



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

April 17, 2018

Mr. Bradley J. Sawatzke  
Acting Chief Executive Officer  
Energy Northwest  
76 North Power Plant Loop  
P.O. Box 968 (Mail Drop 1023)  
Richland, WA 99352-0968

SUBJECT: COLUMBIA GENERATING STATION - ISSUANCE OF AMENDMENT RE:  
QUALITY RECLASSIFICATION OF COMPONENTS IN THE REACTOR WATER  
CLEANUP SYSTEM (CAC NO. MF8318; L-2016-LLA-0008)

Dear Mr. Sawatzke:

The U.S. Nuclear Regulatory Commission (the Commission) has issued the enclosed Amendment No. 248 to Renewed Facility Operating License No. NPF-21 for the Columbia Generating Station. The amendment consists of changes to the Final Safety Analysis Report (FSAR) in response to your application dated August 30, 2016 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML16245A273), as supplemented by letter dated November 20, 2017 (ADAMS Accession No. ML17325B664).

The amendment revises the FSAR concerning the quality group designation for portions of the reactor water cleanup system from Quality Group C to Quality Group D. This amendment's revision to the FSAR is in accordance with Regulatory Guide 1.26, Revision 3, "Quality Group Classifications and Standards for Water-, Steam-, and Radioactive-Waste-Containing Components of Nuclear Power Plants," dated February 1976, which serves as the guidance document relative to the requirements of Title 10 of the *Code of Federal Regulations* Part 50, Appendix A, General Design Criterion 1, "Quality standards and records."

B. Sawatzke

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A copy of the related Safety Evaluation is also enclosed. The Notice of Issuance will be included in the Commission's biweekly *Federal Register* notice.

Sincerely,

A handwritten signature in black ink, appearing to read 'L. John Klos', written over a horizontal line.

L. John Klos, Project Manager  
Plant Licensing Branch IV  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-397

Enclosures:

1. Amendment No. 248 to NPF-21
2. Safety Evaluation

cc: Listserv



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

ENERGY NORTHWEST

DOCKET NO. 50-397

COLUMBIA GENERATING STATION

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 248  
License No. NPF-21

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Energy Northwest (the licensee), dated August 30, 2016, as supplemented by letter dated November 20, 2017, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
  - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
  - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations, and all applicable requirements have been satisfied.

2. Accordingly, by Amendment No. 248, Renewed Facility Operating License No. NPF-21 is hereby amended to authorize revision to the Columbia Generating Station Final Safety Analysis Report as set forth in the licensee's application dated August 30, 2016, as supplemented by letter dated November 20, 2017, and evaluated in the NRC staff's evaluation enclosed with this amendment.
3. The license amendment is effective as of its date of issuance and shall be implemented within 120 days from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Robert J. Pascarelli, Chief  
Plant Licensing Branch IV  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Date of Issuance: April 17, 2018



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 248 TO

RENEWED FACILITY OPERATING LICENSE NO. NPF-21

ENERGY NORTHWEST

COLUMBIA GENERATING STATION

DOCKET NO. 50-397

1.0 INTRODUCTION

By application dated August 30, 2016 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML16245A273), as supplemented by letter dated November 20, 2017 (ADAMS Accession No. ML17325B664), Energy Northwest (the licensee) requested approval of a revision to the Final Safety Analysis Report (FSAR) concerning the reactor water cleanup (RWCU) system equipment quality designation changes from Quality Group C to Quality Group D for the Columbia Generating Station (CGS).

The supplemental letter dated November 20, 2017, provided additional information that clarified the application, did not expand the scope of the application as originally noticed, and did not change the U.S. Nuclear Regulatory Commission (NRC, the Commission) staff's original proposed no significant hazards consideration determination as published in the *Federal Register* on December 6, 2016 (81 FR 87968).

2.0 REGULATORY EVALUATION

2.1. System Description

The RWCU system is an auxiliary system, and the portion up to and including the outermost containment isolation valve (CIV) is part of the reactor coolant pressure boundary (RCPB). The other portions of the system are not part of the RCPB and are isolated from the reactor. The main equipment of the RWCU system includes the RWCU pumps, the regenerative and nonregenerative heat exchangers, filter-demineralizers, and associated valves and piping. Major equipment of the RWCU system is located in the reactor building, which includes the pumps and the regenerative and nonregenerative heat exchangers. Filter-demineralizers and supporting equipment are located in the radwaste building.

