## PROPRIETARY-



Entergy Operations, Inc. 7003 Bald Hill Road P.O. Box 756 Port Gibson, MS 39150

Michael A. Krupa Director Nuclear Safety Assurance

Tel 601 437 6694

GNRO-2008/00065

December 22, 2008

Director, Spent Fuel Project Office Office of Nuclear Material Safety and Safeguards U.S. Nuclear Regulatory Commission Washington, D.C. 20555-0001

Attention:

**Document Control Desk** 

Subject:

Exemption Request for Holtec HI-STORM 100 System

Grand Gulf Nuclear Station, Unit 1

Docket No. 50-416 License No. NPF-29

Reference:

Special Report 2008-001 Violation of Certificate of Compliance 1014 Cask Load Limits for HI-STORM 100 System (GNRO 2008/00052) dated

July 17, 2008

#### Dear Sir or Madam:

Pursuant to 10CFR72.7, Entergy requests a one-time exemption from the requirements of 10CFR72.212 (a)(2) and (b)(7) for HI-STORM 100 System Model 68 Multi-Purpose Canisters (MPC) with serial numbers 045, 069, 214, and 215 due to non-compliance with the terms and conditions of the Holtec International Certificate of Compliance (CoC) Amendment 2 (Certificate #1014) at the time of cask loading. The regulations require, in part, compliance to the terms and conditions of the CoC #1014. Contrary to this requirement, the four MPCs were not loaded in compliance with CoC #1014 due to a CASKLOADER database error. In accordance with the requirements of the CoC #1014 for the HI-STORM 100 System, high burnup and high decay heat fuel assemblies are not authorized for loading into MPCs. Additionally, MPCs containing fuel assemblies with burnup greater than 45,000 MWD/MTU are required to be placed on supplemental cooling within four hours of being placed in the transfer cask.

On June 18, 2008, Grand Gulf Nuclear Station (GGNS) was notified that, due to data errors in the CASKLOADER database, several fuel assemblies with higher than previously calculated burnup values had been loaded into MPCs with serial numbers 045, 069, 214, and 215. Using corrected burnup values, GGNS determined that all four MPCs were not placed on supplemental cooling as required per CoC #1014 Appendix A, Technical Specifications for the HI-STORM 100 Cask System, Section 3.1.4, Supplemental Cooling System. In addition MPC 045 was not loaded in compliance with

N.M5501

CoC #1014 Appendix B, Section 2.1, Fuel Specifications and Loading Conditions. Upon notification, the actions required by CoC #1014 Appendix B, Section 2.0 of the Holtec CoC, Fuel Specifications and Loading Conditions, were initiated by GGNS. The affected fuel assemblies were verified to be in a safe condition; the NRC Operations Center was notified of the event within 24 hours; and, a Special Report (GNRO 2008-00052) was transmitted to the NRC on July 17, 2008. An assessment of the effect of high burnup fuel assemblies stored in the HI-STORM 100 system was performed. Based on this assessment, loading high burnup fuel assemblies in the subject MPCs resulted in no impact to safety and all functions of the MPCs are maintained. This assessment did not consider the requirements for the MPCs to be transported offsite. As discussed in the aforementioned Special Report, additional reviews will be performed prior to considering these MPCs for transportation.

There are no commitments contained in this submittal.

Details of Entergy's need and justification for the issuance of an exemption are included in Attachment 1.

Attachment 2 contains Holtec Report Number: HI-2053369, Thermal Evaluation of the As-loaded Cask #4 at the Grand Gulf Nuclear Station. This report is <u>PROPRIETARY</u> to Holtec and is requested to be withheld from public disclosure in accordance with 10 CFR 9.17(a)(4) and 10 CFR 2.390 (a)(4). An affidavit attesting to the proprietary nature of the information is provided in Attachment 3.

If you have any questions or require additional information regarding this matter, please contact Dennis Coulter by phone at 601-437-6595 or by email at dcoulte@entergy.com.

