



Westinghouse
Electric Corporation

Energy Systems

Nuclear Services Division

PO Box 355
Pittsburgh, Pennsylvania 15230-0355

November 10, 1997

AW-97-1183

Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Attention: Ms. Claudia M. Craig

APPLICATION FOR WITHHOLDING PROPRIETARY
INFORMATION FROM PUBLIC DISCLOSURE

Subject: Westinghouse "Ovation Safety System" Presentation Material, September 1997
(Proprietary)

Dear Ms. Craig:

The application for withholding is submitted by Westinghouse Electric Corporation ("Westinghouse") pursuant to the provisions of paragraph (b)(1) of Section 2.790 of the Commission's regulations. It contains commercial strategic information proprietary to Westinghouse and customarily held in confidence.

The proprietary material for which withholding is being requested is identified in the proprietary version of the subject report. In conformance with 10 CFR Section 2.790, Affidavit AW-97-1183 accompanies this application for withholding, setting forth the basis on which the identified proprietary information may be withheld from public disclosure.

Accordingly, it is respectfully requested that the subject information which is proprietary to Westinghouse be withheld from public disclosure in accordance with 10CFR Section 2.790 of the Commission's regulations.

Correspondence with respect to this application for withholding or the accompanying affidavit should reference AW-97-1183 and should be addressed to the undersigned.

Very truly yours,

Henry A. Sepp, Manager
Regulatory and Licensing Engineering

Enclosure

cc: Kevin Bohrer/NRC (12H5)

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Proprietary Information Notice

Transmitted herewith are proprietary and/or non-proprietary versions of documents furnished to the NRC in connection with requests for generic and/or plant-specific review and approval.

In order to conform to the requirements of 10 CFR 2.790 of the Commission's regulations concerning the protection of proprietary information so submitted to the NRC, the information which is proprietary in the proprietary versions is contained within brackets, and where the proprietary information has been deleted in the non-proprietary versions, only the brackets remain (the information that was contained within the brackets in the proprietary versions having been deleted). The justification for claiming the information so designated as proprietary is indicated in both versions by means of lower case letters (a) through (f) contained within parentheses located as a superscript immediately following the brackets enclosing each item of information being identified as proprietary or in the margin opposite such information. These lower case letters refer to the types of information Westinghouse customarily holds in confidence identified in Sections (4)(ii)(a) through (4)(ii)(f) of the affidavit accompanying this transmittal pursuant to 10 CFR 2.790(b)(1).

Copyright Notice

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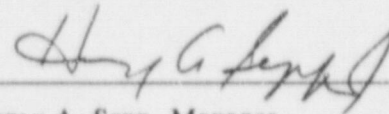
AFFIDAVIT

COMMONWEALTH OF PENNSYLVANIA:

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COUNTY OF ALLEGHENY:

Before me, the undersigned authority, personally appeared Henry A. Sepp, who, being by me duly sworn according to law, deposes and says that he is authorized to execute this Affidavit on behalf of Westinghouse Electric Corporation ("Westinghouse") and that the averments of fact set forth in this Affidavit are true and correct to the best of his knowledge, information, and belief:

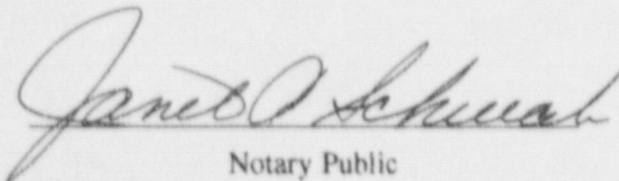
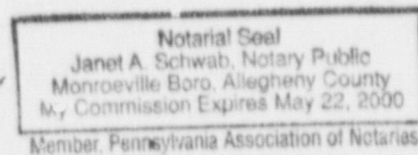