The RWCU system recirculates a portion of reactor coolant through a filter-demineralizer to remove particulate and dissolved impurities and excess coolant from the reactor system under controlled conditions. While continuously purifying reactor water during all modes of reactor

operation, the system takes suction from the inlet of each reactor main recirculation pump and from the reactor pressure vessel (RPV) bottom head while processed water is returned to the RPV.

The suction line of the RCPB portion of the RWCU system contains two motor-operated CIVs that automatically close in response to signals from the RPV low water level and the leak detection system. The outboard isolation valve, RWCU-V-4, automatically closes in response to signals from actuation of the standby liquid control system and high nonregenerative heat exchanger outlet water temperature. These actions prevent (a) loss of reactor coolant, (b) release of radioactive material from the reactor, (c) removal of liquid reactivity control material, and (d) thermal damage to ion-exchange resins. On the RWCU return line, containment isolation is provided by a feedwater system check valve inside the containment, a feedwater system check valve outside the containment, and an RWCU motor-operated gate valve outside the containment.

As specified in Section 6.2.4.3.2.1.1.7, "Reactor Water Cleanup System," of the CGS FSAR, Amendment 64, dated December 2017 (ADAMS Accession No. ML17355A663), this motor-operated, safety-related, American Society of Mechanical Engineers (ASME) III Class 1 valve, RWCU-V-40, functions as a third isolation valve. The FSAR states, in part:

During the postulated LOCA [loss-of-coolant accident], it may be desirable to restore reactor coolant cleanup. For this reason, the motor-operated gate valve in the RWCU return line does not automatically isolate upon a containment isolation signal. If reactor coolant cleanup is not required, the return isolation valve RWCU-V-40 can be shut remotely from the control room when the motor-operated feedwater block valves are closed 20 minutes or more after the beginning of a LOCA. Should a break occur in the reactor water cleanup return line, the check valves would prevent significant loss of inventory and offer immediate isolation, while the outermost isolation valve would provide long-term leakage control.

## 2.2 Proposed Change

The proposed change would reclassify RWCU piping, valves, pumps, and mechanical modules located outside of the primary and secondary containment in the radwaste building, from Quality Group C to Quality Group D. The proposed reclassification represents a change in the quality classification for the RWCU system design, established for CGS. Specifically, the RWCU system design is currently based on the use of Quality Group C components outside of the primary containment in accordance with Position C.2.c of Regulatory Guide (RG) 1.26, Revision 3, "Quality Group Classifications and Standards for Water-, Steam-, and Radioactive-Waste-Containing Components of Nuclear Power Plants," dated February 1976 (ADAMS Accession No. ML003739964).

The CGS RWCU system was originally designed fully in compliance with the guidance in RG 1.26, Revision 3. The licensee implemented a design change in 1995 to replace problematic valves in the low temperature portion of the system with Quality Group D alternatives. In 2013, the NRC reviewed this reclassification within the scope of an inspection and concluded that prior NRC approval should have been obtained before installing Quality Group D components. The licensee submitted this amendment request as part of the corrective action in response to a noncited violation documented in NRC Inspection Report 05000397-13-003 (ADAMS Accession No. ML13206A131). The proposed changes will

allow for the portions of the system located in the radwaste building, which were reclassified in 1995, to remain as Quality Group D, thus allowing for currently installed nonconforming components in CGS's RWCU system to be accepted. No reclassification is proposed for components outside the radwaste building.

### 2.3 Regulatory Discussion

The regulation in Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, Appendix A, General Design Criterion (GDC) 1, "Quality standards and records," states:

Structures, systems, and components important to safety shall be designed, fabricated, erected, and tested to quality standards commensurate with the importance of the safety functions to be performed. Where generally recognized codes and standards are used, they shall be identified and evaluated to determine their applicability, adequacy, and sufficiency and shall be supplemented or modified as necessary to assure a quality product in keeping with the required safety function. A quality assurance program shall be established and implemented in order to provide adequate assurance that these structures, systems, and components will satisfactorily perform their safety functions. Appropriate records of the design, fabrication, erection, and testing of structures, systems, and components important to safety shall be maintained by or under the control of the nuclear power unit licensee throughout the life of the unit.

