

**BEFORE THE STATE CORPORATION COMMISSION
OF THE STATE OF KANSAS**

In the Matter of the 2023 Wolf Creek) Docket No.
Triennial Decommissioning Financing) 24-WCNE-235-GIE
Plan.)

DIRECT TESTIMONY

PREPARED BY

ASHLYN M. HEFLEY

UTILITIES DIVISION

KANSAS CORPORATION COMMISSION

May 10, 2024

1 **Q. Would you please state your name and business address?**

2 A. My name is Ashlyn M. Hefley. My business address is 1500 Southwest Arrowhead Road,
3 Topeka Kansas, 66604

4 **Q. By whom and in what capacity are you employed?**

5 A. I am employed by the Kansas Corporation Commission (Commission), Utilities Division
6 as a Utilities Engineer.

7 **Q. Please state your educational and employment background.**

8 A. I received a Bachelor of Science Degree in Chemical Engineering from Kansas State
9 University in May 2021. I began employment at the Commission in my current position in
10 June 2021.

11 **Q. Have you ever testified before this Commission?**

12 A. No. This is the first docket in which I am providing direct testimony, however, I have
13 participated in several dockets during my employment at the Commission. A list of my
14 previous Staff assignments and areas covered is available upon request.

15 **SUMMARY OF TESTIMONY**

16 **Q. What is the purpose of your testimony?**

17 A. My testimony provides a review of the Wolf Creek Nuclear Operating Corporation (Wolf
18 Creek) Decommissioning Financing Plan (Plan). My testimony focuses on the
19 Decommissioning Cost Study (DCS)¹. I review the reasonableness of the study's
20 assumptions in estimating the cost and method used to decommission Wolf Creek. I also
21 review the Commission's statutory obligations to review and approve a Decommissioning
22 Financing Plan required to be submitted by Wolf Creek.

¹ See Attachment 2 of the Application.

1 **DECOMMISSIONING FINANCING PLAN**

2 **Q. Please discuss the origins of the Plan, the DCS, and the need for this docket.**

3 **A.** Kansas statutes require Wolf Creek to submit a Decommissioning Financing Plan² to the
4 Commission, and the statutes require the Commission to review such Plan³ at least every
5 five years. In previous dockets regarding this matter, the Commission modified the
6 frequency of the Plan submittal and the subsequent review to be performed every three
7 years. Docket 24-WCNE-235-GIE represents the triennial filing of the Plan and the 13th
8 time the Plan has come before the Commission for its review. The purpose of this Docket
9 is to: approve a decommissioning methodology; determine a reasonable estimate of the
10 Wolf Creek decommissioning costs; and set a Cost Escalation Rate. These decisions by the
11 Commission will be used to address accrual levels of the respective Decommissioning
12 Trust Accounts of the Owner Utilities⁴ to assure sufficient funds are collected from Kansas
13 ratepayers to pay for the decommissioning of the Wolf Creek.

14 **Q. What are the Commission’s obligations under the Kansas statutes dealing with**
15 **nuclear plant decommissioning?**

16 **A.** For any review of a Decommissioning Financing Plan, K.S.A. 66-128o requires the
17 Commission to consider: (1) The estimated date of closing the nuclear power generating
18 facility; (2) the estimated cost of decommissioning; (3) the reasonableness of the method
19 selected for cost estimate purposes; and (4) the adequacy of plans for financing the
20 decommissioning and any shortfall resulting from a premature closing.

² See K.S.A. 66-128m.

³ See K.S.A. 66-128o.

⁴ Evergy Kansas Metro owns 47% of Wolf Creek; Kansas Gas & Electric dba Evergy Kansas Central owns 47%; and Kansas Electric Power Cooperative owns 6%. Their responsibility for decommissioning costs is proportionate to their ownership. A portion of Evergy Kansas Metro’s responsibility is set by the Missouri Public Service Commission.

1 **Q. What are Wolf Creek’s obligations under the Kansas Statutes dealing with nuclear**
2 **plant decommissioning?**

3 **A.** K.S.A. 66-128m(b) provides a list of 11 statutory requirements which must be included in
4 the Plan by the utility responsible for nuclear plant decommissioning. In a previous filing,⁵
5 the Commission approved a Stipulation and Agreement which required Wolf Creek to
6 address each of the 11 requirements found in K.S.A. 66-128m(b). Exhibit AMH-1 provides
7 a summary of the statutory requirements regarding decommissioning.

