

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

www.exeloncorp.com

RA-10-083

November 1, 2010

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

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

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

The above referenced building permit requires the Oyster Creek Generating Station to submit routine reports to Lacey Township on an annual basis. Enclosed is the Temperature Monitoring and Radiation Survey data for the reporting required by conditions 10 and 11 of the Building Permit. The status of the Federal Governments plans to site a permanent spent fuel repository is also provided, as required by Condition 17 of the Building Permit. This fulfills the reporting requirements for the year 2010.

If any further information or assistance is needed, please contact Jeff Chrisley at 609-971-4469.

Sincerely,



Michael J. Massaro
Vice President, Oyster Creek Generating Station

Enclosure

cc: USNRC Document Control Desk; Docket 72-15
Administrator, USNRC Region I
USNRC Senior Project Manager, Oyster Creek
USNRC Senior Resident Inspector, Oyster Creek
File No. 10006

NMSS01

Enclosure

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 Generating Station Reply to Condition Ten:

The temperatures of the loaded concrete storage modules (HSMs) are monitored daily and are part of the stations surveillance records. The temperature of the loaded modules runs 16 - 30 degrees higher than the unloaded modules depending on the heat load of the spent fuel loaded. On a typical summer sunny day, the highest concrete storage module temperatures read about 123 degrees. This is well within the design limits of the modules and represents a maximum actual heat loading of about 12 KW.

The following graphs represent average daily temperature data for the period from October 1, 2009 to September 30, 2010, for the modules we loaded in 2002 (# 1-4), the modules we loaded in April - May of 2003 (# 4-8), the modules we loaded in 2004 (# 9-11), the modules we loaded in 2005 (# 12-16) and modules (17, 18, and 20) loaded in May of 2010. Module 19 was not loaded and remains empty.

The highest radiation measurements on the vertical face between the modules (birdscreens) of the Horizontal Storage Modules (HSM) are 6.0 mr/hr gamma and <0.2 mr/hr neutron. 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 TLDs, the highest radiation levels at the ISFSI security fence are 0.05 mrem/hr gamma and 0.004 mrem/hr neutron. Radiation survey data is included following the temperature data.

There were no repairs to the concrete modules in the last year.

New Horizontal Storage Modules 19 and 20 were installed in the fall of 2009 and HSMs 17, 18, and 20 were loaded with spent fuel in 2010. Module 19 remains empty and the temperature readings represent ambient conditions.

The existing Independent Spent Fuel Storage Installation (ISFSI) reviewed under the Building Permit, Appeal 93-40 (after remand) is complete with 20 HSMs installed of which 19 are loaded with spent fuel. Construction of additional pad space is currently underway.

Independent Spent Fuel Storage Installation 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."

Oyster Creek Generating Station Reply to Condition Eleven:

There were no fuel assemblies loaded into the ISFSI prior to 2002. During 2002, 244 fuel assemblies were transferred to the ISFSI. During 2003, 244 additional fuel assemblies were transferred to the ISFSI. During 2004, 183 additional fuel assemblies were transferred to the ISFSI, during 2005, 305 additional assemblies were transferred to the ISFSI, and in 2010 183 assemblies were moved to dry storage for a grand total of 1159 assemblies in dry storage. Presently, there are no further transfers planned until 2012; however, rescheduling may occur given plant status and future activities.

Independent Spent Fuel Storage Installation Building Permit Condition Seventeen:

"The applicant shall submit a report to the Township of Lacey no less than annually as to the status of the efforts of the Federal Government to site a permanent spent fuel repository."

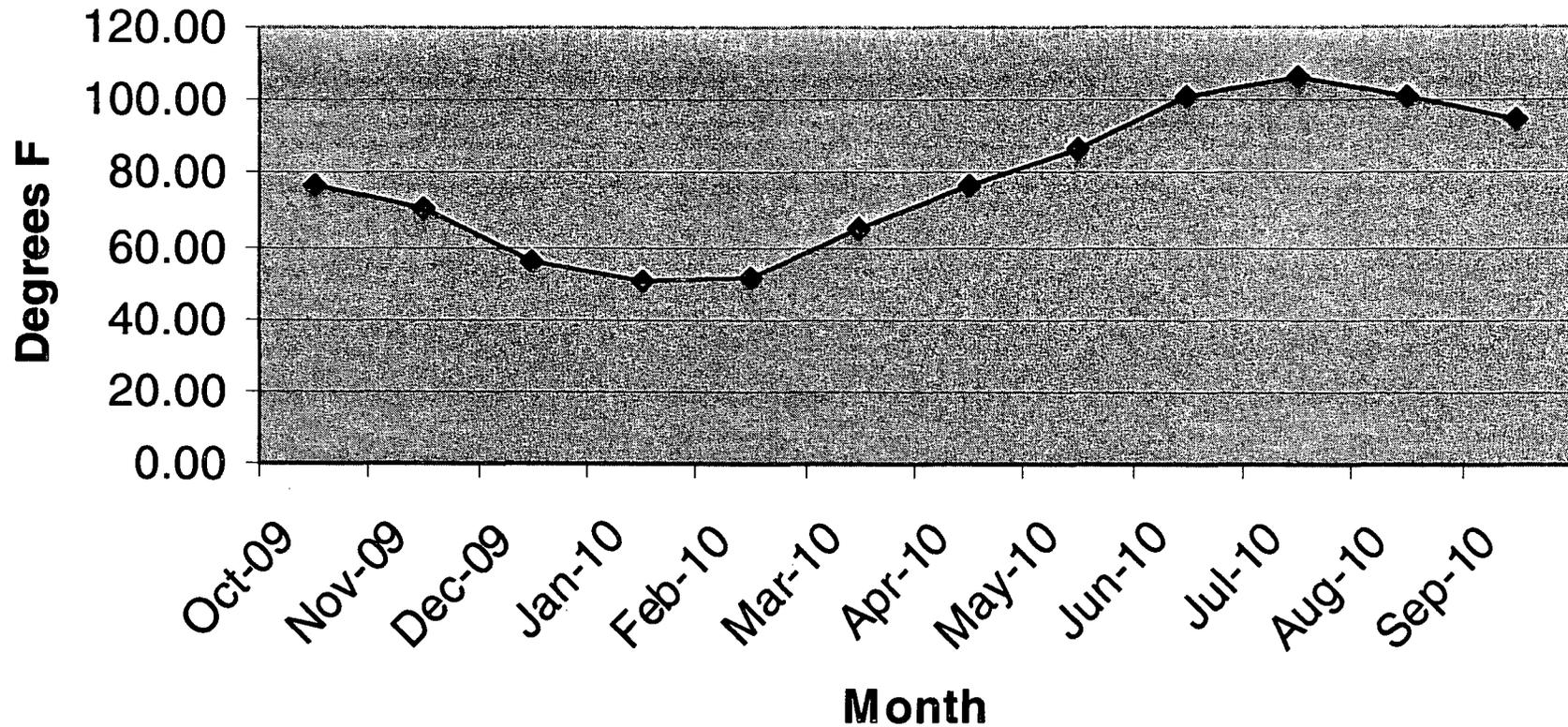
Oyster Creek Generating Station Reply to Condition Seventeen:

On March 3, 2010, the Department of Energy filed a motion with the Nuclear Regulatory Commission to withdraw the license application for a high-level nuclear waste repository at Yucca Mountain with prejudice. The President's fiscal year 2011 budget request eliminates funding for the Office of Civilian Radioactive Waste Management. The Office of Nuclear Energy will lead used fuel activities previously performed by OCRWM.

The President has made clear that Yucca Mountain is not an option for waste storage. The Blue Ribbon Commission on America's Nuclear Future, led by Congressman Lee Hamilton and General Brent Scowcroft, will conduct a comprehensive review of policies for managing the back end of the nuclear fuel cycle, and will provide recommendations for developing a safe, long-term solution to managing the Nation's used nuclear fuel and nuclear waste.