RG 1.26, Revision 3, establishes an acceptable method for complying with requirements of GDC 1 and with 10 CFR 50.55a, "Codes and standards," by classifying fluid systems and components important to safety, and applying corresponding quality codes and standards to such systems and components. The RG describes an acceptable method for determining quality standards for Quality Groups B, C, and D water- and steam-containing components important to safety of water-cooled nuclear power plants.

Position C.2.c of RG 1.26, Revision 3, states that Group C should be applied to "[s]ystems or portions of systems that are connected to the reactor coolant pressure boundary and are capable of being isolated from that boundary during all modes of normal reactor operation by two valves, each of which is either normally closed or capable of automatic closure." In addition, RG 1.26, Position C.2.c, includes a footnote clarifying that components in influent lines may be classified as Quality Group D if they are capable of being isolated from the RCPB by an additional valve that has high leaktight integrity.

Position C.2.d of RG 1.26 states that Group C should be applied to systems, other than radioactive waste management systems, not covered by Regulatory Positions C.2.a through C.2.c that contain or may contain radioactive material and whose postulated failure would result in conservatively calculated potential offsite doses that exceed 0.5 rem (roentgen equivalent man) to the whole body or its equivalent to any part of the body. The analysis should not take credit for automatic isolation or treatment of released material unless the automatic isolation and/or treatment capabilities are designed to the appropriate seismic and quality group standards and can withstand a loss of offsite power and a single failure of an active component.

As specified in 10 CFR 50.55a(g)(4), "Inservice inspection standards requirement for operating plants," components (including supports) that are classified as ASME Code Class 1, Class 2, and Class 3 must meet the requirements, except design and access provisions and preservice

examination requirements, set forth in Section XI of the ASME Boiler and Pressure Vessel Code (ASME Code) to the extent practical within the limitations of design, geometry, and materials of construction of the components.

### 3.0 TECHNICAL EVALUATION

The RWCU system outside of the CIVs (except select instrumentation) is typically classified as nonsafety. The proposed change would partially reclassify the RWCU system to include piping, valves, pumps, and mechanical modules located inside the radwaste building, from Quality Group C to Quality Group D. In accordance with the guidance in RG 1.26, Revision 3, the nonsafety RWCU system is typically classified as Quality Group C because the system is directly connected to the reactor coolant in a closed loop and separated by two valves that automatically close in each line connected to the reactor coolant system. In the event of a break in the RWCU piping, combined with the unlikely failure of a pair of isolation valves, the unisolated break of the RWCU piping could result in a large release of reactor coolant outside the containment structure. The increased quality classification of the RWCU piping is intended to decrease the overall risk of a release of reactor coolant outside containment.

CGS FSAR, Section 3.2.2, "System Quality Group Classifications," Amendment 64, dated December 2017 (ADAMS Accession No. ML17355A662), states, that the Quality Group classifications indicated in Table 3.2-2, "Code Group Designations - Industry Codes and Standards for Mechanical Components," meets the requirements of 10 CFR 50.55a and RG 1.26, Revision 3. Table 3.2-2 of the CGS FSAR shows that Quality Group C corresponds to ASME Section III, Class 3 equipment designed to Subsections NA and ND for piping, valves, and pressure vessels. Also, Table 3.2-2 shows that the design standards for Quality Group D components are ASME B31.1 for piping and valves, and ASME Code, Section VIII, Division 1, for pressure vessels.

The proposed classification change does not affect the safety-related portions of the system, which are the reactor building RWCU components; thereby, these items are outside the scope of this amendment and will retain their existing quality and ASME classification. The specified safety function of the RWCU system is to automatically isolate from the RCPB and to isolate the primary containment. This isolation is accomplished by inboard and outboard CIVs on the suction and return lines to the RPV. These valves are classified as safety-related CIVs and are outside the scope of this license amendment request (LAR) and not part of the reclassification. The RWCU isolation instrumentation performs the safety-related function to automatically isolate the RWCU system upon sensing parameters indicative of a leak in the RWCU piping (e.g., RWCU high delta flow or high blowdown flow).