Sincerely,

MAK/DMC:dmc

Attachments:

1. Exemption Request for Holtec Multi-Purpose Canisters at GGNS

2. Holtec-Report-Number HI-2053369, Thermal Evaluation of the - As-loaded-Gask-#4-at-the Grand-Gulf-Nuclear-Station

3. Affidavit for the Request to Withhold Information

CC:

NRC Senior Resident Inspector Grand Gulf Nuclear Station Port Gibson, MS 39150

U. S. Nuclear Regulatory Commission ATTN: Mr. Elmo E. Collins, Jr. (w/2) Regional Administrator, Region IV 611 Ryan Plaza Drive, Suite 400 Arlington, TX 76011-4005

U.S. Nuclear Regulatory Commission

ATTN: Mr. Carl F. Lyon, NRR/ADRO/DORL (w/2)

ATTN: ADDRESSEE ONLY

ATTN: U.S. Postal Delivery Address Only

Mail Stop OWFN/8 B1

Washington, D.C. 20555-0001

# **Attachment 1**

**Exemption Request for Holtec Multi-Purpose Canisters at GGNS** 

# 1.0 Request for Exemption

Pursuant to 10CFR72.7, Entergy requests a one-time exemption from the requirements of 10CFR72.212 (a)(2) and (b)(7) for HI-STORM 100 System Model 68 Multi-Purpose Canisters (MPC) with serial numbers 045, 069, 214, and 215 due to non-compliance with the terms and conditions of the Holtec International Certificate of Compliance (CoC) Amendment 2 (Certificate #1014) at the time of cask loading. The regulations require, in part, compliance to the terms and conditions of the CoC #1014. Contrary to this requirement, the four MPCs were not loaded in compliance with CoC #1014 due to a CASKLOADER database error. MPC 045 was loaded with several fuel assemblies that slightly exceeded the CoC #1014 burnup and decay heat limits. MPCs 045, 069, 214, and 215 each contained at least one fuel assembly with burnup greater than 45,000 MWD/MTU. However, these MPCs were not placed on supplemental cooling within four hours of being placed in the transport cask as required by CoC #1014 Technical Specification 3.1.4.

# 2.0 Background

Entergy discovered on June 18, 2008 at 1412 that due to an error in the CASKLOADER Database, four spent fuel multi-purpose canisters (MPC) were loaded in a manner inconsistent with CoC #1014 for the HI-STORM 100 System. Several loaded fuel assemblies were found to have higher burnup values than previously calculated. This event is not safety significant since all MPC design limits (e.g., heat load, radiation levels, and criticality) continue to be met although some specific spent fuel assemblies loaded were outside of the conservative individual fuel assembly limits specified in the CoC. Upon discovery of the condition, the actions contained in Appendix B, Section 2.2 of the CoC, Fuel Specifications and Loading Conditions, were initiated by Grand Gulf Nuclear Station (GGNS). The affected fuel assemblies were verified to be in a safe condition and the NRC Operations Center was notified of the event within 24 hours.

Specifically, during a data update of the CASKLOADER Database, it was discovered that one HI-STORM 100 model MPC serial number 045 had been loaded with spent fuel bundles that exceeded the CoC Section 2.0 approved content requirements. Verification of the database has determined that eight fuel assemblies loaded in this MPC exceeded the maximum allowed decay heat per fuel storage location limit or the fuel burnup limit as specified in CoC Section 2.4 at the time of loading. These conditions are reportable in accordance with CoC Section 2.2 - Violations. Additionally, this MPC as well as MPCs 069, 214, and 215 were not placed on supplemental cooling while in the transfer cask as required by CoC #1014 Technical Specification 3.1.4.

#### 3.0 Technical Considerations

Note: The corrected values for fuel assembly burnup for the affected fuel assemblies are contained in Tables 1-4.

Of the four casks impacted by the errors, MPC 045 is the limiting MPC. It is also known as Cask #4. Holtec Report Number: HI-2053369, Thermal Evaluation of the As-loaded Cask #4 at the Grand Gulf Nuclear Station, determined that the fuel cladding of loaded fuel assemblies in MPC 045 would not exceed the design limit of 400 degrees centigrade for high burnup fuel during fuel loading operations or during dry storage. The evaluation used the bounding scenario of MPC 045 in the transfer cask without the required supplemental cooling allowing steady state maximum cask temperatures to be reached. Since MPC 045 is the limiting MPC, fuel assemblies in MPCs 214 (Cask #5), 215 (Cask #6), and 069 (Cask #7) would also not exceed the 400 degree centigrade cladding temperature limit. Holtec concluded that the safety and integrity of the mis-loaded fuel was not compromised. The thermal state of the fuel stored in the MPCs is well within safe operating limits.