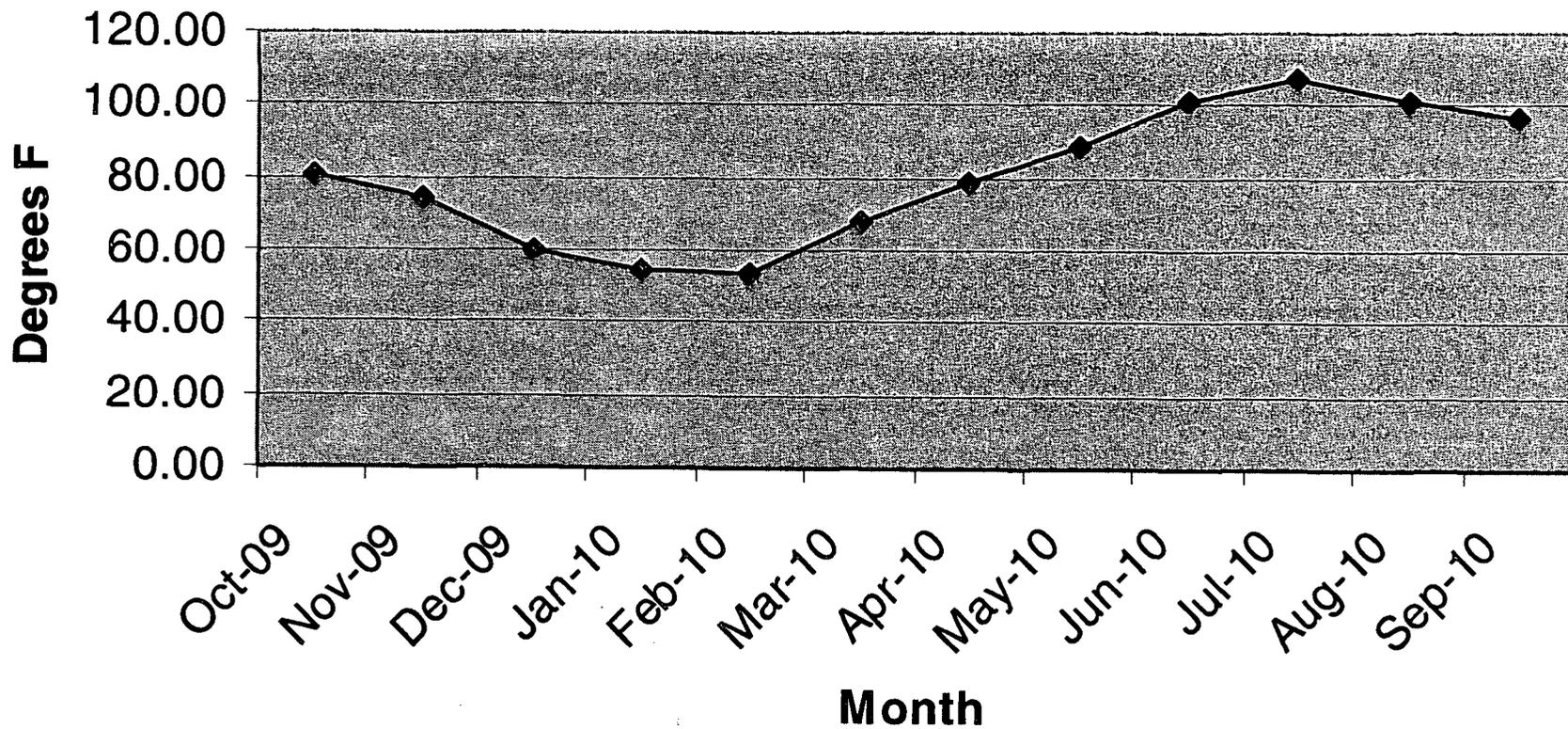
HORIZONTAL STORAGE MODULE # 1 TEMPERATURE

Loaded April 2002 ~ 3.0 KW of Spent Fuel



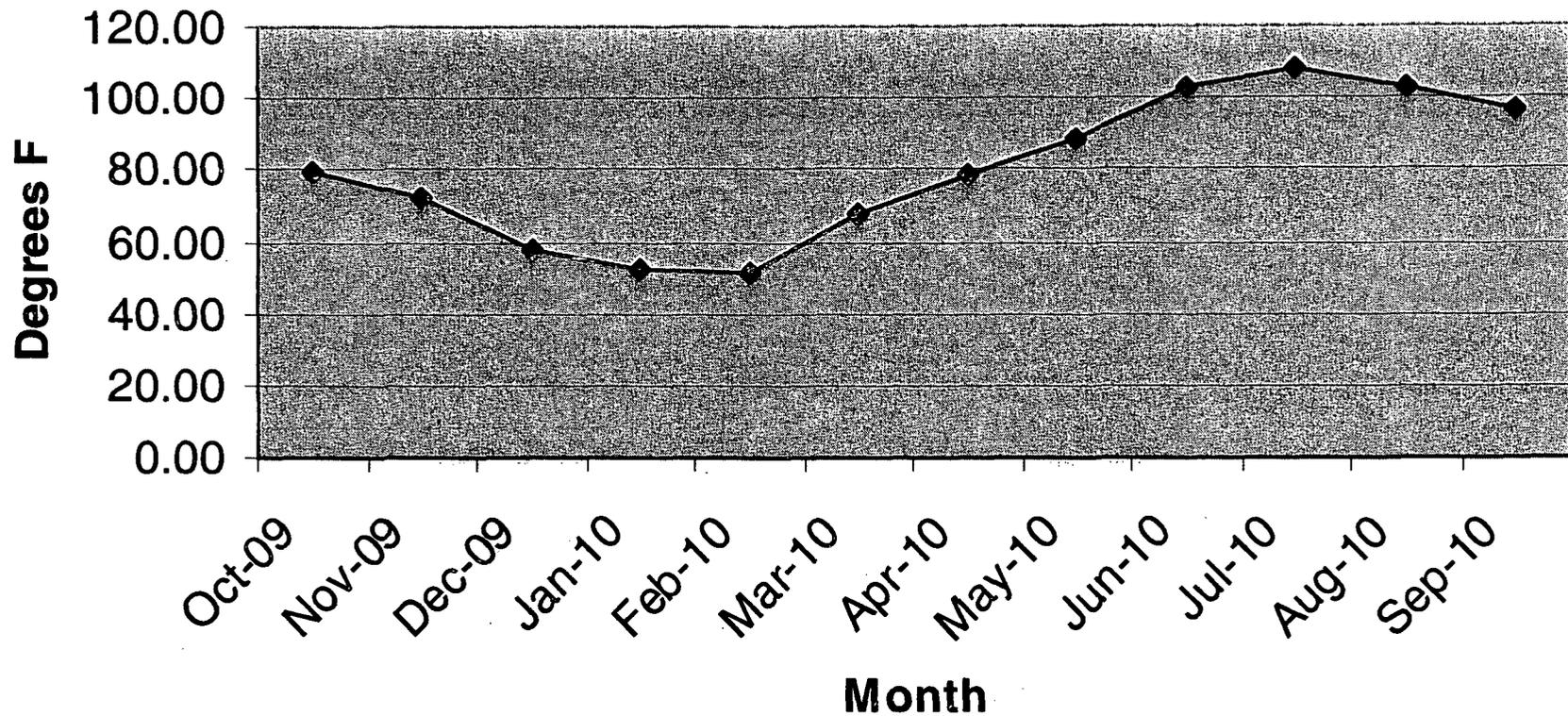
HORIZONTAL STORAGE MODULE # 2 TEMPERATURE

Loaded April 2002 ~ 3.0 KW of Spent Fuel



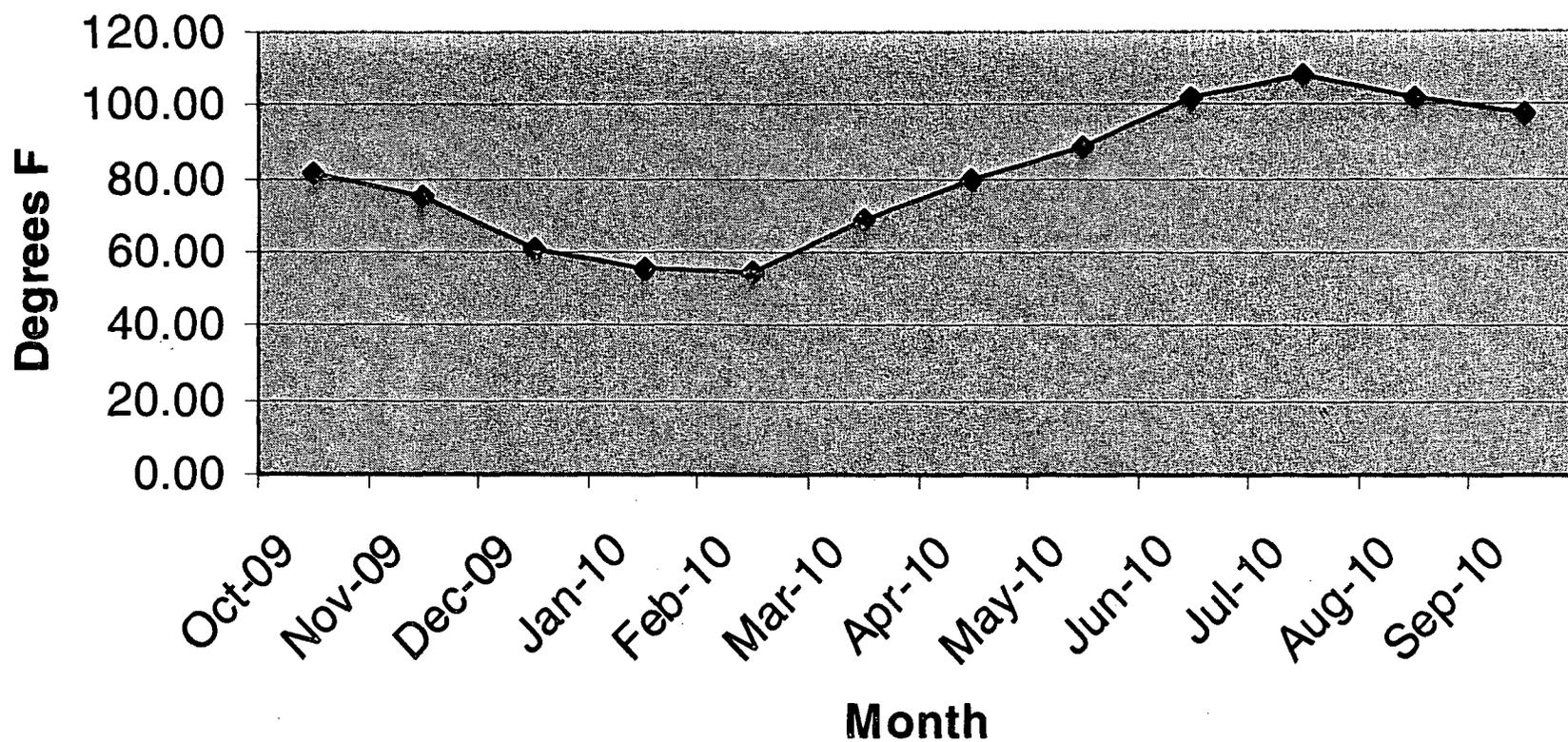
HORIZONTAL STORAGE MODULE # 3 TEMPERATURE