The extent of safety-related equipment within the RWCU system is limited to the CIVs and instrumentation supporting the isolation function contained in the technical specification (TS), which is outside the scope of this request. Although the RWCU system outside the CIVs is not safety related, this system is considered important to safety because it is connected to the reactor coolant system. Failure of the system could result in a release of reactor coolant outside the containment. As such, the system design is in accordance with GDC 1 in that its design and quality is established and maintained at a level commensurate with the importance of the safety functions it performs. Therefore, RAI 1 (ADAMS Accession No. ML17193A219) on July 12, 2017, was issued requesting the licensee to provide a discussion of the design and quality for the components reclassified as Quality Class D components.



In the response to RAI 1, by letter dated November 20, 2017 (ADAMS Accession No. ML17325B664), the licensee stated, in part, that “there is no net change in ISI [inservice inspection] applicability for the proposed reclassification of the low temperature portions of the RWCU system.” Also, the licensee indicated defense in depth is provided for isolation of breaks in the portion of the RWCU system proposed for reclassification to reduce potential risks for containment bypass. A failure of the reclassified portion of the RWCU system, coincident with a failure to close of both inboard and outboard primary containment isolation valves (PCIVs) on inlet and return sides of the system, is mitigated by additional valves as specified below, which meet the intent of RG 1.26, Revision 3 (Footnote 6). As indicated above, Footnote 6 of RG 1.26 specifies that components in influent lines may be classified as Quality Group D if they are capable of being isolated from the RCPB by an additional valve that has high leaktight integrity. This RAI response also contains a discussion of the additional valve isolation capability as discussed below.

On the inlet (influent) side to the RWCU system, additional isolation capability on the primary flow path between the RPV and the RWCU system is provided by valves at the suction to either RWCU circulation pumps. Valve RWCU-V-5A is the suction side isolation valve for RWCU-P-1A, and valve RWCU-V-5B is the suction side isolation valve for RWCU-P-1B. These valves conform to RG 1.26, Revision 3, Quality Group C classification, and are located in the reactor building near the PCIVs (RWCU-V-1 and RWCU-V-4). The pumps are in a parallel arrangement such that either pump is capable of supplying the RWCU system. As such, both valves are required to close to provide additional isolation of the RPV. These valves are motor-operated valves capable of being closed from an easily accessible, local control panel outside of the RWCU pump room. As stated, in part, in the response to RAI 1, “RWCU-V-5A and RWCU-V-5B provide the isolation function intended by the ‘additional valve’ referenced in the [RG 1.26] footnote.” According to the response in RAI 1, CGS development of testing requirements for RWCU-V-5A and RWCU-V-5B are consistent with the requirements of the inservice testing (IST) program to include full-stroke exercise consistent with ISTC-3500, measurement of stroke time consistent with ISTC-5120, leakage rate testing requirements consistent with ISTC-3600, and position verification testing consistent with ISTC-3700. The licensee further stated, in part, that valves RWCU-V-5A and RWCU-V-5B “have actuators sized with margin to required opening and closing thrust requirements. The opening margin is estimated to be greater than 50% and the closing margin is approximately 11%. As such, RWCU-V-5A and RWCU-V-5B would be available for defense in depth break isolation if required.”

On the RWCU return line, valve RWCU-V-40 provides additional isolation capability for the 6-inch RWCU return line to the feedwater system. This valve is credited for long-term leakage control, which supplements the primary containment and RCPB isolation valves, RFW-V-10A, RFW-V-10B, RFW-V-32A, and RFW-V-32B. Valve RWCU-V-40 is a motor-operated valve capable of being closed from the main control room to allow isolating the 6-inch RWCU return line from the feedwater system. This valve is located in the reactor building and classified as Quality Group A, as required by the guidance in RG 1.26, Revision 3, and is subject to local leak-rate testing under CGS’s 10 CFR Part 50, Appendix J, Option B, program. Testing of RWCU-V-40 will continue to be performed as required by the IST program. The testing performed on this valve consists of a full-stroke exercise, measurement of stroke time, leakage rate testing, and position verification. Valve performance testing completed in 2009 demonstrated an opening margin of 6.8 percent and a closing margin of 6.1 percent under design containment isolation conditions. Therefore, RWCU-V-40 would be available for defense-in-depth break isolation, if necessary.

