



OFFICIAL USE ONLY — PROPRIETARY INFORMATION
UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

November 30, 2016

Mr. Timothy S. Rausch
President and Chief Nuclear Officer
Susquehanna Nuclear, LLC
769 Salem Boulevard
NUCSB3
Berwick, PA 18603-0467

SUBJECT: ORDER APPROVING INDIRECT TRANSFER OF LICENSES RELATED TO
SUSQUEHANNA STEAM ELECTRIC STATION, UNITS 1 AND 2
(CAC NOS. MF8056 AND MF8057)

Dear Mr. Rausch:

The U.S. Nuclear Regulatory Commission (NRC) staff has completed its review of the application dated June 29, 2016 (Agencywide Documents Access and Management System (ADAMS) Package Accession No. ML16181A414), as supplemented by letter dated November 14, 2016 (ADAMS Accession No. ML16320A436), requesting approval of the indirect transfer of the Susquehanna Nuclear, LLC (Susquehanna Nuclear) interests in Renewed Facility Operating License Nos. NPF-14 and NPF-22 for the Susquehanna Steam Electric Station (SSES), Units 1 and 2, respectively, as well as the general license for the SSES Independent Spent Fuel Storage Installation (ISFSI), from the ultimate parent, Talen Energy Corporation, to Riverstone Holdings, LLC.

The proposed indirect transfer of control will not result in any change to the role of Susquehanna Nuclear as the licensed operator of the units, as well as the ISFSI, nor change its technical qualifications, and ownership interest or that of Allegheny Electric Cooperative, Inc. (10 percent owner of SSES). In addition, there will be no changes made to SSES, Units 1 or 2, or to its licensing bases as a result of the transfer. Further, the transfer will not involve any changes to the principal officers, managers, or staff of Susquehanna Nuclear, or to the day-to-day management and operations of the units.

Enclosure 1 is the Order that approves the proposed indirect ownership transfer pursuant to Section 50.80 of Title 10 of the *Code of Federal Regulations*, and subject to the conditions described therein.

Enclosures 2 and 3 contain the non-proprietary and proprietary versions, respectively, of the NRC staff's safety evaluation (SE) related to the proposed indirect ownership transfer. The non-proprietary version of the SE will be placed in the NRC public document room and added to the ADAMS Publicly Available Records System Library.

NOTICE: Enclosure 3 contains Proprietary Information.
Upon separation from Enclosure 3, this letter
and Enclosures 1 and 2 are DECONTROLLED.

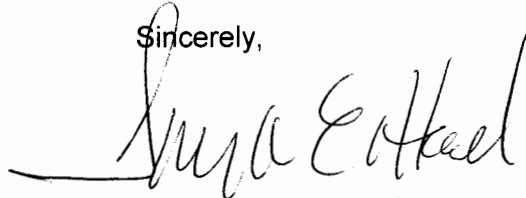
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T. Raush

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The Order has been forwarded to the Office of the Federal Register for publication.

Sincerely,

A handwritten signature in black ink, appearing to read "Tanya E. Hood". The signature is fluid and cursive, with a long horizontal line extending to the left.

Tanya E. Hood, Project Manager
Plant Licensing Branch I-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-387, 50-388, and 72-28

Enclosures:

1. Order
2. Safety Evaluation (Non-proprietary)
3. Safety Evaluation (Proprietary)

cc w/o Enclosure 3: Distribution via Listserv

ENCLOSURE 1

ORDER APPROVING INDIRECT TRANSFER OF
SUSQUEHANNA STEAM ELECTRIC STATION, UNITS 1 AND 2
RENEWED FACILITY OPERATING LICENSE NOS. NPF-14 AND NPF-22
AND

SUSQUEHANNA STEAM ELECTRIC STATION
INDEPENDENT SPENT FUEL STORAGE INSTALLATION
GENERAL LICENSE

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of)	
)	
SUSQUEHANNA NUCLEAR, LLC)	Docket Nos. 50-387, 50-388, and 72-28
)	
Susquehanna Steam Electric Station,)	Renewed License Nos. NPF-14 and
Units 1 and 2)	NPF-22
)	

ORDER APPROVING INDIRECT TRANSFER OF LICENSES

I.

Susquehanna Nuclear, LLC (Susquehanna Nuclear, or the applicant) and Allegheny Electric Cooperative, Inc. (Allegheny), are the holders of Renewed Facility Operating License Nos. NPF-14 and NPF-22, and the general license for the Independent Spent Fuel Storage Installation (ISFSI), which authorize the possession, use, and operation of the Susquehanna Steam Electric Station (SSES or the facility), Units 1 and 2, including the SSES ISFSI. The facility and its ISFSI are located in Luzerne County, Pennsylvania.

II.

By letter dated June 29, 2016, as supplemented by letter dated November 14, 2016, Susquehanna Nuclear, on behalf of itself and Riverstone Holdings, LLC (Riverstone), submitted an application to the U.S. Nuclear Regulatory Commission (NRC or the Commission), pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.80 (10 CFR 50.80), requesting approval of the indirect transfer of control of Susquehanna Nuclear's interests in Renewed Facility Operating License Nos. NPF-14 and NPF-22, as well

as the general license for the SSES ISFSI. Future reference to SSES, Units 1 and 2 include the general license for the SSES ISFSI. Susquehanna Nuclear is licensed as the sole operator and has a 90 percent undivided ownership interest in SSES, Units 1 and 2. The proposed indirect transfer of licenses does not involve Allegheny, the other (10-percent) owner of the units and a nonoperating licensee for SSES, Units 1 and 2.

The indirect transfer of control results from the ultimate parent of Susquehanna Nuclear's interests in the licenses, Talen Energy Corporation (Talen), becoming wholly owned by the portfolio companies of Riverstone, which currently holds 35 percent in the aggregate of the outstanding common stock of Talen. As a result, all of the common stock of Talen will become privately held by affiliates of Riverstone, and Susquehanna Nuclear will become indirectly controlled by the portfolio companies of Riverstone.

