



**Pacific Gas and  
Electric Company®**

Attachments 2-6 to the Enclosure contain Proprietary Information - Withhold Under 10 CFR 2.390

**Barry S. Allen**  
Site Vice President

Diablo Canyon Power Plant  
Mail Code 104/6  
P. O. Box 56  
Avila Beach, CA 93424

805.545.4888  
Internal: 691.4888  
Fax: 805.545.6445

September 17, 2013

PG&E Letter DCL-13-087

U.S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, DC 20555-0001

10 CFR 50.90

Docket No. 50-275, OL-DPR-80  
Docket No. 50-323, OL-DPR-82  
Diablo Canyon Units 1 and 2

Submittal of CS Innovations Documents for the License Amendment Request for  
Digital Process Protection System Replacement

- References:
1. PG&E Letter DCL-11-104, "License Amendment Request 11-07, Process Protection System Replacement," dated October 26, 2011 (ADAMS Accession No. ML11307A331)
  2. Digital Instrumentation and Controls Digital I&C-ISG-06, "Task Working Group #6: Licensing Process, Interim Staff Guidance," Revision 1, January 19, 2011 (ADAMS Accession No. ML110140103)
  3. NRC Letter, "Diablo Canyon Power Plant, Unit Nos. 1 and 2 - Acceptance Review of License Amendment Request for Digital Process Protection System Replacement (TAC Nos. ME7522 and ME7523)," dated January 13, 2012
  4. CS Innovations Letter "Submittal of Advanced Logic System Documents (Proprietary)," dated September 28, 2011 (ADAMS Accession No. ML11277A153)
  5. Westinghouse Letter Number LTR-NRC-11-50, "Submittal of WNA-DS-02442-PGE, Rev. 2, 'Diablo Canyon Units 1 & 2 Process Protection System Replacement Project, Advanced Logic System (ALS) System Requirements Specification (Proprietary),' dated September 27, 2011 (ADAMS Accession No. ML11279A160)
  6. NRC Letter, "Summary Of March 27, 2013, Teleconference Public [Meeting] With Pacific Gas And Electric Company On Digital Replacement Of The Process Protection System Portion Of The Reactor Trip System And Engineered Safety Features Actuation System At Diablo Canyon Power Plant, Unit Nos. 1 and 2 (TAC NOS. ME7522 AND ME7523)," dated June 4, 2013 (ADAMS Accession No. ML13149A068)

Attachments 2-6 to the Enclosure contain Proprietary Information  
When separated from Attachments 2-6 to the Enclosure, this document is decontrolled.



Document Control Desk  
September 17, 2013  
Page 2

PG&E Letter DCL-13-087

7. PG&E Letter DCL-12-050, "Submittal of Phase 2 Documents for the License Amendment Request for Digital Process Protection System Replacement," dated June 6, 2012 (ADAMS Accession No. ML12170A837)

Dear Commissioners and Staff:

In Reference 1, Pacific Gas and Electric (PG&E) submitted License Amendment Request (LAR) 11-07 to request NRC approval to replace the Diablo Canyon Power Plant Eagle 21 digital process protection system (PPS) with a new digital PPS that is based on the Invensys Operations Management Tricon Programmable Logic Controller, Version 10, and the CS Innovations, LLC (CSI) (a Westinghouse Electric Company LLC company), Advanced Logic System (ALS). The LAR format and contents in Reference 1 are consistent with the guidance provided in Enclosure E and Section C.3, respectively, of Digital Instrumentation and Controls (I&C) Revision 1 of Interim Staff Guidance Digital I&C-ISG-06, "Licensing Process," (ISG-06) (Reference 2). In Reference 3, the NRC Staff (Staff) documented its acceptance of Reference 1 for review.