Also, the response in RAI-1 describes a small line that taps off the discharge of the RWCU nonregenerative heat exchanger and directs water to the common RWCU pump suction. The licensee indicates this small line effectively bypasses RWCU-V-5A and RWCU-V-5B and contains two ¾-inch diameter valves (RWCU-V-768 and RWCU-V-769) in series providing defense-in-depth break isolation consistent with the guidance in RG 1.26, Revision 3, Footnote 6. RWCU-V-768 is a Code Group D check valve inline for the small bore pump suction cooling line, while RWCU-V-769 is a Quality Group C manually operated valve downstream of the check valve along the normal cooling flow path. These valves are less than 1-inch nominal pipe size. The licensee specified valves of this size and shape that constitute part of an ASME Class 1 boundary that would be exempt from ASME Section XI, surface and volumetric examination, per subsection IWB-1220(b)(1). It was further stated that the treatment of RWCU-V-768 and RWCU-V-769 is modeled after the ASME Code allowances afforded to similarly sized Class 1 boundary valves with regard to testing requirements. Namely, no specific leak tightness or other testing will be performed on these small bore valves.

The LAR identifies some of the components proposed for reclassification as Quality Group D as belonging to Quality Class II+ (QC II+). Section 3.2, "Classifications of Structures, Components, and Systems," of the CGS FSAR, Amendment 64, states that QC II+ corresponds to augmented quality and involves the assignment of qualities affecting activities as specifically committed. The NRC staff identified no discussion of any augmented quality applicable to the subject valves. The staff issued RAI 2 to request further details on the components and associated attributes that would be subject to augmented quality. The licensee's response to RAI 2 in the letter dated November 20, 2017, clarified that QC II+ components for the RWCU system in the radwaste building are limited to pipes and valves in the resin backwash and associated backwash vent portion of the system. Therefore, these components classified QC II+ are outside the scope of this reclassification request.

The licensee also stated in the LAR that the portion of the system located within the primary containment and the small portion located outside of the containment up to and including the outboard CIV, are considered part of the RCPB. The other portions of the system are not part of the RCPB, and in the event of detected reactor coolant leakage, they are automatically isolated by closure of CIVs. The portion of the RWCU system in the radwaste building processes the low temperature fluid through the filter demineralizers. This portion of the system is classified as nonsafety-related and is not relied upon to remain functional during and following a design-basis event. The radwaste portion of the RWCU system does not perform any of the functions associated with safety-related structures, systems, and components as defined in 10 CFR 50.2. The proposed changes are for low temperature portions of the RWCU system located in the radwaste building, which are not part of the RCPB. The operation of the system remains unchanged and capabilities and performance are not impacted by the reclassification.

The licensee performed a dose consequence analysis for an RWCU line break in the radwaste building using the same methods used for the instrument line break analysis in FSAR 15.6.2 (ADAMS Accession No. ML17355A670). The analysis included the assumption that the RWCU system is isolated by the safety-related RWCU primary CIVs. The CIVs meet the criteria provided in Position C.2.d of RG 1.26, specifically they are of the appropriate seismic and quality group and they can withstand a loss of offsite power and a single failure of an active component. The results of the dose consequence analysis yielded a result that was bounded by the existing instrument line break analysis results of 0.36-rem (total effective dose equivalent at the Exclusion Area at 2 hours) which is less than the Position C.2.d criteria of 0.5-rem (whole body or its equivalent).

Because the RWCU system is connected to the RCPB, it is equipped with a leakage detection system capable of isolating the system from the RCPB. The isolation instrumentation is subject to CGS TS Limiting Condition for Operation 3.3.6.1 and includes Function 4, "RWCU System Isolation." Thus, abnormal conditions within the RWCU system will be detected, and the instrumentation will automatically isolate the system from the RCPB.