The proposed indirect transfer of control will result in no change to the role of Susquehanna Nuclear as the licensed operator of the units, no change to its technical qualifications, and no change to its ownership interest or that of Allegheny. No changes will be made to the units or their licensing bases as a result of the transfer, and the transfer will not involve any changes to the principal officers, managers, or staff of Susquehanna Nuclear or to the day-to-day management and operations of the units.

Approval of the indirect transfer of the renewed facility operating licenses was requested by the applicant. A notice of the request for approval, the opportunity to comment, and the opportunity to request a hearing was published in the *Federal Register* on October 4, 2016 (81 FR 68462). One public comment was received regarding the proposed license transfers. The NRC staff addressed the comment in the Safety Evaluation dated November 30, 2016, supporting this Order. A request for access to sensitive unclassified non-safeguards information (SUNSI) made pursuant to the Order Imposing Procedures for Access to SUNSI for Contention Preparation, included with the *Federal*

Register notice, was received on October 11, 2016, from Mr. Sabatini Monatesti of Berwick, Pennsylvania. On October 20, 2016, the NRC staff denied this access request. On October 24, 2016, Mr. Monatesti appealed the NRC staff's denial of his access request. On November 21, 2016, an Atomic Safety and Licensing Board affirmed the NRC staff's denial.

Pursuant to 10 CFR 50.80, no license, or any right thereunder, shall be transferred, directly or indirectly, through transfer of control of the license, unless the Commission shall give its consent in writing. Upon review of the information in the licensee's application, and other information before the Commission, and relying upon the representations and agreements contained in the application, the NRC staff has determined that the portfolio companies of Riverstone is qualified to hold the ownership interests in the facility previously held by Talen. The NRC staff has also determined that Susquehanna Nuclear remains qualified to hold the operating authority under the licenses, and that the indirect transfer of ownership interests in the facility to Riverstone, as described in the application, is otherwise consistent with the applicable provisions of law, regulations, and orders issued by the Commission, pursuant thereto. The findings set forth above are supported by the NRC Safety Evaluation dated November 30, 2016.

III.

Accordingly, pursuant to Sections 161b, 161i, and 184 of the Atomic Energy Act of 1954, as amended (the Act), 42 USC §§ 2201(b), 2201(i), and 2234; and 10 CFR 50.80, IT IS HEREBY ORDERED that the application regarding the proposed indirect license transfers to the portfolio companies of Riverstone is approved, subject to the following conditions:

1. Susquehanna Nuclear, LLC shall not take any action that would cause Riverstone or any other direct or indirect parent of Susquehanna Nuclear, LLC or other entity,

to void, cancel, or diminish the commitment to fund an extended plant shutdown, as represented in the application for approval of the indirect transfer of the licenses for SSES, Units 1 and 2, as applicable.

2. The transaction will not alter the Support Agreement and the Support Agreement will remain in effect in accordance with license conditions in Appendix C of the SSES licenses.

IT IS FURTHER ORDERED that Susquehanna Nuclear shall inform the Director of the Office of Nuclear Reactor Regulation in writing of the date of closing of the transfer, no later than 2 business days prior to the date of the closing of the indirect transfer. Should the indirect transfer of the licenses not be completed within 1 year of this Order's date of issue, this Order shall become null and void, provided, however, upon written application and for good cause shown, such date may be extended by order.

This Order is effective upon issuance.

For further details with respect to this Order, see the application dated June 29, 2016 (Agencywide Documents Access and Management System (ADAMS) Package Accession No. ML16181A414), as supplemented by letter dated November 14, 2016 (ADAMS Accession No. ML16320A436), and the non-proprietary Safety Evaluation dated November 30, 2016, (ADAMS Accession No. ML16320A080), which are available for public inspection at the Commission's Public Document Room (PDR), located at One White Flint North, Public File Area O1-F21, 11555 Rockville Pike (first floor), Rockville, Maryland. Publicly available documents created or received at the NRC are accessible electronically through ADAMS in the NRC Library at <http://www.nrc.gov/reading-rm/adams.html>. Persons who do not have access to

ADAMS, or who encounter problems in accessing the documents located in ADAMS, should contact the NRC PDR reference staff by telephone at 1-800-397-4209, 301-415-4737, or by e-mail at pdr.resource@nrc.gov.

Dated at Rockville, Maryland this 30th day of November 2016.

FOR THE NUCLEAR REGULATORY COMMISSION

A handwritten signature in black ink, appearing to read 'E. Benner', is positioned above the printed name and title.

Eric J. Benner, Deputy Director
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

ENCLOSURE 2

SAFETY EVALUATION
(NON-PROPRIETARY)



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO INDIRECT TRANSFER OF RENEWED FACILITY OPERATING LICENSES
FROM TALEN ENERGY CORPORATION TO RIVERSTONE HOLDINGS, LLC
SUSQUEHANNA NUCLEAR, LLC
ALLEGHENY ELECTRIC COOPERATIVE, INC.
SUSQUEHANNA STEAM ELECTRIC STATION, UNITS 1 AND 2
DOCKET NOS. 50-387, 50-388, AND 72-28

Proprietary information pursuant to Title 10 of the *Code of Federal Regulations* Section 2.390 has been redacted from this document. Redacted information is identified by blank space enclosed within brackets as shown here **[]**.