8 **Q. Do the filings in the current Docket address the 11 requirements found in the statute?**

9 **A.** Yes. The Joint Pleading contains six attachments which address the 11 statutory
10 requirements of the decommissioning plan. Appendix G of Attachment 2 to the Application
11 provides an update on nuclear plan decommissioning efforts in the United States and the
12 role of the U.S. Department of Energy in meeting its obligations regarding spent nuclear
13 fuel.

14 **Q. Did you review the adequacy of the filed attachments?**

15 **A.** My review of the adequacy of the filing focused on Attachment 2, the Decommissioning
16 Cost Study, and Attachment 7, Commission Requested Information. Attachments relating
17 to the financing of the decommissioning plan, were reviewed by Staff witness, Adam
18 Gatewood.

19 **Decommissioning Cost Study (DCS)**

20 **Q. Is the DCS a required component of the Plan?**

⁵ See 15-WNCE-093-MIS

Direct Testimony of Ashlyn M. Hefley
Docket No. 24-WNCE-235-GIE

1 **A.** Yes. K.S.A. 66-128o(a)(2) and (3) require the Commission to review the estimated cost of
2 decommissioning and the reasonableness of the method selected for cost estimating
3 purposes.

4 **Q.** **Has the DCS been properly prepared?**

5 **A.** Yes. The DCS has been properly prepared to meet the statutory requirement found in
6 K.S.A. 66-128m. The study is an update/revision of the previous Wolf Creek studies
7 conducted by Wolf Creek’s consultant, TLG Services, Inc. (TLG).

8 **Q.** **How does Kansas statutes related to nuclear power plants define decommissioning?**

9 **A.** K.S.A. 66-128l(c) defines “decommissioning” as:

10 the series of activities undertaken beginning at the time of closing of a nuclear
11 power generating facility to ensure that the final disposition of the site or any
12 radioactive components or material, but not including spent fuel, associated with
13 the facility is accomplished safely, in compliance with all applicable state and
14 federal laws. Decommissioning includes activities undertaken to prepare such a
15 facility for final disposition, to monitor and maintain it after closing and to effect
16 final disposition of any radioactive components of the facility.

17 **Q.** **What is meant by the phrase final disposition of the site?**

18 **A.** Final disposition of the site would include all processes and costs to dismantle the plant
19 and remove any radioactive materials from the site. Additionally, the term would include
20 future decommissioning of any spent fuel storage installations on the site.

21 **Q.** **What is meant by the final disposition of the spent fuel?**

Direct Testimony of Ashlyn M. Hefley
Docket No. 24-WNCE-235-GIE

1 **A.** In my opinion, it refers to the process and cost of removing the spent nuclear fuel and any
2 other highly radioactive waste (GTCC)⁶ from the plant site.

3 **Q.** **Would you consider it accurate to presume DOE will accept spent nuclear fuel before**
4 **the year 2045 when Wolf Creek’s license is terminated?**

5 **A.** The NWPA is still in effect, therefore the U.S. Department of Energy (DOE) DOE
6 continues to be the party responsible for disposing of spent fuel from commercial nuclear
7 generating plants. Current plant decommissioning events indicate that DOE is incapable of
8 meeting their responsibility at this time. Appendix G to Attachment 2 of the Application
9 provides a summary of nuclear plant decommissioning throughout the United States.

10 **Q.** **Does the cost estimate provided in the Application for the Wolf Creek facility appear**
11 **reasonable?**

12 **A.** Yes. The cost estimate methodology is based on decommissioning methods approved by
13 the Nuclear Regulatory Commission.⁷ For the decommissioning scenarios presented by
14 TLG, the cost estimate appears to be reasonable. Staff witness Adam Gatewood provides
15 additional comments on the forecasted inflation rate included in the study.

16 **Q.** **Please describe the decommissioning sequence of events.**

17 **A.** The current version of the proposed costs estimates assume the DOE will take possession
18 of 925 spent fuel assemblies (27% of all spent fuel assemblies) through a ten-year period
19 beginning in 2038 (prior to shutdown) through 2049 (4 years after shutdown). The
20 remainder of spent fuel and all of the GTCC is placed in Independent Spent Fuel Storage

⁶ Greater than class C waste (GTCC) refers to a NRC classification for radioactive waste for which disposal responsibility is assigned to the federal government.

