APPENDIX "H"

LETTER TO THE MASTER

Vasilikos Power Station

Dear Sir,

We welcome you and your crew to Vasilikos Power Station Terminal. Please find here below notes on fuel oil discharge arrangements at this Power Station for your information and guidance.

1.0 Responsibility of the Master

It is understood by all parties concerned that it is an undisputed principle in shipping law that the Master of the vessel is absolutely responsible for the proper mooring, control and unmooring of the vessel. Hence the safe and secure mooring of the vessel as well as the cargo unloading operations are the sole responsibility of the Master.

2.0 Description of the terminal

2.1 This is an open roadstead unloading terminal equipped with Single Point Mooring (SPM) of the Catenary Anchor Leg Mooring (CALM) type with a "Chinese lantern" submarine hose configuration and 6 anchor legs. The buoy is equipped with one mooring hawser and is capable of taking tankers up to 80,000 tonne DWT with main particulars of 260m length, 37.3m beam and 13.9m draught.

The water depth at the centre of the SPM is 31.5m and the minimum water depth within the free manoeuvring area of 780m radius is 17.5m.

2.2 The discharge from the tanker is through 2x16" nominal bore floating hose strings of L1=259m and L2=268m equipped with double closure breakaway couplings connected through 2x16" nominal bore underbuoy submarine hoses 42.5m long to the PLEM (Pipe Line End Manifold).

The connection of the PLEM to an on shore pigging station is through 2x20" O/D steel undersea pipelines 2200m in length. From the pigging station and via a twin filtering system a single 26" O/D shore line of 650m length connects the terminal to the storage tanks situated at a bank 22m above sea level. Maximum permitted pressure at ships manifold is 10 bar and maximum permitted temperature 80°C.

All the lines mentioned above are filled with distillate fuel except the 26" line. Upon discharge commencement all distillate fuel is displaced into a shore tank and upon completion is pumped back from the shore for line flushing.

2.3 The mooring buoy is equipped with an automatic navigation light Fl(4)15S, a fog horn Mo(U)30s automatically or manually operated and a radar reflector. The tanker is moored through a load sensing mooring bolt which induces a visual alarm when the load exceeds 70% of the preset threshold level in the shearing pin and an audible alarm when the load exceeds 80%. Alarm is continuously energised for 10 minutes when a system failure occurs (SWL=180 tons).

3.0 Mooring arrangement

3.1 The mooring equipment is in accordance with OCIMF (Oil Companies International Marine Forum) recommendations and is made of a 14" circ. x 46m long circular braided 100% nylon rope with minimum dry breaking load (MBL) of 308 tonnes, to it is connected the chafe chain sections of 76mm x 7.5m long and 54mm x 3.5m long.

3.2 The pick up rope is a multiplate 10" circ. X 15m long spunstaple polypropylene rope with dry MBL of 75 tonnes and of the same material is the 150m long messenger rope.

3.2 The tanker must be equipped with the appropriate chain stopper for the 76mm chafe chain according to the OCIMF, or supply other means of connection i.e. Smit bracket, mooring chains, stoppers and shackles. While moored at Vasilikos SPM have readily available to the crew all essential equipment such as a large axe, sledgehammer and crowbar. The tanker must be equipped with electrohydraulic lifting facilities of minimum safe working load (SWL) of 12 tonnes. Tankers, however, with DWT below 55.000 MT then electrohydraulic lifting facilities of minimum safe working load (SWL) of 10 tonnes are acceptable. The tanker must also be equipped with winch storage drum capable of safely accommodating the 150 meters by 80 mm diameter fibre messenger rope.

4.0 Mooring procedure

4.1 The procedure to be followed should be in accordance with OCIMF "Single point mooring maintenance and operation Guide" 1995.

4.2 The parties involved are the following:

a) Pilot Mooring Master from the Ports Authority
b) M/T Master and tanker crew
c) Unloading Master and team EAC (Electricity Authority of Cyprus)
d) Launch and crew under the command of the Pilot mooring Master and the Unloading Master

4.3 Communication between the parties involved is by VHF Ch 14

4.4 When contact is made with approaching tanker the Pilot Mooring Master should confirm the mooring arrangements and the M/T Master should confirm that trial engine manoeuvres have been successfully completed. The Loading Master with EAC team and the Pilot Mooring Master should board the tanker prior to the tanker's approach to the mooring, bringing with them all necessary equipment for the hoses connection, ready for a single lift by the tanker's crane. The Loading Master should go on the forecastle with the Chief Officer to inspect the mooring arrangements and explain how the mooring line is to be brought aboard and secured. The mooring launch should then hold clear off the tanker's way to the mooring, the floating hose strings.