1.0 INTRODUCTION

By application dated June 29, 2016,¹ as supplemented by letter dated November 14, 2016,² Susquehanna Nuclear, LLC (Susquehanna or the licensee), on behalf of itself and Riverstone Holdings, LLC (Riverstone), requested that the U.S. Nuclear Regulatory Commission (NRC or the Commission) consent to the indirect transfer of control of Renewed Facility Operating License Nos. NPF-14 and NPF-22, pursuant to Section 184 of the Atomic Energy Act of 1954, as amended (AEA), Title 10 of the *Code of Federal Regulations* (10 CFR) Sections 50.80 and 10 CFR 72.50(a). This request affects the Susquehanna Steam Electric Station (SSES), Units 1 and 2, and the general license for the SSES Independent Spent Fuel Storage Installation (ISFSI) to the extent indirectly held by Talen Energy Corporation (Talen). Following the proposed transaction Talen, Susquehanna's ultimate parent, will become wholly owned by the portfolio companies of Riverstone that currently hold 35 percent, in the aggregate, of the outstanding common stock of Talen.

Susquehanna and Allegheny Electric Cooperative, Inc. (Allegheny) are the joint owners of SSES, Units 1 and 2, located in Luzerne County, Pennsylvania. Susquehanna and Allegheny hold Renewed Facility Operating License Nos. NPF-14 and NPF-22 originally issued by the NRC on July 17, 1982, and March 23, 1984, respectively, and renewed on November 24, 2009, pursuant to 10 CFR Part 50, including the general ISFSI license. Future reference to SSES, Units 1 and 2 include the general license for the SSES ISFSI. Under these licenses, Susquehanna, the current owner of 90 percent of SSES, Units 1 and 2, is authorized to possess, use, and operate SSES, Units 1 and 2. Allegheny will remain authorized to possess the remaining 10 percent of SSES, Units 1 and 2.

¹ Letter from Susquehanna Nuclear, LLC to the U.S. Nuclear Regulatory Commission, "Susquehanna Steam Electric Station Request for Order Approving Indirect Transfer of Control PLA-7500," dated June 29, 2016 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML16181A414).

² Letter from Susquehanna Nuclear, LLC to the U.S. Nuclear Regulatory Commission, "Susquehanna Steam Electric Station Supplemental Information Relating to Proposed License Transfer PLA-7538," dated November 14, 2016 (ADAMS Accession No. ML16320A436).

The proposed indirect transfer of control will not result in any change to the role of Susquehanna as the licensed operator of the units, nor change its technical qualifications, and ownership interest or that of Allegheny. In addition, there will be no changes made to SSES, Units 1 or 2, or to its licensing bases as a result of the transfer. Further, the transfer will not involve any changes to the principal officers, managers, or staff of Susquehanna, or to the day-to-day management and operations of the units.

2.0 BACKGROUND

Currently, three portfolio companies of Riverstone own, in the aggregate, a 35 percent share of Talen's common stock. The remaining 65 percent of Talen's common stock is owned by the public and trades on the New York Stock Exchange under symbol TLN. Among the three Riverstone portfolio companies, Raven Power Holdings, LLC (Raven) owns approximately 19.8 percent; C/R Energy Jade, LLC (Jade) owns approximately 12.7 percent; and Sapphire Power Holdings LLC (Sapphire) owns approximately 2.5 percent.

As described by Susquehanna in its application, the indirect transfer of control will result from a shareholder transaction that will take private the ownership of Talen by these three portfolio companies of Riverstone. The indirect transfer does not involve any change in the facilities indirectly owned and operated by Talen, including SSES, but simply replaces the public shareholders of Talen with the Riverstone portfolio companies that currently hold 35 percent in the aggregate of the outstanding common stock of Talen.

Talen, established on June 1, 2015, will cease to be a publicly traded company following the transaction. Upon the closing of the transaction, Talen will continue as the surviving corporation, and Raven, Jade, and Sapphire will convert their existing ownership of approximately 35 percent of the issued and outstanding shares of Talen's common stock into shares of the surviving corporation, such that Raven, Jade, and Sapphire will own 100 percent of the shares of Talen after the transaction. As a result, all of the common stock of Talen will become privately held by affiliates of Riverstone, and Susquehanna will become indirectly controlled by Riverstone as described in the application.

3.0 REGULATORY EVALUATION

The applicant's request for approval of the indirect transfer of control of the licenses for SSES Units 1 and 2, as discussed in this safety evaluation (SE), is made under 10 CFR 50.80. The Commission's regulation at 10 CFR 50.80(a) states, in part, that:

No license for a production or utilization facility ... or any right thereunder, shall be transferred, assigned, or in any manner disposed of, either voluntarily or involuntarily, directly or indirectly, through transfer of control of the license to any person, unless the Commission gives its consent in writing.

In addition, the regulations at 10 CFR 50.80(b) and (c) apply. The regulation at 10 CFR 50.80(b) states, in part, that an application for a license transfer shall include as much of the information described in 10 CFR 50.33, "Contents of applications; general information," and 10 CFR 50.34, "Contents of applications; technical information," "with respect to the identity and technical and financial qualifications of the proposed transferee as would be required by those sections if the application were for an initial license."

The regulation at 10 CFR 50.80(c) states, in part, that:

[T]he Commission will approve an application for the transfer of a license, if the Commission determines: (1) That the proposed transferee is qualified to be the holder of the license; and (2) That transfer of the license is otherwise consistent with applicable provisions of law, regulations, and orders issued by the Commission pursuant thereto.

The regulation at 10 CFR 50.33(f) states, in part, that:

Except for an electric utility applicant for a license to operate a utilization facility of the type described in § 50.21(b) or § 50.22, [each application shall state] information sufficient to demonstrate to the Commission the financial qualification of the applicant to carry out, in accordance with regulations in this chapter, the activities for which the permit or license is sought.

The regulation at 10 CFR 50.2, "Definitions," states, in part, that an electric utility means:

[A]ny entity that generates or distributes electricity and which recovers the cost of this electricity, either directly or indirectly, through rates established by the entity itself or by a separate regulatory authority.

