



Exelon Generation®

Oyster Creek Generation
Route 9 South
PO Box 388
Forked River, NJ 08731

www.exeloncorp.com

10 CFR 72.212

RA-14-064

July 25, 2014

The Honorable Gary Quinn
Mayor, Lacey Township
818 West Lacey Road
Forked River, NJ 08731

Subject: Oyster Creek Nuclear Generating Station
Independent Spent Fuel Storage Installation Annual Report

Reference: Building Permit; Appeal 93-40 (after remand)

Conditions 10 and 11 of the referenced building permit require the Oyster Creek Nuclear Generating Station (OCNGS) to submit annual reports to Lacey Township concerning the status and operation of the OCNGS Independent Spent Fuel Storage Installation (ISFSI).

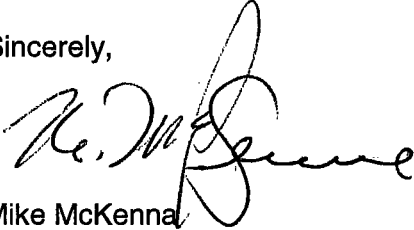
Enclosure 1 provides the OCNGS response to Conditions 10 and 11. Enclosure 2 provides the ISFSI 2013 monthly average temperature graphs and Enclosure 3 provides the ISFSI 2013 semi-annual radiation survey.

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NMSS

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If any further information or assistance is needed, please contact Dennis Moore at 609-971-4281.

Sincerely,

A handwritten signature in black ink, appearing to read "Mike McKenna". The signature is fluid and cursive, with a large, stylized "M" and "K".

Mike McKenna
Regulatory Assurance Manager

Enclosures 1, 2, and 3

cc: NRC Region I, Regional Administrator
NRC Senior Resident Inspector - Oyster Creek Nuclear Generating Station
NRC Document Control Desk

Enclosure 1
Oyster Creek Nuclear Generating Station
Independent Spent Fuel Storage Installation
Response to Building Permit Conditions 10 and 11

Independent Spent Fuel Storage Installation (ISFSI)
Building Permit Condition Ten:

"The applicant shall provide to the township on a yearly basis, written records revealing all temperature and radiation measurements. The applicant shall further advise of any and all repairs made to the concrete modules."

Oyster Creek Nuclear Generating Station (OCNGS) Reply to Condition Ten:

The temperatures within the loaded concrete Horizontal Storage Modules (HSMs) are monitored daily and are part of the stations surveillance records. The internal temperature of loaded HSMs are approximately 16° to 30°F higher than unloaded HSMs, depending on the heat load of the spent fuel loaded into the HSM. On a typical sunny summer day, the highest HSM temperatures read about 127°F. This is well within the design limits of the modules and represents a maximum actual heat loading of approximately 12 KW.

The graphs in Enclosure 2 provide the average daily temperature data for the period from October 1, 2012 to September 30, 2013, for the following HSMs.

HSM numbers	Year loaded
1, 2, 3, 4	2002
5, 6, 7, 8	2003
9, 10, 11	2004
12, 13, 14, 15, 16	2005
17, 18, 20	2010
19, 21, 22, 23	2012
24 - 34	Empty

The highest radiation measurements on the front surface of the HSMs are 1.6 mr/hr gamma (i.e., on HSM-18) and 0.8 mrem/hr neutron (i.e., on HSM-18). The roof of the HSMs is a posted radiation area and is not readily accessible. These readings are well within the design limits of the modules. Based on environmental Dosimeters, which are processed on a quarterly basis, the highest radiation levels at the ISFSI security fence are 0.06 mr/hr gamma and 0.007 mrem/hr neutron. The 2013 semi-annual radiation survey is provided as Enclosure 3.

There were no repairs to the concrete HSMs in the last year. The existing OCNGS ISFSI, which was reviewed under Building Permit, Appeal 93-40 (after remand) is complete with 34 installed HSMs, of which 23 are loaded with spent fuel.

Enclosure 1
Oyster Creek Nuclear Generating Station
Independent Spent Fuel Storage Installation
Response to Building Permit Conditions 10 and 11

ISFSI Building Permit Condition Eleven:

"The applicant shall provide to the township on a yearly basis, the specific number of spent fuel rod assemblies which have been moved into the dry storage facility."

OCNGS Reply to Condition Eleven:

The following table provides the number of fuel assemblies that were transferred to the ISFSI for each of the applicable years, starting in 2002. There were no fuel assemblies loaded into the ISFSI prior to 2002. Presently, there are no further transfers planned until 2016; however, rescheduling may occur given plant status and future activities.

Year loaded	Number of assemblies
2002	244
2003	244
2004	183
2005	305
2010	183
2012	244

Total assemblies
1403

Status of Yucca Mountain Repository

The Department of Energy (DOE) submitted a license application for construction of the Yucca Mountain Repository to the Nuclear Regulatory Commission on June 3, 2008.

In testimony to the Senate Budget Committee on March 11, 2009, Dr. Steven Chu, DOE Secretary, stated "Both the President and I have made clear that Yucca Mountain is not a workable option." In accordance with this view, the Administration requested, and Congress appropriated, for FY2010, only enough funds to continue the NRC license proceeding, while halting any design or development progress on the actual repository. The Administration's FY2011 budget proposal eliminated all funding for the Yucca Mountain project.

Shortly before releasing the FY2011 budget proposal, the Administration directed the DOE to establish a Blue Ribbon Commission on America's Nuclear Future (Commission) to explore, study, and evaluate alternatives to the Yucca Mountain facility for the permanent storage of spent nuclear fuel. The Commission's goal was to "provide recommendations for developing a safe, long-term solution to managing the nation's used nuclear fuel and nuclear waste." The Commission would not, however, consider specific sites for a future repository. The Commission was charged with producing an

Enclosure 1
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Response to Building Permit Conditions 10 and 11

interim report within 18 months of the Commission's establishment and a final report within 24 months.

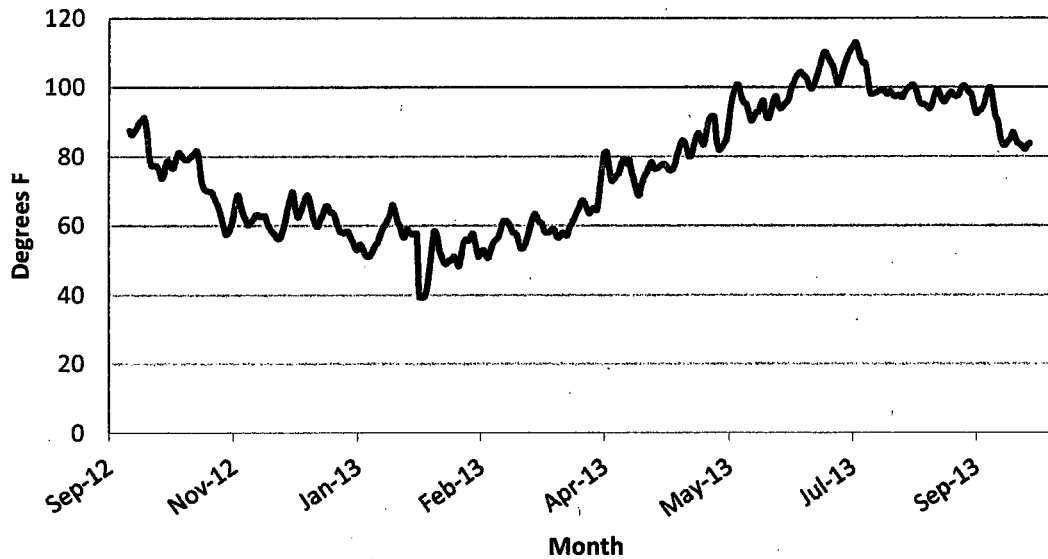
The Commission issued its final report on January 26, 2012. The report did not make any specific recommendations as to the "suitability" of Yucca Mountain, other than to make clear that the process of selecting and establishing the Yucca Mountain facility has suffered from several flaws and should be replaced by a new "consent-based approach" that provides "incentives" and encourages interested communities to "volunteer" as a potential host site for an eventual repository.

