



RA-15-101

December 3, 2015

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 2015 monthly average temperature graphs and Enclosure 3 provides the most recent ISFSI 2015 semi-annual radiation survey.

If any further information or assistance is needed, please contact Thomas Cappuccino at 609-971-4430.

Sincerely,

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

NMSS20

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 average internal temperature of the loaded HSMs is approximately 83°F and the average internal temperature of the unloaded HSMs is approximately 58°F. The average internal temperature of the loaded HSMs is approximately 15° to 34°F higher than unloaded HSMs, depending on the heat load of the spent fuel loaded in the HSM. On a typical sunny summer day, the highest HSM temperatures read about 121°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 15, 2014 to October 30, 2015, 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 1.0 mr/hr gamma (i.e., HSM-17) and 0.9 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. The most recent semi-annual radiation survey is provided as Enclosure 3.

There were no repairs to the concrete HSMs in the last year. Fourteen (14) additional modules were installed in 2012 (i.e., HSM 21 through HSM 34).

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. The total number of installed HSMs remains the same as the number in the previous annual report.

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
2013	0
2014	0
2015	0

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 "[B]oth 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

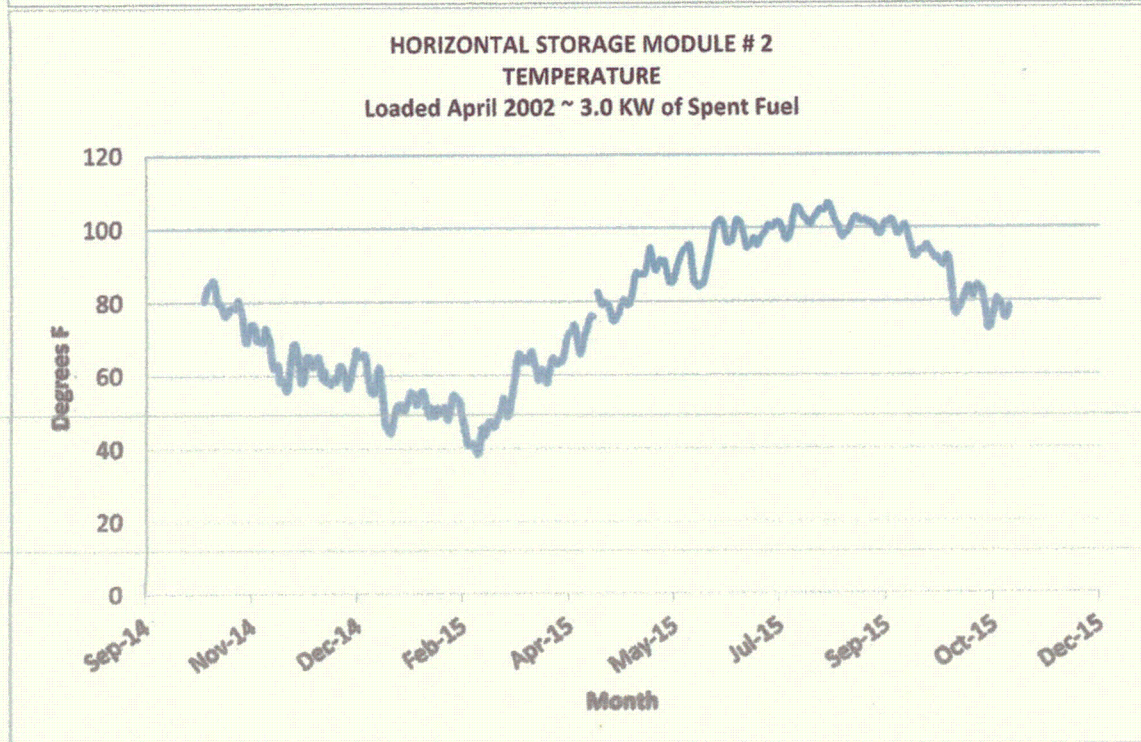
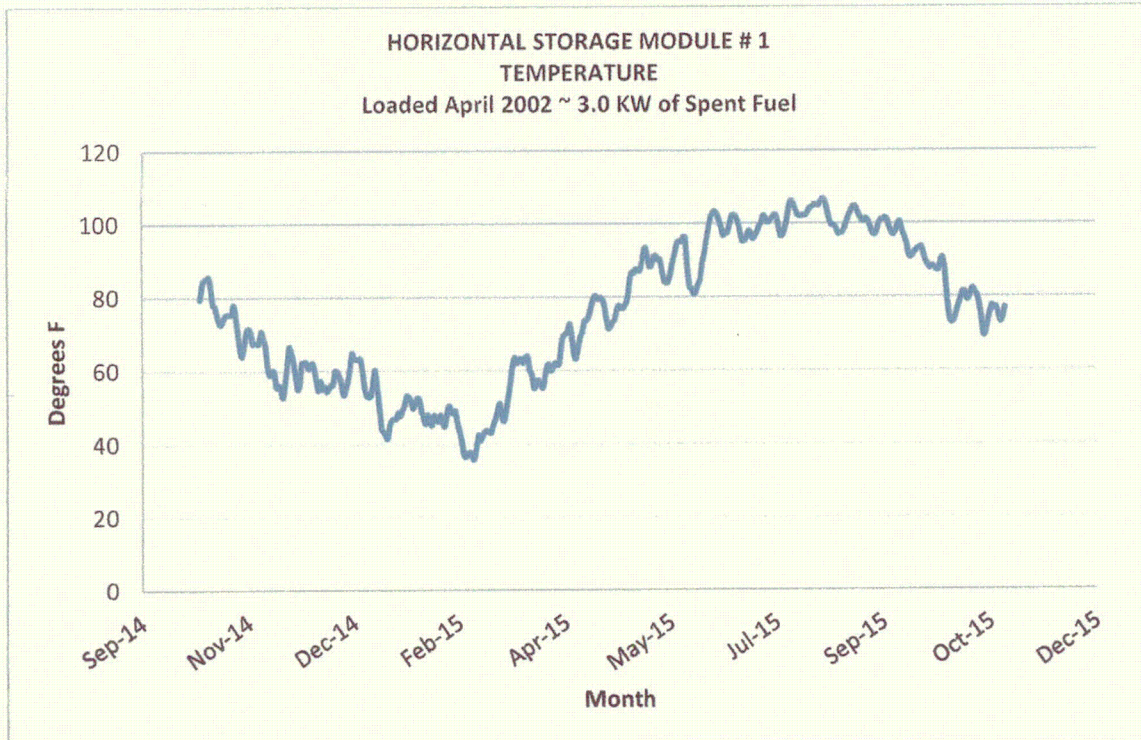
Enclosure 1
Oyster Creek Nuclear Generating Station
Independent Spent Fuel Storage Installation
Response to Building Permit Conditions 10 and 11

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

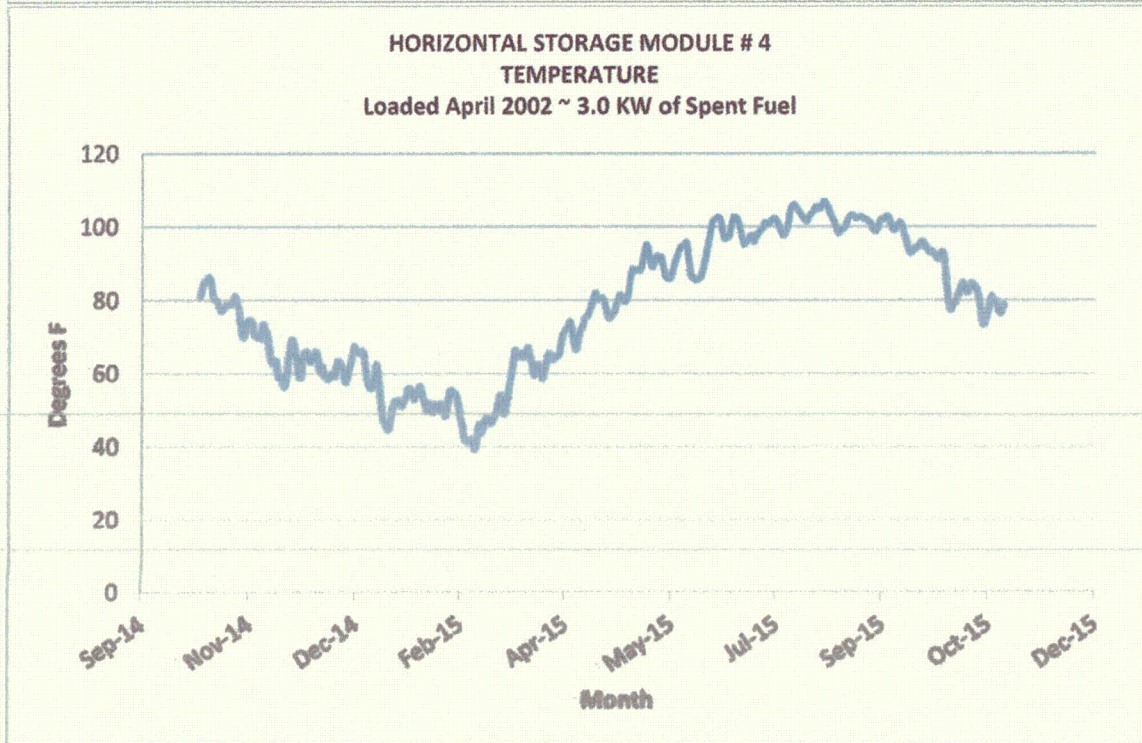
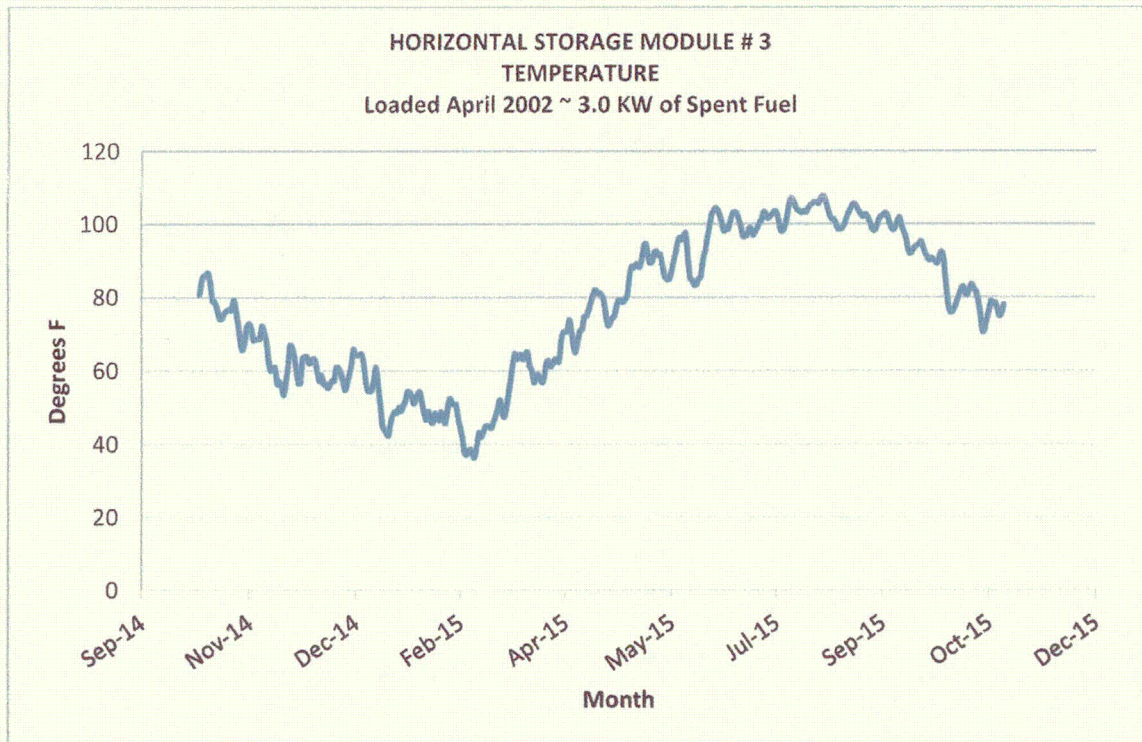
The Commission issued its final report on January 26, 2012. The report did not make any specific recommendations as to the "suitability" of Yucca Mountain, other than to make clear that the process of selecting and establishing the Yucca Mountain facility has suffered from several flaws and should be 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.