4.5 The Loading Master should ensure that all tanker's anchors are fully home and securely locked and that cannot be used within the buoy manoeuvring area except in extreme emergency. The tanker's approach should be made from the direction in which it can be best handled at very low speed and can be best held stopped in the water, also should take such a course which allows it to avoid contact with the buoy should it overshoot and safely pass clear allowing it to manoeuvre for a second approach. During the approach to the buoy and for the full duration of the mooring operation an experienced crew member should be stationed on the forecastle in radio contact with the Pilot Mooring Master and the tanker's bridge, until the vessel is securely moored.

4.6 The terminal is so designed as to allow tankers to be safely moored and continue unloading under the worst combination of the following limiting operational conditions:

- Significant wave height 3.5m
- Peak wave period 4.5 - 8.5 sec
- Wind speed (1 minute mean) 48 knots
- Current speed (surface) 1.0 knots

The management of mooring throughout berthing at Vasilikos SPM is the sole responsibility of the M/T Master. An experienced crew member should be stationed at the forecastle head equipped with appropriate means to communicate with the Officer of the watch, to observe and report any failure or leakage of fuel oil and to advise him of the tankers relative position to the SPM i.e. if it starts to "ride up" to the buoy or starts to yaw excessively, in which case appropriate corrective action must be taken so as to keep a taut mooring. If a tag boat is to be employed by the chartering company for keeping the vessel from ridding up to the buoy, then all commands for tag manoeuvres are to be given by the Tanker crew only.

4.7 The buoy is equipped with continuous mooring load monitoring which will be displayed on a portable receiver in the possession of the EAC team foreman on board throughout the berthing.

5.0 Cargo discharge operations

5.1. Upon completion of hoses connection, carried out by EAC personnel and after the Loading Master and tanker's Officer on duty have agreed that the hoses are correctly connected the following operations will be carried out:-

1) Tankers NOT having a crossover on manifold and/or upon Loading Master's request.

a. After Survey of a separate clean tank, shore to pump to vessel 100 tonnes of distillate fuel for safe storage.

b. Upon completion of pumping to vessel above quantity, tank to be surveyed .

c. Cargo discharge to shore should start on the command of the Loading Master A low discharge rate will be maintained until it has been verified that the whole system is operating satisfactorily. The hose strings and the area around the mooring buoy should be inspected by the launch for evidence of leakage. When it has been firmly established that the total system is operating correctly and when all the distillate fuel present in the lines is displaced to the shore tank- approximate duration 45 minutes with manifold pressure of 5 bar, then the pumping rate may be increased to the maximum permitted pressure of 10 bar at tanker's manifold.

d. Upon completion of cargo discharge to shore or when the need arises, vessel to pump to shore the distillate fuel quantity stored safely on board at a pressure of 3 bar.

e. Upon completion of pumping of whole quantity of distillate and the closing of tanker's manifold valves, tank to be surveyed.

f. Hoses disconnection will be carried out by EAC personnel.

It is clarified that EAC's personnel involvement in the hoses connection and disconnection is restricted to the fitting of the hoses to the vessel's manifold. The provision of the boat and crane facilities for the lifting the hoses and the transportation of EAC's personnel is the Contractor's responsibility.

2) Tankers having a crossover on manifold:

a. Cargo discharge should commence at the command of the Loading Master. A low discharge rate will be maintained until it has been verified that the whole system is operating satisfactorily. The hose strings and the area around the mooring buoy should be inspected by the mooring launch for evidence of leakage.

When it has been firmly established that the system is operating correctly, and when all the distillate fuel present in the lines displaced to the shore tank- approximate duration 45 minutes with manifold pressure of 5 bar, then the pumping rate may be increased to the maximum permitted pressure of 10 bar at tanker's manifold.

b. Upon completion of cargo discharge the Chief Officer and Loading Mater should establish a clear path between the two hoses via cargo manifold through crossover with all other valves shut. As soon as the path is established shore will pump distillate oil through the whole lines via tankers manifold crossover for line flushing. Approximate duration is one (1) hour.

c. When flushing is completed Loading Master will instruct his personnel to close the hose valves and advise the Chief Officer to close the cargo manifold valves and drain the part between cargo valve and hose valve for connection.