While acknowledging that "the future of the Yucca Mountain project remains uncertain," the Commission did make specific findings that may have significant influence over the future of nuclear waste disposal. The Commission concluded that deep geologic disposal "is the most promising and accepted method [of disposal] currently available," and therefore recommended that the United States "should undertake an integrated nuclear waste management program that leads to the timely development of one or more permanent deep geological facilities for the safe disposal of spent fuel and high-level nuclear waste." The Commission also reiterated the severe consequences of continued delays and urged Congress and the President to take action to institute the Commission's recommendations "without further delay." Congress has thus far taken no action to implement the Commission's recommendations.

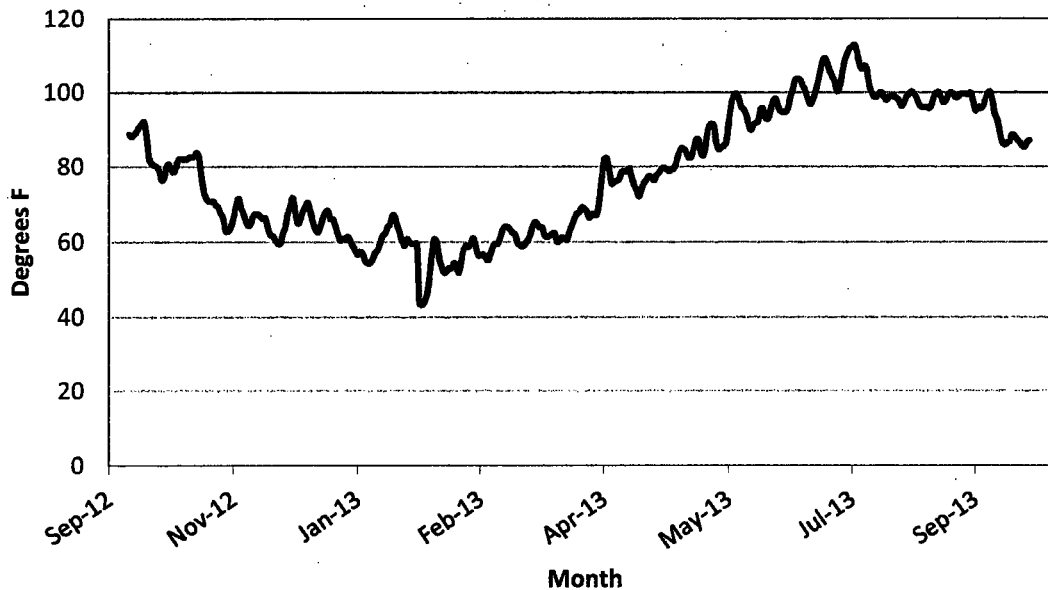
Enclosure 2
Oyster Creek Nuclear Generating Station
Independent Spent Fuel Storage Installation
Temperature Monitoring Graphs

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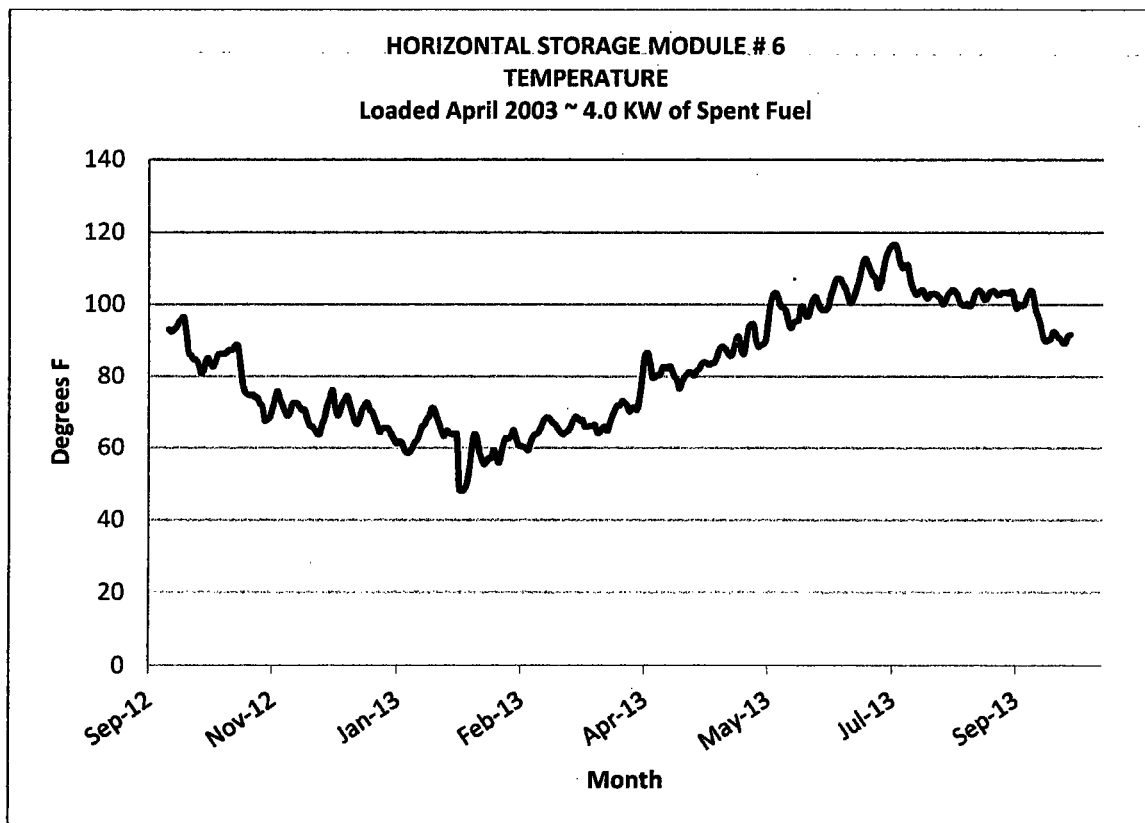
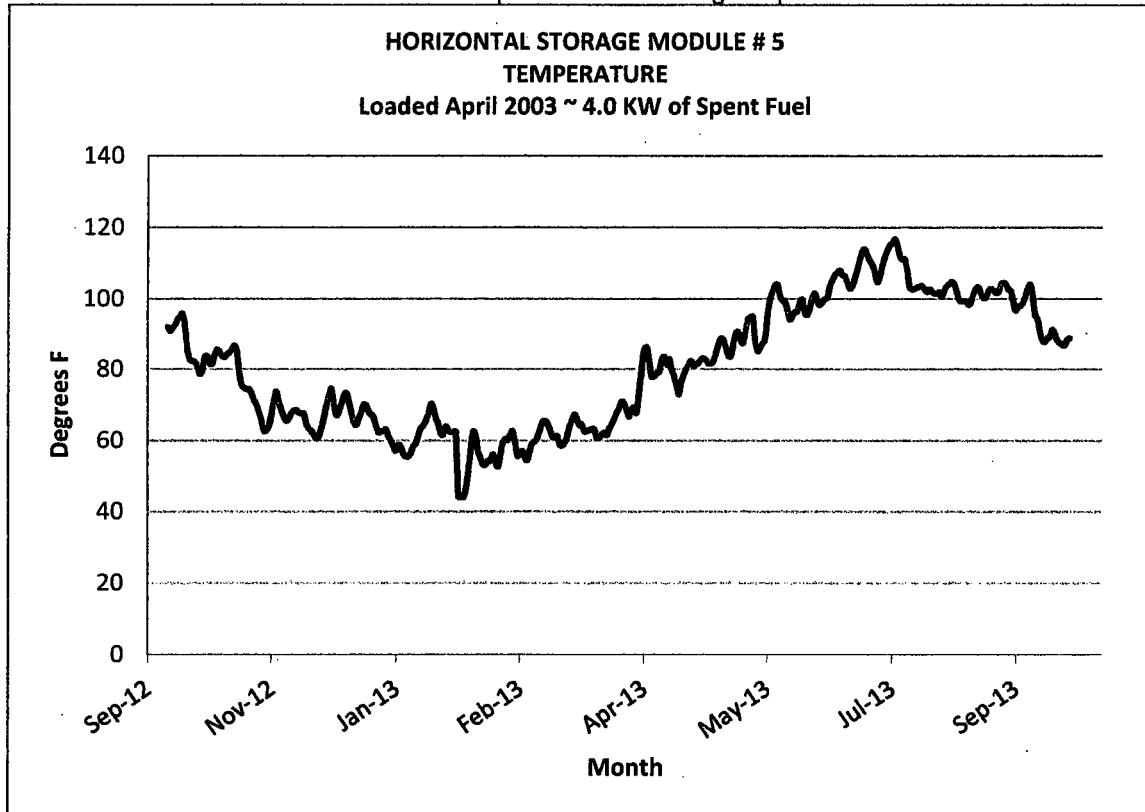
HORIZONTAL STORAGE MODULE # 1
TEMPERATURE
Loaded April 2002 ~ 3.0 KW of Spent Fuel