Loaded May 2002 ~ 3.0 KW of Spent Fuel



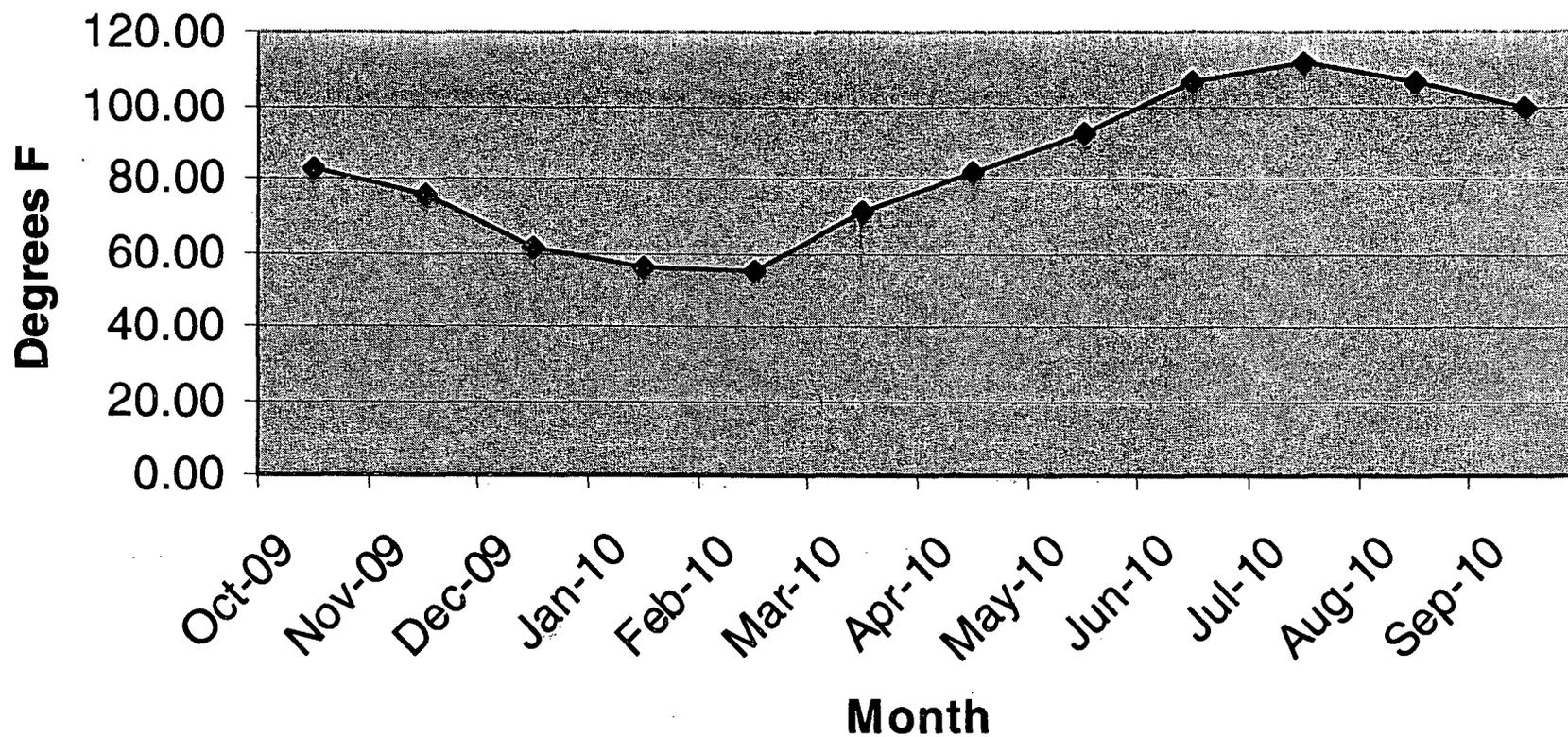
HORIZONTAL STORAGE MODULE # 4 TEMPERATURE

Loaded May 2002 ~ 3.0 KW of Spent Fuel



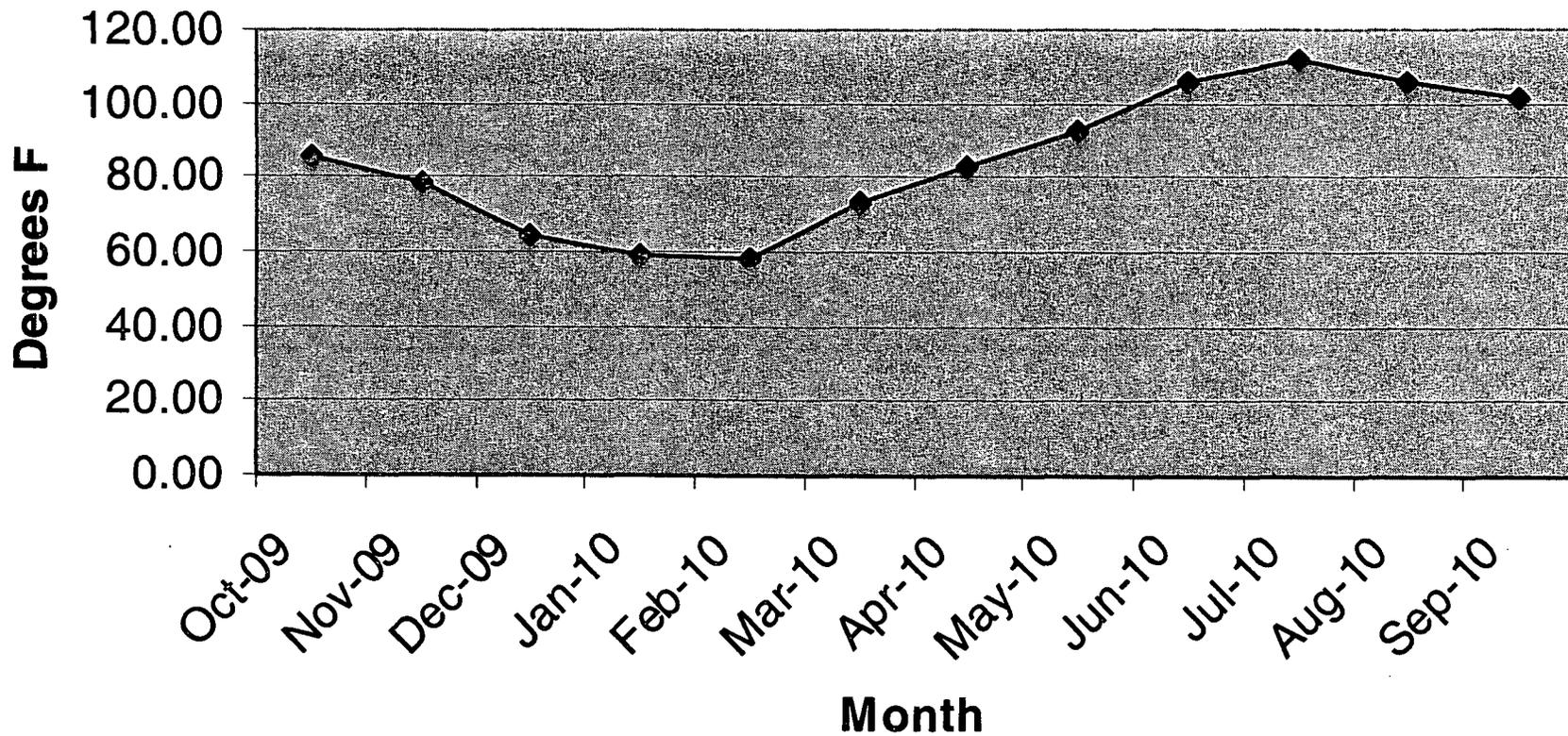
HORIZONTAL STORAGE MODULE # 5 TEMPERATURE

Loaded April 2003 ~ 4.0 KW of Spent Fuel



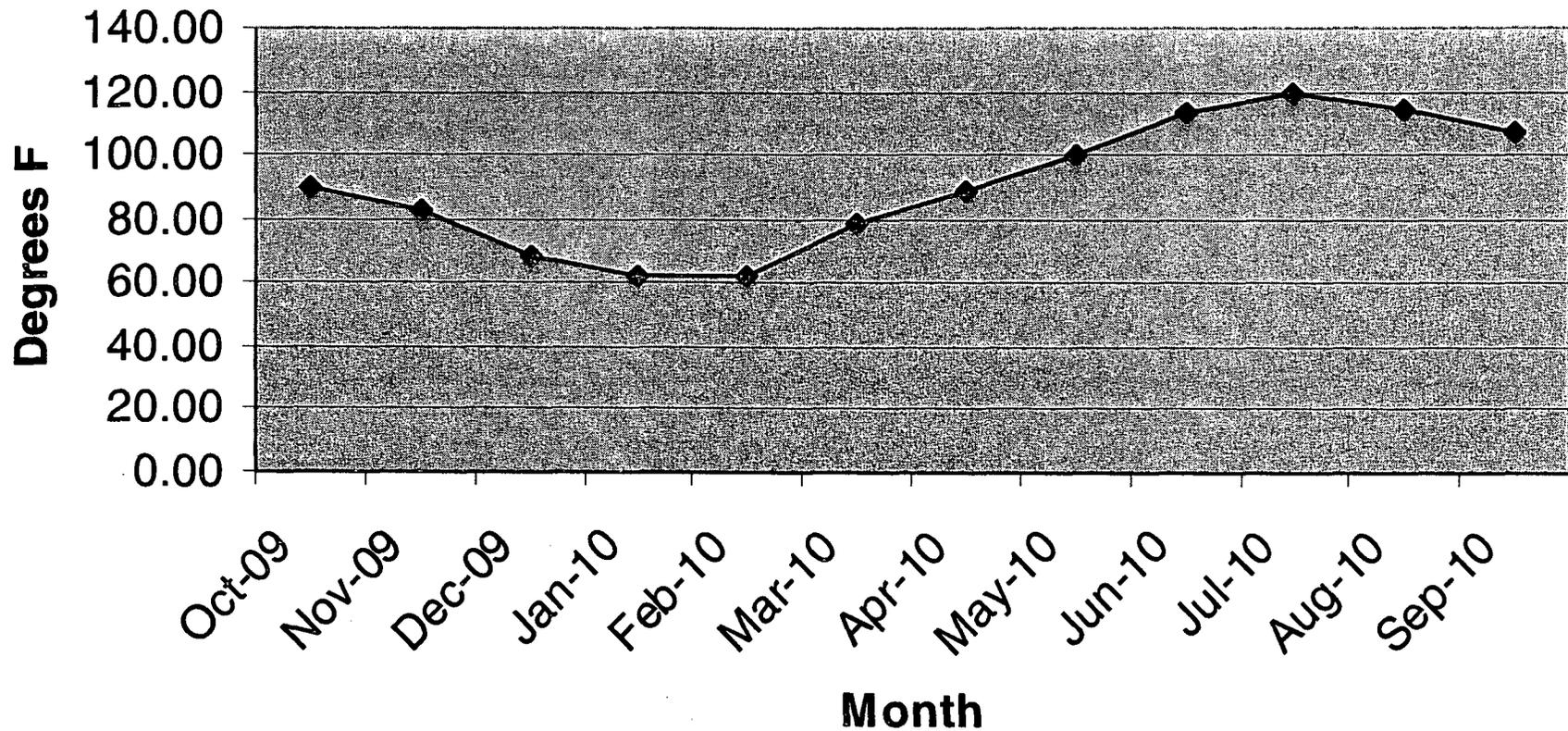
HORIZONTAL STORAGE MODULE # 6 TEMPERATURE

