Public Service®

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R.O. WILLIAMS, JR.
SENIOR VICE PRESIDENT
NUCLEAR OPERATIONS

March 16, 1989
Fort St. Vrain
Unit No. 1
P-89077

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

Docket No. 50-267

SUBJECT: PSC Comments on NRC Review of Fire Protection Program Plan

REFERENCES:
1) NRC letter, Heitner to Williams, dated January 30, 1989 (G-89033)
2) PSC letter, Williams to Doc. Control Desk dated September 20, 1988 (P-88327)
3) PSC Letter, Williams to Doc. Control Desk dated January 20, 1989 (P-89026)
4) PSC letter, Williams to Doc. Control Desk dated October 28, 1988 (P-88385)

Gentlemen:

PSC has reviewed the draft SAIC Technical Evaluation Report (TER) in Reference 1. PSC's comments are noted in the attached marked up TER draft. Most of these markups are editorial and self explanatory. A few merit a brief explanation as described below:

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Section 2.3

PSC committed to the installation of additional detectors by start-up after the 4th refueling in Reference 2. Whereas, the 4th refueling has been cancelled, PSC subsequently committed in Reference 3 to have the additional detectors installed by June 30, 1989.

Section 2.6

In Reference 4, PSC provided additional details on the specific emergency lighting modifications being undertaken at FSV. PSC committed that these modifications would be installed and functional by start up at the end of the 4th refueling. Since the 4th refueling has been cancelled, PSC subsequently committed in Reference 3 to have the emergency lighting modifications completed by June 30, 1989.

Section 2.8

The FSV Appendix R shutdown/cooldown trains consist of equipment, most of which is currently covered by the existing Technical Specifications. It is not our intention to ask permission to delete this equipment from the Technical Specifications. This is in accordance with the guidelines of Generic Letters 86-10 and 88-12. Since the submittal of the Fire Protection Program Plan in December, 1987, we have intended to insure operability of non-Technical Specification equipment in our Appendix R shutdown/cooldown trains through the use of Fire Protection Operability Requirement 16 (FPOR 16). Internal to FSV, FPORs are treated on the same level as Technical Specifications from a compliance standpoint. For Technical Specification shutdown/cooldown equipment Technical Specification requirements will always take precedent over FPORs. Therefore, we ask permission to retain our non-Technical Specification equipment under the guidelines of FPOR-16 for the remaining 15 months of FSV operations. If shutdown/cooldown equipment is found to be inoperable, per FPOR-16 PSC will evaluate and establish alternate compensatory measures with PORC approval within seven days. Alternate compensatory measures involving the use of redundant equipment not currently part of the shutdown/cooldown equipment will be submitted within seven days for NRC review and approval.

Should you have any questions, please contact Mr. M. H. Holmes at (303) 480-6960.

Very truly yours,

R. O. Williams
Senior Vice President
Nuclear Operations

ROW:GDS/pjb

Attachment

xc: Regional Administrator, Region IV
ATTN: Mr. T. F. Westerman
Chief, Projects Section B

Mr. Robert Farrell
Senior Resident Inspector
Fort St. Vrain

(A)

Section 2.6

By letter dated October 2[illegible], 1988, PSC provided additional details on the specific emergency lighting modifications being undertaken at FSV, and formally committed to have all required modifications installed and functional by start-up at the end of the fourth refueling. Subsequently, by letter dated January 20, 1989, PSC committed ot have emergency lighting modifications completed by June 30, 1989.

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

January 30, 1989

G-89033
Rec'd 2/3/89

Docket No. 50-267

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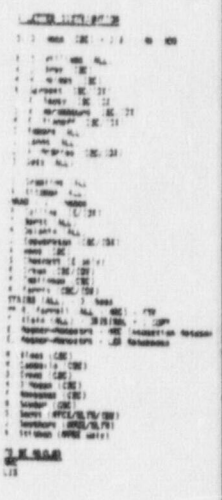

Dear Mr. Williams:

SUBJECT: REVIEW OF FIRE PROTECTION PROGRAM PLAN (TAC NO. 66508)

We have completed our review of your Fire Protection Program Plan submitted by letter dated December 15, 1987, and supplemented by letters dated June 27 and September 20, 1988. This review was performed by our contractor, Science Applications International Corporation (SAIC).