MPC 045 is now below the burnup limit per fuel assembly and the decay heat limit per assembly (Table 1). As such it is now in compliance with the CoC #1014 Appendix B, Section 2.1, Fuel Specifications and Loading Conditions. However, MPC 045 was not in compliance at the time of loading.

MPCs 045, 069, 214 and 215 (Tables 1 – 4) contained at least one fuel assembly that required the use of, but were not placed on supplemental cooling as defined in CoC #1014 Appendix A, Technical Specification Section 3.1.4. Specifically, the MPCs were supposed to be placed on supplemental cooling within four hours of being placed in the transfer cask. MPC 045 was in the transfer cask for 26 hours, MPC 069 for 31 hours, MPC 214 for 27 hours, and MPC 215 for 33 hours without the use of supplemental cooling. This is considerably less time than the 7 day Limiting Condition for Operation for restoring supplemental cooling per CoC #1014 Appendix A, Technical Specifications, Section 3.1.4 Required Action A.1.

The fuel assembly exposure assumed in the dose calculations was verified within the bounds of the exposure of the loaded fuel assemblies. Radiation levels of stored MPCs are within Cask Technical Specification limits and there are no radiation anomalies.

Fuel assembly reactivity parameters are not affected by the identified errors since reactivity decreases with increased burnup.

All four MPCs are currently considered operable and performing their intended safety functions and all surveillance parameters are within acceptance limits.

# 4.0 Regulatory Considerations

The specific requirements for granting exemptions to 10 CFR Part 72 licensing requirements are set forth in 10CFR72.7, Specific Exemptions, which reads as follows: The Commission may, upon application by any interested person or upon its own initiative, grant such exemptions from the requirements of the regulations in this part as it determines are authorized by law and will not endanger life or property or the common defense and security and are otherwise in the public interest. Entergy Operations has reviewed 10CFR72 and determined that an exemption to 10CFR72.212 (a)(2) and (b)(7) is necessary to allow continued storage of MPCs 045, 069, 214, and 215 due to non-compliance with the terms and conditions of CoC #1014 at the time of loading. Entergy's evaluation and Holtec's thermal analysis have determined the fuel cladding to be intact. As such, the integrity of the affected MPCs and the contained fuel assemblies is not compromised.

Although the heat loads in the affected casks have decreased to within the CoC limits, loading of fuel assemblies outside CoC limits is not allowed. Entergy requests an exemption to document the safety basis of leaving the casks in their current state. An alternative would be to unload the affected MPCs. It is Entergy's position that unloading the affected MPCs would not be prudent. Rather, an exemption is requested to allow the affected MPCs to remain in storage. Although Entergy is fully capable of doing so, unloading the subject MPCs would subject personnel to unnecessary radiation exposure, generate additional contaminated waste, increase the risk of a possible fuel handling accident, and increase the risk of a possible heavy load handling accident. Therefore, an exemption to allow the high burnup fuel assemblies to remain in the MPCs is requested.

As discussed above, the requested exemption for the four MPCs has low safety significance and therefore, will not endanger life and property or the common defense and security. It is also in the public's interest to grant an exemption, since unloading the cask will be more costly than regulatory action, result in increased dose to plant workers, increase the risk of contamination, increase the risk of a possible fuel handling accident, and increase the risk of a possible heavy load handling accident. It is Entergy's position that the requested exemptions meet the intent of 10CFR72.7.

# 5.0 Summary

In conclusion, Entergy requests a one-time exemption from the requirements of 10CFR72.212 (a)(2 and (b)(7) for HI-STORM 100 System Model 68 MPCs with serial numbers 045, 069, 214, and 215 due to non-compliance with the terms and conditions of CoC #1014 at the time of loading. The regulations require, in part, compliance to the terms and conditions of the Holtec International Certificate of Compliance Amendment 2 (CoC) (Certificate #1014). Contrary to this requirement, the four MPCs were not loaded in compliance with CoC #1014 due to a CASKLOADER database error. Entergy's evaluation and Holtec's thermal evaluation have determined the fuel cladding to be intact. As such, the integrity of the affected MPCs and the contained fuel assemblies is not compromised. This one-time exemption for the four MPCs will not endanger life or property or the common defense and security and are in the public interest and meet the intent of 10CFR72.7.