⁷ US Code of Federal Regulations, Title 10, Parts 30, 40, 50, 51, 70 and 72 "General Requirements for Decommissioning Nuclear Facilities," Nuclear Regulatory Commission, Federal Register Volume 53, Number 123 (p. 24018 et seq.) (Jun. 27, 1988).

Direct Testimony of Ashlyn M. Hefley
Docket No. 24-WNCE-235-GIE

1 Installations (ISFSI) until it can be worked into the assumed DOE schedule for taking
2 possession of the spent fuel. TLG’s estimate assumes DOE has taken possession of all
3 spent fuel by the year 2078.⁸

4 **Q. Does the spent fuel management approach in the cost estimate include assumptions?**

5 **A.** Yes. The DCS is a cost estimate and assumes that DOE will meet their obligation within
6 the next 18 years. Fuel will have to be stored onsite for a period of time.

7 **Q. Do you believe the assumptions included in the DCS are adequate?**

8 **A.** Yes. I believe the DCS provides a balanced approach for estimating the costs related to
9 spent fuel management. By assuming that DOE only picks up 27% of the Wolf Creek spent
10 fuel by 2049, the cost estimate acknowledges DOE’s responsibility to take possession of
11 the fuel while also recognizing the reality of spent fuel interim storage costs.

12 **Q. Does the cost estimate provide any contingency in the event that DOE is unable to**
13 **take possession of the spent fuel beginning in 2038?**

14 **A.** No. TLG considers that scenario to be a “financial risk” which is not reflected in the cost
15 estimate because there is insufficient historical data from which to project future liabilities.
16 Rather than include this risk in the cost estimate, TLG proposes to address this uncertainty
17 through updates of the base estimates.⁹ In other words, TLG proposes to update the base
18 estimate in future decommissioning reviews brought before the Commission.

19 **Q. Do you agree with this approach?**

⁸ Response to Staff Data Request 6. Hey Ashlyn – if this is a relatively short DR, lets go ahead and make it an exhibit for ease of reference. If it is a spreadsheet or otherwise is lengthy, I recommend we include a note that it is available upon request.

⁹ See Attachment 2 of Application, p. 52.

Direct Testimony of Ashlyn M. Hefley
Docket No. 24-WNCE-235-GIE

1 **A.** Yes. Wolf Creek will still operate for another 22 years, which will give the Commission
2 additional opportunity to consider this scenario. Additionally, only a small portion of Wolf
3 Creek’s spent fuel management costs is based on DOE acceptance before year 2049.

4 **Q.** **Please continue.**

5 **A.** In the cost estimates included in the Application, TLG has included costs related to
6 managing 27% of the spent fuel based on their estimate of DOE’s unknown timetable to
7 take the spent fuel. Costs for managing the remaining 73% of spent fuel are based on
8 storing the fuel in ISFSI. This approach limits some of the costs of spent fuel management
9 by providing an amount of savings related to DOE accepting spent fuel by year 2031,¹⁰
10 while the remainder of the costs reflect today’s reality that the spent fuel will be stored on
11 site for a period of years. Exhibit AMH-2¹¹ provides a summary of Wolf Creek’s spent fuel
12 management plan used in the DCS.

13 **Q.** **Does this approach put more costs on the ratepayers at the end of the life of Wolf**
14 **Creek?**

15 **A.** If it turns out that DOE will not accept any fuel and all spent fuel must be placed into
16 storage, there may be some exposure to those ratepayers in the last few years of Wolf Creek
17 operation. But the exposure would be limited to the costs to build additional ISFSI capacity
18 to place 27% of the spent fuel in storage.

19 **Q.** **Will the ISFSI currently being built have sufficient capacity to store all of Wolf**
20 **Creek’s spent fuel?**

¹⁰ See Attachment 2 of Application p. 53.

