UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	)	
	)	
COMMONWEALTH EDISON COMPANY	)	Docket No. 50-454 OL
	)	50-455 OL
(Byron Station, Units 1 and 2)	)	

AFFIDAVIT OF KENNETH A. AINGER

I, Kenneth A. Ainger, being duly sworn do hereby swear and state:

1. I am employed by Commonwealth Edison Company as a Licensing Engineer in the Byron/Braidwood Project Engineering Department. In that capacity, I review and evaluate issues, events, and occurrences that may impact the safety aspects of the design of the Byron Station. I also ensure that design changes necessitated by the evaluation of such matters are incorporated into the plant design.

2. The purpose of this affidavit is to apprise the Licensing Board and the parties to the Byron licensing proceeding of two changes to the Byron plant design which effect DAARE/SAFE Contention 9a as that contention concerns

the possibility of a bubble collapse waterhammer in the feedwater bypass piping at the Byron Station similar to the event that occurred at the KRSKO plant in Yugoslavia.

3. A prior affidavit of Ms. Leslie Bowen, dated October 5, 1982, submitted by letter of counsel, dated October 14, 1982, stated that Edison no longer intended to install temperature sensors on the feedwater bypass system at the Byron Station. This decision was made because the operating guidance provided by Westinghouse indicated that optimum operation of the feedwater bypass system requires constant feedwater flow through the auxiliary nozzle, and such flow would prevent the possibility of a KRSKO-type waterhammer event and thus preclude the need for temperature sensors on the bypass piping. While Edison still intends to maintain a continuous flow through the auxiliary nozzle during all phases of power operation, it has been determined that such a flow would be impractical during the heat-up phase of the plant since it could significantly inhibit the heat-up. Also, such continuous flow could inhibit the ability to maintain the plant in a hot standby condition. Therefore, since continuous flow cannot be practically maintained during the heat-up phase or during the hot standby condition, Edison intends to install the temperature sensors on the feedwater bypass piping near the auxiliary nozzle in order to detect any backleakage of steam or hot water.

4. In another affidavit of Ms. Bowen, dated June 6, 1982, which was filed on June 7, 1982 as part of Edison's motion for summary disposition, Ms. Bowen stated that the Byron design included an additional check valve in the bypass piping near the auxiliary nozzle of the steam generator which is not included in the design of the KRSKO plant. This valve was also noted in Edison's response to question 5 of a series of questions posed by the NRC Staff. Edison's response to the NRC Staff's questions was sent by letter, dated September 9, 1982, to Mr. Harold Denton, and was submitted to the Licensing Board and all parties by letter of counsel, dated October 14, 1982, as an attachment to Ms. Bowen's October 5 Affidavit. For reasons which are explained in the attached letter, dated February 9, 1983, from Mr. W. E. Kortier of Westinghouse, this valve has been removed from the Byron design and is not in place. Generally, the check valve was removed so as not to compromise the function of controlled closure check valves located further upstream which ensure the prevention of an "acoustic" or "classical" waterhammer caused by rapid valve closure.

The foregoing information is true and correct to the best of my knowledge and belief.

Kenneth A. Ainger

DISTRICT OF COLUMBIA) ss

SWORN AND SUBSCRIBED to before me this 10th day of February, 1983.

NOTARY PUBLIC

My Commission Expires September 1, 1987

CAW-5327
CBW-4044

Westinghouse Electric Corporation
Water Reactor Divisions

Nuclear Commercial Operations Division
Box 355
Pittsburgh Pennsylvania 15230

February 9, 1983

File: BBL-1000

Mr. J. D. Deress
Project Engineering Manager
Byron & Braidwood Projects
Commonwealth Edison Company
P. O. Box 767
Chicago, IL 60690

COMMONWEALTH EDISON COMPANY
BYRON AND BRAIDWOOD STATIONS - UNITS 1 AND 2
Deletion of Non-Damped Check Valve from Steam Generator Preheater Bypass Line

Dear Mr. Deress:

Non-damped check valves in the steam generator feedwater and bypass line have been replaced with controlled-closure check valves as identified in the attached figure. At the present time, the non-damped check valve closest to the steam generator auxiliary nozzle still exists. A review of this arrangement indicates that, as a consequence, the non-damped check valve closest to the steam generator auxiliary nozzle is redundant and would act to defeat the purpose of installing the controlled-closure check valves, which is to substantially reduce the severity of the feedline break/check valve slam transient. Therefore, the non-damped check valve (identified in the attached figure) should be made inoperable. This can be accomplished by either removing the entire check valve from the pipe or by removing the internal disc from each of the identified check valves.

This letter cancels and supercedes our letter CAW-5320/CBW-4039.