Loaded April 2003 ~ 4.5 KW of Spent Fuel



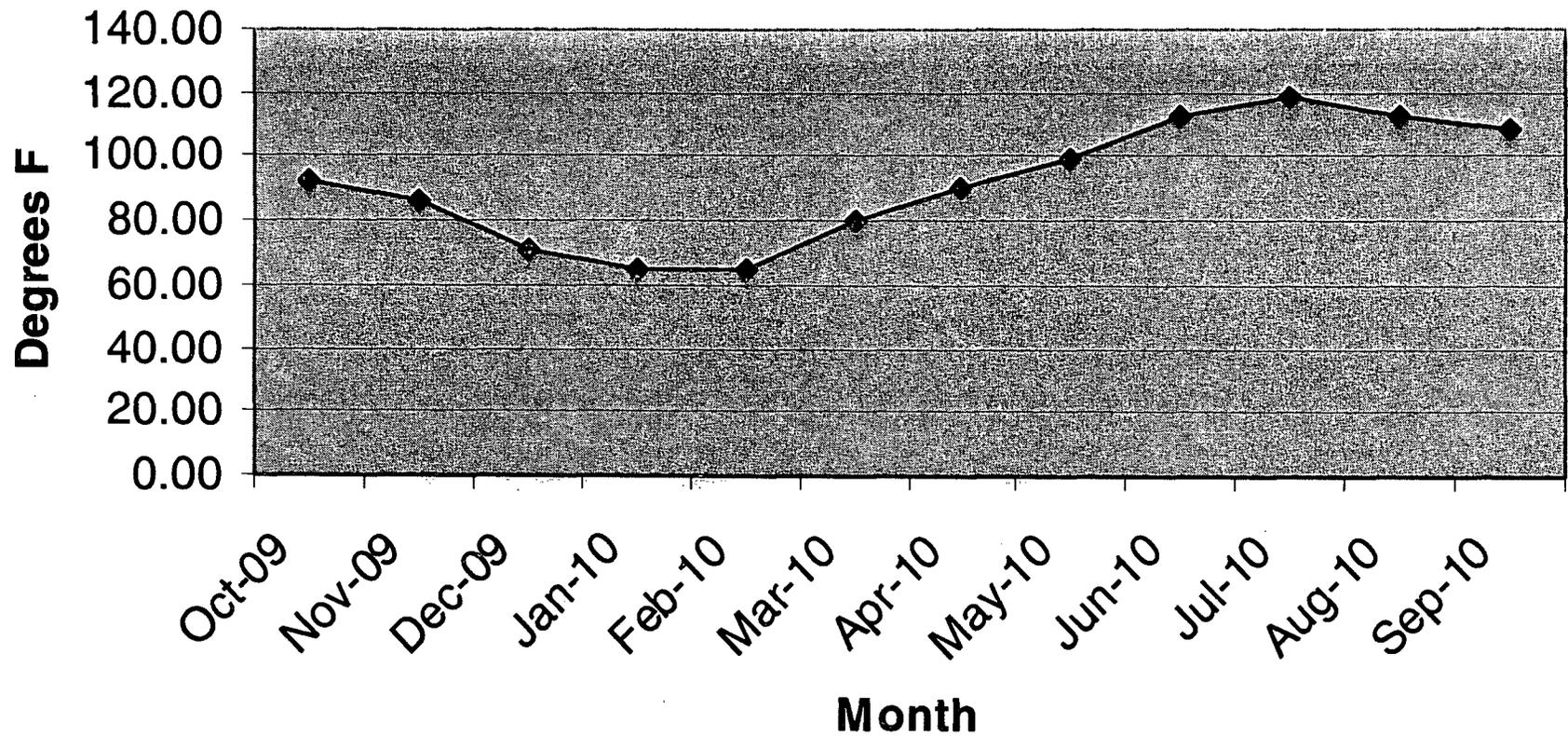
HORIZONTAL STORAGE MODULE # 7 TEMPERATURE

Loaded May 2003 ~ 7.5 KW of Spent Fuel



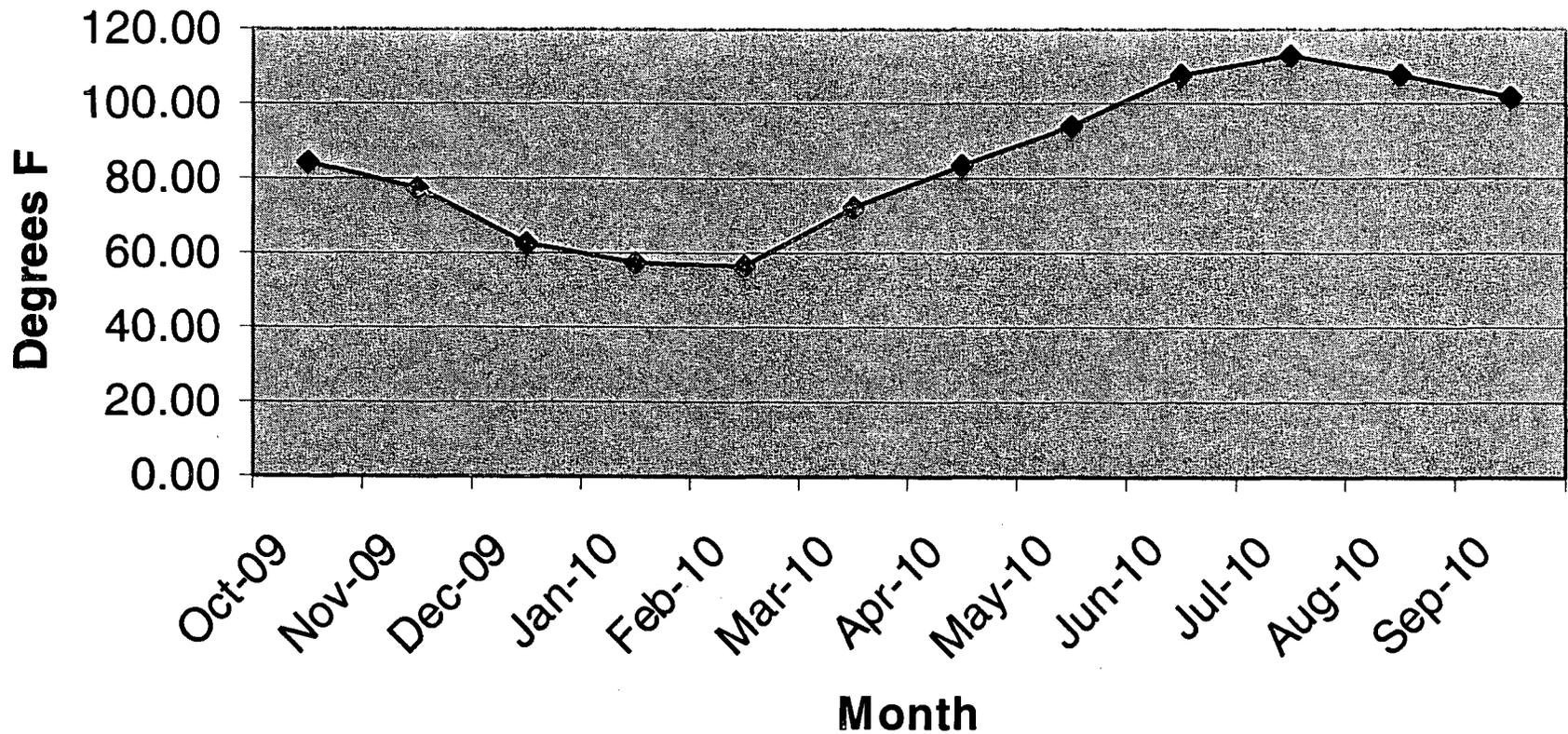
HORIZONTAL STORAGE MODULE # 8 TEMPERATURE