A draft copy of the SAIC Technical Evaluation Report (TER) is enclosed for comment. We request that you comment on the technical correctness and completeness of the TER, which is based on your submittals.

It is the staff's intention to reflect the conclusions of this TER as follows:

> First, no action can be taken to modify the current fire protection Technical Specification with regard to Generic Letter 86-10 until the emergency lighting is tested successfully. Second, the proposal to modify the Technical Specifications with regard to Generic Letter 86-10 must provide adequate component operability and surveillance requirements for the Appendix R (Fire Protection) shutdown/cooldown components as discussed in the TER. Third, the upgraded coverage for fire detection should be installed at this time.

We request that you provide your comments within 45 days of the date of this letter. The information requested in this letter affects fewer than ten respondents, therefore OMB clearance is not required under P.L. 96-511.

Sincerely,

Kenneth L. Heitner

Kenneth L. Heitner, Project Manager
Project Directorate - IV
Division of Reactor Projects - III,
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Enclosure:
As stated

cc w/enclosure:
See next page

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SAIC-88/1822

TECHNICAL EVALUATION REPORT

INDEPENDENT REVIEW OF FIRE PROTECTION PROGRAM PLAN

PUBLIC SERVICE COMPANY OF COLORADO FORT ST. VRAIN NUCLEAR GENERATING STATION

TAC #66508

January 6, 1989

SAIC
Science Applications International Corporation

Prepared for:

U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Contract NRC-03-87-029
Task Order No. 03

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FOREWORD

This Technical Evaluation Report was prepared by Science Applications International Corporation (SAIC) under a contract with the U.S. Nuclear Regulatory Commission (Office of Nuclear Reactor Regulation) for technical assistance in support of NRC operating reactor licensing actions. The technical evaluation was conducted in accordance with criteria established by the NRC.

1. INTRODUCTION

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1.1 Purpose of Review

This Technical Evaluation Report documents an independent review of the Fire Protection Program Plan for Fort St. Vrain Nuclear Generating Station submitted by Public Service Company of Colorado. This evaluation was performed with the following objectives:

1. Identify differences in the fire protection program from that which has already been approved by the NRC.

2. Where differences exist, evaluate them for adequacy in relation to NRC Staff guidance and requirements.

3. Determine if changes in the approved program affect previous Staff conclusions in the SER.

1.2 Generic Background

Licensee conditions for plants licensed prior to January 1, 1979, contain a condition requiring implementation of modifications committed to by the licensee as a result of the review against Appendix A to BTP APCSB 9.5-1 [1]. These license conditions were added by amendments issued between 1977 and February 17, 1981, the effective date of 10 CFR 50.48 and Appendix R [2].

License conditions for plants licensed after January 1, 1979 vary widely in scope and content. Some only list open items that must be resolved by a specific date or event, such as exceeding five percent power or the first refueling outage. Some reference a commitment to meet Appendix R; some reference the FSAR and/or the NRC staff's SER. These variations have created problems for licensees and for the NRC inspectors in identifying the operative and enforceable fire protection requirements at each facility.

These license conditions also create difficulties because they do not specify when a licensee may make changes to the approved program without requesting a license amendment. If the fire protection program committed to by the licensee is required by a specific license condition or is not part of the FSAR for the facility, the provisions of 10 CFR 50.59 may not be applied to make changes without prior NRC approval. Thus licensees may be required to submit amendment requests even for relatively minor changes to the fire protection program.