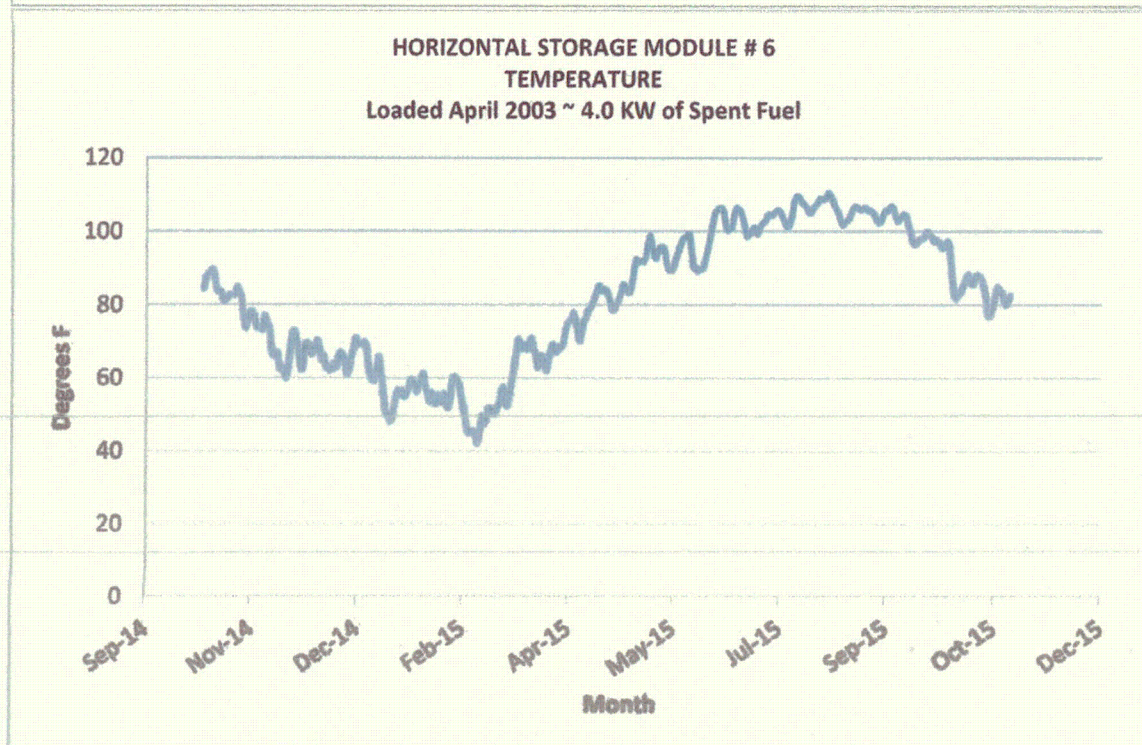
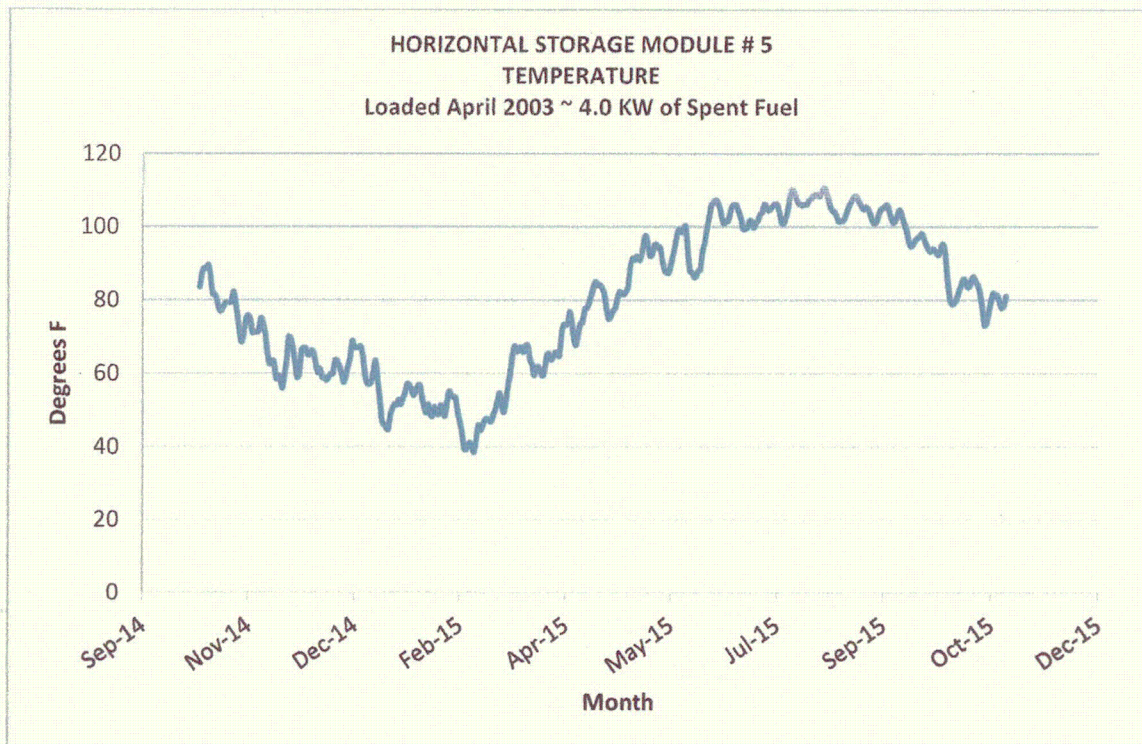
Enclosure 2
Oyster Creek Nuclear Generating Station
Independent Spent Fuel Storage Installation
Temperature Monitoring Graphs