Internal flooding protection, in compliance with 10 CFR Part 50, Appendix A, GDC 2, "Design basis for protection against natural phenomena," is currently provided for safety-related components of the RWCU system and is not impacted by the proposed change. The licensee stated in the LAR that analysis of potential flooding originating from an HELB of the reclassified portion of the RWCU system was performed, and concluded that no safety-related systems are impacted and similarly no postulated flooding effects would result in release of significant radioactivity. Flooding originating from a worst case break from the RWCU components within the scope of reclassification would be isolated by existing safety-related leak detection instrumentation prior to creating a substantial flooding concern in the radwaste building.

In the LAR dated August 30, 2016, the licensee further stated, in part, that the "[e]valuation of the potential failure of high energy RWCU piping in the radwaste building has concluded that there are no credible missiles originating from the RWCU system in the radwaste building. That is, all safety related equipment in the radwaste building is physically separated (by existing walls/ceilings/floors) from any missile source originating from the reclassified portion of the RWCU system; therefore, safe shutdown of the plant is not impacted by the proposed reclassification."

Section 4.1.10, "Availability, capability and reliability," of Attachment 1 to the LAR by letter dated August 30, 2016, describes that originally 39 valves (31 fully replaced and 8 with valve internal-only modifications) were changed from the original Quality Group C to Quality Group D. However, two of these fully-replaced valves were restored back to their original Quality Group C classification. The NRC staff issued RAI 3 requesting a technical basis for returning two valves back to the Quality Group C classification. If degradation or damage to the Quality Group D component contributed to returning the component to Quality Group C, the licensee should describe any degraded condition and the cause of the degradation. In its response to RAI 3 by letter dated November 20, 2017, the licensee clarified that in response to the 2013 NRC violation related to improper reclassification of portions of RWCU, the system was restored to a full ASME design on paper. In 2014, two valves were identified to be degraded and required corrective maintenance. Due to physical interferences and as low as reasonably achievable concerns, the licensee found it was more efficient to replace the valves in lieu of attempting a repair in situ. As such, the licensee replaced these with ASME valves in accordance with the requirements of the (restored) ASME system design.

As discussed above, there is no specific safety function for the portions of the RWCU system proposed for reclassification, and the consequences of a break in the system do not preclude safety-related components from performing their safety functions. As stated, in part, in RG 1.26, Revision 3, Position C.3, "[t]he Group D quality standards...should be applied to water- and steam-containing components not part of the reactor coolant pressure boundary or included in quality Groups B or C, but part of systems or portions of systems that contain or may contain radioactive material." RG 1.26, Position C.2 provides Quality Group C standards with a footnote specifying that components in influent lines may be classified as Quality Group D if they are capable of being isolated from the RCPB by an additional valve that has high leaktight integrity. As described above, The CGS RWCU system contains additional valves to provide defense-in-depth isolation capability, testing these valves consistent with the requirements of

the IST program to include stroke, stroke time, leakage rate, and position verification testing. In addition, the existing leakage detection systems will be able to detect potential leakage from the other portion of the RWCU piping, and the operator is required to take corrective actions in accordance with TS 3.3.6.1, as discussed above. With the inclusion of the additional valve capable of being isolated from the RCPB and additional leak-tight testing, the NRC staff finds that these defense-in-depth isolation features are sufficient to meet the intent of RG 1.26, Revision 3, Footnote 6, with respect to defense-in-depth for isolation of the reclassified components of the RWCU. Based on the review above, the NRC staff concludes there is reasonable assurance that the guidance in RG 1.26, Revision 3, will continue to be met. Therefore, the staff finds the proposed change acceptable.

#### 4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Washington State official was notified of the proposed issuance of the amendment on March 15, 2018. The State official had no comments.

#### 5.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration, and there has been no public comment on such finding published in the *Federal Register* on December 6, 2016 (81 FR 87968). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

#### 6.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) there is reasonable assurance that such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributors: G. Curran, NRR  
S. Jones, NRR

Date: April 17, 2018

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 QUALITY RECLASSIFICATION OF COMPONENTS IN THE REACTOR WATER  
 CLEANUP SYSTEM (CAC NO. MF8318; L-2016-LLA-0008)  
 DATED APRIL 17, 2018.

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ADAMS Accession No.: ML18075A351

\*by memorandum

\*\*by email

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