Also, 10 CFR 50.33(k)(1) requires that Susquehanna provide information in the form of a report, as described in 10 CFR 50.75, "Reporting and recordkeeping for decommissioning planning," indicating that there is reasonable assurance that funds will be available to decommission the facility.

The regulation at 10 CFR 50.75(b) also requires, in part, that:

Each power reactor applicant for or holder of an operating license ... for a production or utilization facility of the type and power level specified in paragraph (c) of this section shall submit a decommissioning report, as required by § 50.33(k).

The regulation at 10 CFR 50.75(c) provides a table of minimum amounts (in 1986 dollars, the "base year") required to demonstrate reasonable assurance of funds for decommissioning by reactor type and power level.

The regulation at 10 CFR 50.75(f)(1) also requires, in part, that:

Each power reactor licensee shall report, on a calendar-year basis, to the NRC ... on the status of its decommissioning funding for each reactor or part of a reactor that it owns. ... The information in this report must include, at a minimum, the amount of decommissioning funds estimated to be required pursuant to 10 CFR 50.75(b) and (c)....

The regulation at 10 CFR 72.30(c) also requires, in part, that:

At the time of license renewal and at intervals not to exceed 3 years, the decommissioning funding plan must be resubmitted with adjustments as necessary to account for changes in costs and the extent of contamination.

The NRC staff applies guidance in NUREG-1577, Revision 1, "Standard Review Plan on Power Reactor Licensee Financial Qualifications and Decommissioning Funding Assurance,"³ issued February 1999, to evaluate whether the financial qualifications of the licensees would be affected by the proposed transfers.

In addressing foreign ownership, control, or domination (FOCD) issues, Section 103d of the AEA provides, in relevant part, that no license may be issued to the following:

Any corporation or other entity if the Commission knows or has reason to believe it is owned, controlled or dominated by an alien, a foreign corporation or a foreign government. In any event, no license may be issued to any person within the United States if, in the opinion of the Commission, the issue of a license to such person would be inimical to the common defense and security or to the health and safety of the public.

The NRC's regulation at 10 CFR 50.38, "Ineligibility of certain applicants," is the regulatory provision that implements the FOCD provision of the AEA. The NRC staff evaluates license transfer applications in a manner that is consistent with the guidance provided in the Standard Review Plan (SRP), "Foreign Ownership, Control, or Domination of Applicants for Reactor Licenses,"⁴ dated June 30, 1999 (hereafter referred to as the "SRP on FOCD"), to determine whether the applicant is owned, controlled, or dominated by an alien, a foreign corporation, or a foreign government.

The NRC staff also reviews information that pertains to Price-Anderson indemnity agreement requirements, the nuclear property damage insurance requirements under 10 CFR 50.54(w), and nuclear energy liability insurance required under Section 170 of the AEA and 10 CFR Part 140, "Financial Protection Requirements and Indemnity Agreements."

The proposed transaction described in the application constitutes an indirect transfer of the SSES, Units 1 and 2, licenses to the extent held by Susquehanna, requiring prior NRC approval. For indirect transfers of control of a license, the NRC must also find that the transaction will not affect the technical and financial qualifications of the holder of the license.

4.0 FINANCIAL QUALIFICATIONS

The NRC staff finds that Susquehanna does not qualify as an electric utility as defined in 10 CFR 50.2 because it is not rate-regulated by any State or other agencies.

In accordance with 10 CFR 50.33(f), a non-electric utility applicant must provide information sufficient to demonstrate its financial qualifications to carry out the activities for which the license is being sought. The information must show that the applicant possesses, or has reasonable assurance of obtaining, the funds necessary to cover estimated operating costs for the period of the license. In making this showing, the applicant must submit estimated total annual operating costs for each of the first 5 years of facility operations and indicate the source(s) of funds to cover these costs. For license transfers, direct or indirect, the relevant 5-year period is that time immediately following the proposed transfer. For indirect license

³ ADAMS Accession No. ML013330264.

⁴ ADAMS Accession No. ML992800078.

transfers, the information submitted must demonstrate that the proposed merger and indirect transfer will not affect the financial qualifications of the licensees.

Also, 10 CFR 50.33(k)(1) requires that licensees must provide information in the form of a report, as described in 10 CFR 50.75, demonstrating that there will continue to be reasonable assurance that funds will be available to decommission the facilities. Section 5.0 of this SE discusses decommissioning funding assurance.

The NRC staff reviewed the financial qualifications information submitted by Susquehanna for the reasonableness of the estimated operating costs, the reasonableness of the financial projections and underlying assumptions, and the sensitivity of the plant revenue projections to determine whether the licensees possess or have reasonable assurance of obtaining the funds necessary to cover estimated operating costs for the period of the licenses.

4.1 Financial Qualifications Evaluation for SSES, Units 1 and 2

In its application, Susquehanna stated that its anticipated revenues from competitive sales of energy, capacity and ancillary services provide reasonable assurance of an adequate source of funds to meet its share of SSES's anticipated expenses. Susquehanna also stated that it will remain financially qualified to operate and possess its interest in SSES. In support of these statements, the applicant provided projected income statements for the 5-year period from January 1, 2017, through December 31, 2021.

The NRC staff has reviewed this information and concludes that the pricing assumptions used to forecast revenue for SSES, Units 1 and 2, were reasonable, based on a review of recent electricity prices charged within the region, including markets in the States of Pennsylvania and New York.