Loaded May 2003 ~ 7.5 KW of Spent Fuel



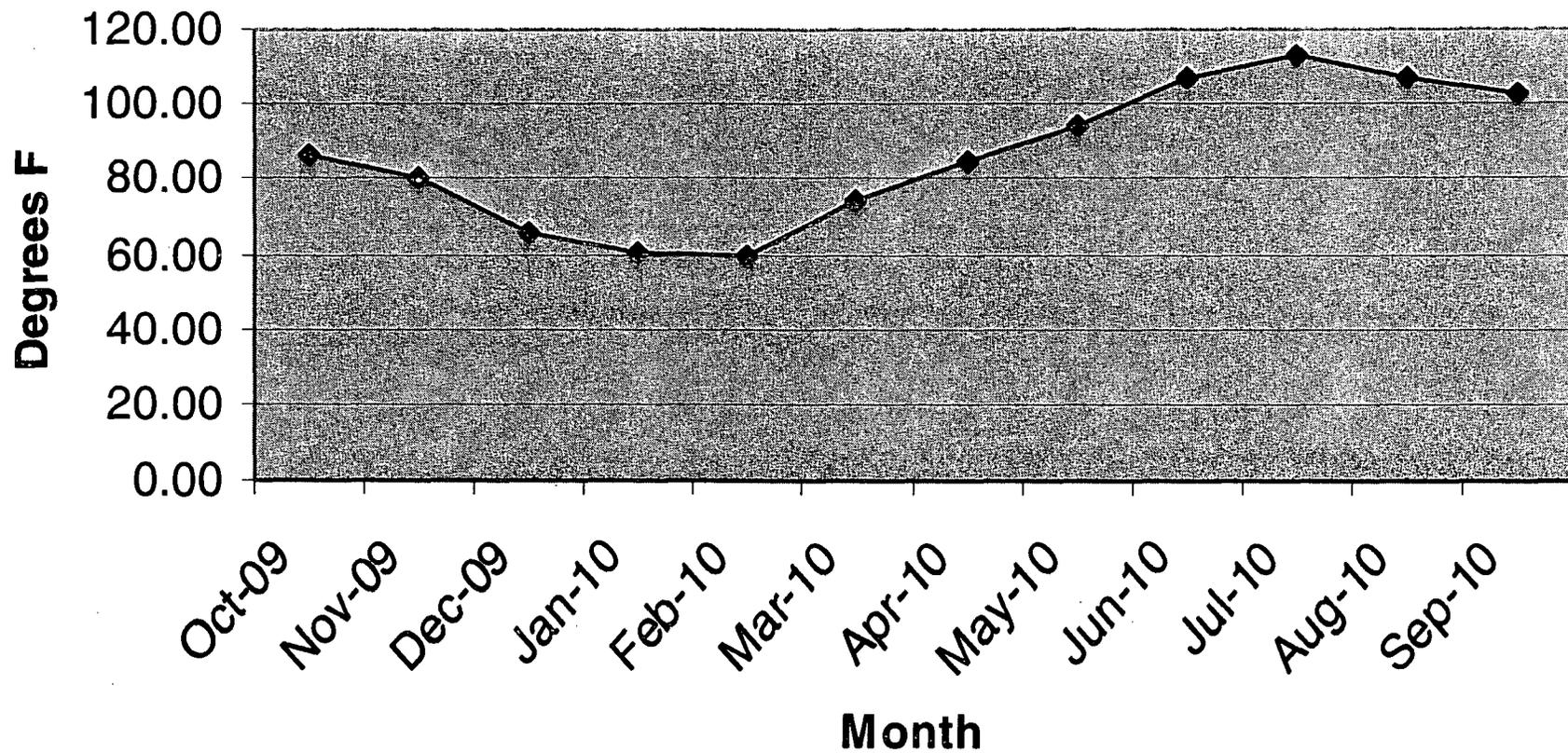
HORIZONTAL STORAGE MODULE # 9 TEMPERATURE

Loaded April 2004 ~ 5.4 KW of Spent Fuel



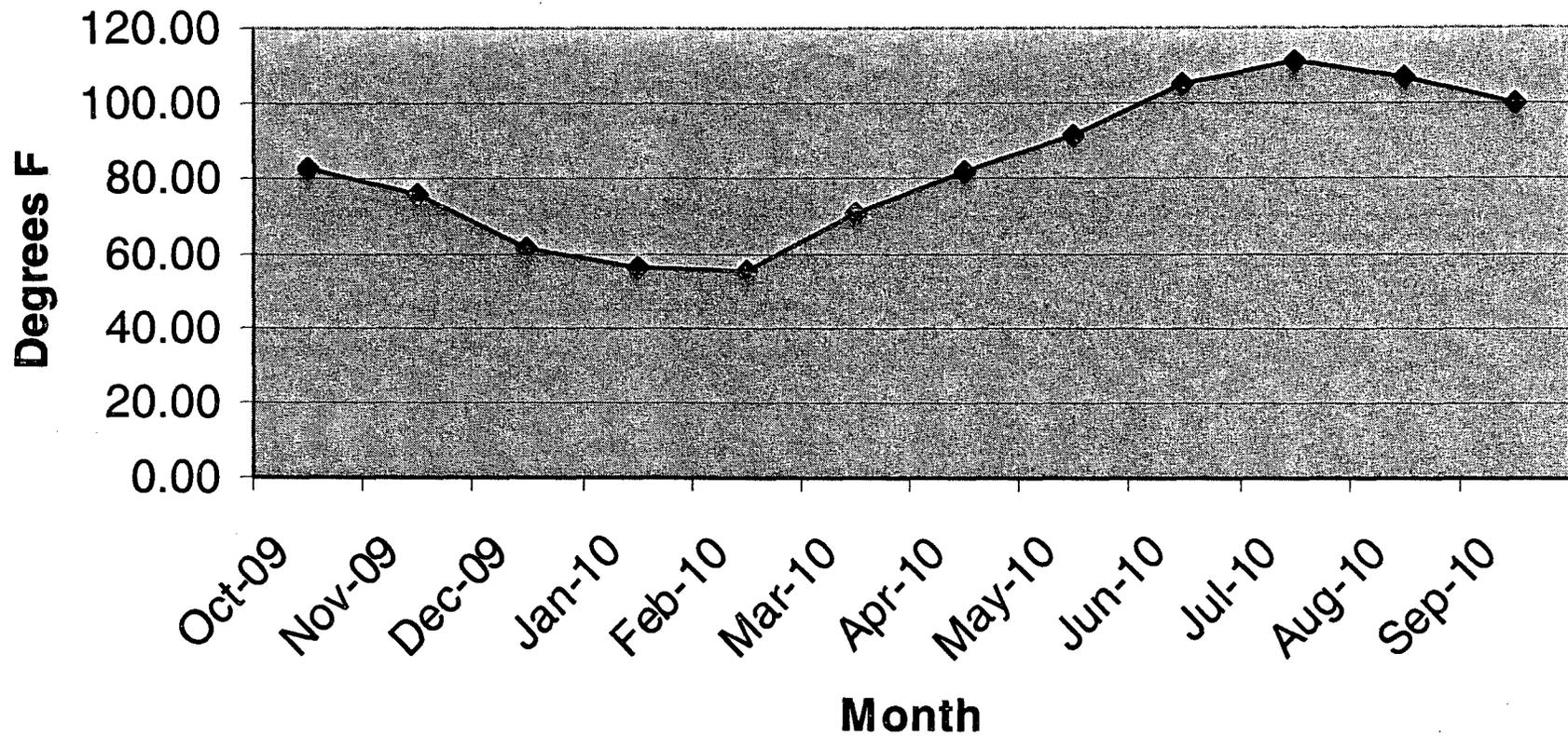
HORIZONTAL STORAGE MODULE # 10 TEMPERATURE

Loaded April 2004 ~ 3.8 KW of Spent Fuel



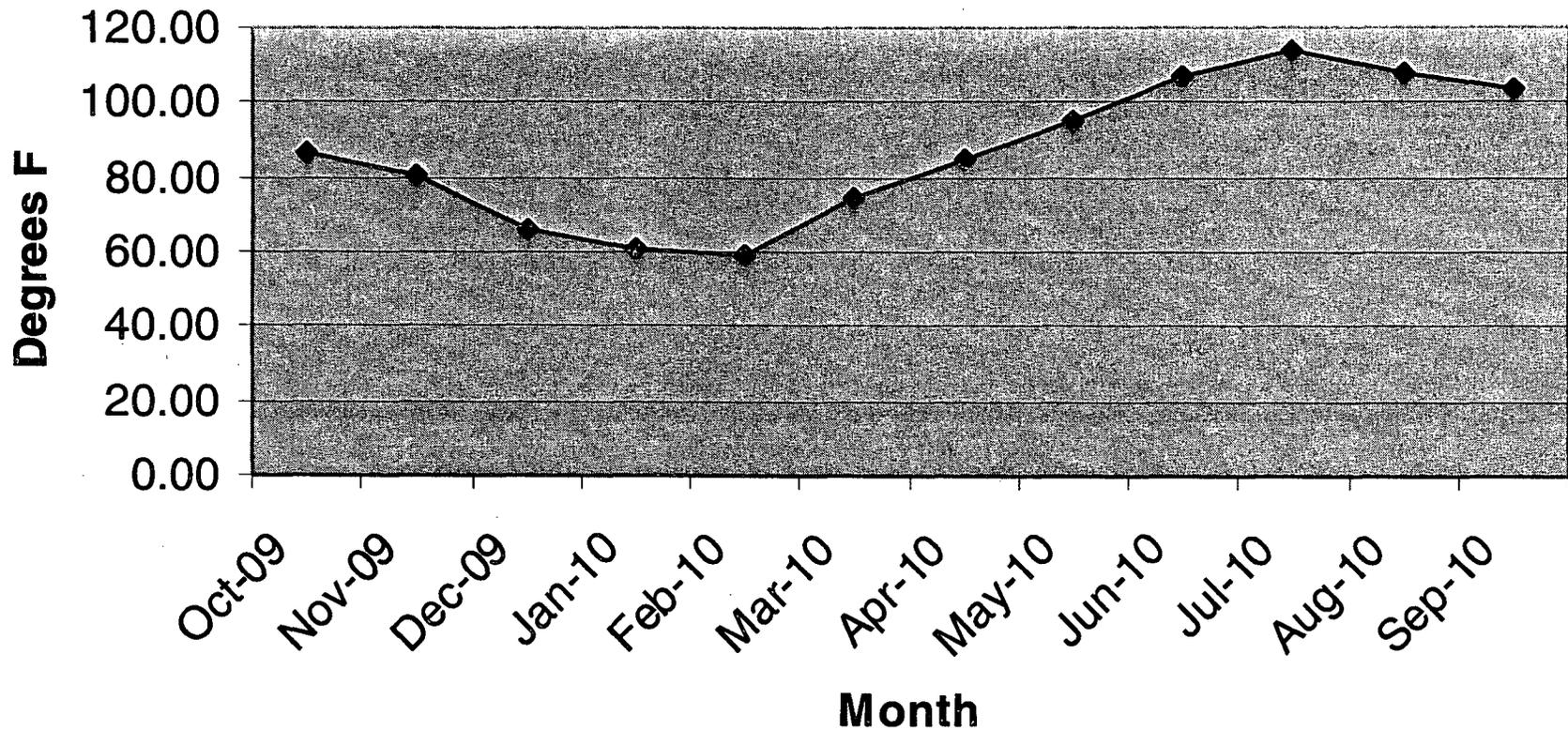
HORIZONTAL STORAGE MODULE # 11 TEMPERATURE