Table 1 - MPC 045 (Cask #4) CoC Limit Summary

	Burnup (MWd/MTU)				Bundle Decay	Heat (kW)		
			Burnup Limit	Burnup Limit		Corrected for	Corrected:	
Impacted			on	on		Decay	for Decay:	
Bundle ID	Original	Corrected	12/10/2006	10/08/2008	Original	12/10/2006	6/18/2008	Limit
GEA067	32757	39701	43087	49680	0.316	0.391	0.310	0.414
GEA077	32326	39354	43087	49680	0.311	0.387	0.306	0.414
GEA089	33214	40295	43087	49680	0.321	0.398	0.316	0.414
GEA097	33100	39661	43087	49680	0.320	0.391	0.310	0.414
GEA129	33147	41464	43087	49680	0.320	0.412	0.327	0.414
GEA154	31338	44852 (2)	43087	49680	0.300	0.454 (3)	0.362	0.414
GEA179	32962	43783 (2)	43087	49680	0.319	0.444 (3)	0.353	0.414
GEA197	31880	44694 (2)	43087	49680	0.307	0.457 (3)	0.363	0.414
GEA207	33615	46297 (1, 2)	43087	49680	0.327	0.481 (3)	0.383	0.414
GEA220	29435	43041	43087	49680	0.279	0.434 (3)	0.345	0.414
GEA227	32966	46231 (1, 2)	43087	49680	0.319	0.480 (3)	0.382	0.414
GEA239	32208	44890 (2)	43087	49680	0.311	0.459 (3)	0.366	0.414
GEA245	27701	38057	43087	49680	0.260	0.372	0.295	0.414
GEA259	27855	41703	43087	49680	0.262	0.415 (3)	0.330	0.414
GEA263	28151	39936	43087	49680	0.265	0.394	0.312	0.414
GEA264	28141	39927	43087	49680	0.265	0.394	0.312	0.414
GEA270	25497	39015	43087	49680	0.236	0.384	0.304	0.414
SPG066	33234	37908	42035	48449	0.335	0.389	0.308	0.414
SPG086	- 34129	37326	42035	48449	0.346	0.382	0.302	0.414
SPG087	34202	37393	42035	48449	0.347	0.382	0.302	0.414
SPG088	34193	37384	42035	48449	0.347	0.382	0.302	0.414
SPG117	33384	38049	42035	48449	0.337	0.391	0.309	0.414
SPG121	33834	37154	42035	48449	0.342	0.379	0.300	0.414

<sup>(1) &</sup>gt;45,000 MWD/MTU - CoC Tech Spec 3.1.4 – Supplemental Cooling Required (3) Exceeded heat rate per assembly limit at time of loading

<sup>(2)</sup> Exceeded burnup limit at time of loading

Table 2 - MPC 214 (Cask #5) CoC Limit Summary

	Burnup (MWd/MTU)			Bundle Decay Heat (kW)			
Impacted			Burnup		Corrected		
Bundle		1	Limit on		for Decay		
ID	Original	Corrected	04/13/2008	Original	04/13/2008	Limit	
GEA055	32423	39005	48419	0.263	0.306	0.414	
GEA075	33440	39986	48419	0.273	0.316	0.414	
GEA078	32310	39344	48419	0.262	0.310	0.414	
GEA091	33218	40303	48419	0.271	0.319	0.414	
GEA092	33208	40295	48419	0.271	0.319	0.414	
GEA117	33462	41746	48419	0.273	0.333	0.414	
GEA119	33459	41746	48419	0.273	0.333	0.414	
GEA150	31171	44722	48419	0.251	0.364	0.414	
GEA155	31350	44862	48419	0.252	0.366	0.414	
GEA178	32965	43795	48419	0.269	0.357	0.414	
GEA192	33357	40404	48419	0.273	0.321	0.414	
GEA198	31797	44631	48419	0.257	0.366	0.414	
GEA213	32712	45655 (1)	48419	0.267	0.379	0.414	
GEA221	33082	44019	48419	0.270	0.359	0.414	
GEA225	32955	46215	48419	0.269	0.386	0.414	
GEA250	28054	41342	48419	0.221	0.330	0.414	
GEA252	28003	41298	48419	0.221	0.329	0.414	
SPG014	33746	37068	47211	0.288	0.302	0.414	
SPG043	34076	38703	47211	0.292	0.320	0.414	
SPG065	33233	37899	47211	0.283	0.311	0.414	
SPG100	34251	37721	47211	0.293	0.309	0.414	