In its projected income statements, Susquehanna provided the following information for SSES, Unit 1:

Table 1
SSES, Unit 1
(Summary of) Projected Income Statement
(\$thousands)

	2017	2018	2019	2020	2021
Total Revenue:	[[
Total Expenses:					
Income Before Taxes:					
Net Income:]]				

The figures in Table 1 reflect the 90 percent portion of the SSES owned by Susquehanna. Susquehanna's projections reflect positive net income for all of the years from 2017 through 2021 for Unit 1, and thus indicate that Susquehanna has reasonable assurance of obtaining the

necessary funds through revenues generated from the sale of electricity, ancillary services, and from capacity to cover estimated operating costs for the first 5 years of SSES, Unit 1, facility operation

Susquehanna stated that the revenue in the projected income statements includes income from the sale of both energy and capacity and that the forecasted prices are based upon a blending of market and fundamental prices. The market prices utilized are the forward prices of energy observed in the market as of the end of April 2016. The fundamental prices are a proprietary forecast of energy prices developed by Talen's Risk Management Department based upon forecasted natural gas prices and utilizing various other internal assumptions.

The NRC staff has reviewed the bases for the revenue, expense, and net income figures as presented by Susquehanna and concludes that the assumptions used by the applicant are reasonable. Susquehanna also provided in its application two sensitivity analyses, one that reduced by 10 percent the forecasted factor for capacity, and one that reduced by 10 percent the forecasted factor for the price of electricity, as reflected in Table 1. In each case, Susquehanna still forecasted positive net income for the years 2017 through 2021, thus demonstrating that it has reasonable assurance of obtaining through revenue generation the funds necessary to cover estimated operating costs under these more conservative conditions.

Susquehanna provided the following information for SSES, Unit 2:

Table 2
SSES, Unit 2
(Summary of) Projected Income Statement
(\$thousands)

	2017	2018	2019	2020	2021
Total Revenue:	[[
Total Expenses:					
Income Before Taxes:					
Net Income:]]				

The figures in Table 2 reflect the 90 percent portion of the SSES owned by Susquehanna. Susquehanna's projections reflect positive net income for all of the years from 2017 through 2021 for SSES, Unit 2, and thus indicate that Susquehanna has reasonable assurance of obtaining the necessary funds through revenue generated from the sale of electricity, ancillary services, and from capacity to cover estimated operating costs for the first 5 years of SSES, Unit 2, facility operation. Susquehanna also provided in its application two sensitivity analyses for Unit 2; one that reduced by 10 percent the forecasted factor for capacity, and one that reduced by 10 percent the forecasted factor for the price of electricity, as reflected in Table 2. In each case, Susquehanna still forecasted positive net income for the years 2017 through 2021, thus demonstrating that it has reasonable assurance of obtaining through revenue generation the funds necessary to cover estimated operating costs under these more conservative conditions.

4.2 Fixed Operating Costs at Susquehanna and Talen Energy Support Agreement

Guidance in NUREG 1577, Revision 1, states, in part, that the reviewer, “will also consider relevant financial information (i.e., information on cash or cash equivalents that would be sufficient to pay fixed operating costs during an outage of at least six months ... and any other relevant factors).”

Susquehanna provided a calculation of six-month fixed costs of [[]], for SSES, Units 1 and 2, combined. This scenario reflects a prolonged outage in which Susquehanna would be unable to generate revenues to cover operating expenses.

To address this scenario, the applicant stated in its June 29, 2016, letter that, “[i]n connection with the previously approved and completed spin off of PPL Energy Supply into Talen, Talen entered into a Support Agreement with Susquehanna Nuclear to make funding of up to \$205 million available to Susquehanna Nuclear, corresponding to the fixed operating costs that would be incurred during a six month outage of both units.”⁵

The applicant indicates that the transaction will not alter the Support Agreement and that the Support Agreement will remain in effect in accordance with license conditions in Appendix C of the SSES, Units 1 and 2, licenses.

The applicant indicates that Talen has available resources to fulfill its obligations under the Support Agreement and that Talen’s expected liquidity at the closing of the transaction, based on its credit facility and expected cash on hand, will be in the range of approximately \$500 million to \$1 billion.

4.3 Financial Qualifications Summary

In consideration of the above, the NRC staff has determined that Susquehanna has reasonable assurance of obtaining the funds necessary to cover estimated operation costs of SSES, Units 1 and 2, for the period of the licenses, and that any proposed changes as a result of the indirect transfer transaction will not affect the financial qualification of the licensee to possess, use, and operate SSES, Units 1 and 2. In addition, support from its parent in the form of a Support Agreement, and additional access to cash as necessary through Talen, provide additional evidence of reasonable assurance that funds will be available to cover estimated costs at the licensed facilities. The Support Agreement remains available to the licensee through a pre-existing license condition.

5.0 DECOMMISSIONING FUNDING ASSURANCE

Pursuant to 10 CFR 50.75(b), a reactor licensee is required to provide decommissioning funding assurance by one or more of the methods described in 10 CFR 50.75(e), as determined to be acceptable by the NRC. The NRC has determined that the requirements to provide reasonable assurance of decommissioning funding are necessary to ensure the adequate protection of public health and safety. The regulation at 10 CFR 50.33(k) requires that an applicant for an

⁵ Letter from PPL Susquehanna, LLC to the U.S. Nuclear Regulatory Commission, “Susquehanna Steam Electric Station Executed Support Agreement and Personnel Update PLA-7342,” dated May 28, 2015 (ADAMS Accession No. ML15148A581).

operating license for a utilization facility must demonstrate how reasonable assurance will be provided that funds will be available to decommission the facility.

Further, the regulation at 10 CFR 50.75(c) provides the “Table of minimum amounts (January 1986 dollars) required to demonstrate reasonable assurance of funds for decommissioning by reactor type and power level, P (in MWt [Megawatts thermal]); adjustment factor.”