¹¹ Response to Staff Data Request 6. – Same as above (I am not sure why footnotes won’t allow me to insert comments)

Direct Testimony of Ashlyn M. Hefley
Docket No. 24-WNCE-235-GIE

1 A. Yes, it is my understanding that the Wolf Creek ISFSI will have sufficient capacity to store
2 all of the spent fuel and GTCC. The DCS only includes costs for eventually storing 73%
3 of the spent fuel onsite, however, there is the ability to expand the capacity of the ISFSI.¹²

4 **Q. What cost estimating methods were considered in developing the DCS?**

5 A. The methods used to develop the DCS are based on NRC guidelines through its rule
6 "General Requirements for Decommissioning Nuclear Facilities," issued in June 1988. The
7 NRC then developed guidelines to be used in developing cost estimates for
8 decommissioning. The two methods reviewed in the DCS are DECON and SAFSTOR. In
9 the most recent decommissioning plan review, the Commission required Wolf Creek to use
10 the DECON alternative method for the cost estimate.¹³

11 **Q. What is the DECON method?**

12 A. The DECON method is based on removal and decontamination of all radioactive or
13 contaminated structures at the plant shortly after cessation of operations.

14 **Q. How does SAFSTOR methodology differ from the DECON estimate?**

15 A. SAFSTOR can be summarized as deferred decontamination where the unit is shut down,
16 safely locked, and monitored until the unit is removed over a maximum of 60 years.

17 **Q. Can you provide a summary of past Wolf Creek decommissioning cost decisions that**
18 **have been approved by the Commission?**

19 A. The following table provides a summary of the Commission's past decisions regarding
20 Wolf Creek decommissioning costs along with the costs for options presented in the
21 Application:

¹² Response to Staff Data Request 6. Same as above.

¹³ See Order, Docket No. 21-WNCE-103-GIE (Apr. 20, 2021) (21-103 Order).

**Direct Testimony of Ashlyn M. Hefley
Docket No. 24-WNCE-235-GIE**

| Docket Number | Order Date | Nominal Decommissioning Costs (Millions) | Year of Nominal Dollars |
|----------------------|--------------------|--|--------------------------------|
| 142,099-U | September 27, 1985 | \$140 | 1985 |
| 163,561-U | August 1, 1989 | \$206 | 1988 |
| 188,904-U | June 9, 1994 | \$370 | 1993 |
| 97-WCNE-128-GIE | March 3, 1997 | \$409 | 1996 |
| 00-WCNE-154-GIE | April 26, 2000 | \$471 | 1999 |
| 03-WCNE-178-GIE | April 16, 2003 | \$468 | 2002 |
| 06-WCNE-204-GIE | May 24, 2006 | \$518 | 2005 |
| 09-WCNE-215-GIE | August 31, 2009 | \$594 | 2008 |
| 12-WCNE-136-GIE | May 16, 2012 | \$630 | 2011 |
| 15-WCNE-093-GIE | March 24, 2015 | \$765 | 2014 |
| 18-WCNE-107-GIE | August 2, 2018 | \$1,093 (SAFSTOR) | 2017 |
| 21-WCNE-103-GIE | April 20, 2021 | \$1,074 DECON (with ISFSI storage) | 2020 |
| 24-WCNE-235-GIE | Undecided | \$1,171 DECON (with ISFI storage) | 2023 |
| 24-WCNE-235-GIE | Undecided | \$1,524 SAFSTOR (w/ ISFI storage) | 2023 |
| 24-WCNE-235-GIE | Undecided | \$962 DECON (with all spent fuel to DOE by 2050) | 2023 |

1 **Q. Do the cost estimates included in the plans approved by the Commission in prior**
2 **decommissioning plan reviews include costs for onsite spent fuel storage?**

3 **A.** Previous cost estimates only included funds for onsite storage for the first five years after
4 the plant is shutdown. For previous estimates, both the DECON and SAFSTOR scenarios
5 assume DOE takes possession of the spent fuel by 2050.

1 **Q. Should the Commission consider costs associated with storage and management of**
2 **spent fuel to be part of a decommissioning financing plan?**

3 **A.** Yes. Although the Commission is not statutorily obliged to consider spent fuel final
4 disposition as part of the DCS, I believe the Commission is obligated to consider the
5 financial impact on ratepayers regarding the possibility of managing and storing spent fuel
6 on site at Wolf Creek for a long period of time. The uncertainty of removing the spent fuel
7 from the site will significantly influence monitoring and maintaining the plant site after
8 closing until decommissioning¹⁴ is complete.