The aforementioned problems, in general, exist because of the many submittals that constitute the fire protection program for each plant. The Commission believes that the best way to resolve these problems is to incorporate the fire protection program and major commitments, including the fire hazards analysis, by reference into the Final Safety Analysis Report (FSAR) for the facility. In this manner, the fire protection program, including the systems, the administrative and technical controls, the organization, and the other plant features associated with fire protection would be on a consistent status with other plant features described in the FSAR. Also, the provisions of 10 CFR 50.59 would then apply directly for changes the licensee desires to make in the fire protection program that would not adversely affect the ability to achieve and maintain safe shutdown. In this context, the determination of the involvement of an unreviewed safety question defined in 50.59(a)(2) would be made based on the "accident....previously evaluated" being the postulated fire in the fire hazards analysis for the fire area affected by the change. The Commission also believes that a standard license condition, requiring licensees to comply with the provisions of the fire protection program as described in the FSAR, should be used to ensure uniform enforcement of the fire protection requirements.

Generic Letter 86-10 states that each licensee should include in the FSAR the fire protection program that has been approved by the NRC, including the fire hazards analysis and major commitments that form the basis for the fire protection program. Upon completion of this effort, the licensee may apply for an amendment to the operating license which references approved submittals and SERs as the basi of the fire protection program and would allow changes to this "approved "p.ogram if they do not

adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.

1.3 Plant-Specific Background

By letter dated December 15, 1987, Public Service of Colorado, the Licensee of Fort St. Vrain Nuclear Generating Station submitted the Fire Protection Program Plan, Revision 0. This submittal presents a compilation of the plant fire protection program, including previous commitments to Appendix A to BTP APCSB 9.5-1 and Appendix R to 10CFR50. An area by area fire hazards analysis is included in addition to a discussion of Appendix R related post-fire-shutdown methodology. The Plan also includes a comparison of the plant fire protection program to the guidelines of Appendix A to BTP APCSB 9.5-1 and a description of plant administrative procedures including fire protection operability requirements. The Licensee stated in the transmittal letter that its intent is to request an Amendment to the License per Generic Letter 86-10 upon NRC approval of the submittal.

As a result of a preliminary review of the submittal, a site visit was made on April 4-6, 1988 to discuss issues of concern. Following the site visit, an RAI was issued on April 13, 1988 regarding questions not resolved during the plant visit. The Licensee responded to the RAI by letter dated June 13, 1988. By letter dated June 27, 1988 the Licensee submitted plant fire protection operability requirements which comprise Section FP.6.1 of the Program Plan. Subsequent to this response, the Licensee issued Revision 1 to the Fire Protection Program Plan on July 22, 1988. The Licensee then requested a meeting with the NRC on August 31, 1988 to discuss issues that were still unresolved. As a result of this meeting, the Licensee submitted additional information by letter dated September 20, 1988.

This report documents a review of the Fire Protection Program Plan through Revision 1 including information submitted by the Licensee in response to questions generated during the review. This report does not specifically address issues dealing with safe shutdown methodology related to Appendix R compliance since this has been the subject of previous NRC evaluations and site audits.

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1.4 Review Criteria

The criteria used in reviewing the Licensee's submittal are based on the following documents:

1. Appendix A to BTP APCSB 9.5-1

2. Appendix R to 10CFR50

3. Generic Letter 86-10, "Implementation of Fire Protection Requirements," dated April 24, 1986.

4. Generic Letter 88-12, "Removal of Fire Protection Requirements From Technical Specifications," dated August 2, 1988.

2. EVALUATION

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2.1 General

This section represents review and evaluation of the Fire Protection Program Plan (FPPP) through Revision 1 for Fort St. Vrain Nuclear Generating Station. Issues discussed relate to concerns during the review, questions raised from the site visit and deviations to NRC guidance identified in the Plan, which have not been previously reviewed by the Staff.

2.2 Fire Pump Separation

The FPPP provides a fire hazards analyses for the fire pump house and identifies that the diesel and electric pumps are separated by a 3-hr rated wall. Additional discussions are included which establish the use of the fire pumps as part of the Auxiliary Cooling Method (ACM) function.

During the 1983 Appendix R audit, a concern was raised regarding the routing of the power feed for the electric fire pump through the area containing the diesel fire pump. During the site visit of April 4-6, 1988 it was demonstrated that a redundant power feed from the ACM diesel had been added, however, it appeared that an electrical control circuit for the electric fire pump still ran through the diesel room. The Licensee was requested to provide information which established the separation, both physical and electrical, of the two fire pumps.