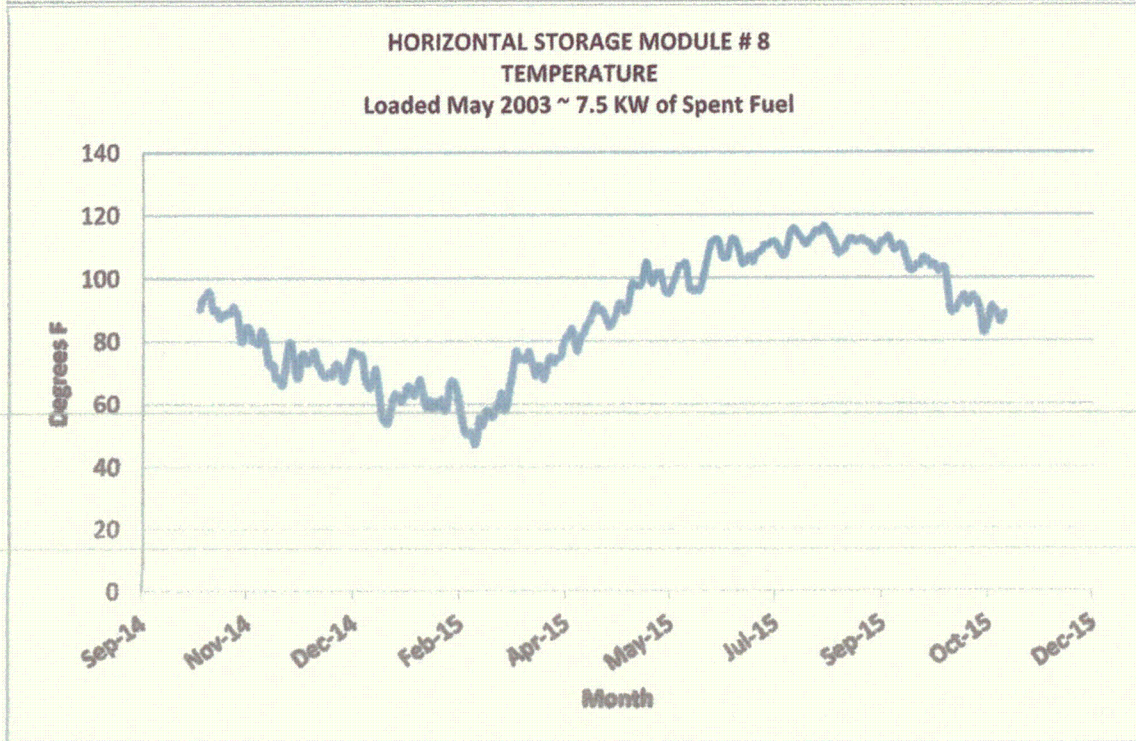
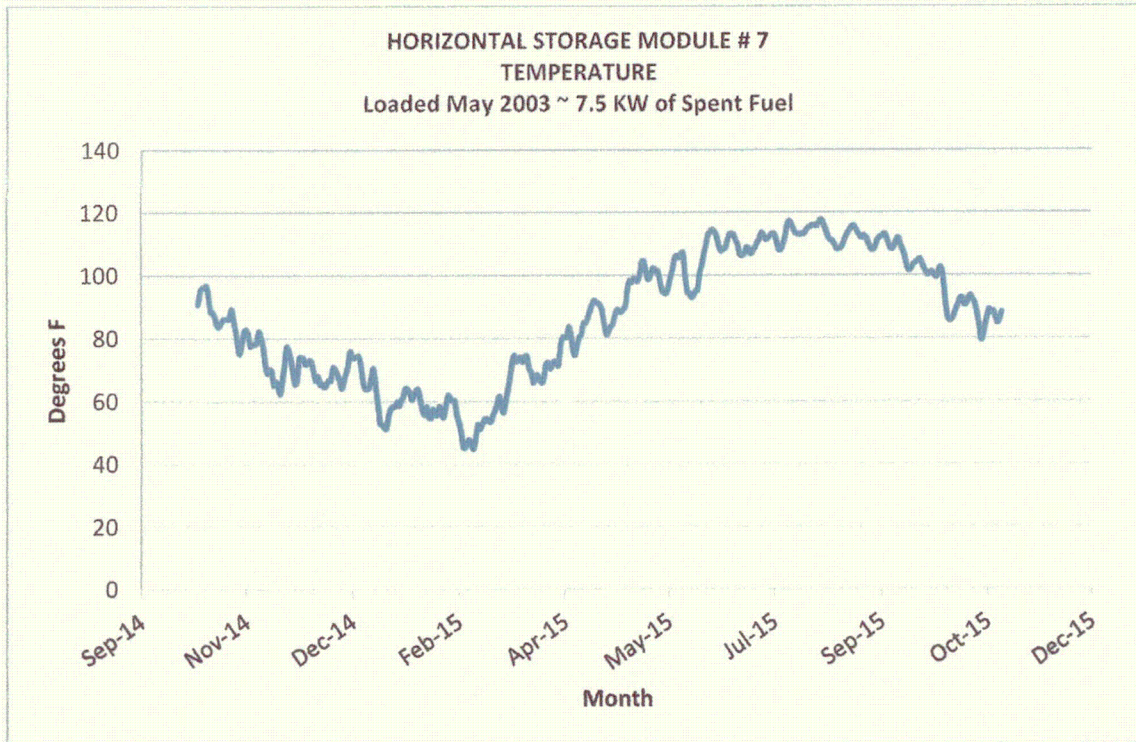
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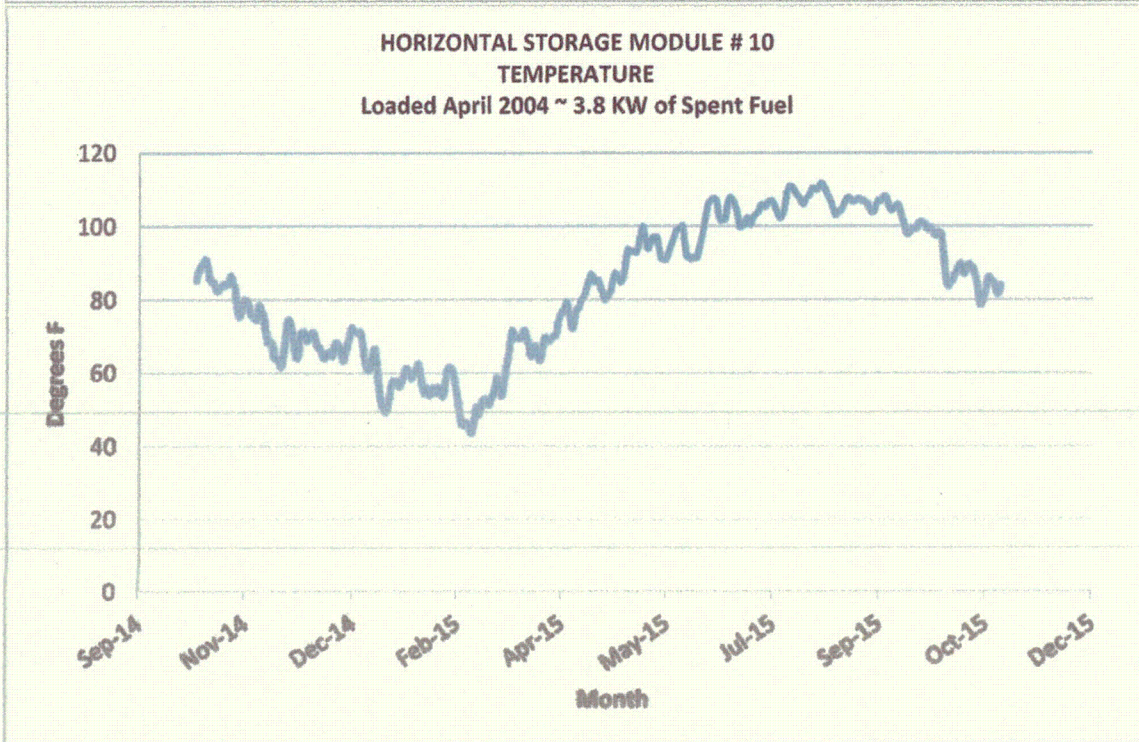
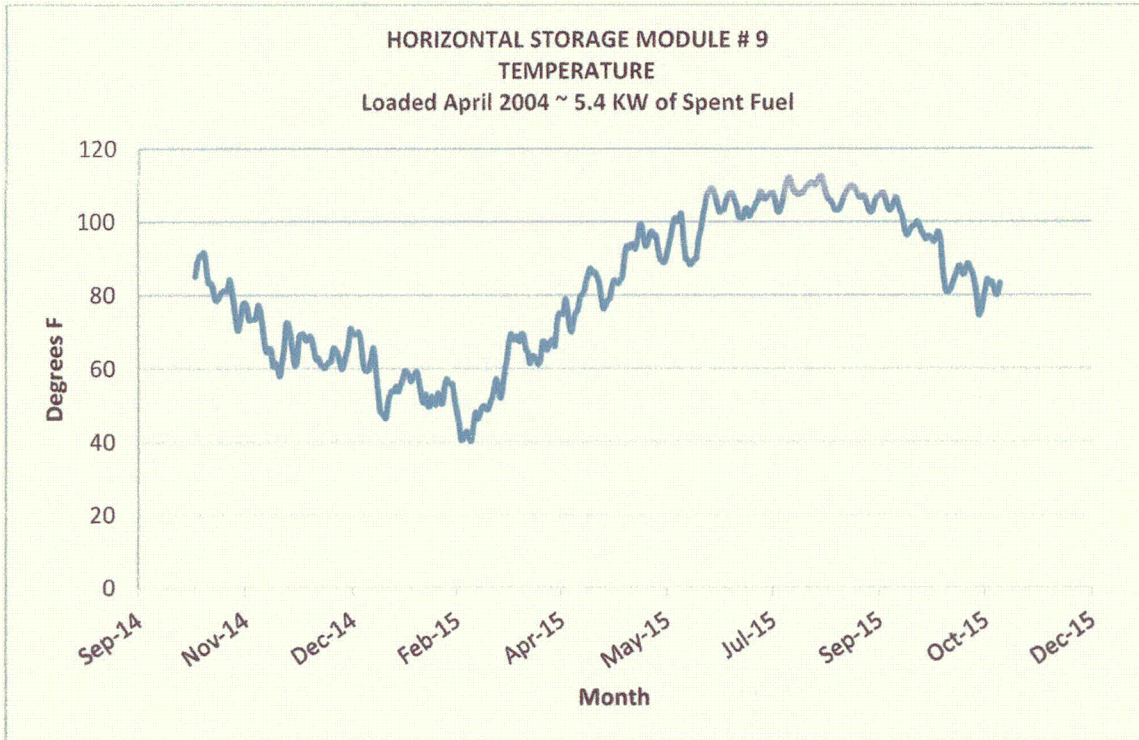
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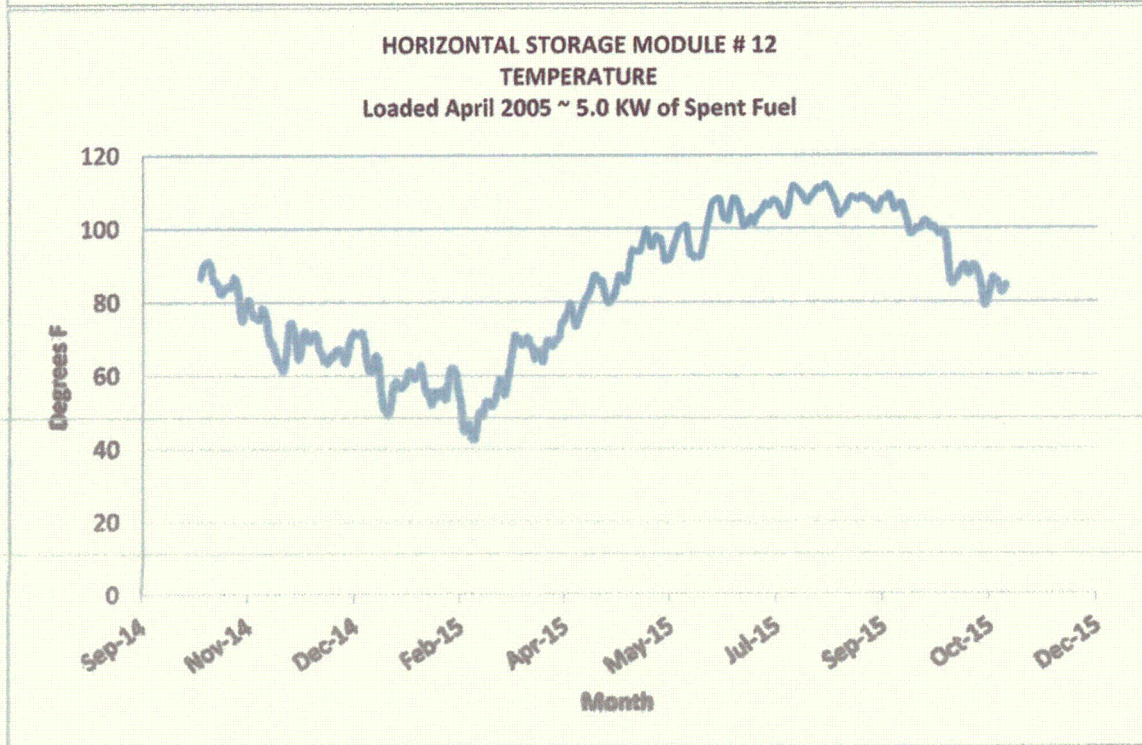
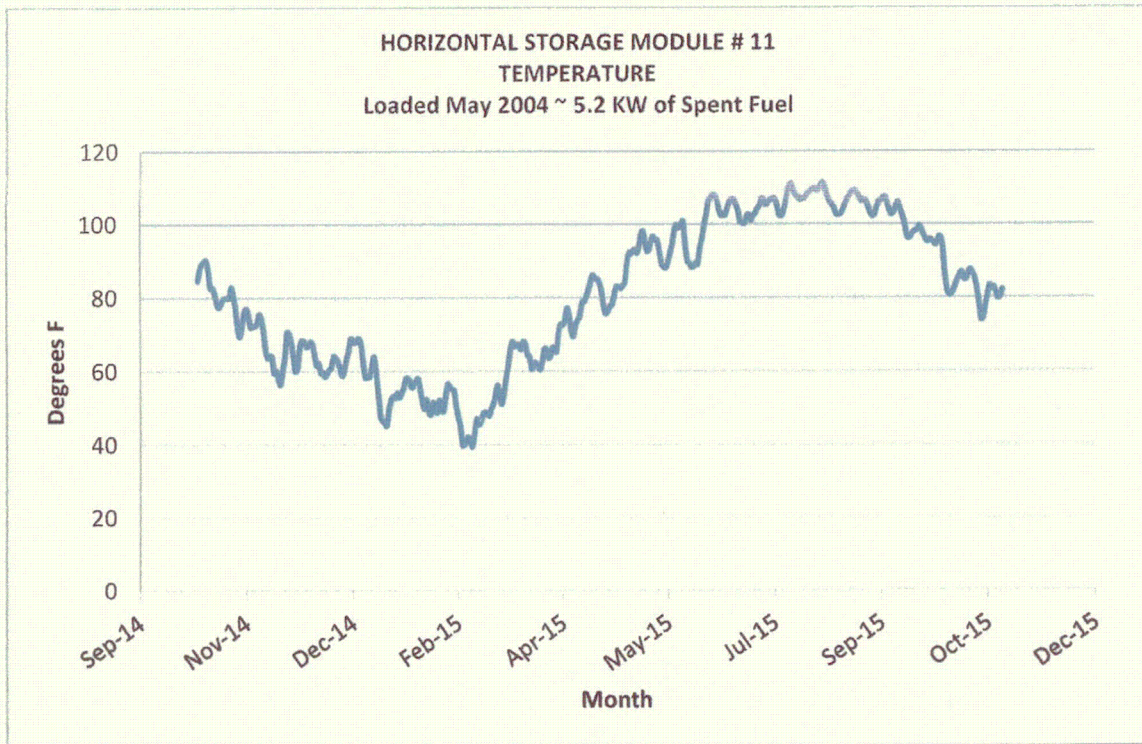
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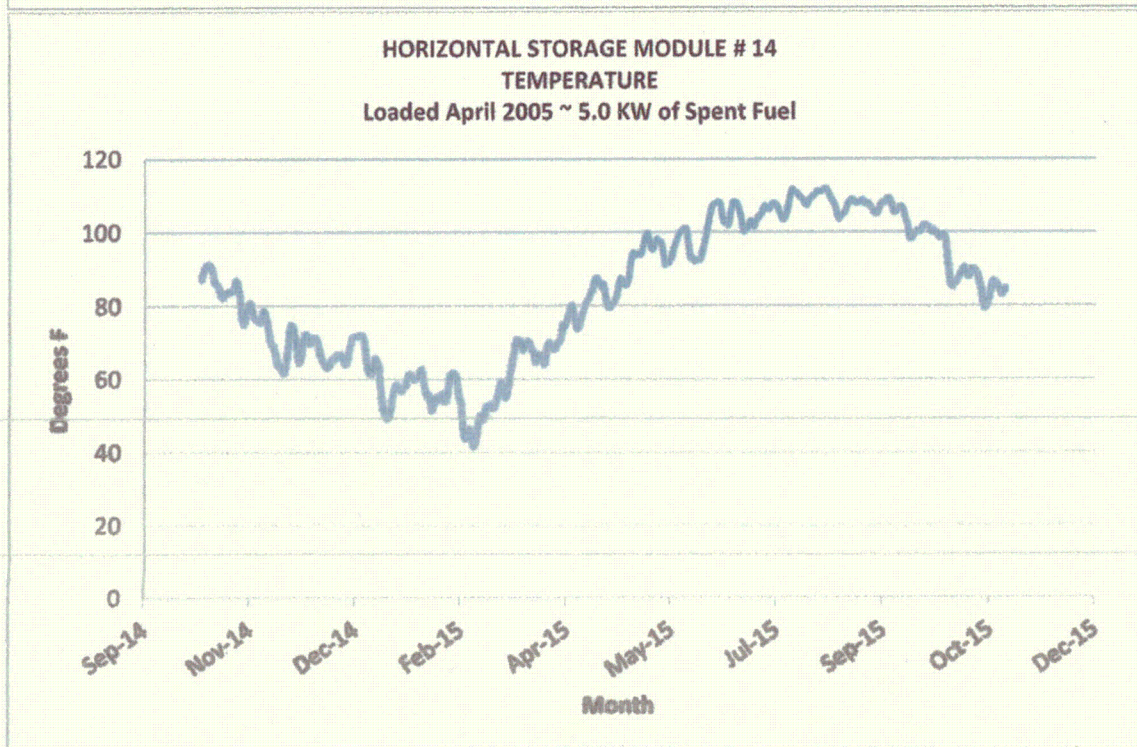