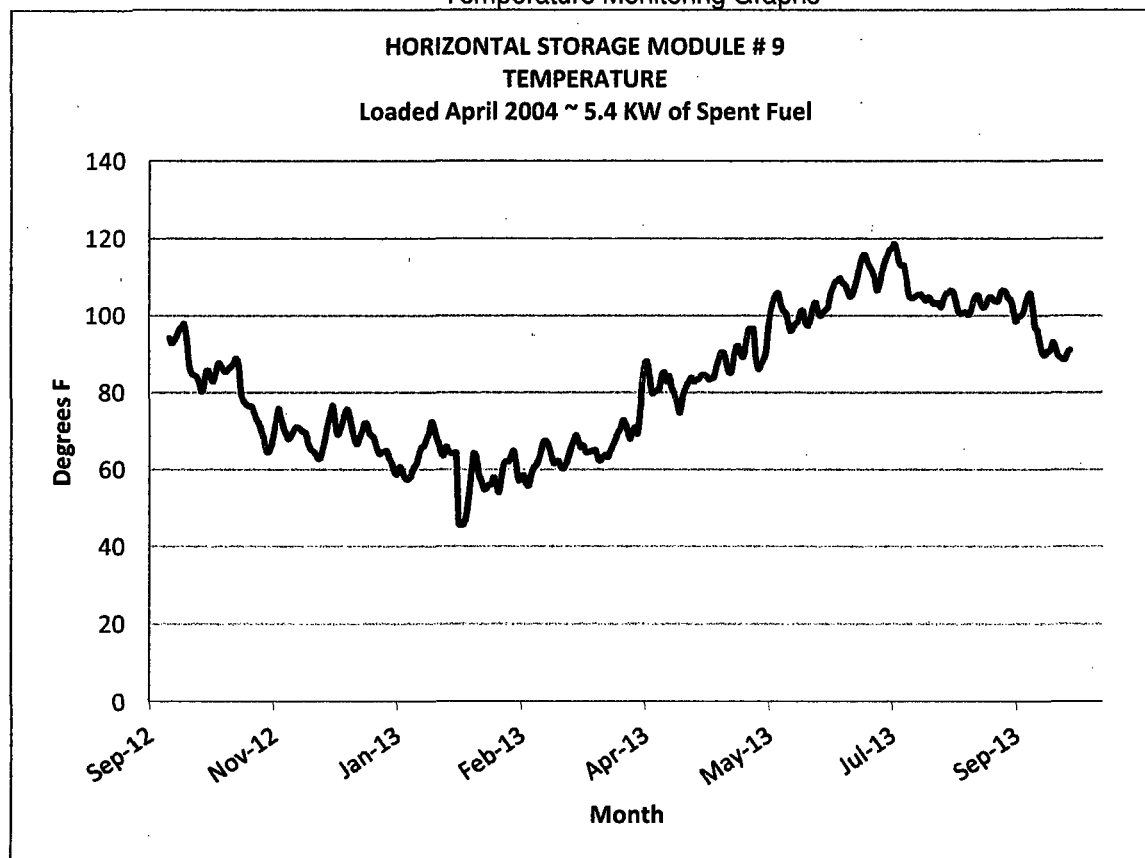
HORIZONTAL STORAGE MODULE # 2
TEMPERATURE
Loaded April 2002 ~ 3.0 KW of Spent Fuel



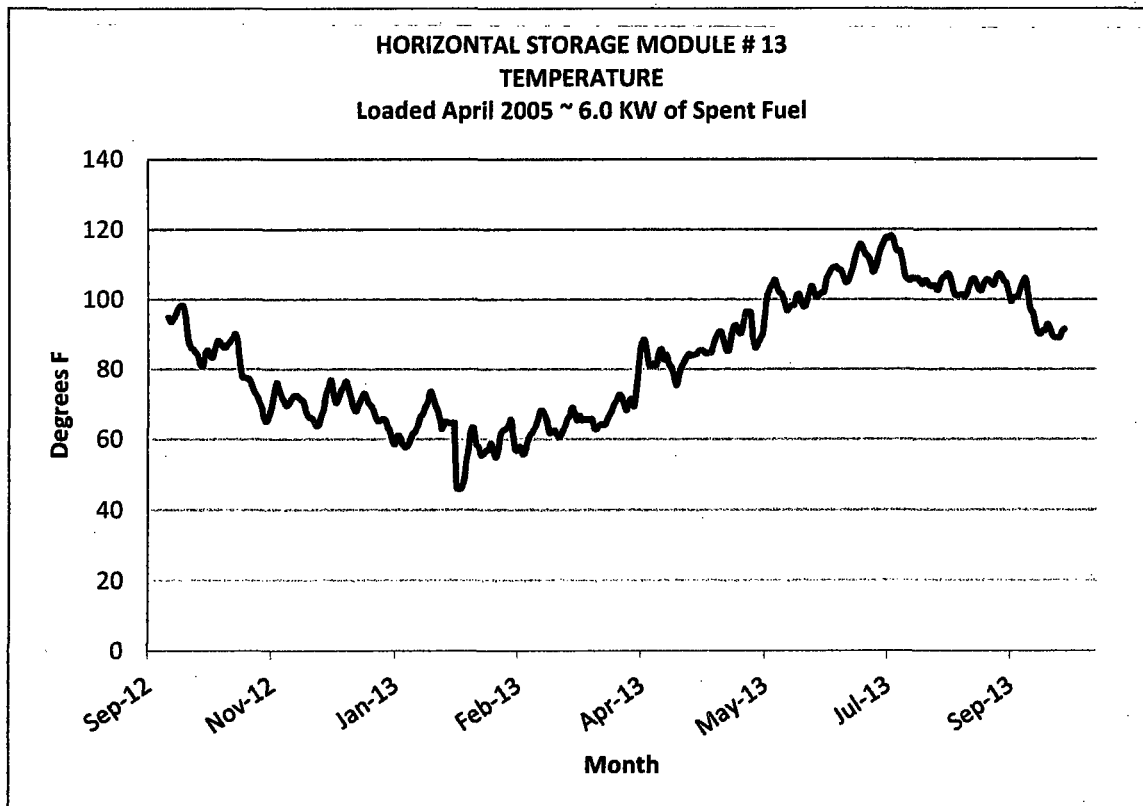
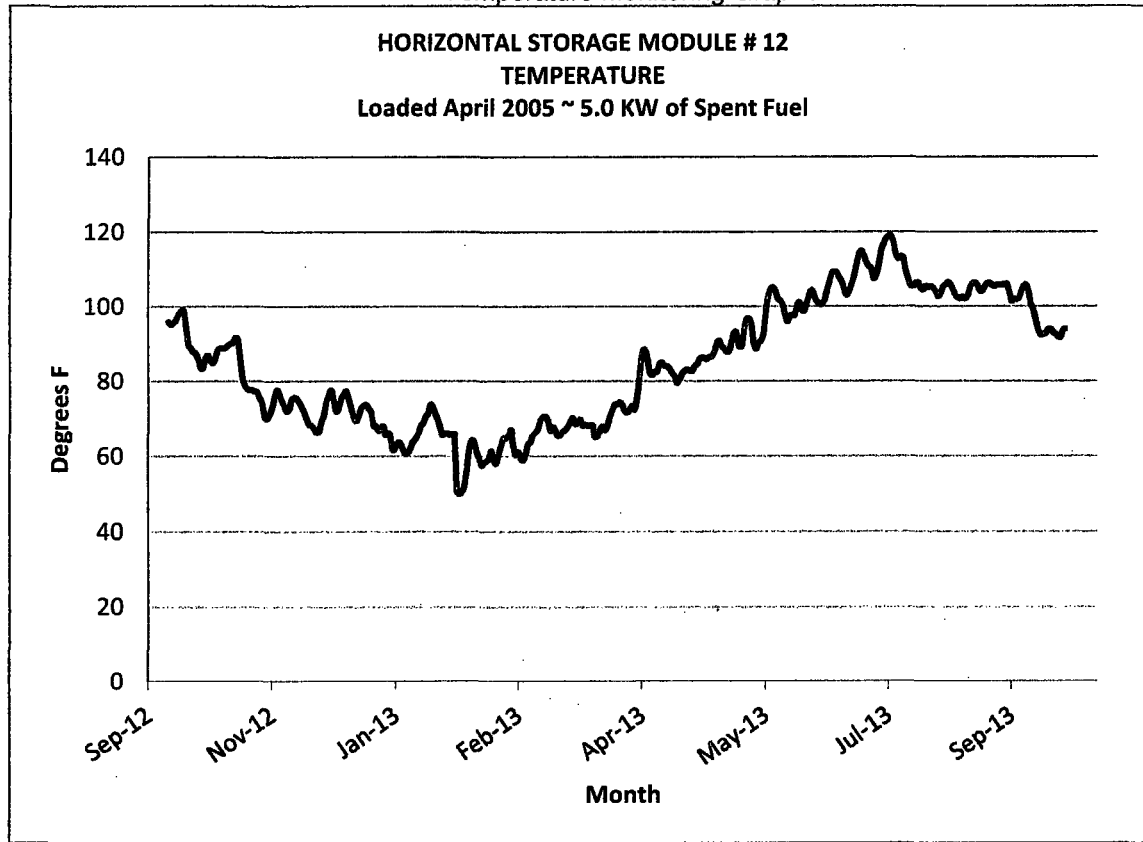
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Independent Spent Fuel Storage Installation
Temperature Monitoring Graphs