The CSI document, "6116-00011, Revision 0, Diablo Canyon Units 1 & 2 Process Protection System ALS System Design Specification," has been revised to Revision 1. The CSI document, "6116-00011, Revision 1, Diablo Canyon Units 1 & 2 Process Protection System ALS System Design Specification," is contained in Attachment 2 to the Enclosure of this letter and supersedes 6116-00011, Revision 0, that was submitted in Reference 4, and supersedes Westinghouse document, "WNA-DS-02442-PGE, Revision 2, Diablo Canyon Units 1 and 2 Process Protection System Replacement Project, Advanced Logic System (ALS) System Requirements Specification (SRS)," that was submitted by Westinghouse in Reference 5.

Enclosure 2 of Reference 6 contains Staff Open Item numbers 88 and 91 related to the review of Reference 1. In Open Item number 88, the Staff requested information that is contained in the CSI document, "6116-10201, Revision 1, Diablo Canyon Units 1 & 2 Process Protection System ALS-102 FPGA Requirements Specification." The CSI document 6116-10201, Revision 1, is contained in Attachment 3 to the Enclosure.

In Open Item number 91 contained in Enclosure 2 of Reference 6, the Staff requested that the CSI documents, "6116-10203, Diablo Canyon PPS ALS-102 Core A FPGA Design Specification," and "6116-10204, Diablo Canyon PPS ALS-102 Core B FPGA Design Specification," be submitted. CSI documents, "6116-10203, Revision 0, Diablo Canyon PPS ALS-102 Core A FPGA Design Specification," and "6116-10204, Revision 0, Diablo Canyon PPS ALS-102 Core B FPGA Design Specification" are contained in Attachments 4 and 5 of the Enclosure, respectively.

Attachments 2-6 to the Enclosure contain Proprietary Information  
When separated from Attachments 2-6 to the Enclosure, this document is decontrolled.





Document Control Desk  
September 17, 2013  
Page 3

PG&E Letter DCL-13-087

The CSI system test plan document, "6116-00005, Revision 1, Diablo Canyon Plant Protection System Test Plan," has been revised to Revision 2 to incorporate new test requirements and is contained in Attachment 6 of the Enclosure. CSI document 6116-00005, Revision 2, supersedes CSI document 6116-00005, Revision 1, which was submitted in Attachment 14 to the Enclosure of Reference 7.

This letter contains documents in Attachments 2 through 6 to the Enclosure with information proprietary to Westinghouse Electric Company LLC. Accordingly, Attachment 1 to the Enclosure includes a Westinghouse application for withholding proprietary information letter CAW-13-3793, an accompanying affidavit, a Proprietary Information Notice, and a Copyright Notice. The affidavit is signed by Westinghouse Electric Company LLC, the owner of the information. The affidavit sets forth the basis on which the Westinghouse proprietary information contained in Attachments 2 through 6 to the Enclosure may be withheld from public disclosure by the NRC, and it addresses with specificity the considerations listed in paragraph (b)(4) of 10 CFR 2.390 of the NRC's regulations. PG&E requests that the Westinghouse proprietary information be withheld from public disclosure in accordance with 10 CFR 2.390. Correspondence with respect to the Westinghouse affidavit, copyright, or proprietary aspects of the application for withholding related to the Westinghouse proprietary information provided in Attachments 2 through 6 of the Enclosure should reference Westinghouse letter CAW-13-3793 and be addressed to James A. Gresham, Manager, Regulatory Compliance, Westinghouse Electric Company, Suite 310, 1000 Westinghouse Drive, Cranberry Township, Pennsylvania 16066.

If you have any questions, or require additional information, please contact Tom Baldwin at (805) 545-4720.

This information does not affect the results of the technical evaluation or the significant hazards consideration determination previously transmitted in Reference 1.

This communication does not contain regulatory commitments (as defined by NEI 99-04).

Attachments 2-6 to the Enclosure contain Proprietary Information  
When separated from Attachments 2-6 to the Enclosure, this document is decontrolled.



Document Control Desk  
September 17, 2013  
Page 4

PG&E Letter DCL-13-087

I state under penalty of perjury that the foregoing is true and correct.

Executed on September 17, 2013.

Sincerely,

A handwritten signature in blue ink that reads 'Barry S. Allen'.