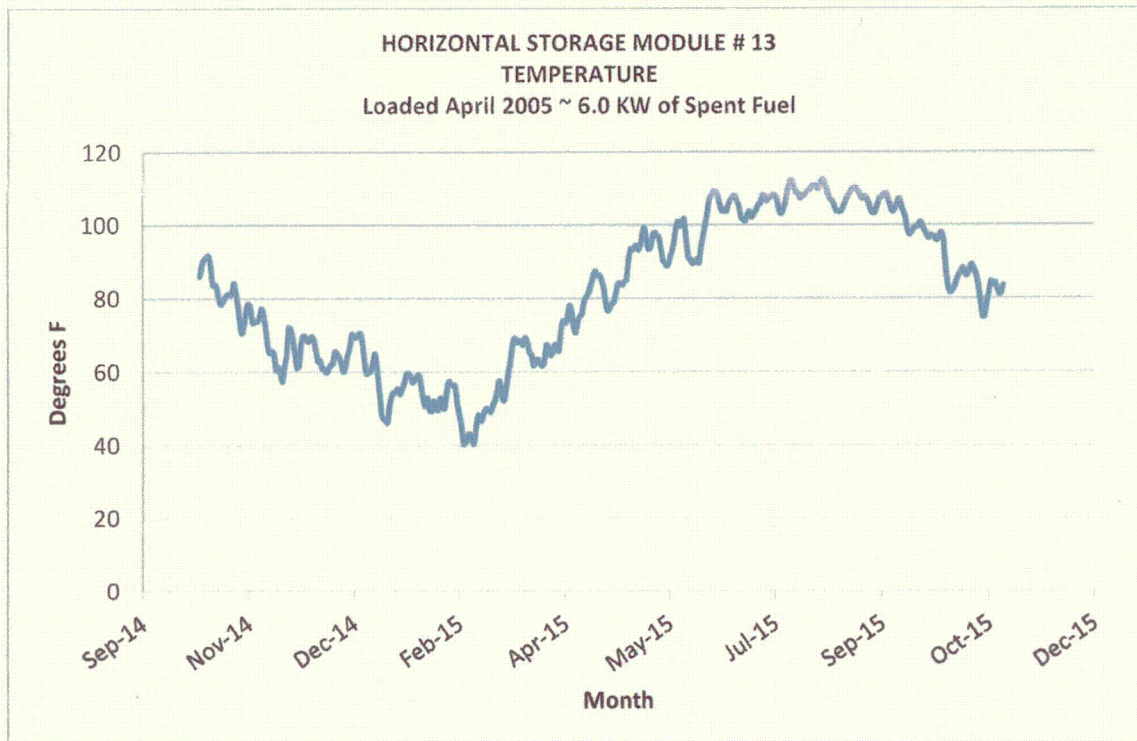
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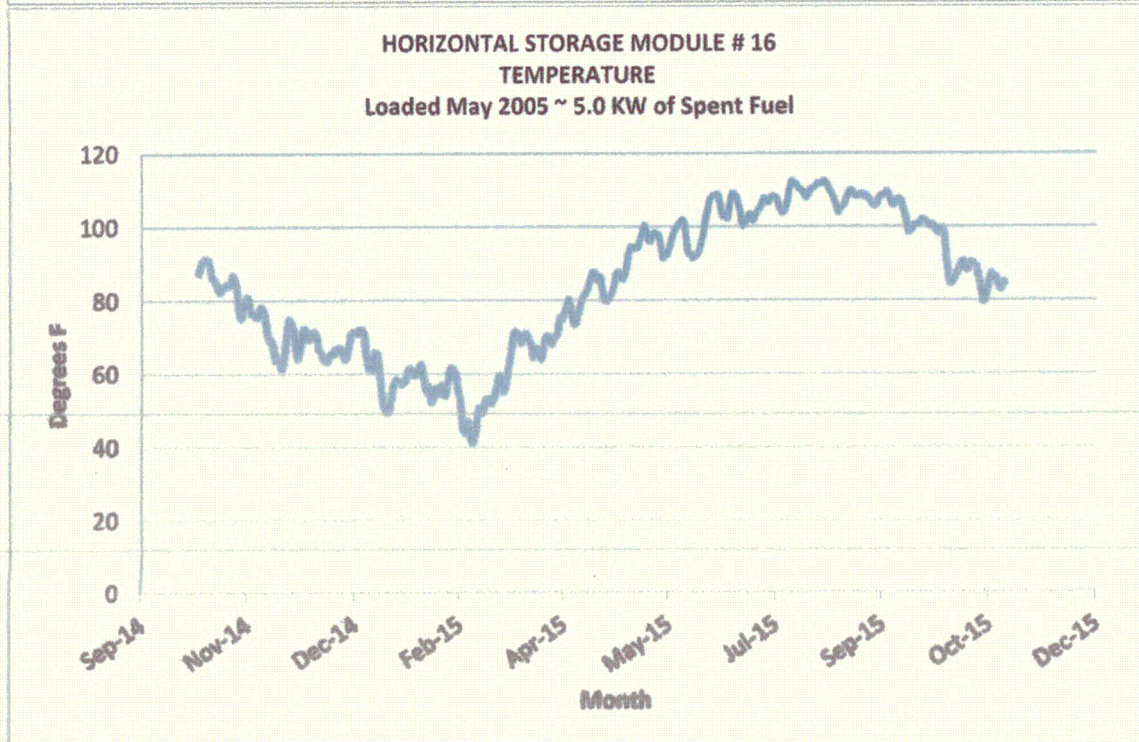
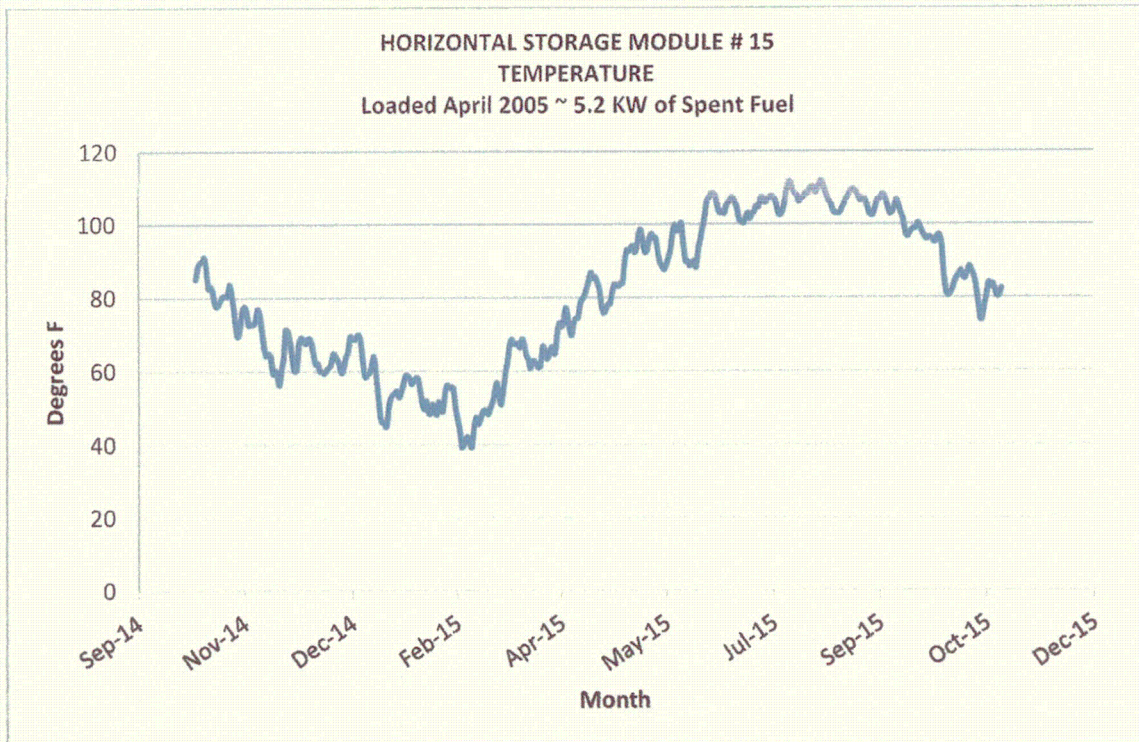
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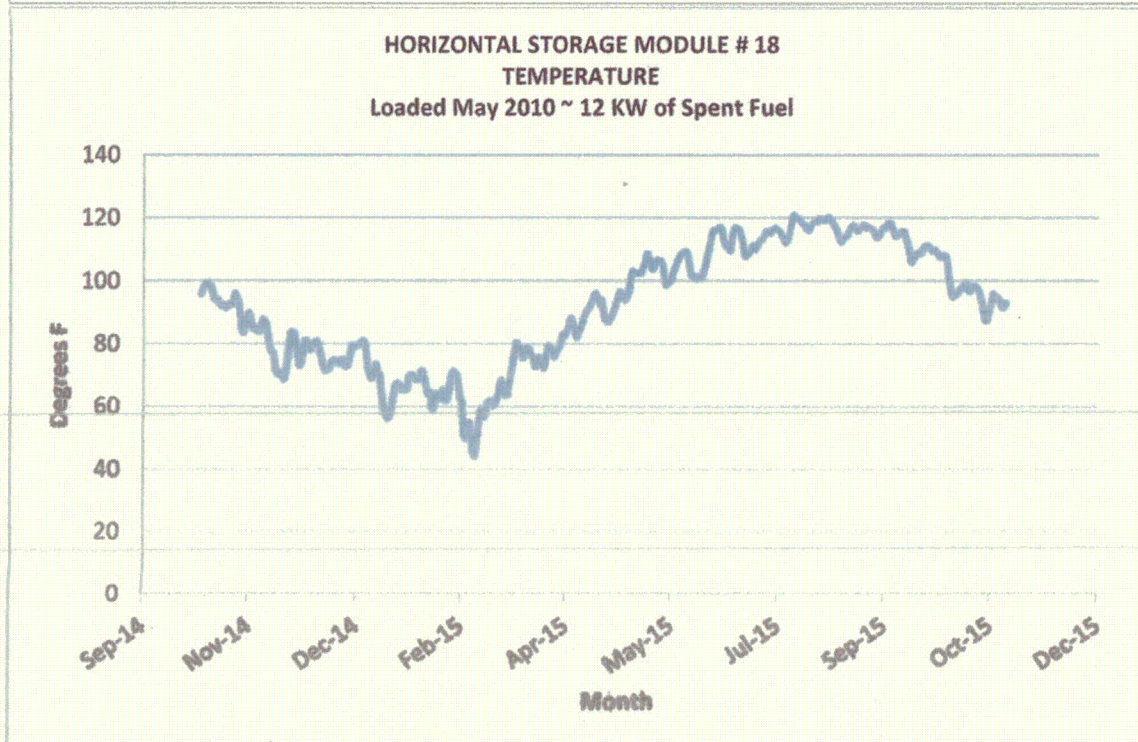
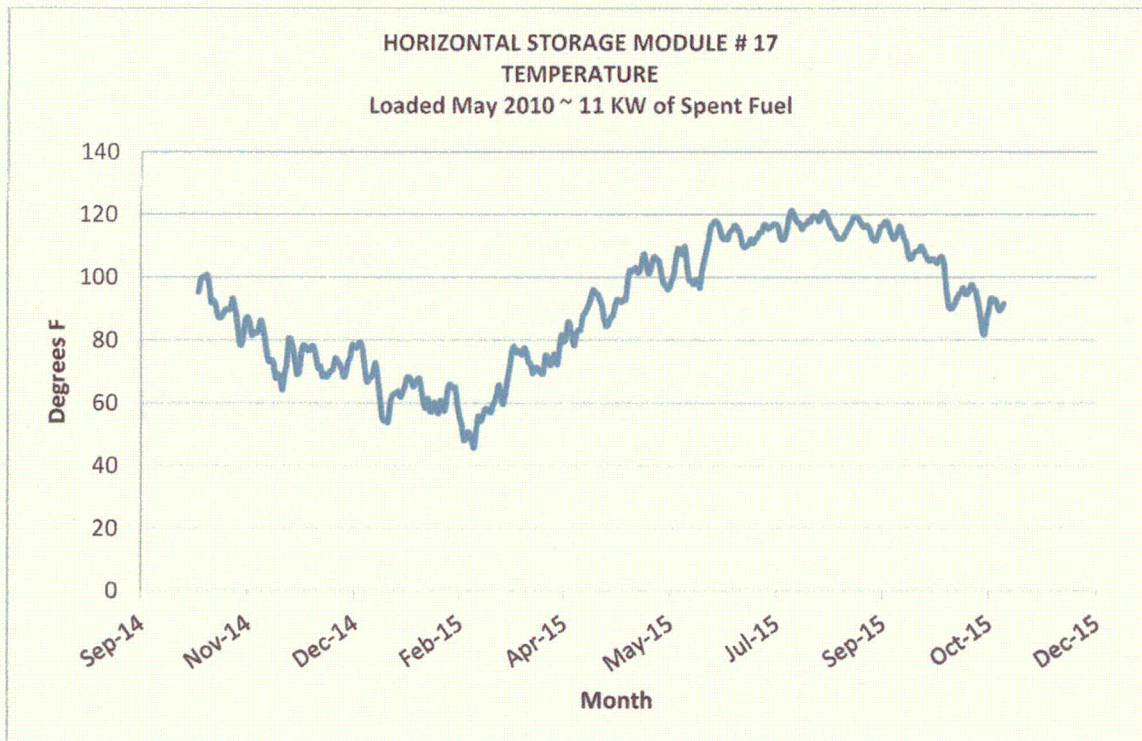