By letter dated June 13, 1988 the Licensee provided a circuit routing diagram for the fire pumps in addition to a discussion of their electrical separation. The Licensee stated that the normal power feed for the electric pump does run through the diesel side; however, the electric pump can still be operated following a fire in the diesel fire pump room using the ACM power feed. Additionally, the Licensee stated that a conduit running from the electric motor through the diesel room, which had raised concerns during the plant visit, is associated with the 120V AC motor heater feed cable. The motor heater is used to keep condensation out of the motor and is not required for pump operation.

Based on this information, the Licensee has adequately demonstrated that separation exists between the diesel and electric pumps to ensure that a fire in one room will not impact the operation of the other pump. This provides reasonable assurance that fire water will be available, both for fire suppression and shutdown/cooldown requirements.

2.3 Detector Spacing

Appendix A to BTP APCSB 9.5-1 Section E.1.(a) states "Fire detection systems should, as a minimum, comply with NFPA 72D, Standard for the Installation, Maintenance and Use of Proprietary Protective Signaling Systems. Deviations from the requirements of NFPA 72D should be identified and justified." NFPA 72D references NFPA 72E for installation and spacing of smoke detectors.

The Fire Protection Program Plan identifies areas in the plant where smoke detection is provided. For most areas, this detection is identified as area-wide and being made up of ionization and linear beam detectors. The Fire Protection Program Plan states that detectors are installed in accordance with NFPA 72D and 72E.

An NRC team inspection, conducted during May 18-20, 1987 expressed concern that certain areas may not have area wide coverage as identified, and also that certain combinations of ionization detectors and beam detectors may not provide adequate coverage. As a result of this concern, the Licensee provided additional detectors in areas identified as having area wide coverage in the fire hazards analysis section of the Fire Protection Program Plan.

During the site visit on April 4-6, 1988 the resolution of the detector coverage issue was discussed. After a plant tour, there still remained the concern of adequate spacing in areas where linear beam detectors were installed. Because of this, the Licensee was requested to perform an evaluation which documented that detector coverage was provided in accordance with NFPA 72D and 72E.

During a meeting with the Staff on August 31, 1988 the Licensee provided drawings which detailed the fire detector coverage at the plant.

As a result of this review, the Licensee acknowledged that additional detectors would be necessary in order to provide area wide coverage as identified in the Fire Protection Program Plan and committed to their installation. Based on the evaluation performed, the Licensee also committed to provide detection in the Fire Water Pump rooms and welding shop. The Licensee had not previously committed to providing detection in these areas, however, they felt that overall fire safety would be enhanced. By letter dated September 20, 1988 the Licensee formally committed to the installation of the additional detectors by start up after the 4th refueling outage. Subsequently, by letter dated January 20, 1989, the licensee committed to install additional detectors by June 30, 1989.

The drawings identifying new detectors were reviewed and were found to demonstrate adequate coverage with the installation of the additional detectors. Based on the Licensee's commitment to install the additional detectors, the detector coverage as identified in the Fire Protection Program Plan is found to be acceptable.

2.4 Non-IEEE 383 Cable

Section D.3.(f) of Appendix A to BTP APCSB 9.5-1 states "Electric cable constructions should, as a minimum, pass current IEEE No. 383 flame test. For cable installation in operating plants and plants under construction that do not meet the IEEE 383 flame test requirements, all cables must be covered with an approved flame retardant coating and properly derated."

The Fire Protection Program Plan states that cables in the plant have not been subjected to the IEEE 383 flame test requirements; however, cables associated with redundant safety-related equipment in congested cable areas have been coated with Flamemastic 71A or asbestos cloth. This method of protecting cables in the congested cable areas has been previously reviewed by the NRC and has been accepted in Amendment 14 to the Facility Operating License. However, after the site visit in April of 1988, there remained a concern regarding the combustibility of cables outside the congested cable areas, particularly where high concentrations of cable trays exist. The Licensee was requested to justify the use on non-IEEE 383 cable which was not protected with fire retardant material.