Barry S. Allen  
*Site Vice President*

kjse/4328 SAPN 50271918

Enclosure

cc: Diablo Distribution

cc/enc: Thomas R. Hipschman, NRC Senior Resident Inspector  
Gonzalo L. Perez, Branch Chief, California Department of Public Health  
Jennivine K. Rankin, NRR Project Manager  
Steven A. Reynolds, Acting NRC Region IV

Attachments 2-6 to the Enclosure contain Proprietary Information  
When separated from Attachments 2-6 to the Enclosure, this document is decontrolled.

Enclosure  
PG&E Letter DCL-13-087

**Submittal of CS Innovations Documents for the  
License Amendment Request for  
Digital Process Protection System Replacement**

In Pacific Gas and Electric (PG&E) Letter DCL-11-104, "License Amendment Request 11-07, Process Protection System Replacement," dated October 26, 2011, PG&E submitted License Amendment Request (LAR) 11-07 to request NRC approval to replace the Diablo Canyon Power Plant (DCPP) Eagle 21 digital process protection system (PPS) with a new digital PPS that is based on the Invensys Operations Management Tricon Programmable Logic Controller, Version 10, and the CS Innovations, LLC (CSI) (a Westinghouse Electric Company), Field Programmable Gate Array based Advanced Logic System (ALS). The LAR 11-07 format and contents are consistent with the guidance provided in Enclosure E and Section C.3, respectively, of Digital Instrumentation and Controls (I&C), Revision 1 of Interim Staff Guidance Digital I&C-ISG-06, "Licensing Process," (ISG-06).

The NRC Staff (Staff) documented its acceptance of LAR 11-07 for review in the NRC Letter, "Diablo Canyon Power Plant, Unit Nos. 1 and 2 - Acceptance Review of License Amendment Request for Digital Process Protection System Replacement (TAC Nos. ME7522 and ME7523)," dated January 13, 2012.

The CSI document, "6116-00011, Revision 0, Diablo Canyon Units 1 & 2 Process Protection System ALS System Design Specification," has been revised to Revision 1. The revision aligns the ALS system design specification (SDS) with the DCPP Units 1 and 2 Process Protection System Replacement Functional Requirements Specification, Revision 8, and the DCPP Units 1 and 2 Process Protection System Replacement Interface Requirements Specification, Revision 8, and incorporates the contents of the previous CSI document, "WNA-DS-02442-PGE, Diablo Canyon Units 1 and 2 Process Protection System Replacement Project, Advanced Logic System (ALS) System Requirements Specification (SRS)." The SDS, Revision 1, contains the detailed functional logic diagrams and symbol table and is contained in Attachment 2 to the Enclosure of this letter.

The NRC Letter, "Summary Of March 27, 2013, Teleconference Public [Meeting] With Pacific Gas And Electric Company On Digital Replacement Of The Process Protection System Portion Of The Reactor Trip System And Engineered Safety Features Actuation System At Diablo Canyon Power Plant, Unit Nos. 1 and 2 (TAC NOS. ME7522 AND ME7523)," dated June 4, 2013, contains in Enclosure 2 Open Item numbers 88 and 91. In Open Item number 88, the Staff requested application specific information that is contained in the CSI document, "6116-10201, Revision 1, Diablo Canyon Units 1 & 2 Process Protection System ALS-102 FPGA Requirements Specification." The CSI document 6116-10201, Revision 1, contains



Enclosure  
PG&E Letter DCL-13-087

application specific ALS-102 board information, including sequencer definition, and is contained in Attachment 3 to the Enclosure.

In Open Item number 91 contained in Enclosure 2 of the June 4, 2013, NRC letter, the Staff requested that the CSI documents, "6116-10203, Diablo Canyon PPS ALS-102 Core A FPGA Design Specification," and "6116-10204, Diablo Canyon PPS ALS-102 Core B FPGA Design Specification," be submitted. CSI documents, "6116-10203, Revision 0, Diablo Canyon PPS ALS-102 Core A FPGA Design Specification," and "6116-10204, Revision 0, Diablo Canyon PPS ALS-102 Core B FPGA Design Specification," are contained in Attachments 4 and 5 of the Enclosure, respectively.