<sup>(1) &</sup>gt;45,000 MWD/MTU - CoC Tech Spec 3.1.4 - Supplemental Cooling Required

Table 3 - MPC 215 (Cask #6) CoC Limit Summary

Table 3 - MPC 213 (Cask #6) COC Limit Summary						
	Вι	ırnup (MWd/N	Bundle	Decay Heat	(kW)	
		.*	Burnup		Corrected	
Impacted			Limit on		for Decay	
Bundle ID	Original	Corrected	04/21/2008	Original	04/21/2008	Limit
GEA054	32421	39007	48419	0.263	0.306	0.414
GEA056	32429	39015	48419	0.263	0.306	0.414
GEA066	32770	39722	48419	0.266	0.313	0.414
GEA080	32316	39347	48419	0.262	0.309	0.414
GEA085	33104	40203	48419	0.270	0.318	0.414
GEA116	28745	43091	48419	0.227	0.346	0.414
GEA130	33169	41498	48419	0.270	0.330	0.414
GEA149	31198	44749	48419	0.251	0.364	0.414
GEA185	29621	42572	48419	0.236	0.343	0.414
GEA193	31870	45591 (1)	48419	0.258	0.378	0.414
GEA202	32652	45677 (1)	48419	0.266	0.379	0.414
GEA204	32669	45689 (1)	48419	0.266	0.379	0.414
GEA205	33622	46301 (1)	48419	0.276	0.387	0.414
GEA209	33501	40675	48419	0.275	0.323	0.414
GEA212	33499	40677	48419	0.275	0.323	0.414
GEA217	29447	43045	48419	0.234	0.348	0.414
GEA223	33103	44045	48419	0.270	0.359	0.414
GEA254	27865	41695	48419	0.219	0.333	0.414
GEA255	27907	41723	48419	0.220	0.333	0.414
GEA268	27530	37718	48419	0.216	0.294	0.414
SPG093	34104	37729	47211	0.292	0.309	0.414
SPG095	34117	37744	47211	0.292	0.309	0.414
SPG119	33419	38086	47211	0.284	0.312	0.414
SPG998	33819	37138	47211	0.289	0.302	0.414

<sup>(1) &</sup>gt;45,000 MWD/MTU - CoC Tech Spec 3.1.4 - Supplemental Cooling Required

Table 4 - MPC 069 (Cask #7) CoC Limit Summary

Table 4 - MPC 069 (Cask #7) Coc Limit Summary						
	Bı	ırnup (MWd/i	MTU)	Bundle	Decay Heat (	kW)
Impacted	Original	Camantad	Burnup Limit on	Original	Corrected for Decay	1::
Bundle ID	Original	Corrected	04/28/2008	Original	04/28/2008	Limit
GEA053	32427	39006	48419	0.263	0.306	0.414
GEA074	33421	39971	48419	0.273	0.315	0.414
GEA082	33051	41739	48419	0.269	0.332	0.414
GEA084	33059	41744	48419	0.269	0.333	0.414
GEA087	33103	40205	48419	0.270	0.317	0.414
GEA098	33118	39690	48419	0.270	0.312	0.414
GEA118	33454	41747	48419	0.273	0.333	0.414
GEA152	31156	44702	48419	0.250	0.363	0.414
GEA181	32618	45622 (1)	48419	0.266	0.378	0.414
GEA191	33395	40443	48419	0.273	0.320	0.414
GEA232	33026	45894 (1)	48419	0.270	0.381	0.414
GEA234	32426	45941 (1)	48419	0.264	0.382	0.414
GEA251	28038	41314	48419	0.221	0.329	0.414
GEA253	27913	41730	48419	0.220	0.333	0.414
GEA262	28155	39947	48419	0.222	0.315	0.414
GEA266	27334	37546	48419	0.214	0.292	0.414
GEA267	27544	37732	48419	0.216	0.294	0.414
GEA272	25483	38997	48419	0.197	0.306	0.414
SPG041	34066	38690	47211	0.292	0.319	0.414
SPG068	33247	37917	47211	0.283	0.311	0.414
SPG115	33475	38129	47211	0.285	0.313	0.414
SPG999	33807	37123	47211	0.289	0.302	0.414