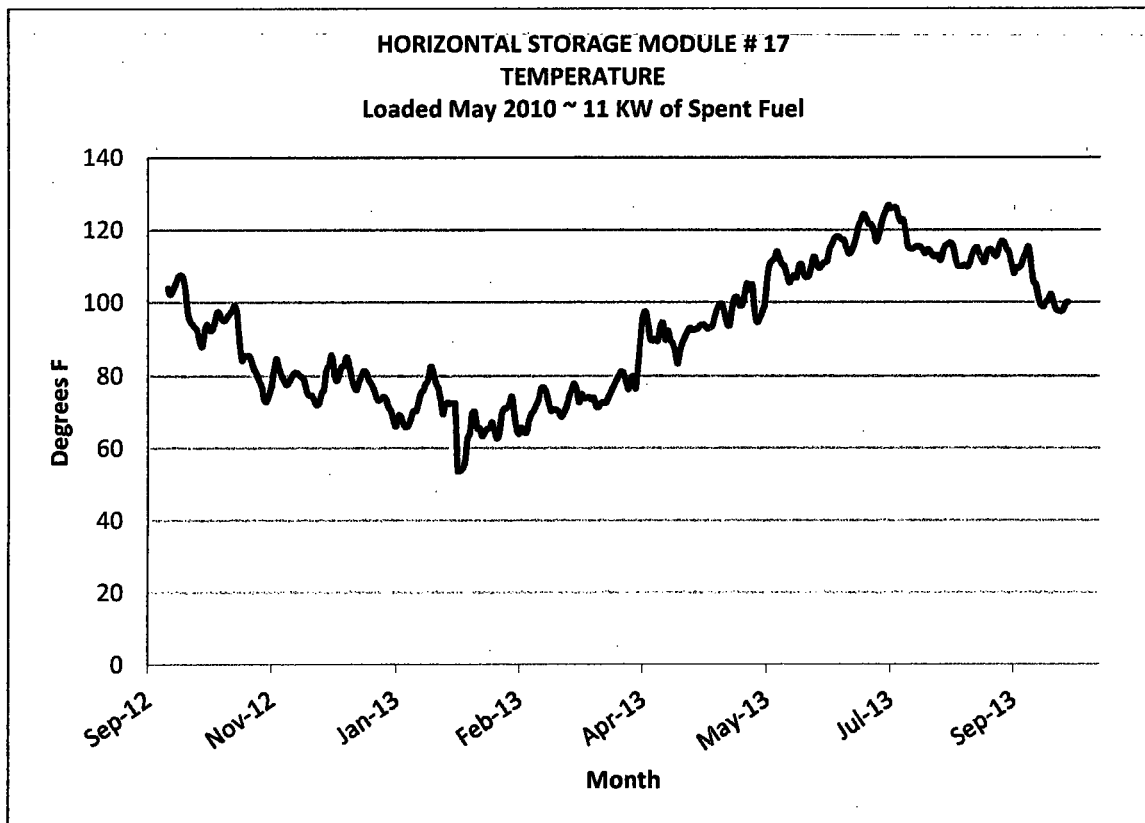
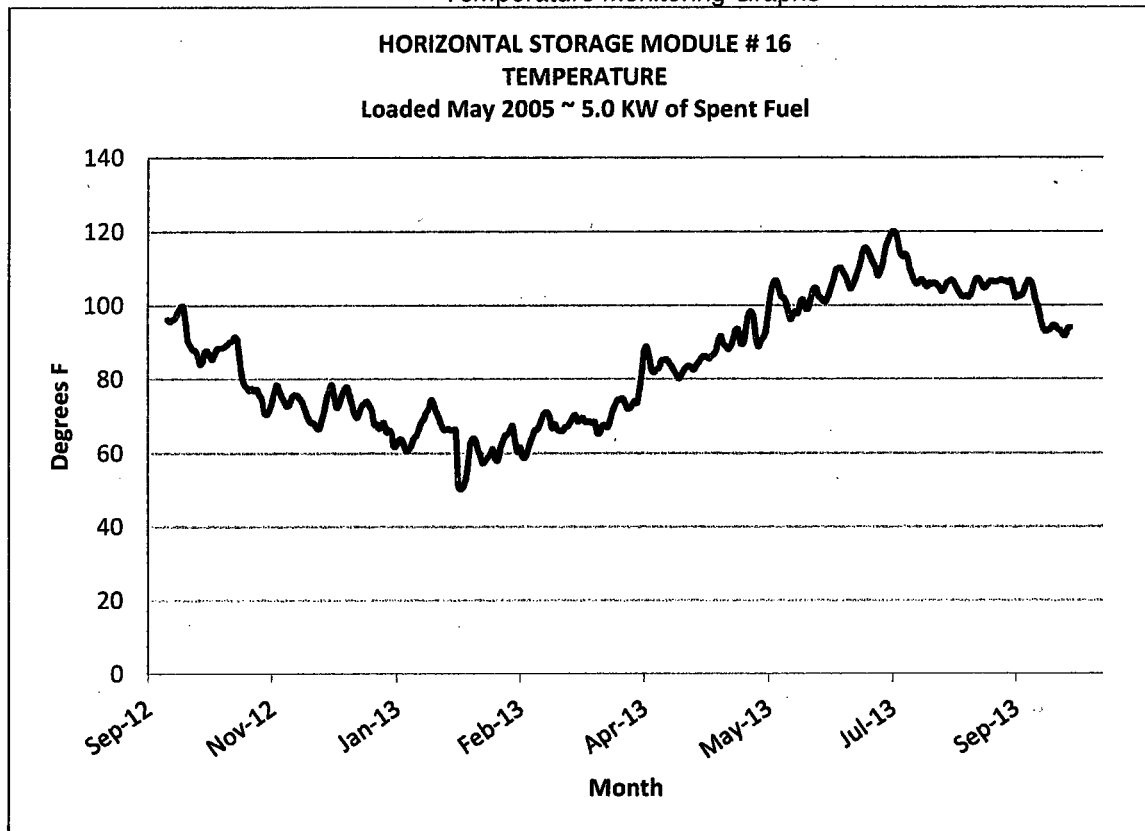
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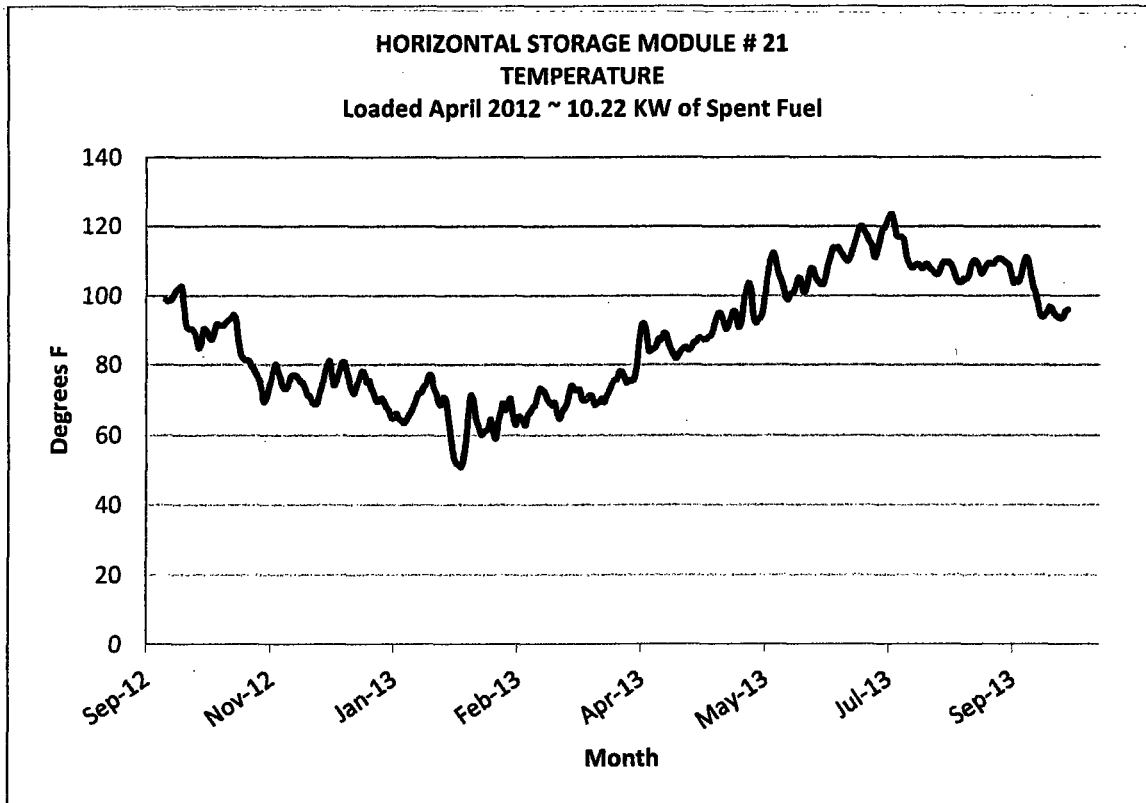
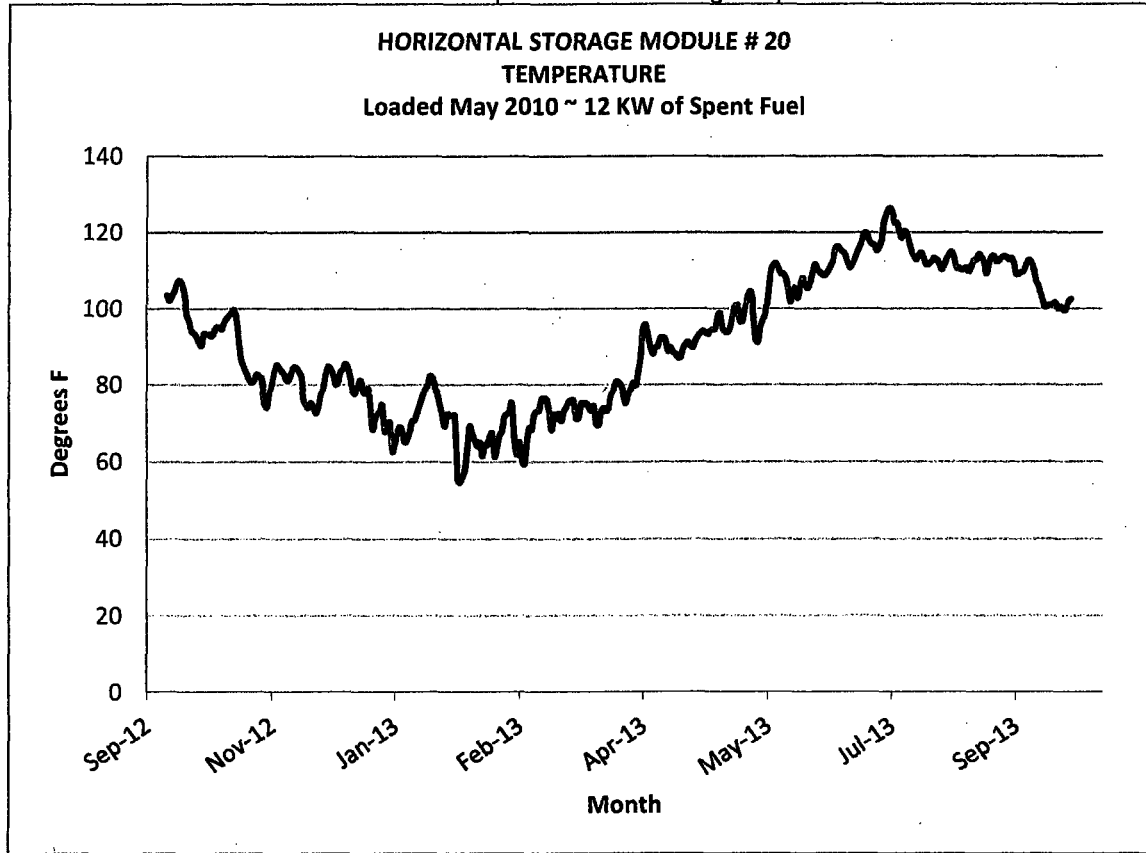