The CSI system test plan document, "6116-00005, Revision 1, Diablo Canyon Plant Protection System Test Plan," has been revised to Revision 2 to incorporate new test requirements and is contained in Attachment 6 of the Enclosure.

#### ATTACHMENTS

1. Westinghouse Letter, CAW-13-3793
2. CS Innovations Document, "6116-00011, Revision 1, Diablo Canyon Units 1 & 2 Process Protection System ALS System Design Specification" (Proprietary)
3. CS Innovations Document, "6116-10201, Revision 1, Diablo Canyon Units 1 & 2 Process Protection System ALS-102 FPGA Requirements Specification" (Proprietary)
4. CS Innovations Document, "6116-10203, Revision 0, Diablo Canyon PPS ALS-102 Core A FPGA Design Specification" (Proprietary)
5. CS Innovations Document, "6116-10204, Revision 0, Diablo Canyon PPS ALS-102 Core B FPGA Design Specification" (Proprietary)
6. CS Innovations Document, "6116-00005, Revision 2, Diablo Canyon Plant Protection System Test Plan" (Proprietary)

Attachments 2-6 to the Enclosure contain Proprietary Information - Withhold Under 10 CFR 2.390

Enclosure  
Attachment 1  
PG&E Letter DCL-13-087

**Westinghouse Authorization Letter, CAW-13-3793**



Westinghouse Electric Company  
Engineering, Equipment and Major Projects  
1000 Westinghouse Drive  
Cranberry Township, Pennsylvania 16066  
USA

U.S. Nuclear Regulatory Commission  
Document Control Desk  
11555 Rockville Pike  
Rockville, MD 20852

Direct tel: (412) 374-4643  
Direct fax: (724) 720-0754  
e-mail: greshaja@westinghouse.com  
Proj letter: PGE-13-111

CAW-13-3793

August 22, 2013

APPLICATION FOR WITHHOLDING PROPRIETARY  
INFORMATION FROM PUBLIC DISCLOSURE

Subject: 6116-00011, Revision 1, "Diablo Canyon Units 1 and 2 Process Protection System ALS System Design Specification" (Proprietary)  
6116-10201, Revision 1, "Diablo Canyon Units 1 and 2 Process Protection System ALS-102 FPGA Requirements Specification" (Proprietary)  
6116-10203, Revision 0, "Diablo Canyon PPS ALS-102 Core A FPGA Design Specification" (Proprietary)  
6116-10204, Revision 0, "Diablo Canyon PPS ALS-102 Core B FPGA Design Specification" (Proprietary)  
6116-00005, Revision 2, "Diablo Canyon Plant Protection System Test Plan" (Proprietary)

The proprietary information for which withholding is being requested in the above-referenced reports is further identified in Affidavit CAW-13-3793 signed by the owner of the proprietary information, Westinghouse Electric Company LLC. The Affidavit, which accompanies this letter, sets forth the basis on which the information may be withheld from public disclosure by the Commission and addresses with specificity the considerations listed in paragraph (b)(4) of 10 CFR Section 2.390 of the Commission's regulations.

The subject documents were prepared and classified as Westinghouse Proprietary Class 2. Westinghouse requests that the documents be considered proprietary in their entirety. As such, non-proprietary versions will not be issued.

Accordingly, this letter authorizes the utilization of the accompanying Affidavit by Pacific Gas & Electric.

Correspondence with respect to the proprietary aspects of the application for withholding or the Westinghouse Affidavit should reference CAW-13-3793, and should be addressed to James A. Gresham, Manager, Regulatory Compliance, Westinghouse Electric Company, Suite 310, 1000 Westinghouse Drive, Cranberry Township, Pennsylvania 16066.

Very truly yours,

A handwritten signature in black ink, appearing to read 'James A. Gresham'.