By letter dated June 13, 1988 the Licensee stated that during initial plant construction, IEEE 383 had not been issued. Cable at that time was purchased to requirements that mandated compliance with the Underwriter's Laboratory (UL) vertical flame test requirements (VW-1). Much of the cable purchased after 1974 (when IEEE 383 was originally issued) was purchased to the IEEE standard, although the majority of the cable is not IEEE 383 qualified. Based on discussions with the Staff, the Licensee agreed to perform an evaluation of plant cable concentrations outside of the congested cable area to determine if "high" concentrations exist. The Licensee stated in its June 13, 1988 letter that areas where cable loadings exceeded the equivalent of 3-1/2 standard fully loaded trays would be identified. This figure was based on the establishment of 7 cable trays as a concentrated cable area requiring additional protection in current NRC fire protection guidelines, BTP CMEB 9.5-1. The Licensee chose 3-1/2 as 50% of the NRC criteria for purposes of conservatism. The Staff agreed that this approach was conservative and would serve the purpose of identifying if high combustible loadings of non-IEEE 383 cable were present in the plant. It was also felt that the lack of credit for cables that may be rated to IEEE 383, and the fact that the existing cables do meet specific flame spread criteria, provides further conservatism to the Licensee approach.

By letter dated September 20, 1988 the Licensee provided a detailed analysis of cable loadings throughout the plant outside of the congested cable area. The Licensee concluded that no areas in the plant exceed the established criteria for excessive loading. Based on this evaluation, there is reasonable assurance that the presence of non-IEEE 383 cable in the plant does not represent a significant hazard and would not warrant additional fire protection measures. Therefore, the presence of cable not meeting the guidelines as identified in Appendix A to BTP APCSB 9.5-1 is acceptable.

2.5 Fire Dampers

Section D.1.(j) of Appendix A to BTP APCSB 9.5-1 states in part "...Penetrations for ventilation systems (in rated fire barriers) should be protected by a standard fire door damper where required." Table FP.2.8-1 of the Fire Protection Program Plan identifies rated barriers in the plant and further identifies if fire dampers are present in specific barriers. During the site visit of April 4-6, 1988 there was a concern that some dampers in

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the plant may not have been installed in accordance with an approved detail and therefore may not provide the degree of fire protection required.

By letter dated June 13, 1988 the Licensee provided design detail information for fire dampers in the plant. The Licensee stated that it was not able to locate adequate design information for dampers located in the Turbine Lube Oil Reservoir Room or the Turbine Lube Oil Storage Room. The Licensee committed that it will obtain information on these dampers and assure their proper installation. The information provided was reviewed and found to document installation criteria necessary to provide for a rated fire barrier installation and is therefore acceptable. The NRC will assume that the dampers for which no information was provided by the Licensee will be verified adequate unless notified by the Licensee of a deficiency.

2.6 Emergency Lighting

The Fire Protection Plan describes an emergency lighting system which is comprised of a combination of battery-powered lights and lights powered from the ACM diesel. This lighting system designed to meet the requirements of Section III J of Appendix R was the subject of an exemption request previously approved by the NRC. However, during the site visit of April 4-6, 1988 there was a concern that the emergency lighting system may not provide the coverage as described in the Fire Protection Program Plan. The Licensee was requested to provide evidence that the installed emergency lights were adequate. By letter date June 13, 1988 the Licensee stated that a special test would be performed to verify the adequacy of the lights and the NRC notified when a satisfactory test was performed. Subsequent to this letter, the NRC was informed verbally, that a test was performed and the results were unsatisfactory. The Licensee stated that the NRC would be notified of corrective action to be taken. Therefore, this item remains open pending demonstration of adequate emergency lighting capabilities by the Licensee. See insert (A) on next page

2.7 Appendix A Comparison

Section FP.5.2 of the Fire Protection Program Plan provides a comparison of the Licensee's fire protection program against the guidelines as presented in BTP APCSB 9.5-1. While many aspects of the Licensee's fire

protection program have been reviewed by the Staff against Appendix A criteria, an Appendix A comparison was never specifically evaluated.