5.1 Decommissioning Funding Assurance for SSES, Units 1 and 2

In accordance with 10 CFR 50.75(f)(1), Susquehanna reported information on the status of decommissioning funding for SSES, Units 1 and 2, as of December 31, 2014, to the NRC, in its Decommissioning Funding Status (DFS) Report PLA-7293, dated March 20, 2015.⁶ The NRC staff documented its review of the operating plants’ DFS reports in SECY-15-0122, “Summary Findings Resulting from the Staff Review of the 2015 Decommissioning Funding Status Reports for Operating Power Reactor Licensees,” dated September 28, 2015.⁷

The NRC staff verified the calculations provided by the applicant in the DFS report for SSES, Units 1 and 2, as of December 31, 2014. Based on its review of the 2014 DFS report, the NRC staff determined that the licensees for SSES, Units 1 and 2, were providing adequate decommissioning funding assurance for SSES, Units 1 and 2 in accordance with the NRC’s regulations. Such decommissioning funding assurance reflects the Susquehanna share (90 percent) of SSES, Units 1 and 2, in combination with the Allegheny share (10 percent) of SSES, Units 1 and 2.

Susquehanna stated in its application that decommissioning funding will remain in effect and will not be affected by the proposed indirect license transfer. Susquehanna currently provides decommissioning funding assurance for its portion of SSES, Units 1 and 2, through existing decommissioning trust fund assets, in accordance with 10 CFR 50.75(e)(1)(i) (i.e., the “prepayment” method). As reported by Susquehanna in its letter dated March 20, 2015, the Unit 1 and Unit 2 decommissioning trusts contained \$449,449,677 and \$500,568,824, respectively, as of December 31, 2014. The NRC staff evaluated these funding amounts using labor, energy, and low-level waste burial charge data as of December 31, 2014, and concluded that these amounts exceed the NRC minimum decommissioning funding requirements.

Concerning the SSES ISFSI decommissioning funding plan, Susquehanna indicated in its December 16, 2015,⁸ submittal that the amount of surplus in its decommissioning trust accounts reported biennially under 10 CFR 50.75, “... is more than sufficient to fund the estimated ISFSI decommissioning cost....” Susquehanna indicated that the SSES ISFSI decommissioning cost estimate will be adjusted as necessary every three years, as required by 10 CFR 72.30(c), and that it annually adjusts its 90 percent share of the amount of financial assurance required by 10 CFR 50.75(b) in accordance with paragraph (2) of that section. These arrangements are expected to continue after the transaction. Accordingly, Susquehanna indicates that the funds

⁶ ADAMS Accession No. ML15091A313.

⁷ ADAMS Accession No. ML15237A369.

⁸ Letter from Susquehanna Nuclear, LLC to the U.S. Nuclear Regulatory Commission, “Susquehanna Steam Electric Station Independent Spent Fuel Storage Installation (ISFSI) Decommissioning Funding Plan, Updated PLA-7424,” dated December 16, 2015 (ADAMS Accession No. ML15350A071).

available for the SSES ISFSI decommissioning are currently held within the decommissioning trust fund account(s) that are maintained for reactor decommissioning under 10 CFR 50.75.

The NRC staff concludes that the indirect license transfer will have no effect upon Susquehanna's ISFSI decommissioning fund resources, and that Susquehanna will have reasonable assurance that funds will be available to decommission the SSES ISFSI. However, based on the information provided by the licensee, the NRC staff notes that the licensee will require an NRC exemption in order to allow decommissioning trust fund withdrawals from the fund established under 10 CFR 50.75 to fund future SSES ISFSI decommissioning activities.

5.2 Decommissioning Funding Summary

In consideration of the above, the NRC staff concludes that the licensee has complied with the regulations in 10 CFR 50.75(b) and (c) with respect to providing decommissioning funding assurance for SSES, Units 1 and 2. Accordingly, the NRC staff finds that the indirect transfer will not affect the decommissioning funding arrangements currently in place for SSES, Units 1 and 2, and for the SSES ISFSI. There will also be no impact to the Allegheny portion of decommissioning funds or its funding mechanism used to provide decommissioning funding assurance.

6.0 TECHNICAL QUALIFICATIONS

In the application dated June 29, 2016, Susquehanna stated that:

The proposed indirect transfer of control in connection with the Shareholder Transaction will result in no change to the role of Susquehanna Nuclear as the licensed operator of the nuclear units, no change to its technical qualifications, and no change in its ownership interest or that of Allegheny Electric Cooperative, Inc. No changes will be made to the units or their licensing bases as a result of the Shareholder Transaction or to the day-to-day management and operations of the units.

In Section V, "Technical Qualifications," of the application dated June 29, 2016, Susquehanna stated that:

Susquehanna Nuclear will continue to be the plant operator, and the technical qualifications of Susquehanna Nuclear will not be affected by the Shareholder Transaction and indirect license transfer. The Shareholder Transaction will not require any change in the management or staffing of the nuclear organization, or any change in its procedures. The SSES nuclear organization will continue to have clear and direct lines of responsibility and authority, which will be unaffected by the Shareholder Transaction. Susquehanna Nuclear's review of the SSES Quality Assurance (QA) Program Description has not identified any changes resulting from the Shareholder Transaction that would result in a decrease in commitments from the Description pursuant to 10 [CFR 50.54(a)].

Based on the above, the NRC staff concludes that the licensee's technical qualifications to operate SSES, Units 1 and 2, are acceptable.

7.0 ANTITRUST

The AEA does not require or authorize antitrust reviews of post-operating license transfer applications. *Kansas Gas and Electric Co., et al.* (Wolf Creek Generating Station, Unit 1), CLI-99-19, 49 NRC 441 (1999). Therefore, since the application postdates the issuance of the SSES, Units 1 and 2, licenses, no antitrust review is required or authorized.

8.0 FOREIGN OWNERSHIP, CONTROL, OR DOMINATION

Section 103d of the AEA provides, in part, that no license may be issued to:

[A]ny corporation or other entity if the Commission knows or has reason to believe it is owned, controlled, or dominated by an alien, a foreign corporation or a foreign government.