<sup>(1) &</sup>gt;45,000 MWD/MTU - CoC Tech Spec 3.1.4 – Supplemental Cooling Required

# Attachment 3 Affidavit for the Request to Withhold Information



Telephone (856) 797-0900 Fax (856) 797-0909

December 10, 2008

Mr. Dennis M. Coulter G-ADM2-LIC 7003 Bald Hill Road Port Gibson, MS 39150

Reference:

Holtec Project No. 1498

Subject:

Release of Holtec Proprietary Report HI-2084091 to the Nuclear Regulatory

Commission (NRC) and Transmittal of Affidavit Pursuant to 10 CFR 2.390

Dear Mr. Coulter:

Holtec is pleased to approve the release of the following proprietary information to the NRC:

Holtec Report HI-2084091 Rev 0, "THERMAL EVALUATION OF THE AS-LOADED CASK #4 AT THE GRAND GULF NUCLEAR STATION".

We require that you include this letter along with the attached affidavit pursuant to 10CFR2.390 with your submittal.

Please do not hesitate to contact me if you have any questions.

Very truly yours,

Tammy S. Morin

Acting Licensing Manager

Holtec International

Document I.D.: 1498009

Cc: Frayne Ronkowski, Holtec International (email only)

## **AFFIDAVIT PURSUANT TO 10 CFR 2.390**

- I, Tammy S. Morin, being duly sworn, depose and state as follows:
- (1) I have reviewed the information described in paragraph (2) which is sought to be withheld, and am authorized to apply for its withholding.
- (2) The information sought to be withheld is Holtec Report HI-2084091, Revision 0 which contains Holtec Proprietary information.
- (3) In making this application for withholding of proprietary information of which it is the owner, Holtec International relies upon the exemption from disclosure set forth in the Freedom of Information Act ("FOIA"), 5 USC Sec. 552(b)(4) and the Trade Secrets Act, 18 USC Sec. 1905, and NRC regulations 10CFR Part 9.17(a)(4), 2.390(a)(4), and 2.390(b)(1) for "trade secrets and commercial or financial information obtained from a person and privileged or confidential" (Exemption 4). The material for which exemption from disclosure is here sought is all "confidential commercial information", and some portions also qualify under the narrower definition of "trade secret", within the meanings assigned to those terms for purposes of FOIA Exemption 4 in, respectively, Critical Mass Energy Project v. Nuclear Regulatory Commission, 975F2d871 (DC Cir. 1992), and Public Citizen Health Research Group v. FDA, 704F2d1280 (DC Cir. 1983).

## **AFFIDAVIT PURSUANT TO 10 CFR 2.390**

- (4) Some examples of categories of information which fit into the definition of proprietary information are:
  - a. Information that discloses a process, method, or apparatus, including supporting data and analyses, where prevention of its use by Holtec's competitors without license from Holtec International constitutes a competitive economic advantage over other companies;
  - b. Information which, if used 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 of a similar product.
  - c. Information which reveals cost or price information, production, capacities, budget levels, or commercial strategies of Holtec International, its customers, or its suppliers;
  - d. Information which reveals aspects of past, present, or future Holtec International customer-funded development plans and programs of potential commercial value to Holtec International;
  - e. Information which discloses patentable subject matter for which it may be desirable to obtain patent protection.

The information sought to be withheld is considered to be proprietary for the reasons set forth in paragraphs 4.a and 4.b, above.