If during the discharge operation, due to inclement or changing weather conditions or if it is forecast that further deterioration of the weather or other factors dictate the emergency vacation of the birth or if for any other reason the vessel is beginning to drift from its birth or if pumping will be interrupted for a period exceeding 20 minutes then immediate action must be taken and in particular it is absolutely essential to carry out flushing as described above and be ready for emergency vacation of the birth.

In such a case swing hoses outboard using the tanker's crane, lower them quickly into the water and release them, cast off the mooring assembly and move tanker astern out of the berth. Under these conditions no manoeuvring of the vessel on its berth is allowed, prior to the disconnection of our flexible floating hoses.

6.0 Safety

6.1 When the tanker is securely moored at Vasilikos SPM the recommendations which are given in the International Safety Guide for Oil Tankers and Terminals (ISGOTT) should be followed. It should be stressed that local Authorities are very strict with regard to sea pollution and this matter should be given utmost care to avoid serious consequences.

7.0 Unmooring

After completion of hoses disconnection and the fitting of the blank flanges, the outer hose is slowly lowered to sea and securely attached to the tankers bollard with messenger line. Then the inner hose is lowered to sea and cast away. Under Pilots instructions the weight of the chain should be taken on the winch before lifting the stopper. The chains should be walked back into the water and the pick up rope slowly paid out through the fairlead and finally casted off. In the meantime the Pilot will instruct to cast away the outer hose. Then the tanker should slowly come astern to clear the berth. The mooring launch should come alongside to receive the ancillary equipment and to disembark the Loading Master and the EAC team.

8.0 Contract requirements

8.1 With regard to Laytime the Contract provides:

"The time allowed for discharge of a cargo of 45,000 metric tonnes shall be 60 weather permitting hours under the port time concept i.e. from the time the vessel is securely moored to the satisfaction of the Purchaser or his representative and a notice of readiness for discharge operation has been tendered by the master of vessel and accepted by the purchaser or his representative until hoses are disconnected. Mooring of the vessel is allowed only during daylight.

If Regulations of the owner of the vessel or the Port Authorities prohibit discharge of the cargo at night, the time so lost shall not count as used laytime. If the Purchaser prohibits the discharge at night the time so lost shall count as used laytime. The sixty (60) weather permitting off loading hours shall be increased by any time which may be lost due to vessel's breakdown or due to vessel's default or incapability of its facilities to discharge the cargo at the rate of 1000 tonnes per hour minimum".

You are therefore requested to discharge the cargo at not less than the minimum of 1000 tones per hour and viscosity not more than 365 centistokes as the clause of the same contract regarding delivery to our installation provides that:-

"During off loading operation the vessel's heating and pumping plant must be adequate to maintain a through-put of minimum 1000 tonnes per hour through the pipe line to the Purchaser's fuel oil storage tanks at Vasiliko. The viscosity of the oil during the discharge operation must not exceed 365 centistokes. Vessel must be equipped with electrohydraulic crane of not less than 12 tonnes capacity, chain stoppers 76mm (3") and must have the facilities to clear the pipeline with sea water upon request in emergency. Vessels with DWT below 55.000 MT which are equipped with electrohydraulc crane of not less than 10 tonnes capacity are also acceptable."

9.0 Security

It is emphasized that all security measures have to be adhered to during the stay at the berth. Any unscheduled ship stores delivery and or crew embarkation/disembarkation without notice to the Ports Facility Security Officer (PFSO) will not permitted.

10.0 Contact Information

Vasilikos Power Station main control room and Shift Charge Engineer VHF Ch06 or tel +35724207045

Port Facility Security Officer (PFSO)	**Deputy Port Facility Security Officer (DPFSO)**
NAME: FRIXOS KONTOPOULOS	**NAME: PHIVOS KOUMIDE**
Office Telephone: +35724207045	**Office Telephone: +357 24207031**
Home Telephone: +357 25318735	**Home Telephone: +357 24102560**
Mobile Telephone: +357 99630614	**Mobile Telephone: +357 99696603**
Office Fax: +357 24207009	**Office Fax: +357 24207009**
E-mail:fcontopo@eac.com.cy	**E-mail:pkoumide@eac.com.cy**
Radio Channel: VHF Channel 6	**Radio Channel: VHF Channel 6**

Yours faithfully,

Antonis Ioannou
Power Station Manager

cc. Shift Charge Engineer