Henry A. Sepp, Manager

Regulatory and Licensing Engineering

Sworn to and subscribed

before me this 10th day
of November, 1997


Notary Public

- (1) I am Manager, Regulatory and Licensing Engineering, in the Nuclear Services Division, of the Westinghouse Electric Corporation and as such, I have been specifically delegated the function of reviewing the proprietary information sought to be withheld from public disclosure in connection with nuclear power plant licensing and rulemaking proceedings, and am authorized to apply for its withholding on behalf of the Westinghouse Energy Systems Business Unit.
- (2) I am making this Affidavit in conformance with the provisions of 10CFR Section 2.790 of the Commission's regulations and in conjunction with the Westinghouse application for withholding accompanying this Affidavit.
- (3) I have personal knowledge of the criteria and procedures utilized by the Westinghouse Energy Systems Business Unit in designating information as a trade secret, privileged or as confidential commercial or financial information.
- (4) Pursuant to the provisions of paragraph (b)(4) of Section 2.790 of the Commission's regulations, the following is furnished for consideration by the Commission in determining whether the information sought to be withheld from public disclosure should be withheld.
 - (i) The information sought to be withheld from public disclosure is owned and has been held in confidence by Westinghouse.
 - (ii) The information is of a type customarily held in confidence by Westinghouse and not customarily disclosed to the public. Westinghouse has a rational basis for determining the types of information customarily held in confidence by it and, in that connection, utilizes a system to determine when and whether to hold certain types of information in confidence. The application of that system and the substance of that system constitutes Westinghouse policy and provides the rational basis required.

Under that system, information is held in confidence if it falls in one or more of several types, the release of which might result in the loss of an existing or potential competitive advantage, as follows:

- (e) The information reveals the distinguishing aspects of a process (or component, structure, tool, method, etc.) where prevention of its use by any of Westinghouse's competitors without license from Westinghouse constitutes a competitive economic advantage over other companies.
- (b) It consists of supporting data, including test data, relative to a process (or component, structure, tool, method, etc.), the application of which data secures a competitive economic advantage, e.g., by optimization or improved marketability.
- (c) Its use by a competitor would reduce his expenditure of resources or improve his competitive position in the design, manufacture, shipment, installation, assurance of quality, or licensing a similar product.
- (d) It reveals cost or price information, production capacities, budget levels, or commercial strategies of Westinghouse, its customers or suppliers.
- (e) It reveals aspects of past, present, or future Westinghouse or customer funded development plans and programs of potential commercial value to Westinghouse.
- (f) It contains patentable ideas, for which patent protection may be desirable.

There are sound policy reasons behind the Westinghouse system which include the following:

- (a) The use of such information by Westinghouse gives Westinghouse a competitive advantage over its competitors. It is, therefore, withheld from disclosure to protect the Westinghouse competitive position.
- (b) It is information which is marketable in many ways. The extent to which such information is available to competitors diminishes the Westinghouse ability to sell products and services involving the use of the information.

- (c) Use by our competitor would put Westinghouse at a competitive disadvantage by reducing his expenditure of resources at our expense.
 - (d) Each component of proprietary information pertinent to a particular competitive advantage is potentially as valuable as the total competitive advantage. If competitors acquire components of proprietary information, any one component may be the key to the entire puzzle, thereby depriving Westinghouse of a competitive advantage.
 - (e) Unrestricted disclosure would jeopardize the position of prominence of Westinghouse in the world market, and thereby give a market advantage to the competition of those countries.
 - (f) The Westinghouse capacity to invest corporate assets in research and development depends upon the success in obtaining and maintaining a competitive advantage.
- (iii) The information is being transmitted to the Commission in confidence and, under the provisions of 10CFR Section 2.79C, it is to be received in confidence by the Commission.
- (iv) The information sought to be protected is not available in public sources or available information has not been previously employed in the same original manner or method to the best of our knowledge and belief.
- (v) The proprietary information sought to be withheld in this submittal is that which is appropriately marked "Ovation Safety System" presentation material, dated September, 1997 (Proprietary), being transmitted by Westinghouse Electric Corporation with Application for Withholding Proprietary Information from Public Disclosure, to the Document Control Desk, Attention Ms. Claudia M. Craig. The proprietary information has been presented to the Nuclear Regulatory Commission and is being voluntarily provided by Westinghouse.

This information is part of that which will enable Westinghouse to:

- (a) Complete the design and licensing of the Ovation Safety System.

Further this information has substantial commercial value as follows:

- (a) Westinghouse plans to sell the use of similar information to its customers for purposes of meeting NRC requirements for licensing documentation.
- (b) Westinghouse can sell support and defense of this information to its customers in the licensing process.

Public disclosure of this proprietary information is likely to cause substantial harm to the competitive position of Westinghouse because it would enhance the ability of competitors to provide similar evaluation services and licensing defense services for commercial power reactors without commensurate expenses. Also, public disclosure of the information would enable others to use the information to meet NRC requirements for licensing documentation without purchasing the right to use the information.

The development of the technology described in part by the information is the result of applying the results of many years of experience in an intensive Westinghouse effort and the expenditure of a considerable sum of money.

In order for competitors of Westinghouse to duplicate this information, similar technical programs would have to be performed and a significant manpower effort, having the requisite talent and experience, would have to be expended for developing the procedures, guidelines and analytical methods.

Further the deponent sayeth not.

