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May 15<sup>th</sup>, 2009

United States Nuclear Regulatory Commission  
11555 Rockville Pike,  
Rockville, Maryland 20852

Attention: Document Control Desk

Subject: SUPPORTING DOCUMENTS FOR HF CONTROLS CORPORATION  
TOPICAL REPORT, PP901-000-01, REVISION C, "HFC-6000 SAFETY  
SYSTEM" (TAC MD8462)

Reference: HFC-6000 Safety Control System

To Whom It May Concern:

HF Controls has provided supporting documents for NRC to review the topical report, PP901-000-01, revision C. Since the submittal of the supporting documents in March 2008, some of these documents have been revised. Reasons for revising the documents include misspells, formatting errors and clarifications requested by end users. The overall functionality of HFC-6000 safety control system has not been changed nor have the programmatic processes with which it was developed. Enclosed documents are the documents which have been revised. The following table shows the list of the documents.

Document Number	Name	Revision
MS901-000-01	SBC06 Module Design Specification	E
MS901-000-02	IO Board Module Design Specification	C
DS901-000-01	SBC06 DPM06, Module Detailed Design Specification	D
DS901-000-03	DO8J Module Detailed Design Specification	B
DS901-000-05	DC33 Detailed Design Specification	D
DS901-000-06	DC33 Detailed Design Specification	D
DS901-000-07	AI16F Detailed Design Specification	D
DS901-000-08	AO8F Detailed Design Specification	D
DS901-000-12	AI4K Detailed Design Specification	B
QPP 2.1	Quality Plans	E
QPP 2.6	Qualification of Test Personnel	D
WI-ENG-830	Source Code Review	B

Both proprietary and non-proprietary versions of these documents are enclosed.

T007  
NRR

Please let me know for any additional information needed for the review.

Sincerely,

A handwritten signature in black ink that reads "Ivan Chow". The signature is written in a cursive, slightly slanted style.

Ivan Chow  
V&V Team, Manager

Enclosures:

- 1- The latest revisions of supporting documents for the review in two versions:  
Proprietary and Non-Proprietary
- 2- Affidavit
- 3- Non-Proprietary Justification
- 4- Proprietary Information Notice
- 5- A CD of the submitted documents in PDF format for reference

CC: Eric Bowman, NRC  
Project Directorate IV-1  
Mail Stop 07D1

A. Hsu, E. Herchenrader, T. Gerardis, HF Controls

AFFIDAVIT

STATE OF TEXAS

COUNTY OF DALLAS

Before me, the undersigned authority, personally appeared Ivan Chow, who, being by me duly sworn according to law, deposes and says that he is authorized to execute this Affidavit on behalf of Doosan-HF Controls Corporation (HFC) and the averments of fact set forth in this Affidavit are true and correct to the best of his knowledge, information and belief:

*Ivan Chow*

Sworn to and subscribed

Before me this 14<sup>th</sup> day  
of May, 2009



*Joyce Deuga*

Notary Public

- (1) I am Ivan Chow, V&V Team Manager of Doosan HF Controls (HFC) 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 Doosan-HFC Corporation.
- (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 Doosan HFC application for withholding accompanying this affidavit.
- (3) I have personal knowledge of the criteria and procedures utilized by Doosan HFC in designating information as 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.
  - (a) The information sought to be withheld from public disclosure is owned and has been held in confidence by Doosan HFC Corporation.
  - (b) The information is of a type customarily held in confidence by Doosan HFC and not customarily disclosed to the public. Doosan HFC has a rational basis for determining the types of information customarily held in confidence by it and, in that connection, uses a uniform method to determine when and whether to hold certain types of information in confidence. The application of our method and the substance of constitute Doosan HFC's policy and provide the rational basis required.

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

- ❖ Its use by a competitor would reduce his expenditure of resources and improve his competitive position in the design, manufacture, installation, assurance of quality, or licensing a digital based I&C system.
- ❖ It reveals cost or price information, production capacities, budget levels, or commercial strategies of Doosan HFC, its customers or suppliers.

- ❖ It reveals aspects of past, present or future Doosan HFC or customer funded development plans and programs of potential commercial value to Doosan HFC.
- ❖ It contains patentable ideas, for which patent protection may be desirable.

For this affidavit, all of the information marked proprietary is because its use by a competitor would reduce his expenditure of resources and improve his competitive position in the design, manufacture, installation, assurance of quality, or licensing a digital based I&C system (type one above). This leads to a Doosan HFC need to restrict certain commercial information from the public to prevent its use by competitors and creating a commercial advantage for them to the detriment of Doosan HFC.

The development of the HFC-6000 system design is the result of many years of development by uniquely experienced personnel in an intensive effort along with the expenditure of a considerable sum of money. In order for competitors to duplicate the Doosan HFC design and applicable 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 the development of a digital design to equal the HFC-6000 system design.

There are sound Doosan HFC policy reasons behind the Doosan HFC proprietary designation system which include the following:

- a) The Use of such information by Doosan HFC gives Doosan HFC a competitive advantage over its competitors. It is therefore, withheld from disclosure to protect the Doosan HFC competitive position.
- b) It is information which is marketable in many ways. The extent to which such information is available to competitors diminishes the Doosan HFC ability to sell products involving the use of the information.
- c) Use by our competitors would put Doosan HFC at a competitive disadvantage by reducing their expenditure or resources at Doosan HFC 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 Doosan HFC of a competitive advantage.
- e) Unrestricted disclosure would jeopardize the position of Doosan HFC in the world market such as South Korea, and thereby give a market advantage to the competition in those countries.

- (5) The information is being transmitted to the Commission in confidence and, under the provisions of 10 CFR 2.390, it is to be received in confidence by the Commission.
- (6) Available information has not been previously employed in the same original. The information sought to be protected is not available in public sources or manner or method to the best of our knowledge and belief.
- (7) The proprietary information sought to be withheld in the submittal is that which is appropriately marked by brackets and deletion in the following HFC non-proprietary documents:

Document Number	Name	Revision
MS901-000-01	SBC06 Module Design Specification	E
MS901-000-02	IO Board Module Design Specification	C
DS901-000-01	SBC06 DPM06, Module Detailed Design Specification	D
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DS901-000-12	AI4K Detailed Design Specification	B
QPP 2.1	Quality Plans	E
QPP 2.6	Qualification of Test Personnel	D
WI-ENG-830	Source Code Review	B

### Proprietary Information Notice

In May 2009, HFC transmitted the following documents in both proprietary and non-proprietary formats:

Document Number	Name	Revision
MS901-000-01	SBC06 Module Design Specification	E
MS901-000-02	IO Board Module Design Specification	C
DS901-000-01	SBC06 DPM06, Module Detailed Design Specification	D
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In order to conform to the requirements of 10 CFR 2.390 of the Commission's regulations concerning the protection of proprietary information so submitted to the NRC, the proprietary version is labeled with the word "Proprietary" on the page of the proprietary information and in the Non-Proprietary version, the proprietary information has been bracketed and deleted such that only Non-Proprietary information remains. Since the Proprietary information contains only one type of proprietary information which is confidential commercial whose use by a competitor would improve his commercial position to the detriment of Doosan HFC corporation; adjacent marking for each deletion would be redundant and an unnecessary burden. The proprietary marking on the corresponding page is adequate and is compliant with Section 2.390.