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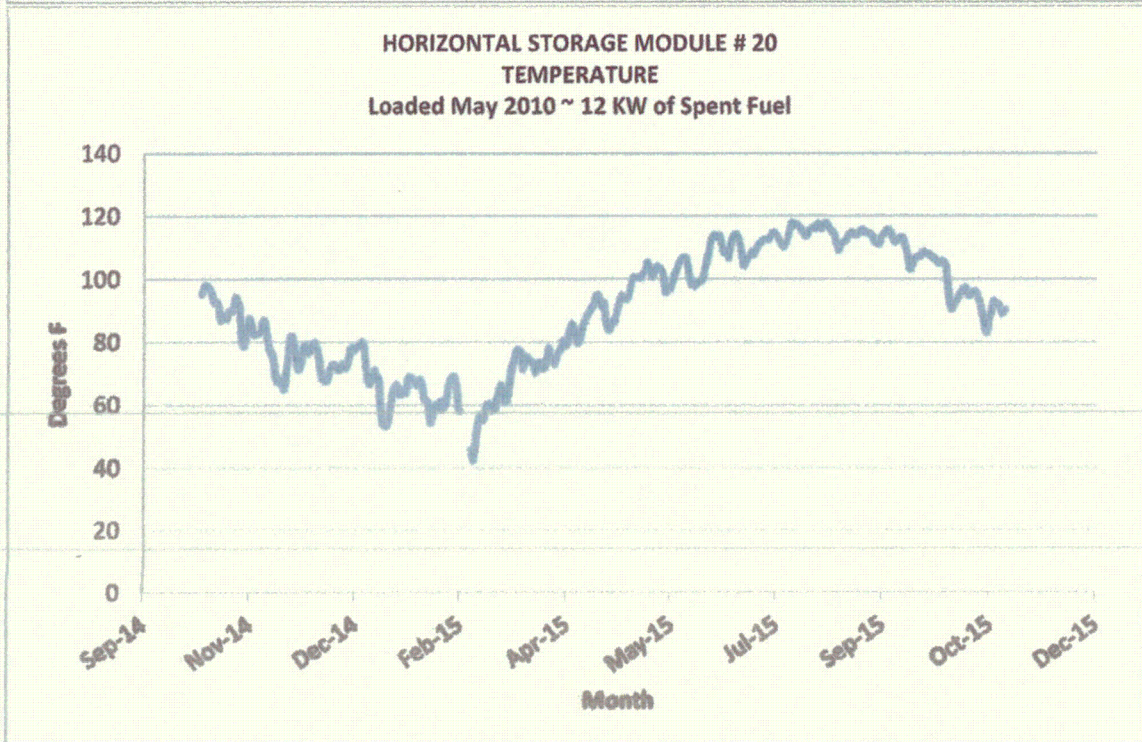
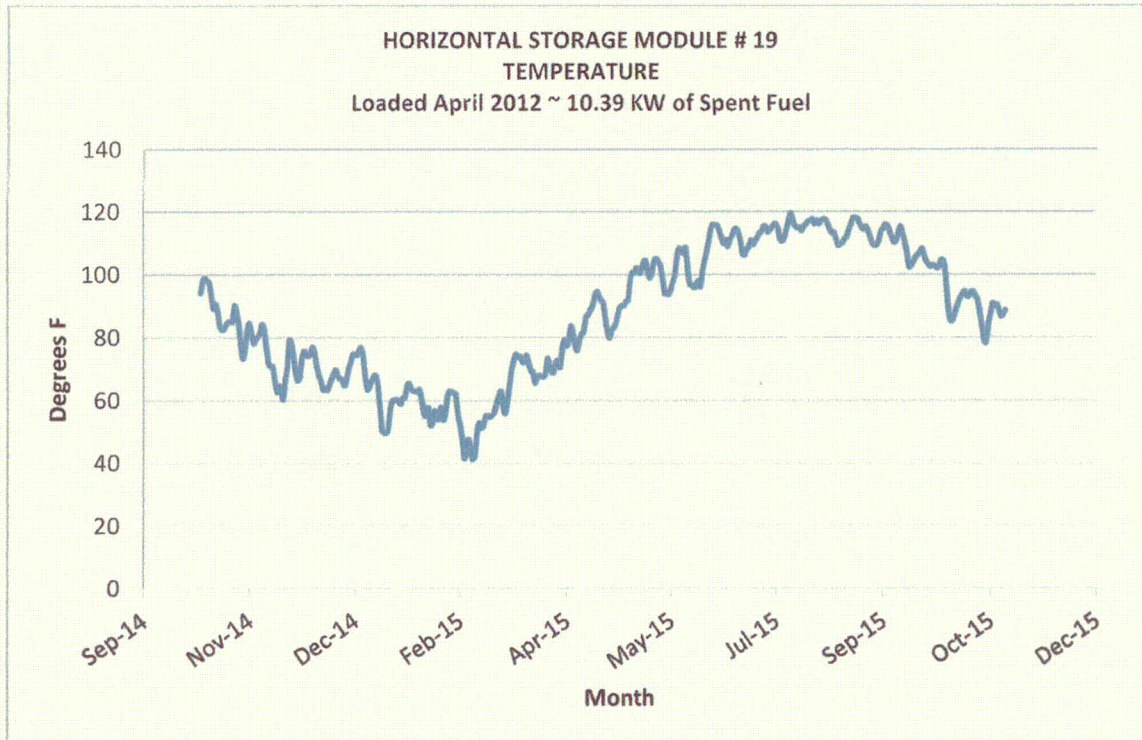
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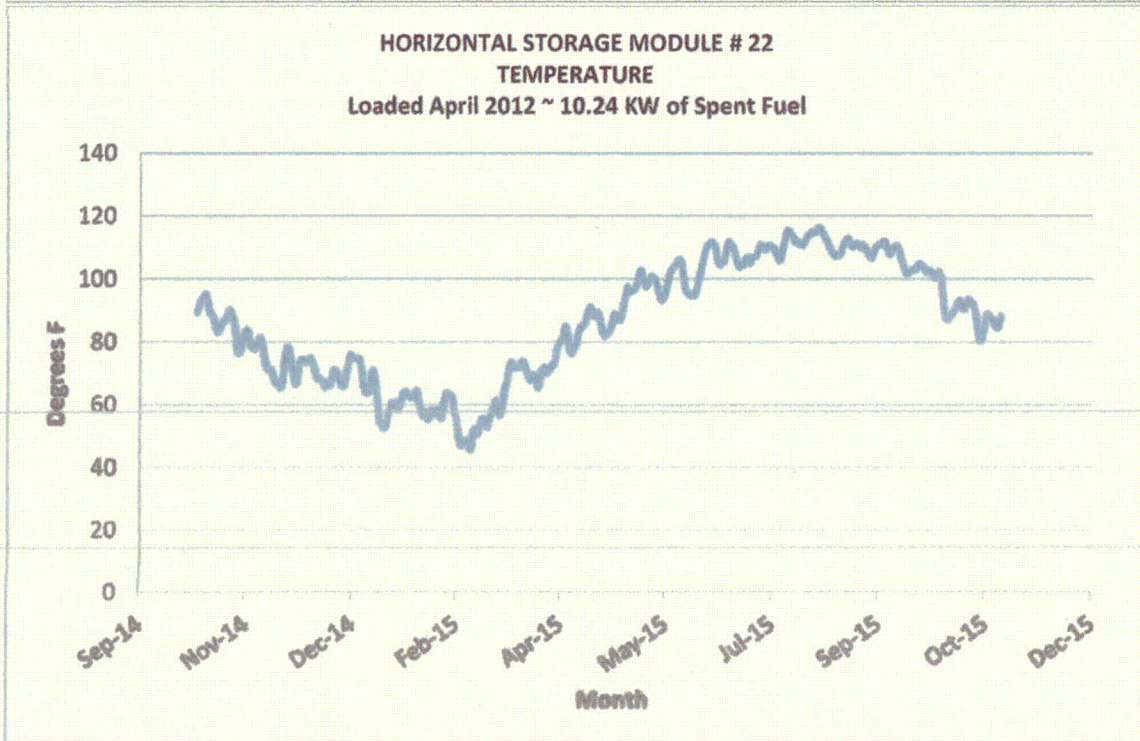
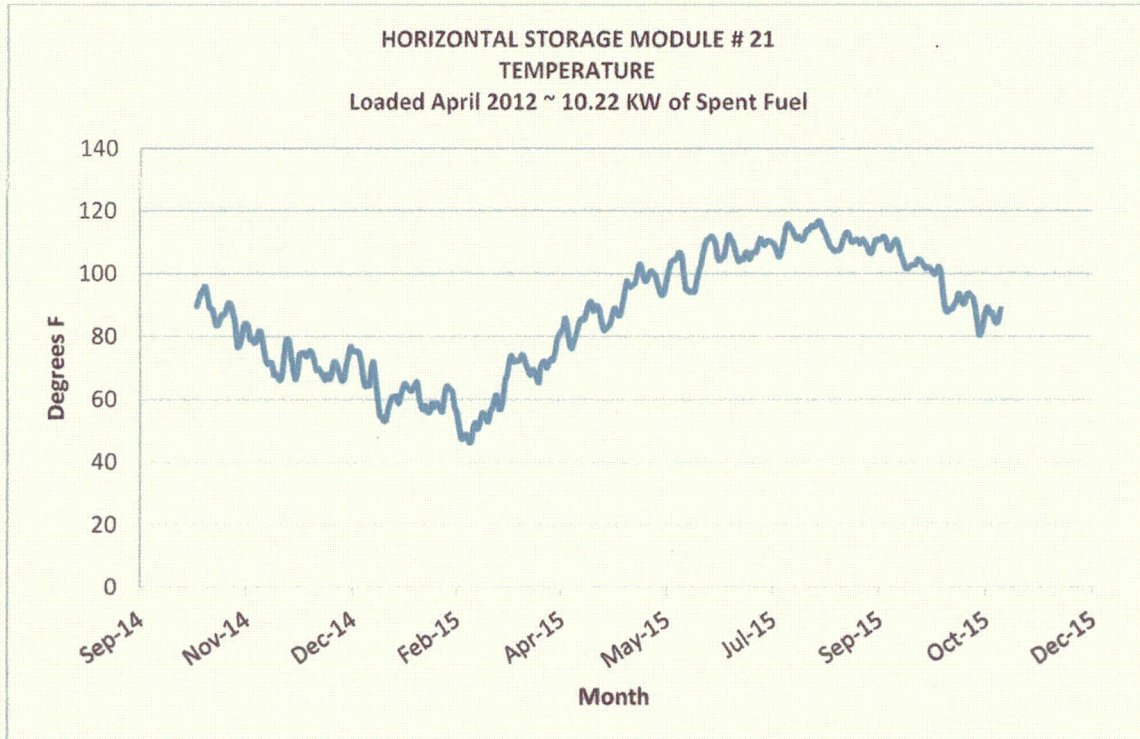
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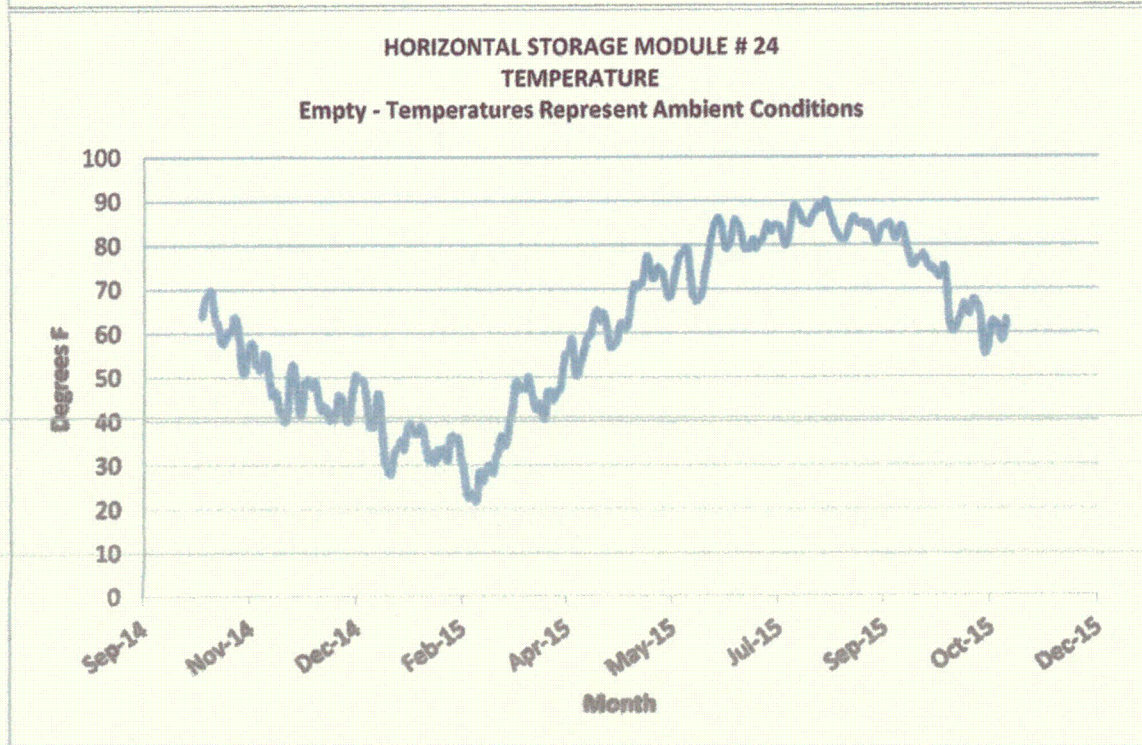
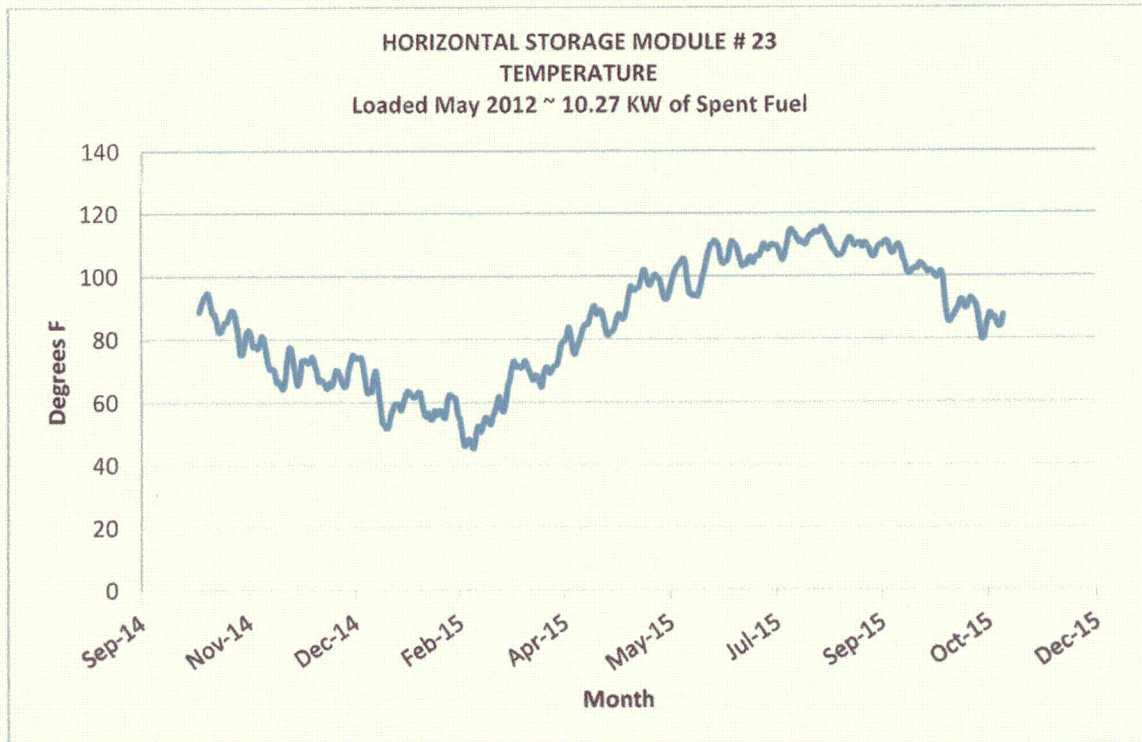