OVATION SAFETY SYSTEM

September 30, 1997

Westinghouse Proprietary Class 3

AGENDA

- 1.0 Introduction
- 2.0 Purpose of the Meeting
- 3.0 OVATION Safety System Controller
Architecture
- 4.0 OVATION Schedule
- 5.0 Meeting Summary

PURPOSE OF THE MEETING

- ◆ Present an update of the Westinghouse development program and proposed licensing approach for the qualification of the OVATION Safety System to the NRC staff

Product Schedule

OVATION

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Westinghouse Proprietary Class 3

Licensing Approach

Two Phase NRC Review:

1. OVATION Design and V&V Process
2. OVATION Implementation

Phase 1 will include all OVATION Planning and Requirements Documents

- ◆ OVATION Safety System Specification Documentation
- ◆ OVATION Software Requirements Specification Documentation
- ◆ OVATION Design, Verification and Validation Plan
- ◆ OVATION Safety System Configuration Management Plan

Licensing Approach



Phase 2 is a Plant Specific Implementation Review

- ◆ OVATION System Application Requirements Documentation
- ◆ OVATION Operation and Maintenance Documentation

Proposed Architectures for Safety Ovation

Three possible architectures for a Safety Ovation system are illustrated. One is identified as "Typical Safety System Upgrade Architecture", one as "New Plant Safety System Architecture", and the third as "Alternative Safety System Upgrade Architecture".

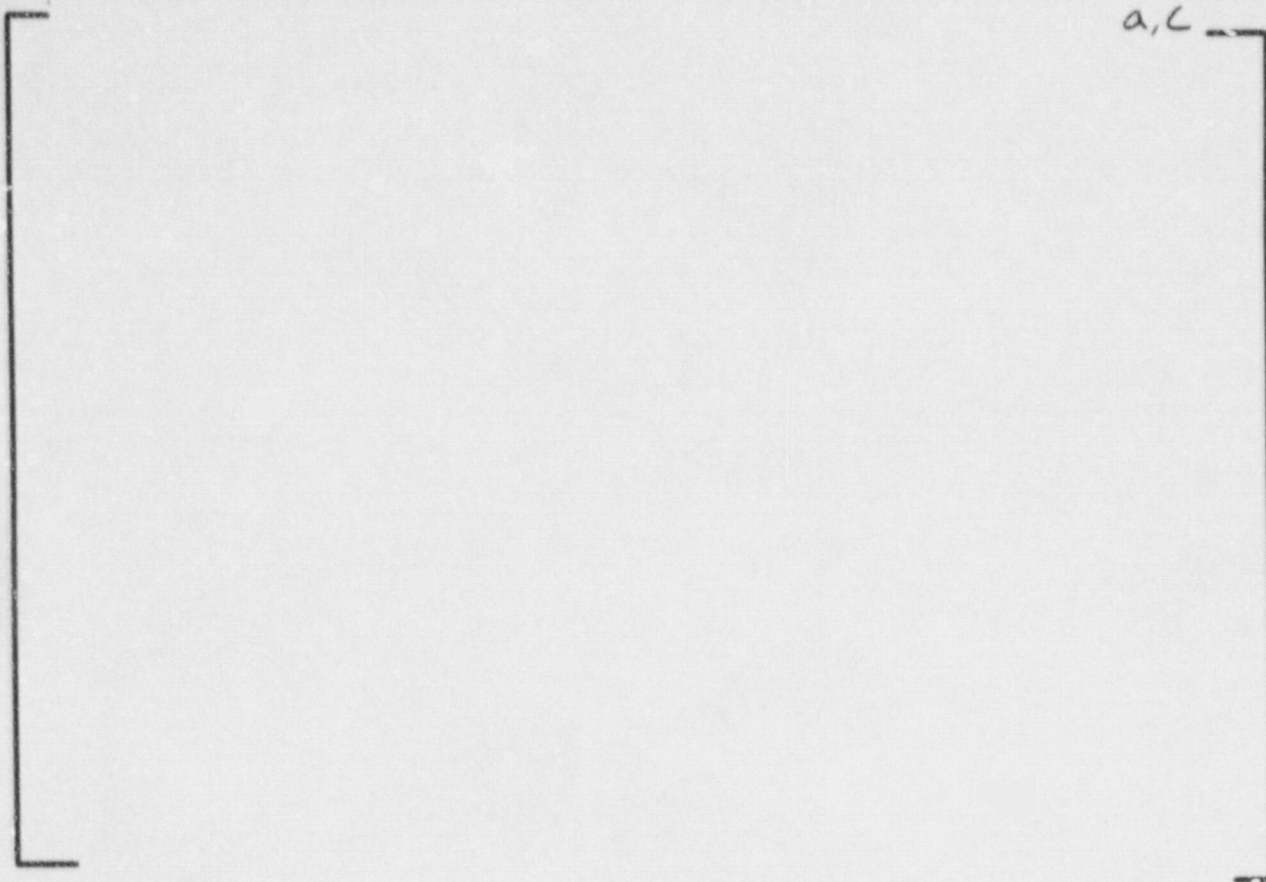
Typical Safety System Upgrade Architecture

The "Typical Safety System Upgrade Architecture" is modeled upon the architecture of older safety systems that use the Solid State Protection System (SSPS).