Very truly yours,

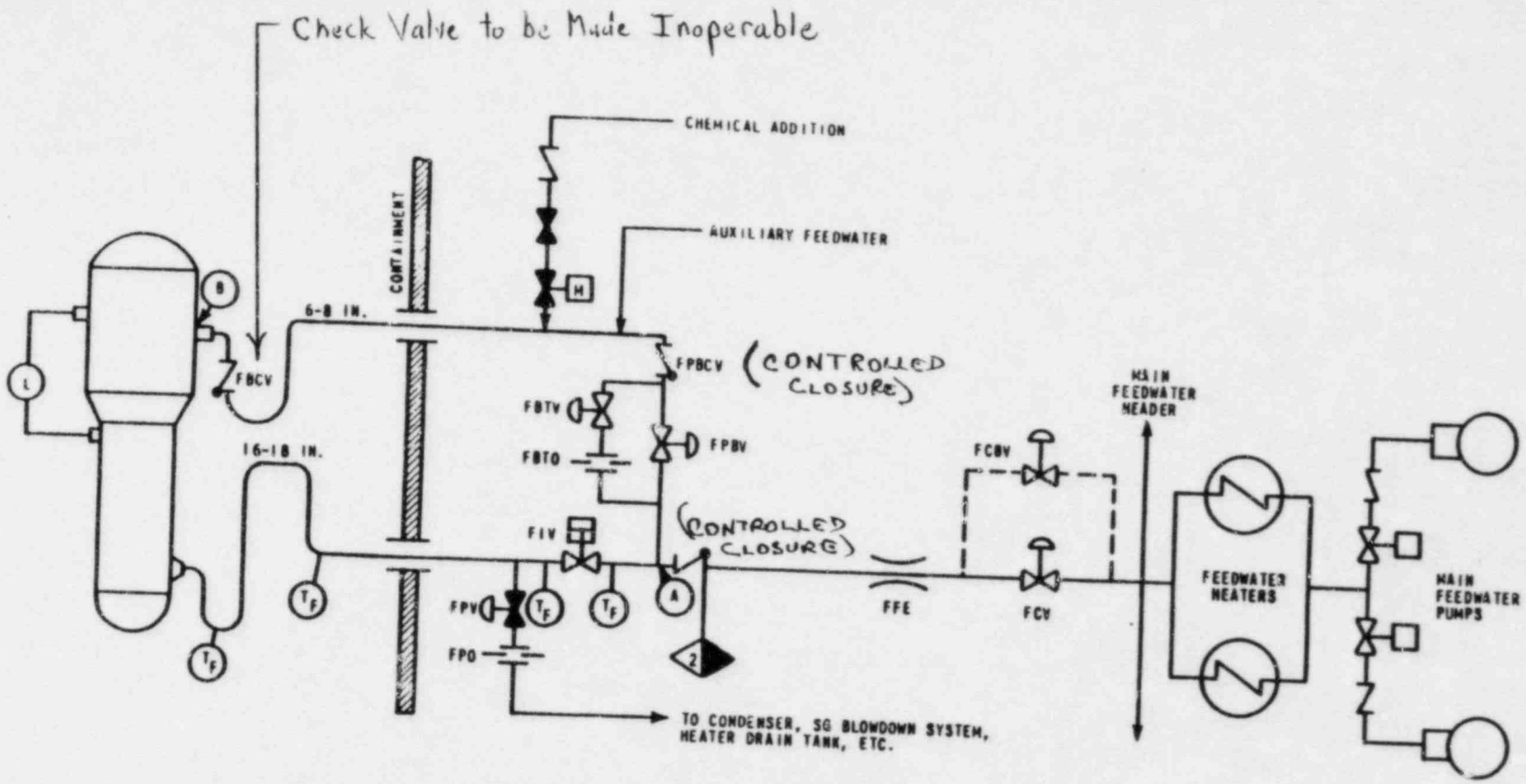
WESTINGHOUSE ELECTRIC CORPORATION

W. E. Kortier, Manager
Commonwealth Edison Projects

MOper/deb

J. D. Deress 2L, 2A

cc: W. C. Cleff 2L, 2A
K. Ainger 1L, 1A



NOTE: 1. PIPING SIZES SHOWN ARE TYPICAL

2. THE ARRANGEMENT SHOWN MAY BE USED WHEN THE PRESSURE DIFFERENTIAL BETWEEN POINTS (A) AND (B) IS SUFFICIENT TO ASSURE THE MINIMUM REQUIRED TEMPERING FLOW TO THE AUXILIARY AUXILIARY NOZZLE

Figure Main Feedwater Bypass Arrangement (Reverse Flushing, Alternate Tempering Arrangement)

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NOTICE OF APPEARANCE

Notice is hereby given that the undersigned attorney herewith enters his appearance on behalf of Applicant, Commonwealth Edison Company, P.O. Box 767, Chicago, Illinois 60690, in the above-captioned proceeding. In accordance with 10 CFR §2.713, the following information is provided:

Name:	Victor G. Copeland
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Telephone Number:	(312) 558-7500
Admissions:	Supreme Court of Illinois for the Northern District of Illinois

Victor G. Copeland

Dated: February 9, 1983

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