9 **Q. Do you believe the cost estimates presented in the DCS realistically reflect the cost to**
10 **Kansas ratepayers for complete decontamination of the Wolf Creek Plant site?**

11 **A.** I believe the cost estimate accurately follows NRC guidelines in providing a cost estimate
12 that meets regulatory requirements. I consider the DCS sufficient for the purposes indicated
13 in the Joint Pleading.

14 **Q. Of the three cost estimates, which do you recommend the Commission approve for**
15 **recovery through the decommissioning financing plan?**

16 **A.** I recommend the Commission consider the DECON alternative as presented on page 21 of
17 the DCS attached to the Application for the amount of \$1,171 million in 2023 dollars.

18 **Supplemental Licensing**

19 **Q. Is there a possibility to extend the life of Wolf Creek beyond 2045?**

20 **A.** Yes. There is the possibility for Wolf Creek to submit an application to extend the operating
21 license for an additional 20 years.

¹⁴ K.S.A. 66-1281(c) defines decommissioning as the activities necessary to ensure final disposition of the site or any radioactive material on the site.

1 **Q. With respect to future decommissioning financing plans, what would need to occur if**
2 **the plant life is extended?**

3 **A.** The DCS would need to be revised to reflect the extension of life beyond the current license
4 limit of 2045. Changing the life and operation of the plant changes the costs of
5 decommissioning.

6 **Q. Is extension of life part of this proceeding?**

7 **A.** No. This proceeding relates to the plant as it exists today.

8 **Q. How do you recommend the Commission address possible extension of life?**

9 **A.** The Commission should be made aware of other potential scenarios. I believe the
10 feasibility and timing of the supplemental licensing to extend the life of Wolf Creek should
11 be included in the Plan and reviewed by the Commission. For future triennial filings, I
12 recommend Attachment 7 include an update on current events of the industry as a whole
13 and Wolf Creek in particular regarding the progress of supplemental licensing.

14 **CONCLUSIONS**

15 **Q. Please summarize your conclusions regarding this Docket.**

16 **A.** My conclusions are summarized as follows:

- 17 • This Docket is the 13th proceeding in a series of dockets reviewing the DCS. Each docket
18 notes the assumptions which are part of the DCS.
- 19 • The cost estimate methodology included in the Application is consistent with the
20 estimating methodology used in cost studies that have previously been approved by the
21 Commission.
- 22 • Assumptions are a fundamental part of the estimating process given the project is 22 years
23 in the future.

Direct Testimony of Ashlyn M. Hefley
Docket No. 24-WNCE-235-GIE

- 1 • The proposed DECON estimate considers industry recent decommissioning history at
2 shut in commercial nuclear generating plants.
- 3 • Assuming the DOE will accept a small amount of the spent fuel after plant shutdown and
4 then the remainder over following decades, the DECON method balances the uncertainty
5 that DOE will take possession and the need to store spent fuel for a longer period of time.
- 6 • Future Plans should include an update of any Wolf Creek plans to pursue supplemental
7 licensing to extend the life of the plant beyond 2045.

8 **RECOMMENDATIONS**

9 **Q. Please summarize any recommendations you have regarding this matter.**

10 **A.** My recommendations are summarized as follows:

- 11 • I recommend the Commission approve the DECON alternative as presented on page 21
12 of the DCS attached to the Application for the amount of \$1,171 million in 2023 dollars to
13 be used in determining funding requirements for the Decommissioning Financing Plan.
14 This alternative provides a realistic estimate of decommissioning cost planning.
- 15 • Future filings of the Decommissioning Financing Plan to be filed next in 2026 should
16 continue to provide status updates of the information provided in Attachment 7 of the Joint
17 Pleading.
- 18 • I recommend the Commission require the Decommissioning Financing Plan to begin
19 providing updates on the status of supplemental licensing to extend the life of Wolf Creek
20 in Attachment 7.

21 **Q. Does this conclude your testimony?**

22 **A.** Yes.

EXHIBIT AMH-1

Kansas Statutes Regarding the Decommissioning of Nuclear Power Generating Facilities

Statute 66-128m: Same; decommissioning financing plan.

(a) Any licensee operating a nuclear power generating facility located in the state on the effective date of this act shall submit a proposed decommissioning financing plan for the facility to the commission not later than December 31, 1985. Any licensee constructing such a facility on the effective date of this act shall submit such a plan to the commission before commercial operation of the facility.

