments	Reviewed activity requested and actions completed - approved for closure.
Comments	DCAC review complete no further actions required. TPO 8/18/20
Email Notification 1	
Email Notification 2	
Due date -6	8/21/2020
Status	Complete
CR Short description	Environmental Air Sampler Totalizer Indication Blank at K-43 and K-8
Location	
CR#:Description (location)	
Content Type: Item Version: 18.0 Created at 8/5/2020 7:55 AM by Timothy P Olson (Dom Energy Kewaunee, Inc - 4) Last modified at 1/5/2021 12:01 PM by Amy Garvey (Services - 6)	

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Email Notification 2

Title	Environmental Air Sampler Totalizer Indication Blank at K-43 and K-8	
CA_ID	781	
CR#	2081	
Short Description		
DCAC	☐ Timothy P Olson (Dom Energy Kewaunee, Inc - 4)	
Assignment type	CA	
Priority	Per Schedule	
Due Date	5/27/2021	
Evaluator	☐ Bart R Steckler (Dom Energy Kewaunee, Inc - 4)	
Assigned Dept	2. Radiation Protection	
Supervisor	☐ Dan J Shannon (Dom Energy Kewaunee, Inc - 4)	
Manager Review Required?		
Manager		
Additional Reviewer		
Detailed Assignment	Include this CR in the 2020 Annual Radiological Environmental Operation Report.	
	Environmental Operation Report.	
,		
Response		
Num Appr Ext		
Site	Kewaunee	
is this CA Req'd to resore full qualification or functionality No		
Is this an a(1) corrective action?	No	
Review comments		
	•	
Comments		
Email Notification 1		

Due date -6	5/21/2021	
Status	Perform Action	
CR Short description	Environmental Air Sampler Totalizer Indication Blank at K-43 and K-8	
Location		
CR#:Description (location)		
Content Type: Item Version: 7.0 Created at 8/5/2020 7:59 AM by Timothy P Olson (Dom Energy Kewaunee, Inc - 4) Last modified at 4/21/2021 12:09 PM by Dan J Shannon (Dom Energy Kewaunee, Inc - 4)		