In the Program Plan, the Licensee presents a section by section comparison of the station fire protection program including both programmatic requirements and design requirements against those identified in BTP APCSB 9.5-1. After a preliminary review of the comparison, there was a concern that deviations from the NRC guideline may not be specifically addressed and justified by the Licensee. This concern arose since some sections of the comparison stated "this guideline has been met" while other sections stated "the intent of this guideline has been met." This concern was discussed with the Licensee during the site visit on April 4-6, 1988. By letter dated July 22, 1988 the Licensee submitted Revision 1 to the Fire Protection Program Plan. This submittal included a revised Appendix A comparison. Where the Licensee deviates from the guideline, or what could be considered a verbatim interpretation of the guideline, the Licensee now identifies the difference and provides justification. This section was reviewed and evaluated to ensure that deviations were adequately justified if they had not been previously accepted by the NRC. The majority of deviations which could be considered to have a potential impact on plant safety have been previously reviewed by the Staff through the Appendix R exemption process. Some deviations have been identified by the Licensee which have not been specifically evaluated by the Staff in previous Safety Evaluation Reports. All areas where the Licensee identified a deviation from Staff guidelines were evaluated. Deviations which had not been previously reviewed were found not to have an impact on plant safety and are therefore acceptable. Certain deviations identified in this section of the Program Plan were also the subject of specific concerns during the course of this review including non-IEEE 383 cable, detector spacing, fire dampers and emergency lights, and have been evaluated in previous sections of this report. A summary of deviations identified in the Program Plan is provided below.

Acceptable Deviations from Appendix A to BTP APCSB 9.5-1:

Section D.1 Building Design

Redundant safety related systems may not be separated. Exemptions to 10CFR50 Appendix R have been reviewed in SER dated May 10, 1988.

Section D.1.(d) Interior Construction and Finishes DRAFT

The Licensee has identified certain interior finishes installed in the plant which do not have a flame spread rating of less than 25 as determined by the ASTM E-84 Test. These finishes consisting primarily of floor tile and small amounts of carpeting and paneling are considered to be minimal and would not impact plant safety and are therefore acceptable.

Section D.1.(e) Metal Deck Roof Construction

The Licensee has identified minor design differences which would not permit the Reactor and Turbine Building roofs to be classified as Class I by the Factory Mutual System Approval Guide. These differences were reviewed and are not considered to be significant and are therefore acceptable.

Section D.1.(h) Outside Transformer

Several transformers are within the 50 feet limit as defined in the Guideline. The Licensee has evaluated the transformers in the Fire Hazards Analysis and concluded that present fire protection features including barriers and deluge systems provide adequate protection. These analyses have been reviewed and have been found to provide justification for the location of transformers less than 50 feet from the building. Therefore the current configuration of outside transformers is found to be an acceptable deviation from NRC guidelines.

Section D.1.(i) Floor Drains

Drains in the Turbine Lube Oil Rooms have been plugged to preclude environmental contamination. Plant firefighting procedures identify this situation and are considered adequate to prevent an unacceptable condition resulting from the accumulation of fire suppression water.

Section D.1.(j) Separation of Safe Shutdown Equipment

The Licensee has requested exemptions from Appendix R to 10CFR50 for areas which are not provided adequate separation. These exemptions have been reviewed and evaluated an a separate SER.

Section D.2 Control of Combustibles

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The Licensee has identified several pieces of equipment which contain combustible oil and are not provided with fixed suppression per NRC guidelines. These have been identified in the Fire Hazards Analysis and were determined not to decrease the level of fire safety. These analyses were reviewed and it is concluded that the lack of fixed suppression in some areas containing combustible material as identified in the Appendix A Comparison, Revision 1 is acceptable.

Section D.2.(b) Bulk Gas Storage

Bulk storage tanks, primarily nitrogen, are located inside buildings contrary to NRC Fire Protection Guidelines. These have been reviewed under a number of accident scenarios in various parts of the FSAR and have not been found to present a hazard to plant safety and are therefore acceptable.