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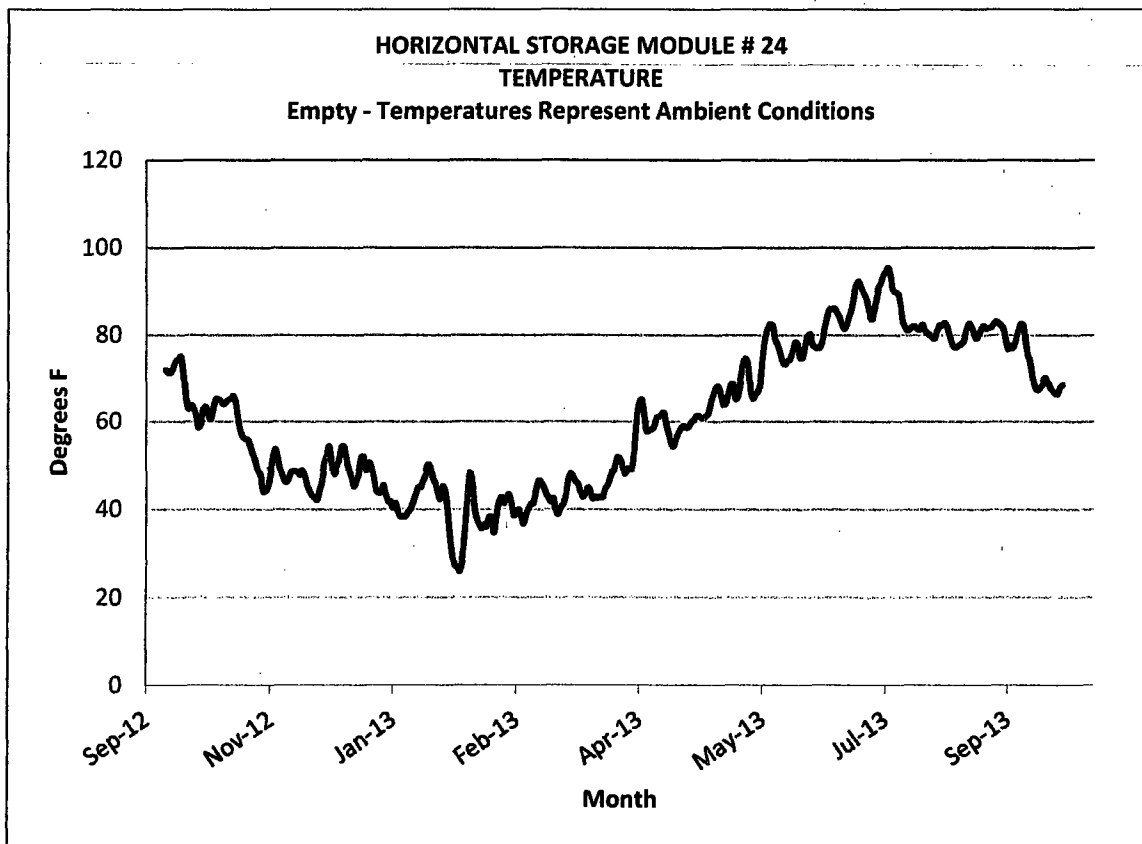
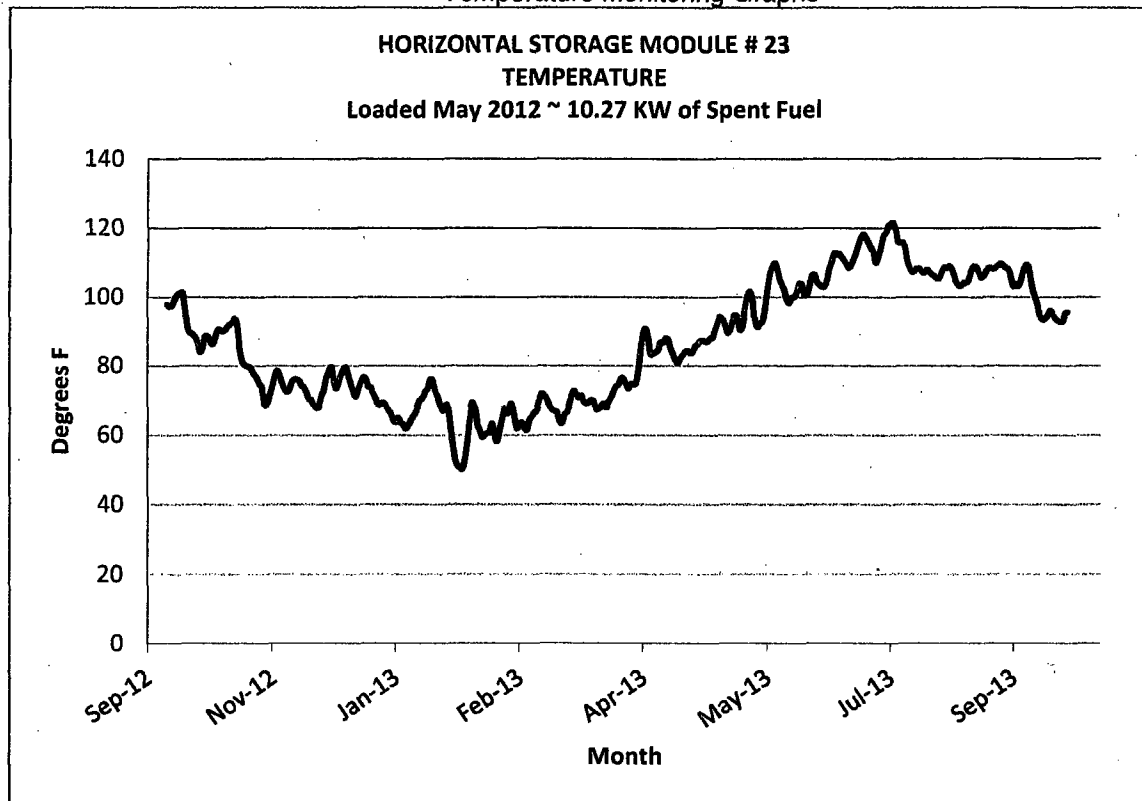
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