(b) The decommissioning financing plan shall include:

1. An estimate of the date of closing of the nuclear power generating facility;
2. An estimate of the cost of decommissioning the facility, expressed in dollars current in the year the plan is prepared, and based on an engineering report issued within three years of the date the plan is submitted to the commission;
3. the share of the estimated decommissioning costs attributed to each owner;
4. a plan for funding the decommissioning;
5. plans for periodic review and updating of the plan, including the cost of decommissioning estimated under paragraph (2);
6. the amount of money which customers of each owner have been charged for the decommissioning up to the date of submission of the plan and the total amount necessary to meet the projected decommissioning costs of the facility, over the remaining useful life of the facility;
7. plans and options for insuring against or otherwise financing premature closing of the facility;
8. reasonable assurance of responsibility in the event of insufficient assets to fund the decommissioning;
9. a description of the stages by which decommissioning is intended to be accomplished;
10. a fully executed decommissioning financing agreement between the licensee and each owner, evidencing each owner's acceptance of its respective share of the ultimate financial responsibility for decommissioning. In satisfaction of this requirement, the licensee may submit existing ownership agreements together with documentation from each owner of the applicability of the agreement to the case of financial responsibility for decommissioning; and
11. any other information related to the financing of decommissioning which the commission requests.

Statute 66-128n: Nuclear power generating facilities; decommissioning financing plan; hearings; approval or rejection of plan.

(a) The state corporation commission shall hold a public hearing in accordance with the provisions of the Kansas administrative procedure act on each proposed decommissioning financing plan submitted under K.S.A. 66-128m and amendments thereto. The commission may hold such hearing in conjunction with rate proceedings filed by an owner of the facility.

(b) The commission shall approve such a plan if it finds that the licensee has provided reasonable assurances that:

1. The estimated time of closing of the nuclear power generating facility and the estimated cost of decommissioning are reasonable;
2. the licensee and the owners of the facility can adequately fund the decommissioning;
3. the share of the estimated cost of decommissioning for each owner of the facility is reasonable;
4. the plans and options for insuring against or otherwise financing any shortfall in decommissioning funds resulting from a premature closing are adequate and reasonable;
5. the owners are legally bound to accept their respective shares of the ultimate financial responsibility for decommissioning as provided under K.S.A. 66-128p and amendments thereto; and
6. the plan will periodically be reviewed and revised to reflect more closely the costs and available techniques for decommissioning. This update shall occur at least every five years.

(c) If the commission finds that the decommissioning plan does not meet the criteria under subsection (b), it shall reject the plan and order that it be modified as the commission deems necessary to meet such criteria.

Statute 66-128o: Same; review of plan, when; changes.

(a) If the commission approves a decommissioning financing plan under K.S.A. 66-128n and amendments thereto, it shall, at least every five years until the facility's closing and at least annually after the closing, review the financing plan to assess its adequacy. If changed circumstances make a more frequent review desirable or if the licensee requests it, the commission may review the plan after a shorter time interval. The review shall include, but not be limited to, the following considerations:

1. The estimated date of closing the nuclear power generating facility;
2. the estimated cost of decommissioning;
3. the reasonableness of the method selected for cost estimate purposes; and
4. the adequacy of plans for financing the decommissioning and any shortfall resulting from a premature closing.

(b) The commission, after conducting a review under subsection (a), may, after a hearing in accordance with the provisions of the Kansas administrative procedure act, order such changes in the decommissioning financing plan as it deems necessary to make the plan comply with the provisions of subsection (b) of K.S.A. 66-128n and amendments thereto.

EXHIBIT AMH-2 Spent Fuel Management Plan

| Year | Assemblies | DOE Wet Pickup | Dry ISFSI Remaining |
|------|------------|----------------|---------------------|
|------|------------|----------------|---------------------|