Loaded May 2004 ~ 5.2 KW of Spent Fuel



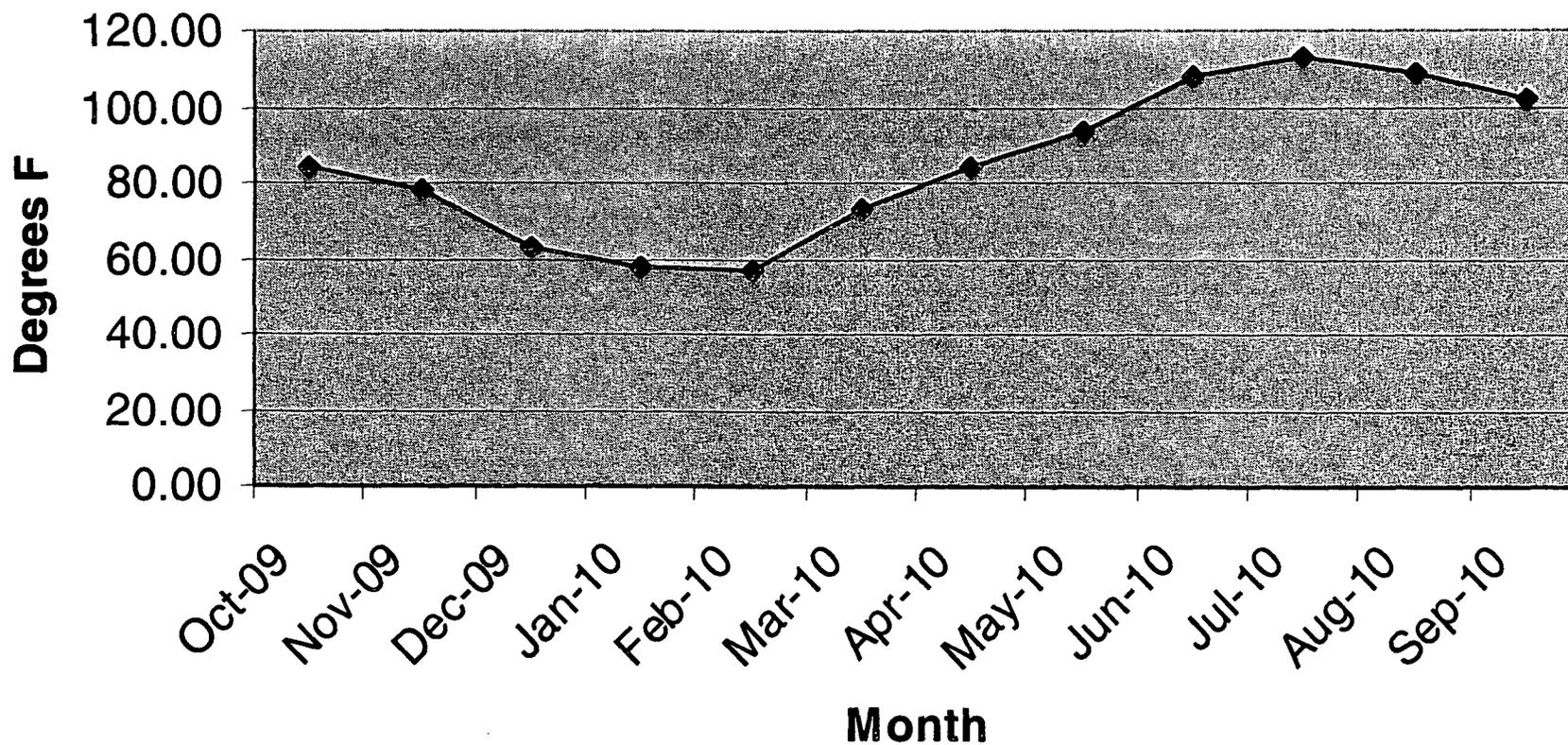
HORIZONTAL STORAGE MODULE # 12 TEMPERATURE

Loaded April 2005 ~ 5.0 KW of Spent Fuel



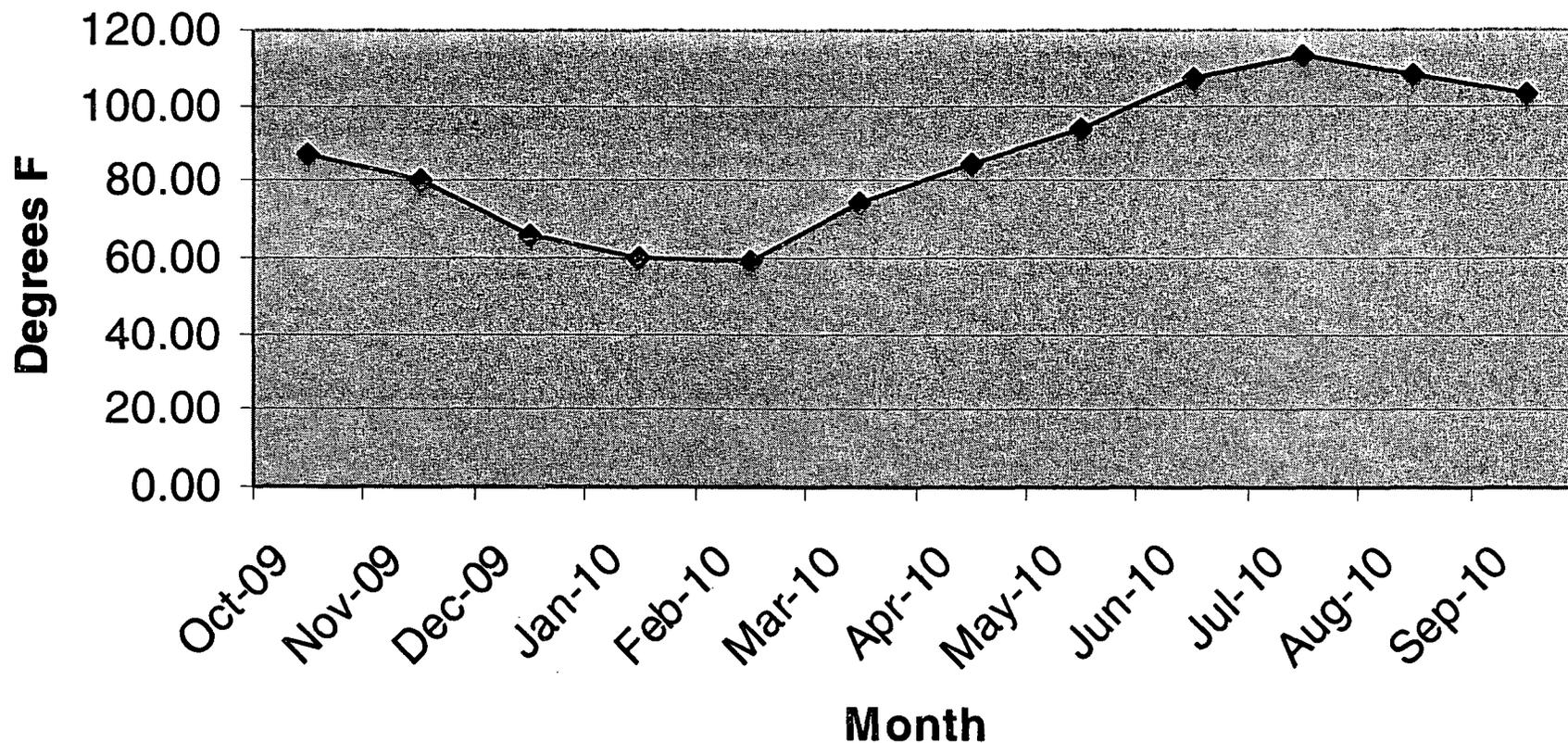
HORIZONTAL STORAGE MODULE # 13 TEMPERATURE