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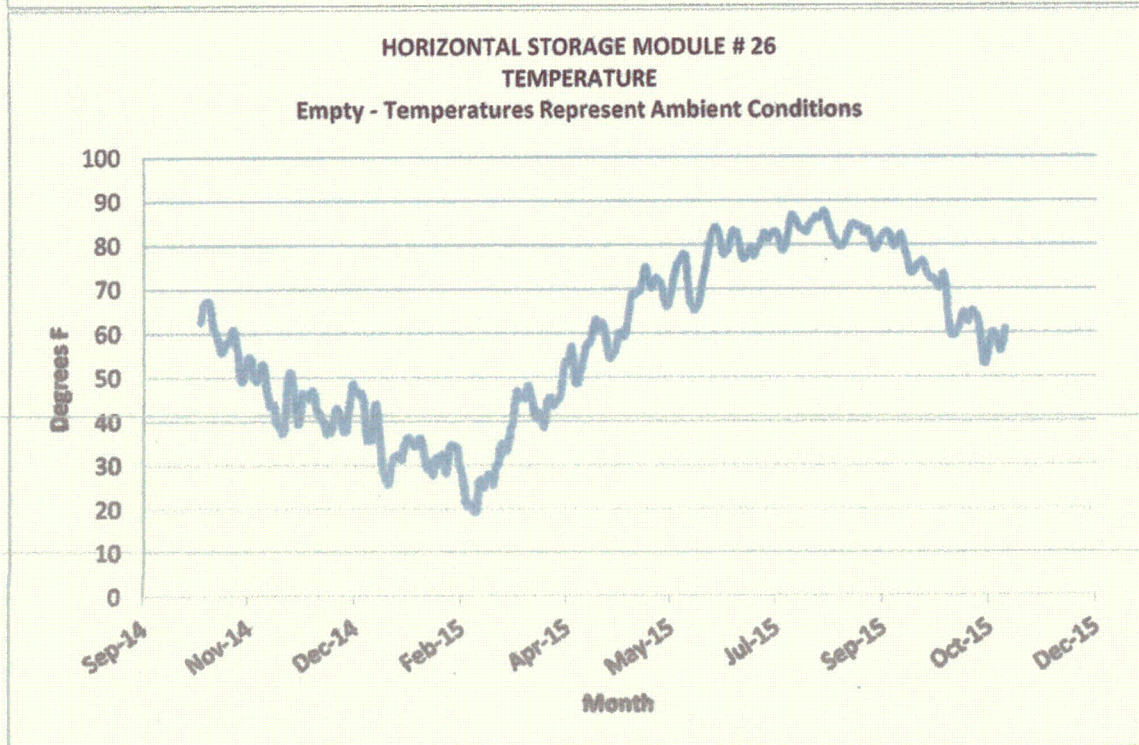
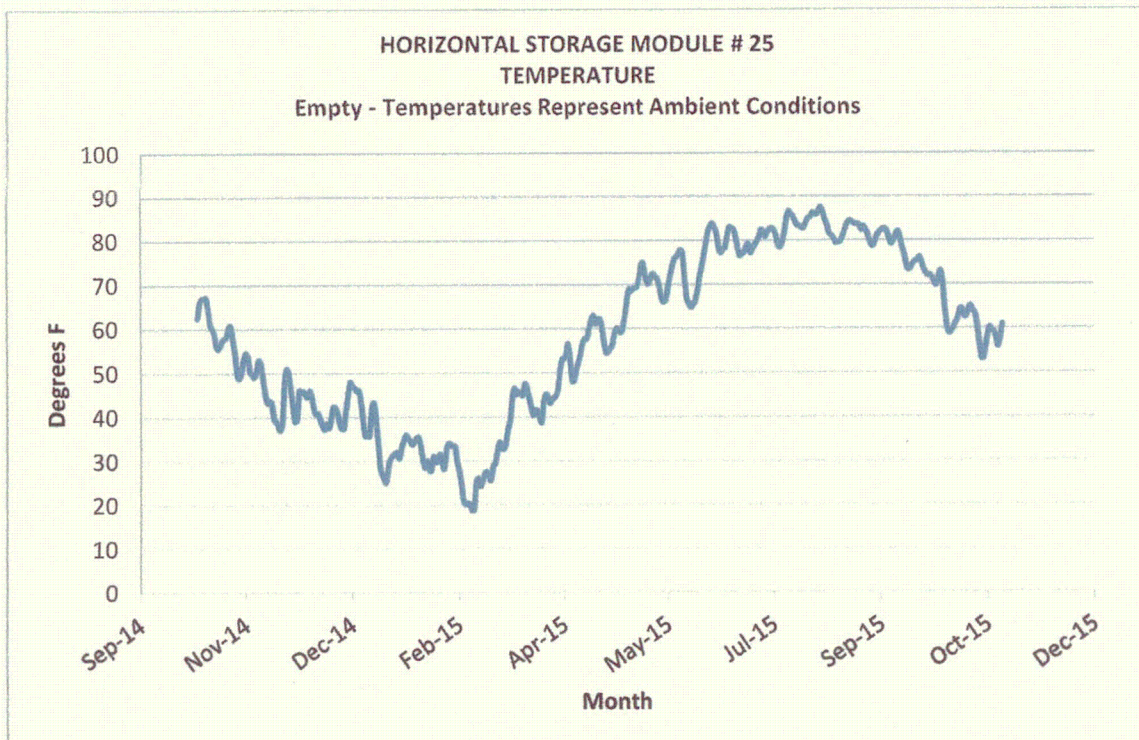
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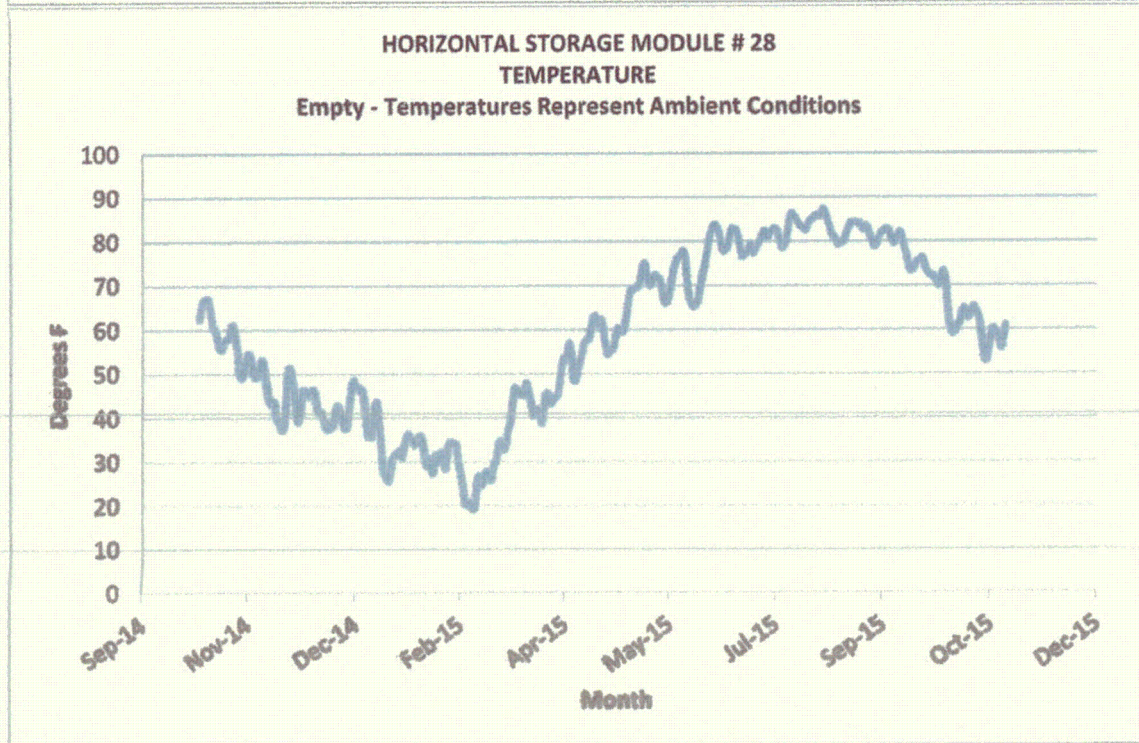
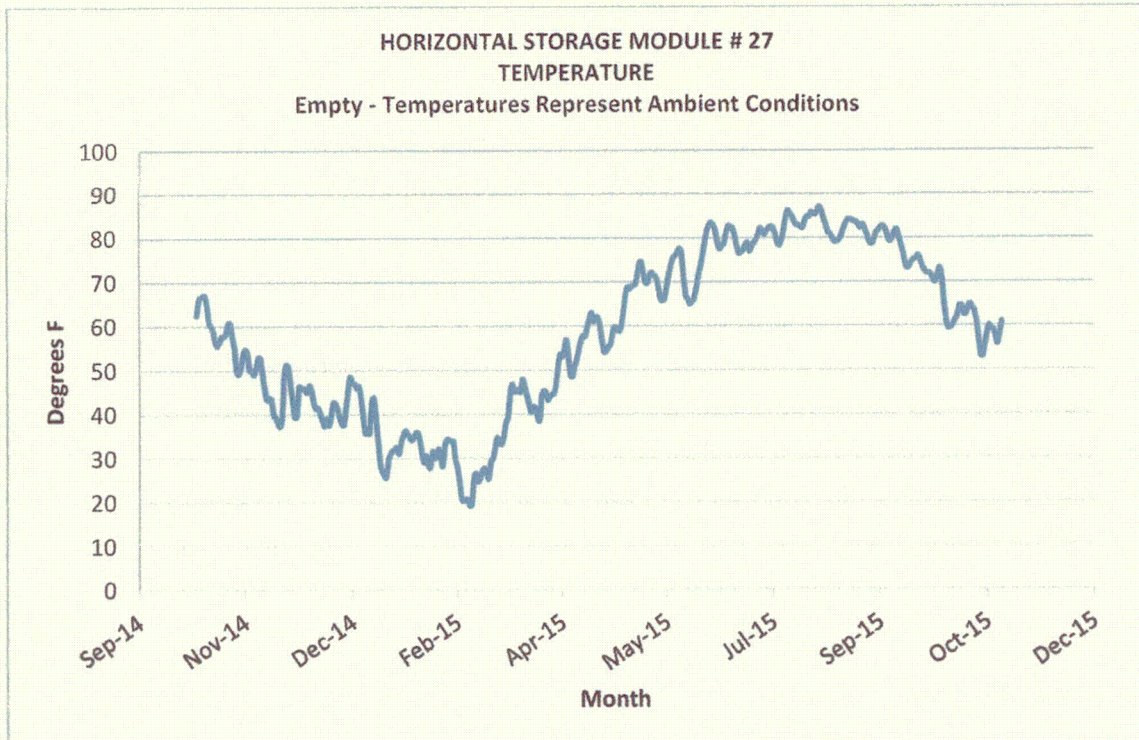
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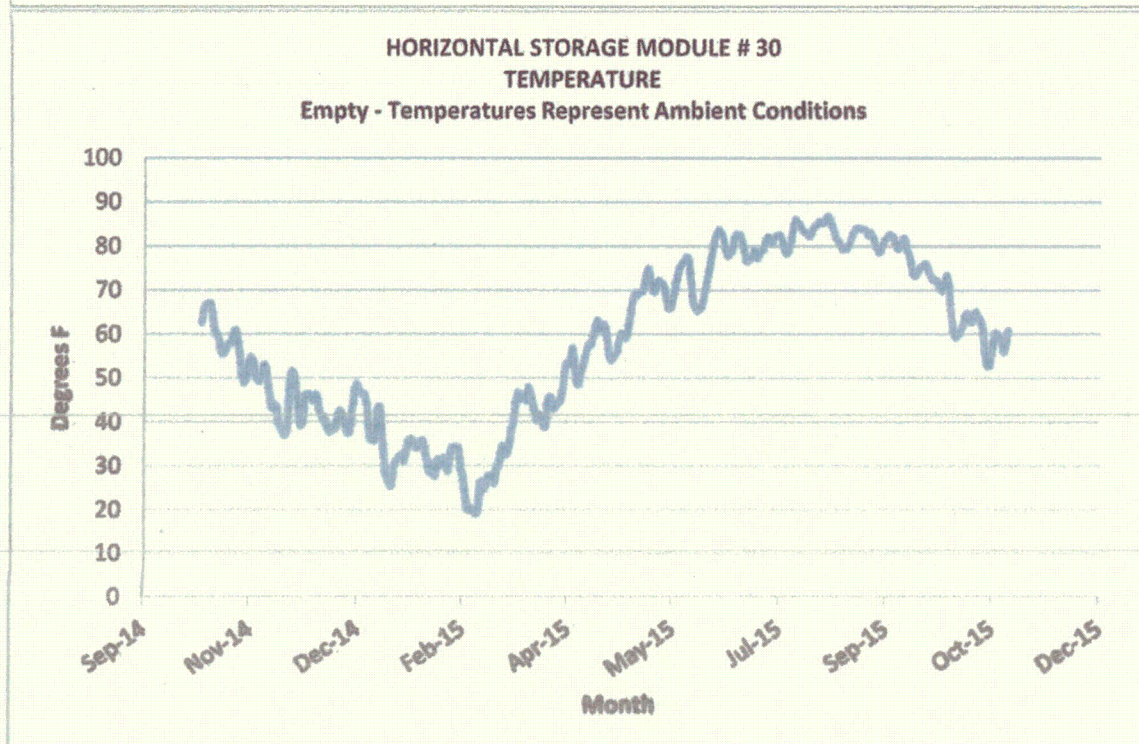
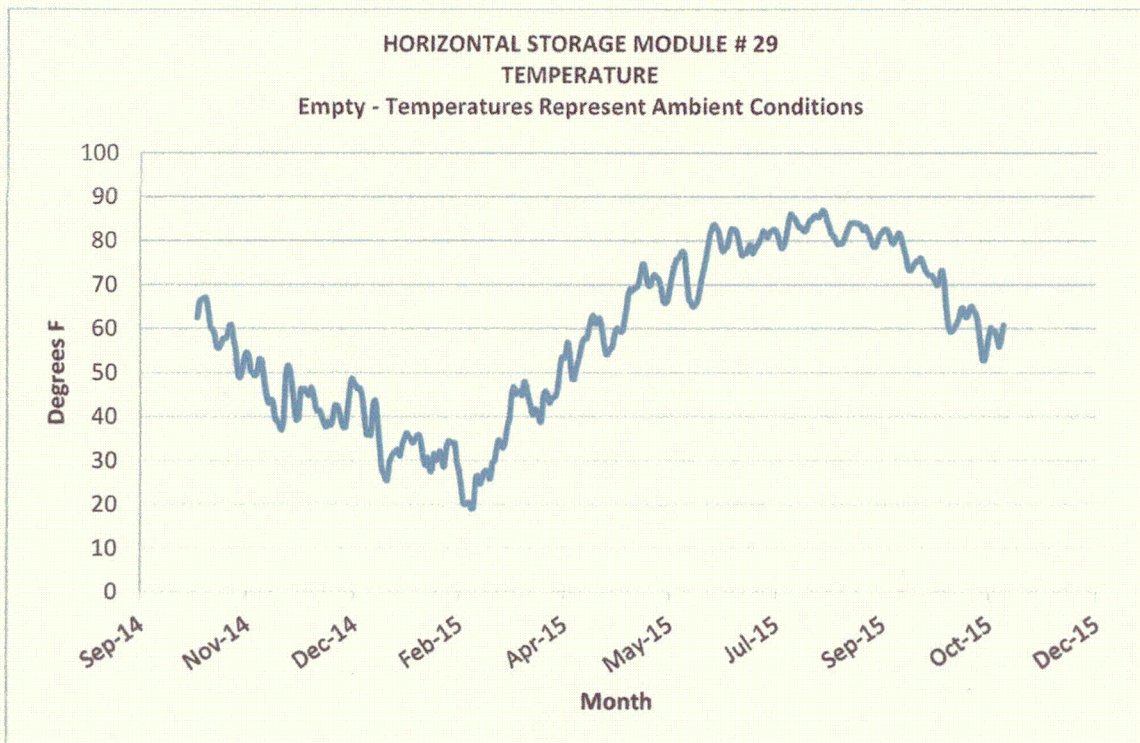