| | |
|------|-----|
| 2025 | 0 |
| 2026 | 0 |
| 2027 | 0 |
| 2028 | 0 |
| 2029 | 0 |
| 2030 | 0 |
| 2031 | 0 |
| 2032 | 0 |
| 2033 | 0 |
| 2034 | 0 |
| 2035 | 0 |
| 2036 | 0 |
| 2037 | 0 |
| 2038 | 60 |
| 2039 | 73 |
| 2040 | 76 |
| 2041 | 104 |
| 2042 | 68 |
| 2043 | 80 |
| 2044 | 113 |
| 2045 | 89 |
| 2046 | 85 |
| 2047 | 89 |
| 2048 | 88 |
| 2049 | 0 |
| 2050 | 74 |
| 2051 | 74 |
| 2052 | 111 |
| 2053 | 74 |
| 2054 | 74 |
| 2055 | 111 |
| 2056 | 74 |
| 2057 | 74 |
| 2058 | 111 |
| 2059 | 74 |
| 2060 | 74 |
| 2061 | 111 |
| 2062 | 74 |
| 2063 | 74 |
| 2064 | 111 |
| 2065 | 74 |
| 2066 | 74 |
| 2067 | 111 |
| 2068 | 74 |
| 2069 | 111 |
| 2070 | 74 |
| 2071 | 74 |
| 2072 | 111 |
| 2073 | 74 |
| 2074 | 74 |
| 2075 | 111 |
| 2076 | 74 |
| 2077 | 74 |
| 2078 | 34 |
| 2079 | |
| 2080 | |

925

2,439

| | |
|---|--------------------|
| 2004 APR Discharge Schedule | 21 Assembly TADs |
| Average of last 10 non-zero years of 2004 APR | 37 Assembly Matrix |

| | |
|--|--------|
| Assemblies Picked Up Over Last Ten Years (2039-2048) | 865 |
| Average Per Year | 87 |
| Years Required to Pick Up Remaining Assemblies | 28.0 |
| Final Year | 2078.0 |
| Increments of 37 | 74 |
| Pickup Year of 2004 APR | 8 |

| F.A. count in excess 37 | Running Totals exc | Additional Casks |
|-------------------------|--------------------|------------------|
| 0 | 0 | 0 |
| 13 | 13 | 0 |
| 13 | 26 | 0 |
| 13 | 2 | 1 |
| 13 | 15 | 0 |
| 13 | 28 | 0 |
| 13 | 4 | 1 |
| 13 | 17 | 0 |
| 13 | 30 | 0 |
| 13 | 6 | 1 |
| 13 | 19 | 0 |
| 13 | 32 | 0 |
| 13 | 8 | 1 |
| 13 | 21 | 0 |
| 13 | 34 | 0 |
| 13 | 10 | 1 |
| 13 | 23 | 0 |
| 13 | 36 | 0 |
| 13 | 12 | 1 |
| 13 | 25 | 0 |
| 13 | 1 | 1 |
| 13 | 14 | 0 |
| 13 | 27 | 0 |
| 13 | 3 | 1 |
| 13 | 16 | 0 |
| 13 | 29 | 0 |
| 13 | 5 | 1 |
| 13 | 18 | 0 |
| 13 | 31 | 0 |

| APPENDIX A | |
|--|---------------------------------------|
| 2004 ACCEPTANCE PRIORITY RANKING | |
| In accordance with the Standard Contract for Disposal of Spent Nuclear Fuel and/or High-Level Radioactive Waste (10 CFR Part 961) (Standard Contract), an Acceptance Priority Ranking (APR) listing has been generated based on information as reported to the Department by the Purchasers on the Nuclear Fuel Data Survey Form, RW-859. The 2004 APR listing is based on SNF discharges through December 31, 2002. | |
| | (No. of Fuel Assy's Picked Up by DOE) |
| | Wolf Creek |
| Year | |
| 1 | 0 |
| 2 | 0 |
| 3 | 0 |
| 4 | 0 |
| 5 | 0 |
| 6 | 0 |
| 7 | 0 |
| 8 | 0 |
| 9 | 0 |
| 10 | 60 |
| 11 | 73 |
| 12 | 76 |
| 13 | 104 |
| 14 | 68 |
| 15 | 80 |
| 16 | 113 |
| 17 | 89 |
| 18 | 89 |
| 19 | 88 |
| 19 | 0 |
| Average Per Year (last 10 years) | 86.5 |

| Year | F.A. pickup | |
|------|-------------|------|
| 1 | 0 | 2031 |
| 2 | 0 | 2032 |
| 3 | 0 | 2033 |
| 4 | 0 | 2034 |
| 5 | 0 | 2035 |
| 6 | 0 | 2036 |
| 7 | 0 | 2037 |
| 8 | 60 | 2038 |
| 9 | 73 | 2039 |
| 10 | 76 | 2040 |
| 11 | 104 | 2041 |
| 12 | 68 | 2042 |
| 13 | 80 | 2043 |
| 14 | 113 | 2044 |
| 15 | 89 | 2045 |
| 16 | 85 | 2046 |
| 17 | 89 | 2047 |
| 18 | 88 | 2048 |
| 19 | 0 | 2049 |