The NRC evaluated the application in a manner that is consistent with the regulation at 10 CFR 50.38 and the guidance provided in the SRP on FOCD to determine whether the applicant is owned, controlled, or dominated by an alien, foreign corporation, or foreign government.

The guidance outlined in the SRP on FOCD states that, “the foreign control prohibition should be given an orientation toward safeguarding the national defense and security.” Further, the SRP on FOCD outlines how the effects of foreign ownership may be mitigated through implementation of a “negation action plan” to ensure that any foreign interest is effectively denied control or domination over the applicant.

8.1 Discussion

In the proposed transaction, Talen, Susquehanna’s current ultimate parent, will become wholly owned by the portfolio companies of Riverstone (specifically, Raven, Jade, and Sapphire), which currently hold 35 percent, in the aggregate, of the outstanding common stock of Talen. As a result, all of the common stock of Talen will become privately held by these three affiliates of Riverstone, and Susquehanna will become indirectly controlled by Riverstone. The transfer of control does not involve any change in the facilities owned and operated by Talen, including SSES, but simply replaces the public shareholders of Talen with the Riverstone portfolio companies that currently hold 35 percent of the outstanding common stock of Talen.

Talen Energy Corporation

In ascending order, Susquehanna is currently a subsidiary of Talen Generation, LLC; Talen Energy Supply, LLC; Talen Energy Holdings, Inc.; and Talen Energy Corporation. Talen Energy Corporation is currently owned by public shareholders (65 percent) and Riverstone (35 percent). Following the transaction, the corporate structure currently in place will remain the same, except that Talen Energy Corporation will be wholly owned by the portfolio companies of Riverstone, with no public ownership.

Current officers throughout the organizational structure are U.S. citizens, except for one director on the Board of Directors of Talen Energy Corporation who is a citizen of the United Kingdom (Philip G. Cox). In its April 2015 SE⁹ regarding a previous indirect license transfer application

⁹ Letter from the U.S. Nuclear Regulatory Commission to Timothy S. Rausch, Senior Vice President and Chief Nuclear Officer, PPL Susquehanna, LLC, “Order Approving Transfer of Licenses and Conforming Amendments Related to the Susquehanna Steam Electric Station, Units 1 And 2 (TAC Nos. MF4426 and MF4427),” dated

impacting this license, the NRC staff's evaluation of FOCD concerns included consideration of the UK citizen on the Talen Energy Corporation Board of Directors. The NRC staff concluded that it had no FOCD concerns at that time. No information provided in the current application changes that conclusion. In its current application, the applicant states, "It is possible that certain directors and principal officers of Talen will change at or following the closing of the Shareholder Transaction; however, the parties expect that any replacement directors or principal officers of Talen will be U.S. citizens." Currently, no changes to relevant officers and directors are envisioned by the applicant that will directly or indirectly control Susquehanna.

Riverstone and Affiliates Raven, Jade, and Sapphire

Currently, approximately 19.8 percent of Talen's common stock is held by Raven, approximately 12.7 percent of Talen's common stock is held by Jade, and approximately 2.5 percent of Talen's common stock is held by Sapphire. Upon closing of the transaction, Raven will hold approximately 56.6 percent of Talen's common stock, Jade will hold approximately 36.3 percent of Talen's common stock, and Sapphire will hold approximately 7.1 percent of Talen's common stock. The three Riverstone affiliates, or portfolio companies (Raven, Jade, and Sapphire), will privately hold, in the aggregate, 100 percent of the common stock of Talen. As indicated in the application, each of Raven, Jade, and Sapphire is controlled by Riverstone.

The applicant states that none of these organizations is a foreign entity or will be controlled or dominated, by a foreign entity. Further, the applicant states that all of the voting interests in Riverstone are held equally by two U.S. citizens.

According to the application, Riverstone is "an energy and power focused private investment firm" founded in 2000 with approximately \$34 billion of capital raised. The firm is a Delaware limited liability company based in New York City. By the nature of their membership interests, the two founders of the company (Pierre Lapeyre, Jr. and David Leuschen) have full and equal control over the operation and management of Riverstone and they are U.S. citizens. Raven, Jade, and Sapphire are each ultimately controlled by Riverstone; Raven, Jade, and Sapphire are each Delaware limited liability companies.

8.2 Conclusion on Foreign Ownership, Control, or Domination

Following the transaction, Susquehanna will continue to be indirectly owned by Talen, with Talen completely owned by private investment interests organized under Riverstone ("Riverstone Shareholders") of Raven, Jade, and Sapphire. Riverstone will indirectly control 100 percent of Talen. Riverstone and its affiliates reflect a corporate organization that consists of U.S. entities. Based on the information provided in the application, the NRC staff does not know or have reason to believe that Susquehanna or its parents is owned, controlled, or dominated by a foreign interest.

9.0 NUCLEAR INSURANCE AND INDEMNITY

According to the application, the proposed indirect transfer of control will have no effect on the existing nuclear insurance (property and liability) or the Price-Anderson indemnity agreement for the SSES. The licensee indicates that it will maintain the required nuclear property damage

insurance pursuant to 10 CFR 50.54(w) and nuclear energy liability insurance pursuant to Section 170 of the AEA and 10 CFR Part 140.

Susquehanna's annual reporting in compliance with 10 CFR 140.21 provides reasonable assurance regarding its ongoing ability to pay its share of any annual retrospective premium. The NRC staff concludes that the proposed indirect transfer will not affect the ability of Susquehanna to meet its financial obligations for its pro-rata share of obligations for retrospective premiums for its portion of the SSES. As there is no change to the licensees, no revision to the indemnity agreements for Units 1 and 2 is required.