Loaded April 2005 ~ 6.0 KW of Spent Fuel



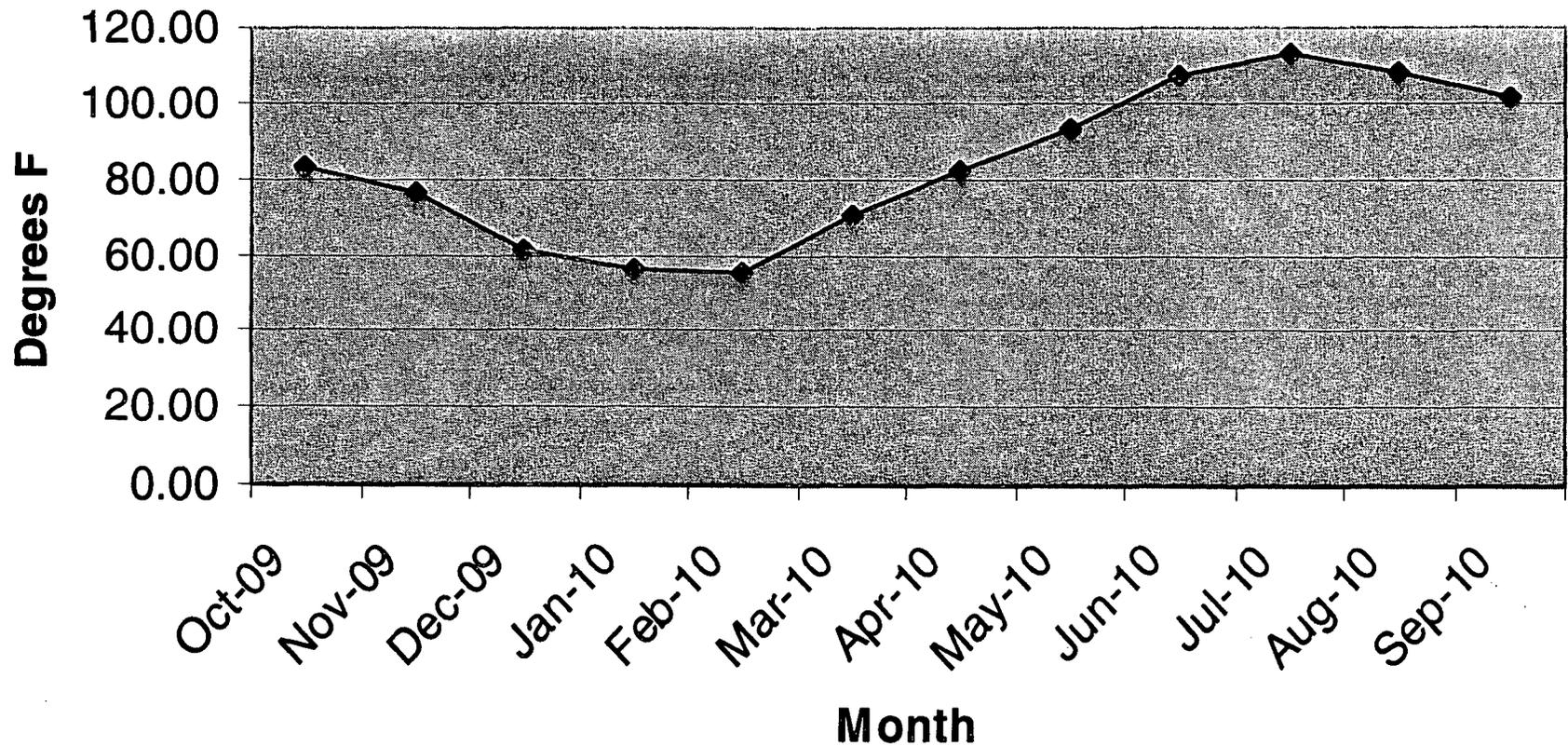
HORIZONTAL STORAGE MODULE # 14 TEMPERATURE

Loaded April 2005 ~5.0 KW of Spent Fuel



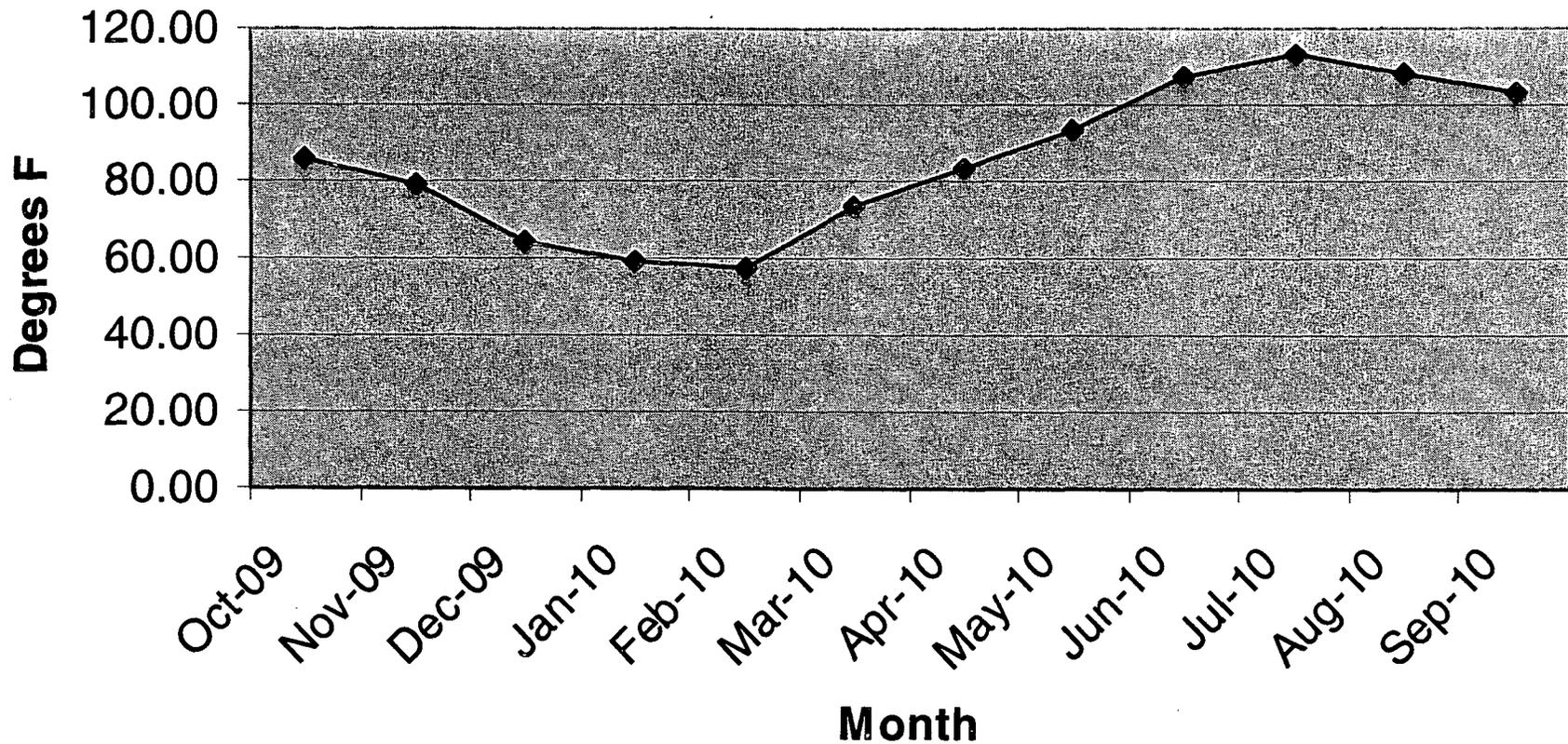
HORIZONTAL STORAGE MODULE # 15 TEMPERATURE

Loaded April 2005 ~5.2 KW of Spent Fuel



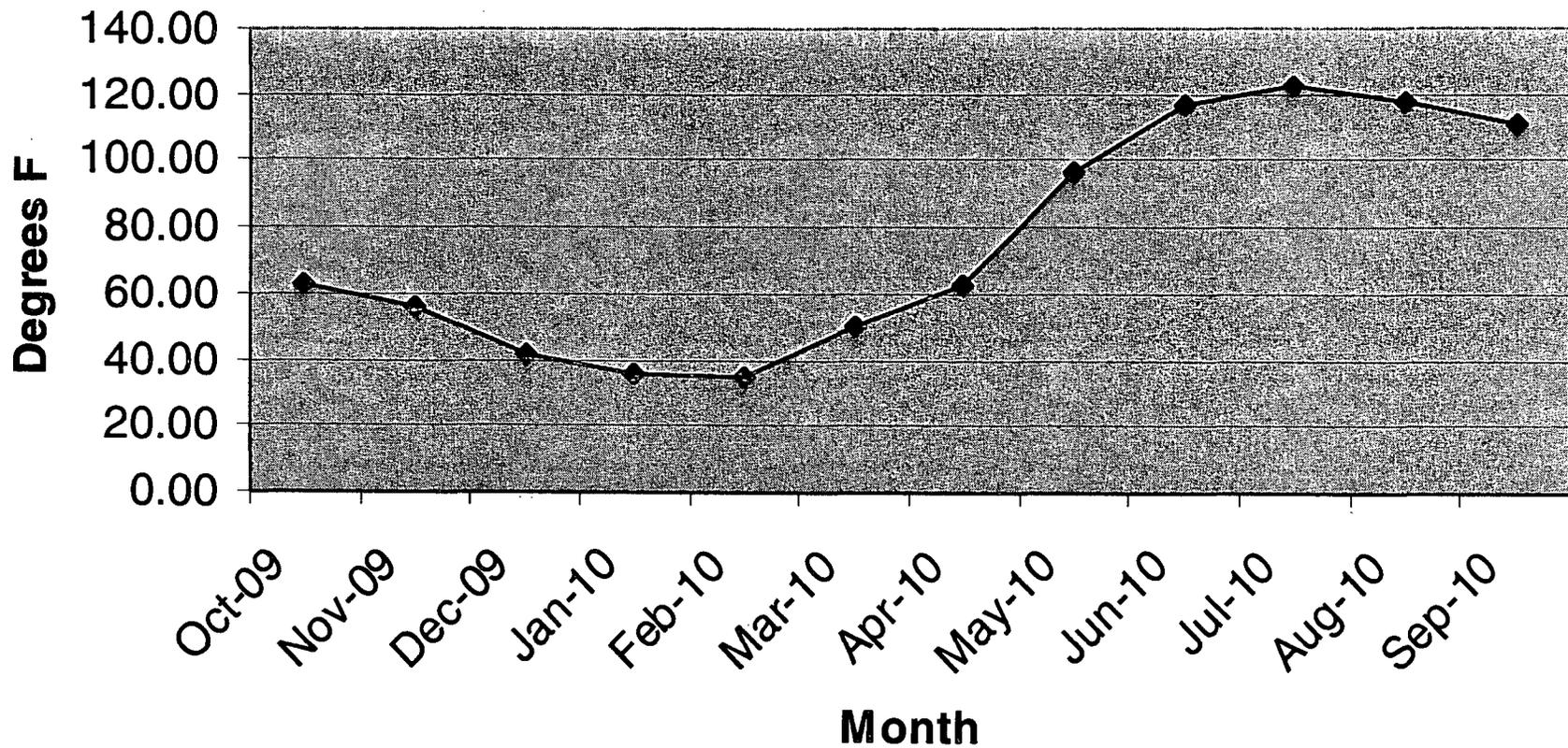
HORIZONTAL STORAGE MODULE # 16 TEMPERATURE