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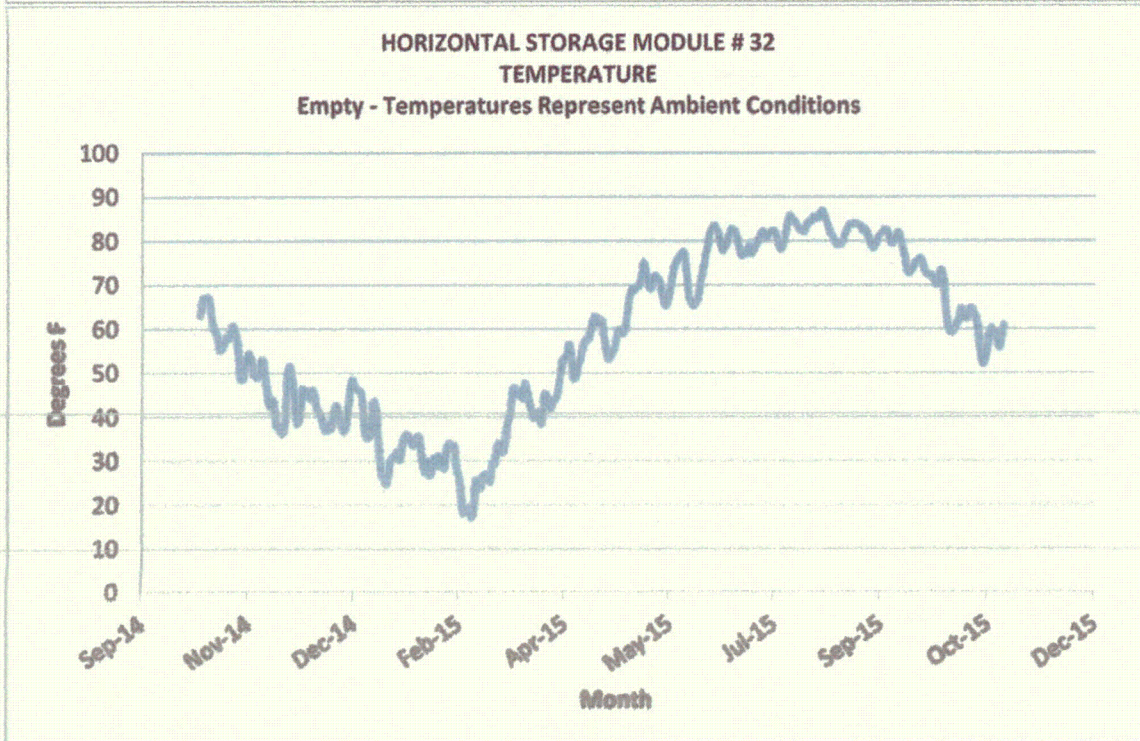
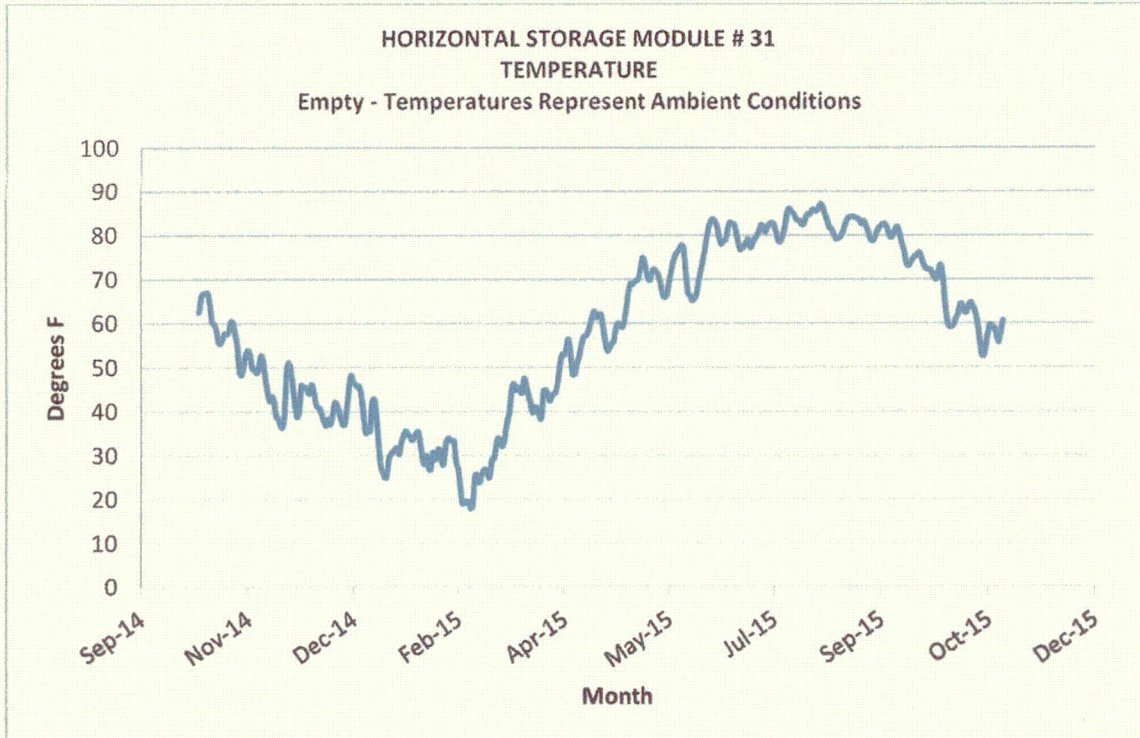
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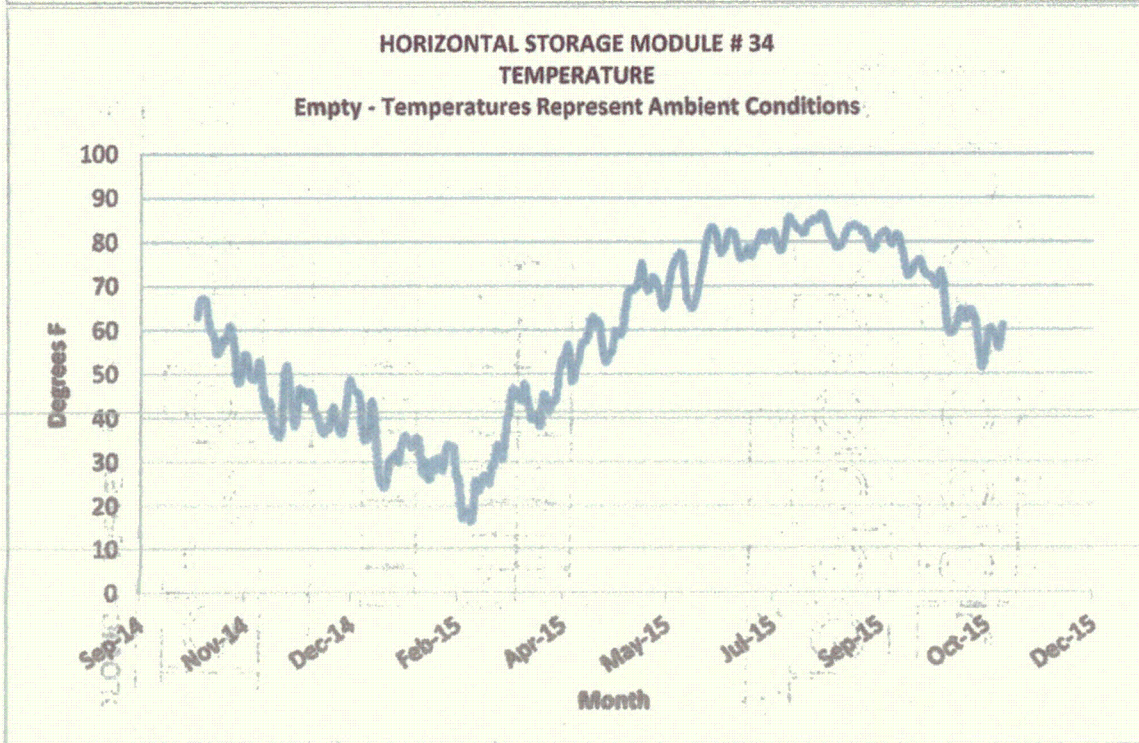
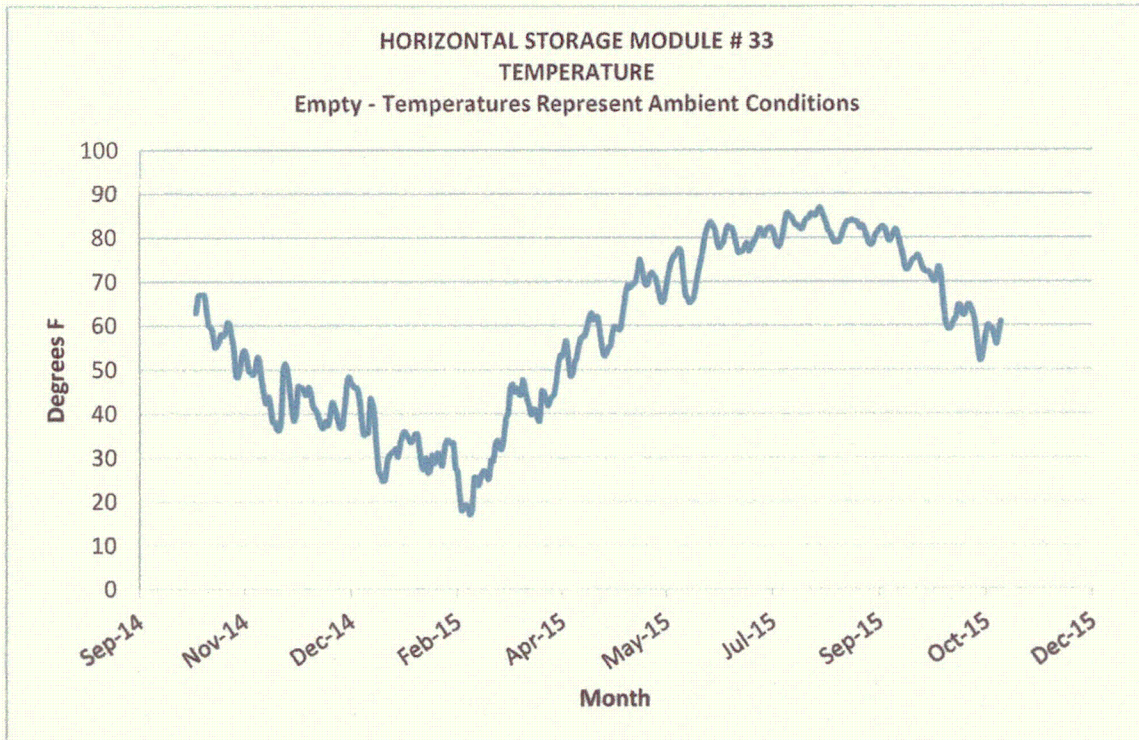
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Enclosure 3
Oyster Creek Nuclear Generating Station
Independent Spent Fuel Storage Installation
2015 Radiation Survey