At the top of this architecture are four independent Process Protection channels. These contain the system's analog inputs. Along with the Nuclear Instrumentation System (NIS) channels, they perform process calculations and compute the individual stable comparator states that are used to generate reactor trip requests and Engineered Safeguards Feature (ESF) actuation requests.

Below this are two channels/trains of Reactor Trip and ESF Actuation Logic. These receive the outputs of the four Process Protection channels (shown), the four NIS channels, and control board switch signals [] They perform two-out-of-four voting logic and other system level logic calculations to generate Reactor Trip and ESF Actuation requests.





New Plant Safety System Architecture

The second architecture illustrated is the "New Plant Safety System Architecture". This architecture more closely follows the IPS/Sizewell architecture.



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An alternative upgrade architecture

The third and fourth figures show an alternative to the "Typical Safety System Upgrade Architecture". This architecture provides some advantages over the traditional SSPS architecture with regard to the extent to which single failures can affect the safety functions, especially during testing. It also provides greater flexibility in allowing ESF testing to occur without removing an entire train of ESF from service for the duration of the test regimen.

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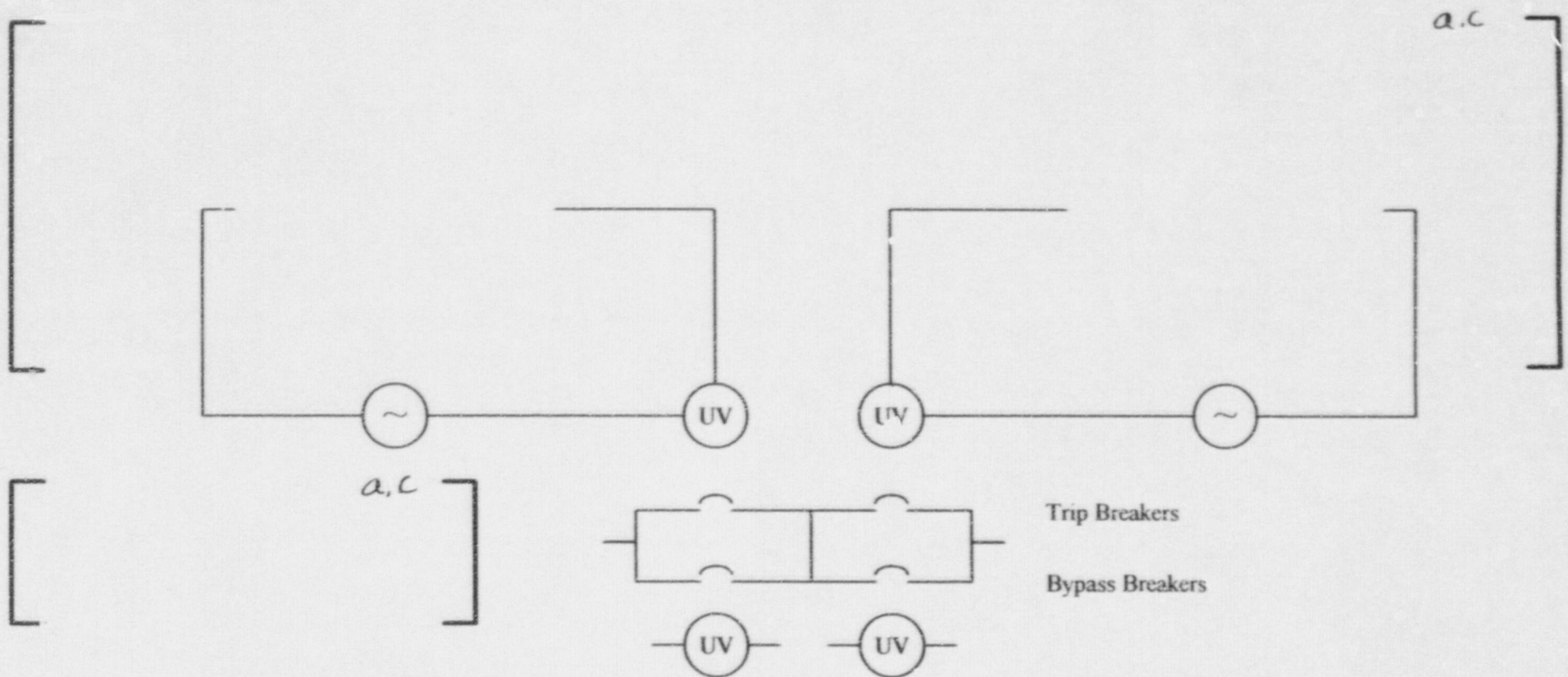
Typical Safety System Upgrade Architecture