Loaded May 2005 ~5.0 KW of Spent Fuel



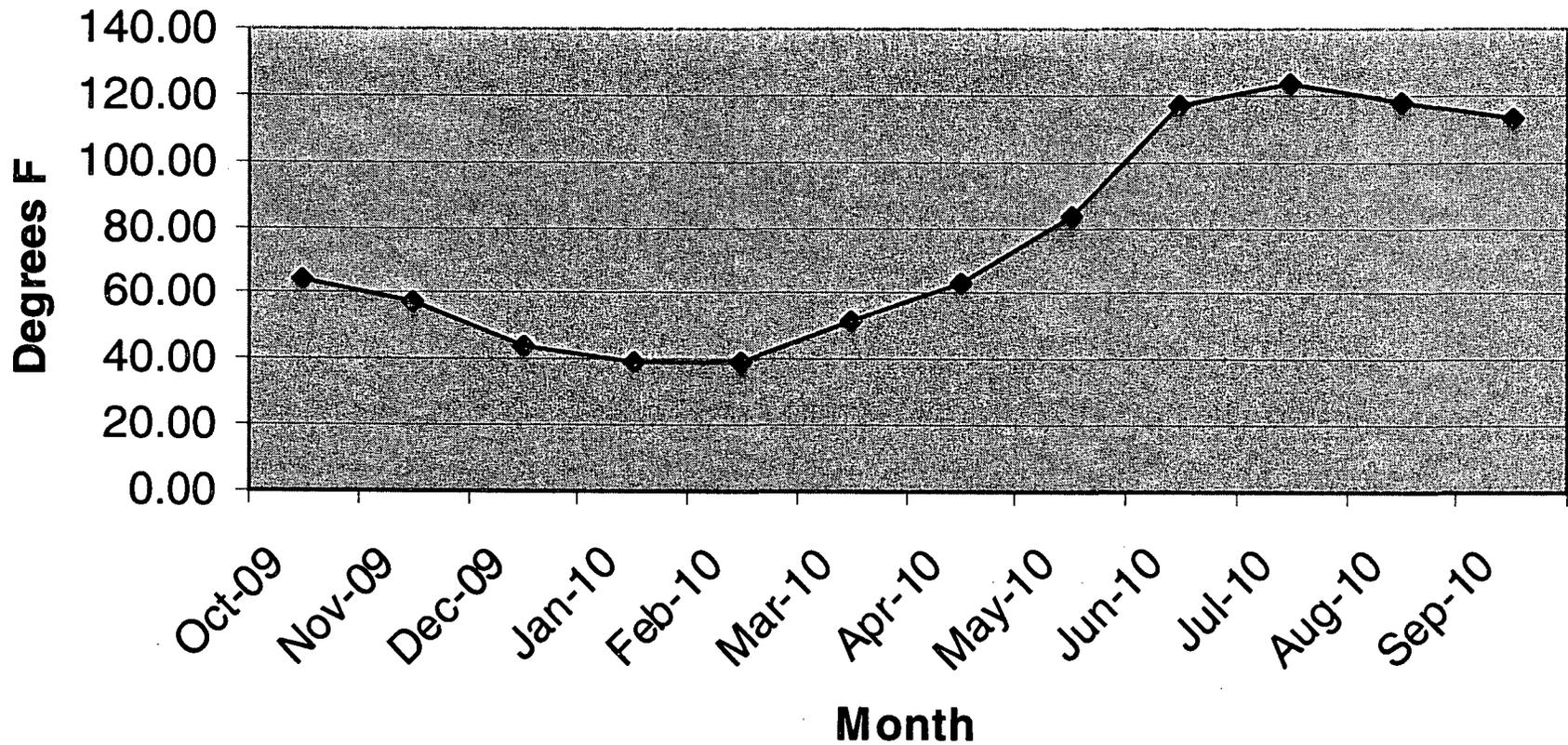
HORIZONTAL STORAGE MODULE # 17 TEMPERATURE

Loaded May 2010 ~11 KW of Spent Fuel



HORIZONTAL STORAGE MODULE # 18 TEMPERATURE

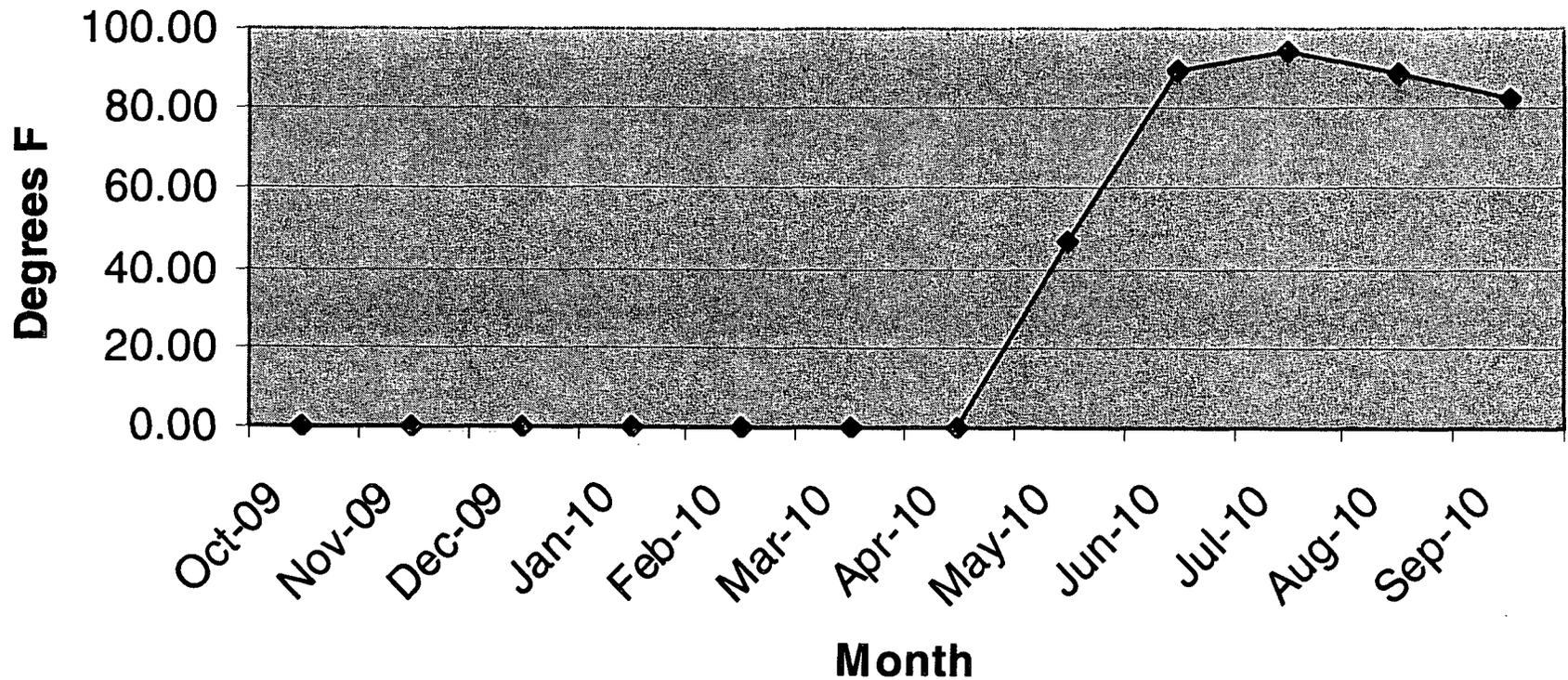
Loaded May 2010 ~12 KW of Spent Fuel



HORIZONTAL STORAGE MODULE # 19 TEMPERATURE

(Temperature Monitors Installed April 2010)

Empty - Temperatures Represent Ambient Conditions



HORIZONTAL STORAGE MODULE # 20 TEMPERATURE

(Temperature Monitors Installed April 2010)

Loaded May 2010 ~12 KW of Spent Fuel