Therefore, in consideration of the foregoing, the NRC staff concludes that the indirect transfer of ownership and control of the SSES, Units 1 and 2, will have no adverse impact on Susquehanna's ability to provide required nuclear insurance and indemnity coverage and its ability to meet its nuclear insurance obligations.

10.0 PUBLIC INVOLVEMENT

10.1 Public Comment

The NRC staff published a public notice concerning the proposed indirect license transfer in the *Federal Register* on October 4, 2016 (81 FR 68462). The notice provided an opportunity for public comment until November 3, 2016, regarding the license transfer application, as provided for in 10 CFR 2.1305.

By letter dated November 3, 2016¹⁰, Mr. Eric Epstein, on behalf of Three Mile Island Alert, Inc., provided comments and recommendations on the public notice for the proposed license transfer. This submission consists of substantively identical comments and recommendations as those provided previously by Mr. Epstein on November 5, 2014,¹¹ to the July 11, 2014 SSES indirect license transfer application (79 FR 60192).

Specifically, the submission consists of the same five comments provided previously and repeats five of the seven recommendations provided previously. The NRC staff already responded to these comments and recommendations in its safety evaluation¹² supporting the NRC staff's April 20, 2015 approval of the July 11, 2014 indirect license transfer application (80 FR 21767). This previous response still applies and will not be repeated here. Mr. Epstein also expands upon his previous comment submission by stating that the NRC staff should ask thirteen questions of the applicants, by updating his summary of the SSES operating history, and by asserting that the SSES has more licensee event reports than any other nuclear power plant in 2016.

The NRC staff has reviewed the thirteen questions proposed by Mr. Epstein and has determined that it does not need to ask them of the applicants in order to complete its review of the indirect license transfer application. Finally, as explained by the NRC staff in its response to Mr. Epstein's previous comment submission, Mr. Epstein's arguments regarding operating history are outside of the review completed by the NRC staff for the transfer.

¹⁰ ADAMS Accession No. ML16313A116.

¹¹ ADAMS Accession No. ML14321A463.

¹² ADAMS Accession No. ML15054A058.

10.2 Access to Sensitive Unclassified Nonsafeguards Information (SUNSI)

A request for access to SUNSI made pursuant to the Order Imposing Procedures for Access to SUNSI for Contention Preparation, included with the *Federal Register* notice, was received on October 11, 2016,¹³ from Mr. Sabatini Monatesti of Berwick, Pennsylvania. On October 20, 2016,¹⁴ the NRC staff denied the access request because, based on the information provided by Mr. Monatesti, there was not a reasonable basis to believe that Mr. Monatesti was likely to establish standing to participate in the NRC proceeding or that he had a legitimate need for access to the SUNSI. On October 24, 2016, Mr. Monatesti appealed the NRC staff's denial of his access request.¹⁵ On October 25, 2016, the Secretary of the NRC referred this appeal to the Chief Administrative Judge of the Atomic Safety and Licensing Board Panel.¹⁶ On October 26, 2016,¹⁷ an Atomic Safety and Licensing Board (Board) was established to preside over Mr. Monatesti's appeal of the NRC staff's denial of his access request. On November 21, 2016, the Board affirmed the NRC staff's denial.¹⁸

11.0 STATE CONSULTATION

In accordance with the Commission's regulations, the NRC published this license transfer request in the *Federal Register* (FR) on October 4, 2016 (81 FR 68462) for a 30-day comment period and a 20-day request for hearing period.

12.0 ENVIRONMENTAL CONSIDERATION

The subject application is for approval of a transfer of licenses issued by the NRC. Accordingly, the actions involved meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(21). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with approval of the application.

13.0 CONCLUSION

In view of the foregoing, the NRC staff finds that the proposed indirect transfer of control of the Susquehanna Nuclear, LLC licenses for the SSES, Units 1 and 2, resulting from the proposed transaction by which the portfolio companies of Riverstone Holdings, LLC will acquire all of the remaining, outstanding shares of Talen Energy Corporation will not affect the qualifications of the holders of the licenses for the subject units and that the transfer of the licenses is otherwise consistent with the applicable provisions of law, regulations, and orders issued by the Commission pursuant thereto.

Principal Contributors: R. Turtill
T. Hood

Date: November 30, 2016

¹³ E-mail from Sabatini Monatesti to the U.S. Nuclear Regulatory Commission dated, October 11, 2016 (ADAMS Accession No. ML16312A431).

¹⁴ ADAMS Accession No. ML16294A385.

¹⁵ Referral Memorandum at 20 (unnumbered).

¹⁶ *Id.* at 1 (unnumbered).

¹⁷ ADAMS Accession No. ML16300A413.

¹⁸ *Susquehanna Nuclear, LLC* (Susquehanna Steam Electric Station, Units 1 and 2), LBP-16-12, 84 NRC ____ (November 21, 2016).

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T. Rausch

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The Order has been forwarded to the Office of the Federal Register for publication.

Sincerely,

/RA/

Tanya E. Hood, Project Manager
Plant Licensing Branch I-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-387, 50-388, and 72-28

Enclosures:

1. Order
2. Safety Evaluation (Non-proprietary)
3. Safety Evaluation (Proprietary)

cc w/o Enclosure 3: Distribution via Listserv

DISTRIBUTION: (w/o Enclosure 3)

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RTurtill, NRR	BMizuno, OGC	RidsNrrDssStsb Resource
DMcIntyre, OPA	NSheehan, R-I	

ADAMS Accession Nos.: PKG ML16320A084 LTR ML16320A078 Order ML16320A075

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DATE	11/15/16	11/15/16	11/16/16	11/21/16
OFFICE	NRR/DORL/LPL1-2/BC(A)	NRR/DORL/DD	NRR/DORL/LPL1-2/PM	
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DATE	11/16/16	11/30/16	11/30/16	

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