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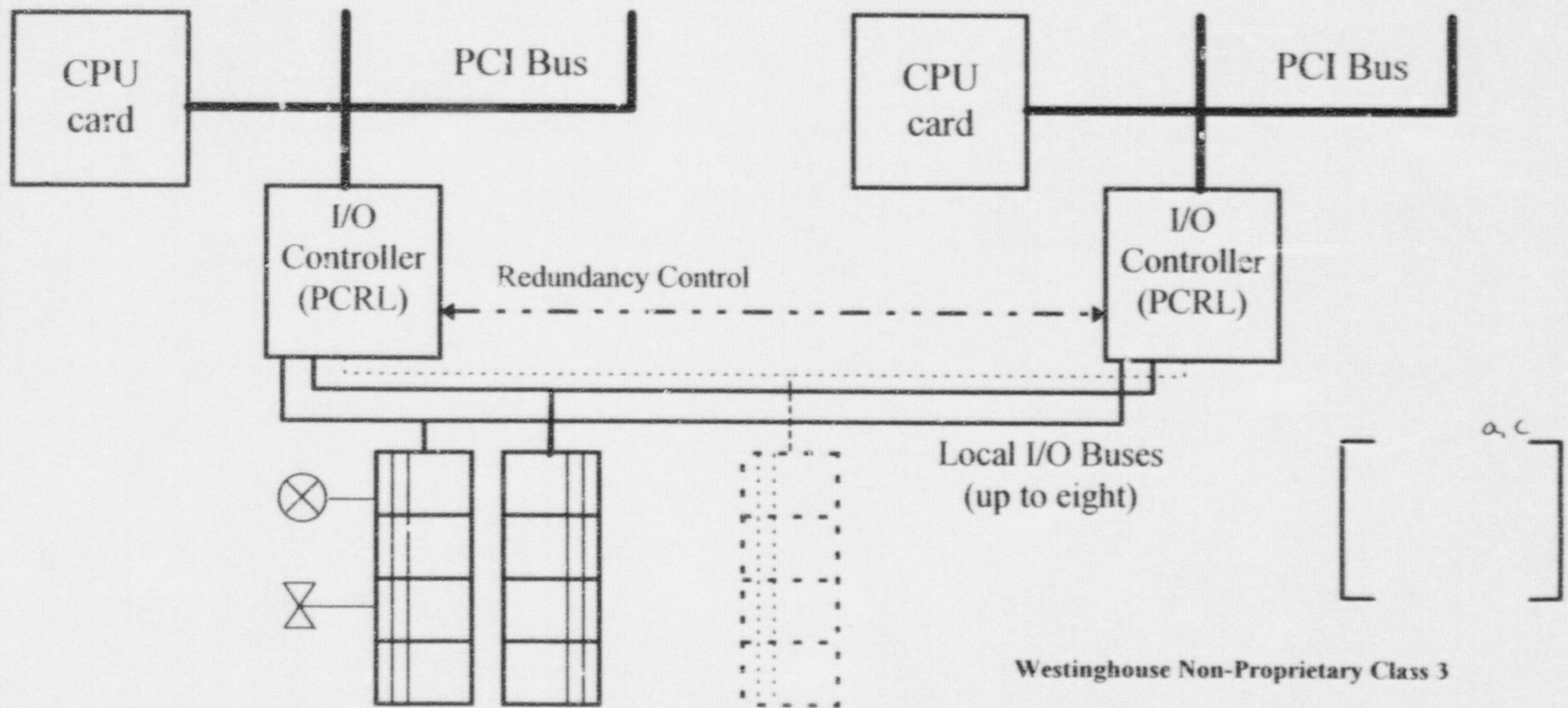
New Plant Architecture

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Alternative Safety System Upgrade Architecture



Reactor Trip Logic Contact Output Circuits for Alternative Upgrade Architecture



Westinghouse Non-Proprietary Class 3

Ovation Safety Controller – Redundant Controller Architecture