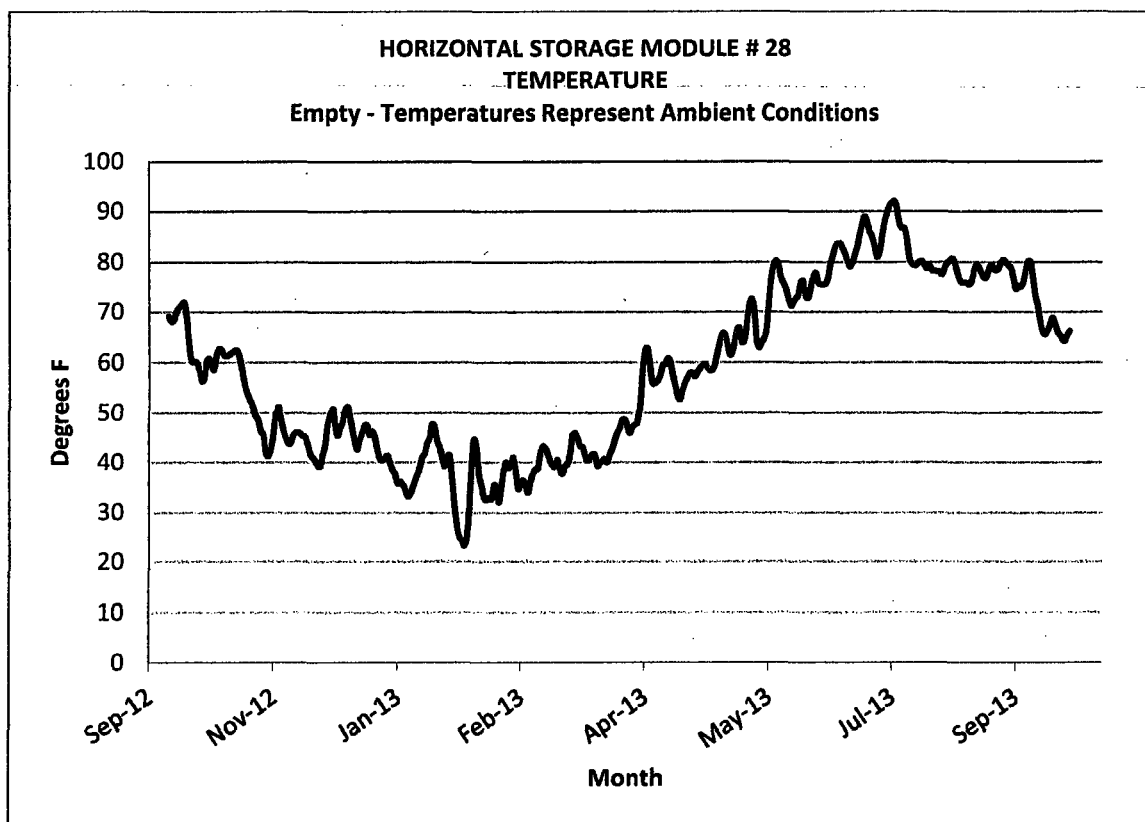
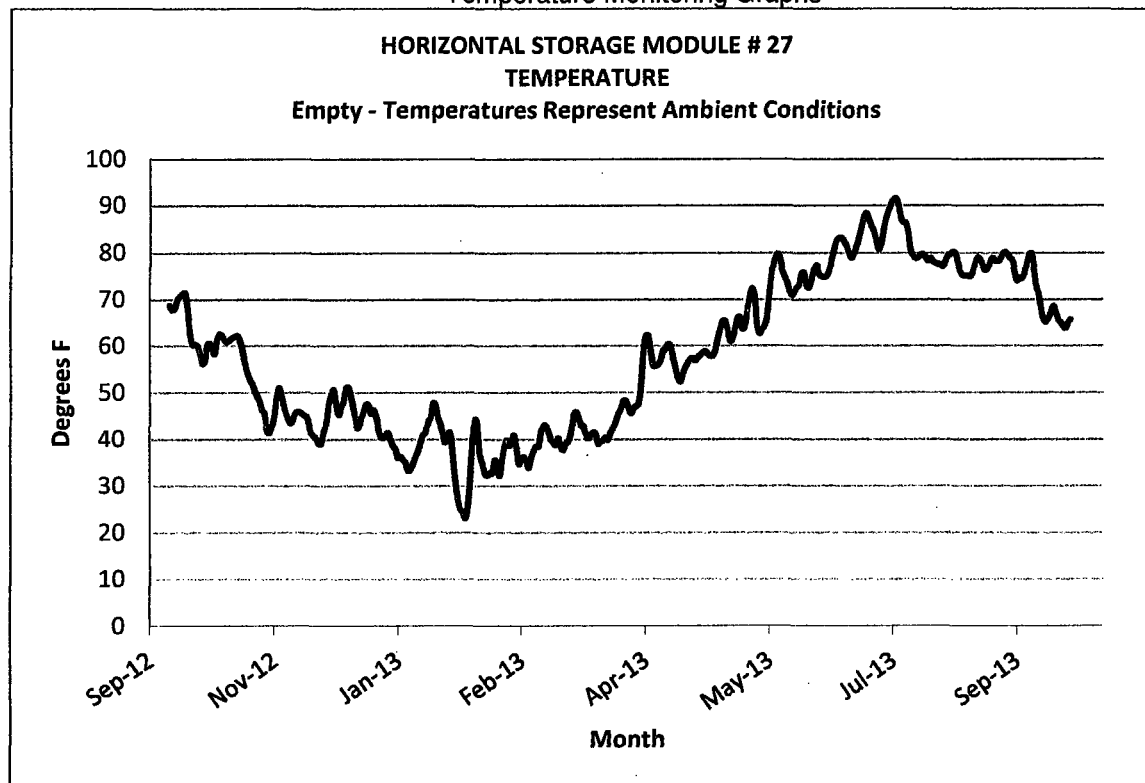
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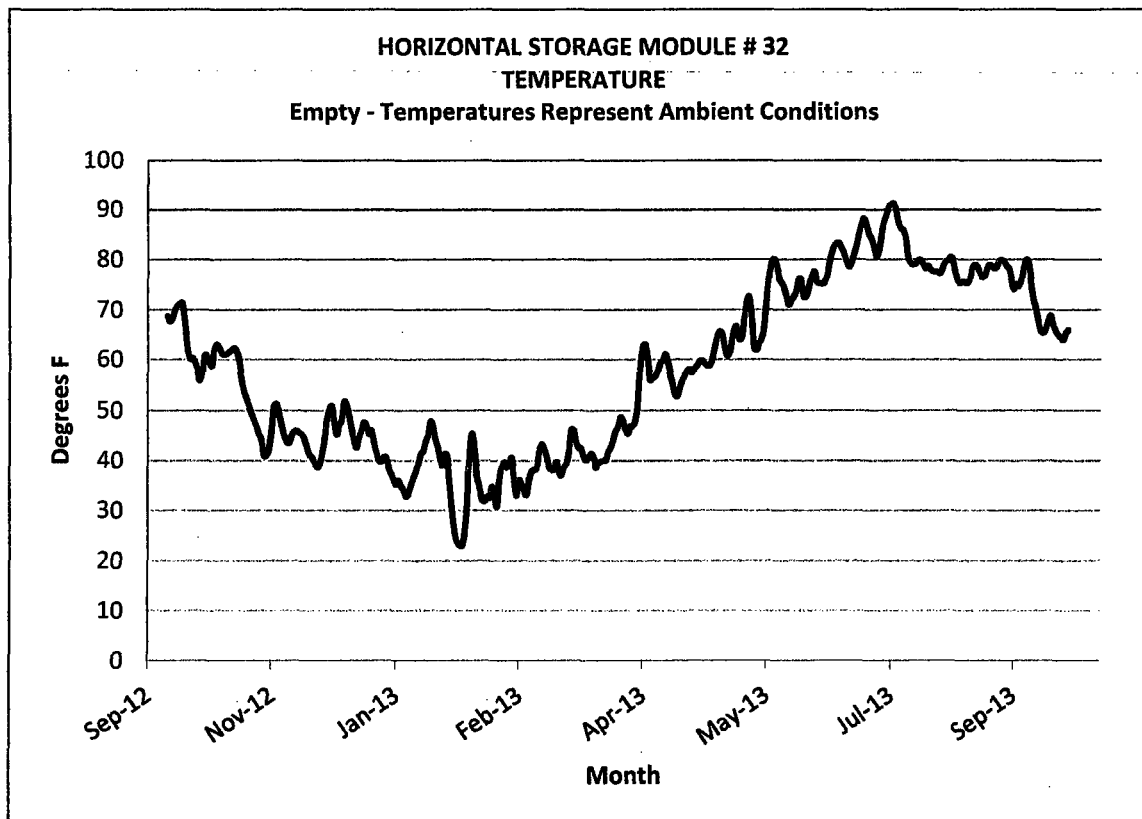
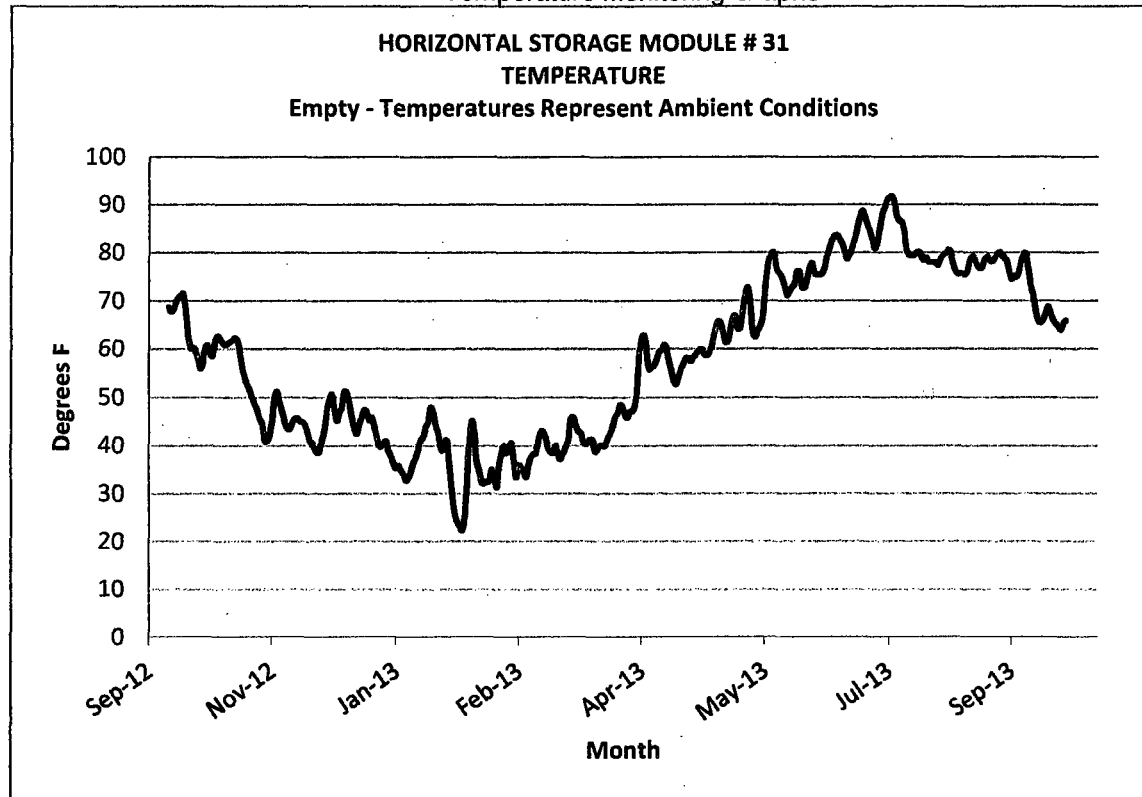