Section D.2.(d) Storage of Combustible Liquids

The Licensee has performed a detailed comparison of plant installations containing combustible liquids, against the guidelines of NFPA 30 "Flammable and Combustible Liquids Code". The Licensee has identified several minor discrepancies including venting configurations and component labeling. These deviations have been reviewed and have been found to be acceptable.

Section D.3.(c) Cable Tray Protection

The Licensee has identified situations which do not explicitly meet the guidelines particularly concerning the G and J walls. These areas along with the installed suppression have been the concern of previous NRC reviews and have been found acceptable.

Section D.3.(f) Electric Cable

See Section 2.4 of this report

Section F.17 Cooling Towers

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The Main Cooling Tower and Service Water Cooling Tower are constructed of combustible material contrary to NRC Guidelines. The operation of the cooling towers provides wetting of most combustible material during normal plant operation. During plant shutdown a spray system is provided to wet down combustible materials. While this system is primarily intended to prevent shrinkage, it also provides a secondary function of maintaining the combustibles wet and therefore reducing the fire risk. In addition, the plant is capable of safe shutdown given the loss off a cooling tower. Based on this, the use of combustible material in the cooling tower construction is considered to be an acceptable deviation from NRC Guidelines.

Based on the review and evaluation of the Appendix A Comparison, the Licensee was found to provide adequate justification for deviations from Appendix A to BTP APCSB 9.5-1, and, therefore, the deviations as stated in Revision 1 of the Fire Protection Program Plan are acceptable.

2.8 Operability Requirements

Section 6.1 of the Program Plan contains fire protection system operability requirements for the plant. This section is intended to replace current technical specifications upon incorporation of the new license condition as described in Generic letters 86-10 and 88-12. The current plant technical specifications were written and approved by the NRC prior to the establishment of standard technical specifications and are generally less restrictive than requirements currently mandated. The operability requirements included in the Fire Protection Program Plan are modeled after current standard technical specifications and are therefore generally more conservative than the present plant technical specifications for fire protection. No cases were identified in which the proposed operability requirements represented a lessening of requirements currently approved for the plant. There is a concern, however, that requirements for operability of shutdown/cooldown components included in the Program Plan are not items intended for removal from technical specifications per Generic Letter 88-12. Therefore, this sub-section should be included in the plant technical specifications. However, the Licensee is undergoing a major technical specification improvement program to address all aspects of required

updating. It is felt that this technical specification improvement program would provide the best opportunity to incorporate shutdown/cooldown requirements into the plant technical specifications. Until this can be done, the requirements as stated in the Fire Protection Program Plan, Section 6.1, are found to be satisfactory. With the exception of the need to relocate the operability requirements for shutdown/cooldown components into the plant technical specifications, the requirements for fire protection system operability as identified in the Fire Protection Program Plan, Revision 1 are acceptable.

See Section 2.8 of P-89077 for specific comments for this section.

3. CONCLUSIONS

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Based on the evaluations contained in this report, the Fire Protection Program Plan, Revision 1 for Fort St. Vrain Nuclear Generating Station has been found to be acceptable with exceptions identified below. Therefore, the incorporation of the Fire Protection Program into the FSAR, either directly or by reference, would provide a basis for requesting the license condition as described in Generic Letter 86-10.

1. Adequacy of emergency lighting system must be demonstrated.

2. Shutdown/Cooldown component operability requirements should be included in plant technical specifications.

4. REFERENCES

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1. Appendix A to BTP APCSB 9.5-1, "Guidelines for Fire Protection for Nuclear Power Plants Docketed Prior to July 1, 1976," August 23, 1976.

2. Appendix R to 10CFR50, "Fire Protection Program for Nuclear Power Facilities Operating Prior to January 1, 1979," November 19, 1980.

3. Generic Letter 86-10, "Implementation of Fire Protection Requirements," April 24, 1986.

4. Generic Letter 81-12, "Removal of Fire Protection Requirements From Technical Specifications," August 2, 1988.