(5) The information sought to be withheld is being submitted to the NRC in confidence. The information (including that compiled from many sources) is of a sort customarily held in confidence by Holtec International, and is in fact so held. The information sought to be withheld has, to the best of my knowledge and belief, consistently been held in confidence by Holtec International. No public disclosure has been made, and it is not available in public sources. All

U.S. Nuclear Regulatory Commission ATTN: Document Control Desk Document ID 1498009 Non-Proprietary Attachment

## **AFFIDAVIT PURSUANT TO 10 CFR 2.390**

disclosures to third parties, including any required transmittals to the NRC, have been made, or must be made, pursuant to regulatory provisions or proprietary agreements which provide for maintenance of the information in confidence. Its initial designation as proprietary information, and the subsequent steps taken to prevent its unauthorized disclosure, are as set forth in paragraphs (6) and (7) following.

- (6) Initial approval of proprietary treatment of a document is made by the manager of the originating component, the person most likely to be acquainted with the value and sensitivity of the information in relation to industry knowledge. Access to such documents within Holtec International is limited on a "need to know" basis.
- (7) The procedure for approval of external release of such a document typically requires review by the staff manager, project manager, principal scientist or other equivalent authority, by the manager of the cognizant marketing function (or his designee), and by the Legal Operation, for technical content, competitive effect, and determination of the accuracy of the proprietary designation. Disclosures outside Holtec International are limited to regulatory bodies, customers, and potential customers, and their agents, suppliers, and licensees, and others with a legitimate need for the information, and then only in accordance with appropriate regulatory provisions or proprietary agreements.
- (8) The information classified as proprietary was developed and compiled by Holtec International at a significant cost to Holtec International. This information is classified as proprietary because it contains detailed descriptions of analytical approaches and methodologies not available elsewhere. This information would provide other parties, including competitors, with information from Holtec International's technical database and the results of evaluations performed by Holtec International. A substantial effort has been expended by Holtec International to develop this information. Release of this information would improve a competitor's position because it would enable Holtec's competitor to copy our technology and offer it for sale in competition with our company, causing us financial injury.

## **AFFIDAVIT PURSUANT TO 10 CFR 2.390**

(9) Public disclosure of the information sought to be withheld is likely to cause substantial harm to Holtec International's competitive position and foreclose or reduce the availability of profit-making opportunities. The information is part of Holtec International's comprehensive spent fuel storage technology base, and its commercial value extends beyond the original development cost. The value of the technology base goes beyond the extensive physical database and analytical methodology, and includes development of the expertise to determine and apply the appropriate evaluation process.

The research, development, engineering, and analytical costs comprise a substantial investment of time and money by Holtec International.

The precise value of the expertise to devise an evaluation process and apply the correct analytical methodology is difficult to quantify, but it clearly is substantial.

Holtec International's competitive advantage will be lost if its competitors are able to use the results of the Holtec International experience to normalize or verify their own process or if they are able to claim an equivalent understanding by demonstrating that they can arrive at the same or similar conclusions.

The value of this information to Holtec International would be lost if the information were disclosed to the public. Making such information available to competitors without their having been required to undertake a similar expenditure of resources would unfairly provide competitors with a windfall, and deprive Holtec International of the opportunity to exercise its competitive advantage to seek an adequate return on its large investment in developing these very valuable analytical tools.

U.S. Nuclear Regulatory Commission ATTN: Document Control Desk Document ID 1498009 Non-Proprietary Attachment

# **AFFIDAVIT PURSUANT TO 10 CFR 2.390**

STATE OF NEW JERSEY	)	
	)	ss:
<b>COUNTY OF BURLINGTON</b>	)	

Ms. Tammy S. Morin, being duly sworn, deposes and says:

That she has read the foregoing affidavit and the matters stated therein are true and correct to the best of her knowledge, information, and belief.

Executed at Marlton, New Jersey, this 10<sup>th</sup> day of December, 2008.

Tammy S. Morin Holtec International

Subscribed and sworn before me this 10 day of December, 2008.

Mankay Atch

MARY K ATCHISON
Notary Public
State of New Jersey
My Commission Expires Oct 24, 2013