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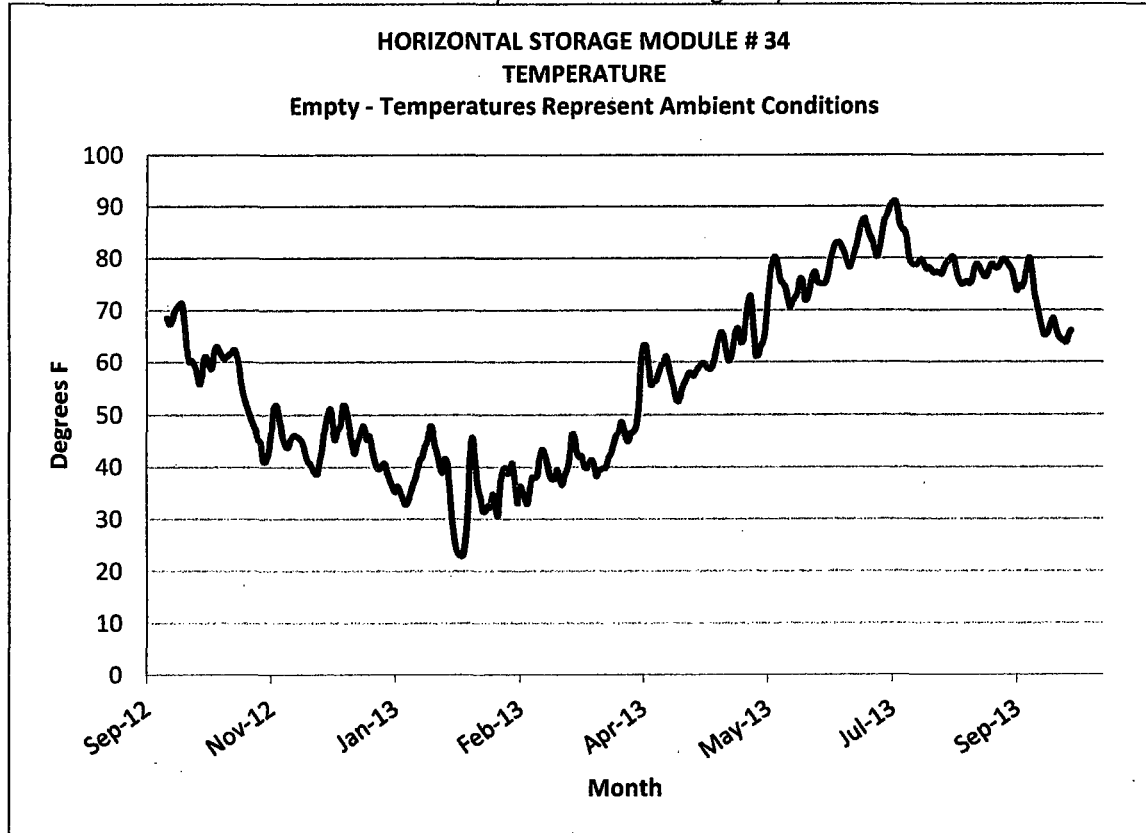
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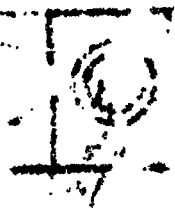