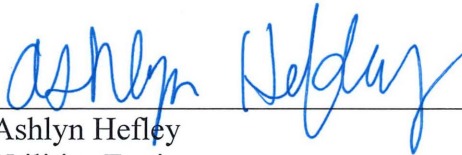
3,364

925

STATE OF KANSAS)
) ss.
COUNTY OF SHAWNEE)

VERIFICATION

Ashlyn Hefley, being duly sworn upon her oath deposes and states that she is a Utilities Engineer for the Utilities Division of the Kansas Corporation Commission of the State of Kansas, that she has read and is familiar with the foregoing *Direct Testimony*, and attests that the statements contained therein are true and correct to the best of her knowledge, information and belief.



Ashlyn Hefley
Utilities Engineer
State Corporation Commission of the
State of Kansas

Subscribed and sworn to before me this 7 day of May, 2024.



Notary Public

My Appointment Expires: 4/28/25

 NOTARY PUBLIC - State of Kansas
ANN M. MURPHY
My Appt. Expires 4/28/25

CERTIFICATE OF SERVICE

24-WCNE-235-GIE

I, the undersigned, certify that a true and correct copy of the above and foregoing Direct Testimony was served via electronic service this 10th day of May, 2024, to the following:

JOSEPH R. ASTRAB, ATTORNEY
CITIZENS' UTILITY RATEPAYER BOARD
1500 SW ARROWHEAD RD
TOPEKA, KS 66604
j.astrab@curb.kansas.gov

TODD E. LOVE, ATTORNEY
CITIZENS' UTILITY RATEPAYER BOARD
1500 SW ARROWHEAD RD
TOPEKA, KS 66604
t.love@curb.kansas.gov

DAVID W. NICKEL, CONSUMER COUNSEL
CITIZENS' UTILITY RATEPAYER BOARD
1500 SW ARROWHEAD RD
TOPEKA, KS 66604
d.nickel@curb.kansas.gov

SHONDA RABB
CITIZENS' UTILITY RATEPAYER BOARD
1500 SW ARROWHEAD RD
TOPEKA, KS 66604
s.rabb@curb.kansas.gov

DELLA SMITH
CITIZENS' UTILITY RATEPAYER BOARD
1500 SW ARROWHEAD RD
TOPEKA, KS 66604
d.smith@curb.kansas.gov

CATHRYN J. DINGES, SR DIRECTOR & REGULATORY
AFFAIRS COUNSEL
EVERGY KANSAS CENTRAL, INC
818 S KANSAS AVE
PO BOX 889
TOPEKA, KS 66601-0889
cathy.dinges@evergy.com

ROGER W. STEINER, CORPORATE COUNSEL
EVERGY KANSAS CENTRAL, INC
818 S KANSAS AVE
PO BOX 889
TOPEKA, KS 66601-0889
roger.steiner@evergy.com

BRIAN G. FEDOTIN, GENERAL COUNSEL
KANSAS CORPORATION COMMISSION
1500 SW ARROWHEAD RD
TOPEKA, KS 66604
b.fedotin@kcc.ks.gov

CARLY MASENTHIN, LITIGATION COUNSEL
KANSAS CORPORATION COMMISSION
1500 SW ARROWHEAD RD
TOPEKA, KS 66604
c.masenthin@kcc.ks.gov

KYLER C. WINEINGER, LITIGATION COUNSEL
KANSAS CORPORATION COMMISSION
1500 SW ARROWHEAD RD
TOPEKA, KS 66604
k.wineinger@kcc.ks.gov

CERTIFICATE OF SERVICE

24-WCNE-235-GIE

SUSAN B. CUNNINGHAM, SVP, REGULATORY AND
GOVERNMENT AFFAIRS, GENERAL COUNSEL
KANSAS ELECTRIC POWER CO-OP, INC.
600 SW CORPORATE VIEW
PO BOX 4877
TOPEKA, KS 66604-0877
scunningham@kepco.org

Ann Murphy

Ann Murphy