D0001 3482

PYONGYANG-KOREA DOE - NN-42
B12473

T-420 P.01

US Spent Fuel

To: Cherie Fitzgerald, US DOE N
202 586 2323
From: Ken Ames, DOE onsite monit
Date: Friday, Sep 22, 1995

This morning Blok, Devanny, and Vor
Pyongyang.

We worked normal hours today.

Upon arrival at the site, we met with th
We told him that today we wanted to chan
filters and to start getting the underwater vi
to deploy. He asked that we start work and
discuss the boiler.

In checking the chillers to see what the w
is down to (it's coming out of the basin at 46
discovered that two of the chillers were turne
asked what had happened, we were told that
shut down automatically. In further checking,
the freezestat had shut them down. This is a p
device that shuts the chiller down when the exi
reaches 40°F. It will automatically restart the c
temperature rises. Gordon reset the freezestat
restarted the chillers.

In just 14 hours, the finer pre-filters installed y
have dramatically improved water clarity. When t
longer and the new main filters are in, we should
clear water.

We again discussed the boiler issue this morni
reached agreement. The record of meeting, all of
negotiated language, is attached. Based on this, w
recommend that you place the order for the boiler a
associated equipment. We also recommend that yo
check to make sure that the heavy oil we supplied to

CONFIRMED TO BE UNCLASSIFIED
DOE OFFICE OF CLASSIFICATION
T. Seiler DR DATE: 11/5/2009

Record of Meeting
September 22, 1995

In order to heat the spent fuel building at the Nyongbyon Nuclear Center:

The U.S. will supply a complete set of boiler and steam/water heat exchanger which is rated at 150 boiler-horsepower. The system will be capable of heating 30 tons of water per hour to a temperature 40°C higher than the input (minimum 95°C output temperature, with appropriate input temperature). The steam will be supplied to the heat exchanger at a pressure of approximately one atmosphere (12 pounds per square inch).

In addition to the boiler, heat exchanger, and associated equipment described in the proposal from Clayton, the U.S. will provide design specifications for the heavy fuel oil storage tanks. The U.S. will also provide a transformer to step up the 380 volt three-phase power supplied by the DPRK to 480 volt three-phase power which is required to operate the boiler, and a hot water circulating pump capable of a flow rate of approximately $30m^3$ /hour and a pressure of approximately 72 psig.

The DPRK will provide oil to fuel the boiler and any tanks required to store the oil, a pump to supply the oil to the boiler, any electrical power needed to run the boiler, a building to house the boiler, and all equipment necessary to ensure that the heat from the boiler (i.e. hot water) is suitably distributed throughout the spent fuel building. The DPRK will install the boiler/heat exchanger and associated equipment.

The U.S. will deliver the boiler to the Pyongyang airport. The DPRK will move the boiler from Pyongyang airport to the Nyongbyon Nuclear Center. Delivery will be within sixty days after agreement.

The U.S. will provide base line data (installation area for equipment, dimensions of equipment, and installation requirements) which is necessary to build the house for the boiler by September 30.

The DPRK will provide the U.S. any data necessary for the U.S. to construct its boiler system (i.e. feed water pipe size) by September 30.

note: The DPRK strongly requested that the U.S. include a truck for transporting the heavy fuel oil and a 15 cubic meter day storage tank for heavy fuel oil along with the boiler and other equipment. The U.S. agreed to communicate this request and the reasons why the tank and truck are needed to appropriate officials and the DPRK agreed to ensure that oil is delivered to the boiler and meet the other obligations outlined above irrespective of the resolution of the truck and tank supply issue. The U.S. will give the DPRK a final answer by October 15.

U.S. spent fuel team (DOE) Weekly summaries