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Enclosure 3

Enclosure 3

Oyster Creek Nuclear Generating Station
Independent Spent Fuel Storage Installation
2013 Radiation Survey



OCGS Radiological Survey

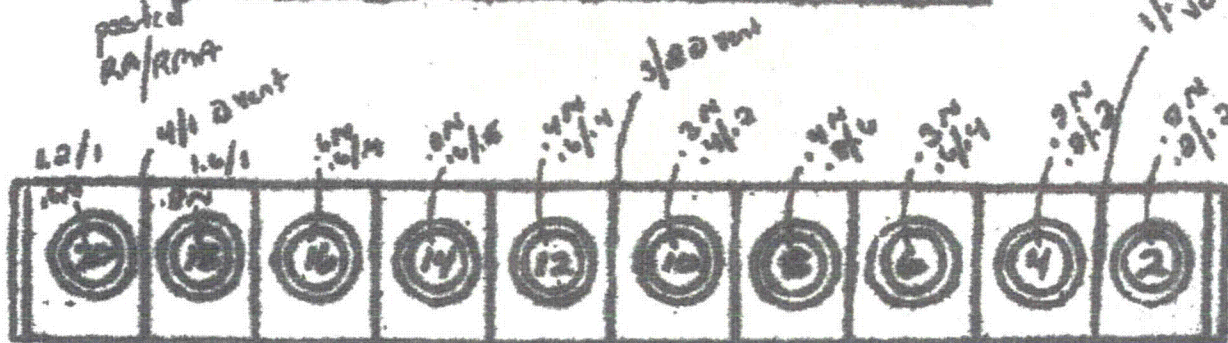
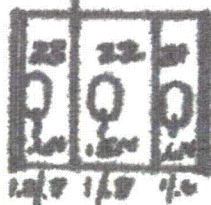
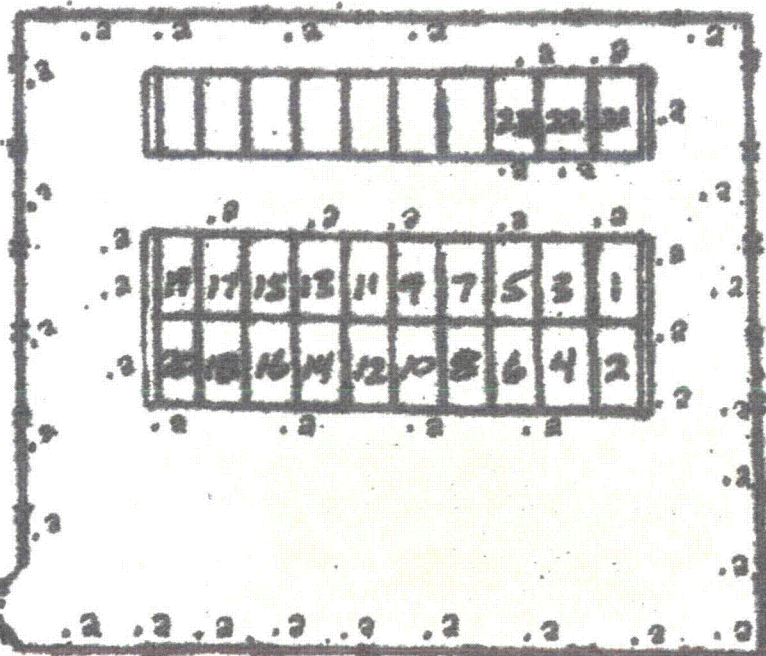
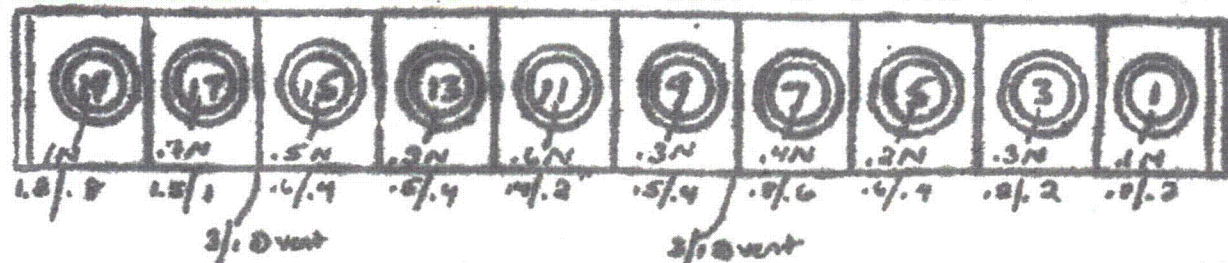
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Danielle Roberts	10/8/13	1.0/1.1	1.0/1.1
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1.0/1.1	1.0/1.1	1.0/1.1	1.0/1.1
1.0/1.1	1.0/1.1	1.0/1.1	1.0/1.1
1.0/1.1	1.0/1.1	1.0/1.1	1.0/1.1
1.0/1.1	1.0/1.1	1.0/1.1	1.0/1.1
1.0/1.1	1.0/1.1	1.0/1.1	1.0/1.1

- REQUIRED SURVEY POINTS**
- HSAI dose rate (45°)
 - RSI 2.5m SMD walls (10m)
 - FENCING (21.6m)
 - 1/2 Dose contact/1 meter