James A. Gresham, Manager  
Regulatory Compliance

Enclosures



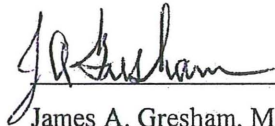
AFFIDAVIT

COMMONWEALTH OF PENNSYLVANIA:

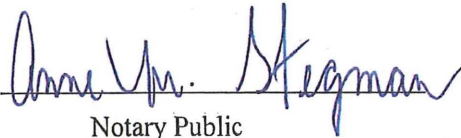
SS

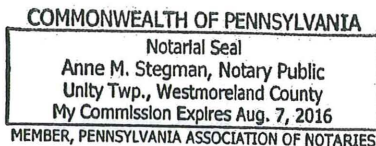
COUNTY OF BUTLER:

Before me, the undersigned authority, personally appeared James A. Gresham, 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 Company LLC (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:

  
James A. Gresham, Manager  
Regulatory Compliance

Sworn to and subscribed before me  
this 22nd day of August 2013

  
Notary Public



- (1) I am Manager, Regulatory Compliance, in Engineering, Equipment and Major Projects, Westinghouse Electric Company LLC (Westinghouse), 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 rule making proceedings, and am authorized to apply for its withholding on behalf of Westinghouse.
- (2) I am making this Affidavit in conformance with the provisions of 10 CFR Section 2.390 of the Commission's regulations and in conjunction with the Westinghouse Application for Withholding Proprietary Information from Public Disclosure accompanying this Affidavit.
- (3) I have personal knowledge of the criteria and procedures utilized by Westinghouse 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 2.390 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:

    - (a) 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.
- (iii) 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 that 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.
- (iv) The information is being transmitted to the Commission in confidence and, under the provisions of 10 CFR Section 2.390, it is to be received in confidence by the Commission.
- (v) 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.
- (vi) The proprietary information sought to be withheld in this submittal is that which is appropriately marked in 6116-00011, Revision 1, "Diablo Canyon Units 1 and 2 Process Protection System ALS System Design Specification" (Proprietary); 6116-10201, Revision 1, "Diablo Canyon Units 1 and 2 Process Protection System ALS-102 FPGA Requirements Specification" (Proprietary); 6116-10203, Revision 0, "Diablo Canyon PPS ALS-102 Core A FPGA Design Specification" (Proprietary); 6116-10204, Revision 0, "Diablo Canyon PPS ALS-102 Core B FPGA Design Specification" (Proprietary); and 6116-00005, Revision 2, "Diablo Canyon Plant Protection System Test Plan" (Proprietary), for submittal to the Commission, being transmitted by Pacific Gas & Electric letter and Application for Withholding Proprietary Information from Public Disclosure, to the Document Control Desk. The proprietary information as submitted by

Westinghouse is that associated with the Diablo Canyon Process Protection System Upgrade, and may be used only for that purpose.

- (a) This information is part of that which will enable Westinghouse to:
  - (i) Assist the customer in obtaining NRC review of their License Amendment Request.

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 technical evaluation justifications 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.

Further the deponent sayeth not.

### **PROPRIETARY INFORMATION NOTICE**

Transmitted herewith are the proprietary versions of documents furnished to the NRC in connection with the review of Diablo Canyon's License Amendment Request. The documents are to be considered proprietary in their entirety.

### **COPYRIGHT NOTICE**

The reports transmitted herewith each bear a Westinghouse copyright notice. The NRC is permitted to make the number of copies of the information contained in these reports which are necessary for its internal use in connection with generic and plant-specific reviews and approvals as well as the issuance, denial, amendment, transfer, renewal, modification, suspension, revocation, or violation of a license, permit, order, or regulation subject to the requirements of 10 CFR 2.390 regarding restrictions on public disclosure to the extent such information has been identified as proprietary by Westinghouse, copyright protection notwithstanding. With respect to the non-proprietary versions of these reports, the NRC is permitted to make the number of copies beyond those necessary for its internal use which are necessary in order to have one copy available for public viewing in the appropriate docket files in the public document room in Washington, DC and in local public document rooms as may be required by NRC regulations if the number of copies submitted is insufficient for this purpose. Copies made by the NRC must include the copyright notice in all instances and the proprietary notice if the original was identified as proprietary.