OCGS RADIOLOGICAL SURVEY		No. YFS-15-01083	Date 10/10/15	Time 0900	Location Independent Spent Fuel Storage Facility
RWP RP STANDING		Reason Semi-Annual Routine Survey			
Rx Power - 100%		ORIGINAL			

SMEARABLE CONTAMINATION				INSTRUMENTATION DATA	
LOCATION	B7 <input type="checkbox"/> CCPM <input type="checkbox"/> BRAD/HR	DPM <input type="checkbox"/> DPM	G DPM	AREA	RADIATION SURVEY
1					INST ASP-1
2					S/N 079953 BCF N/A
3					CDD 9/23/16
4					INST
5					S/N N/A BCF
6					CDD
7					CONTAMINATION SURVEY
8					INST
9					S/N N/A
10					CDD
11					EFF 10% BKG CPM
12					INST
13					S/N N/A
14					CDD
15					EFF 10% BKG CPM
16					INST
17					S/N N/A
18					CDD
19					EFF BKG CPM
20					INST 3030P
					S/N
					CDD
					BETA BKG N/A CPM
					BETA MDA DPM
					ALPHA BKG CPM
					ALPHA MDA DPM

Surveyor: (print name) E. Jennings / J. Tidwell		# = Gamma GA
Signature <i>E. Jennings</i>	Date 10/10/15	#B = Beta
Reviewer: (print name) J. Baby		#N = Neutron
Signature <i>J. Baby</i>	Date 10-16-15	NT = Not Taken
		DF = Direct Frisk
		# = Smear

NOTES	
#B = Beta / Gamma Contact	# / # = Contact / 30 cm
#W = Beta / Gamma 30 cm	#B / # = B7
X-X or --- = Rad Boundary	L = Large Area Smear
Hd = Head, Ch = Chest, Kn = Knee, W = Waist	NC = Not Counted
	NA = Not Applicable

All Dose Rates are General Area Readings in mR/hr Unless Otherwise Noted.	
No BETA Detected Unless Otherwise Noted	
No BETA Readings Taken	

Remarks: REQUIRED SURVEY POINTS: HSM DOOR CENTERLINE (< 5 MR/HR)	
BY COMPLETED 10/10/15 END OF SHIELD WALLS (< 10 MR/HR)	
RET SURVEY # YFS-15-01083 FENCELINE (< 1.6 MR/HR) KAN 7/9/13	

