Public Power Corporation
Steam **E**lectric **S**tation - UNIT IV
Megalopolis GREECE

June 13, 2011
To "Whom it May Concern:

Dear Sir or Madam:
This letter confirms that the attached document about performance of Polytron products is based on facts that we witnessed personally. Based on our experience with Polytron products, we highly recommend to be used in similar applications described in this document.

Respectfully submitted by:

George Kastritseas
Assistant Engineer
Maintainance Department

ΚΑΣΤΡΙΤΣΕΑΣ ΓΕΩΡΓΙΟΣ
ΠΤΥΧΙΟΥΧΟΣ ΜΗΧΑΝΟΛΟΓΟΣ
ΜΗΧΑΝΙΚΟΣ Τ.Ε.

John Fanourakis
Former
Machine Tools Department

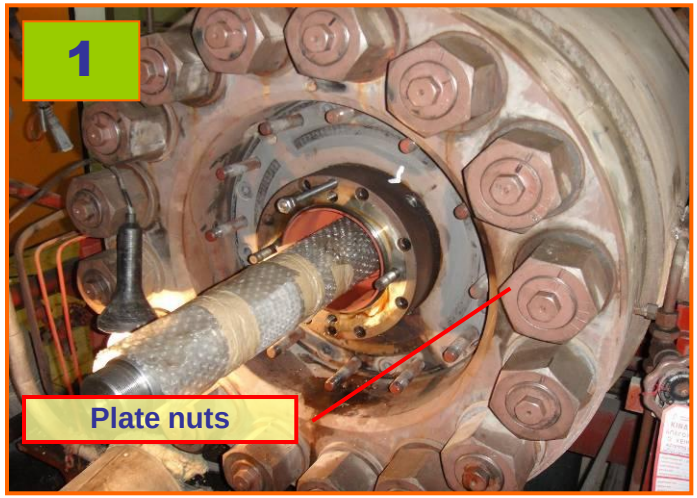
Michel Christodimitropoulos
Former
Turbine Department

PUBLIC POWER CORPORATION
SES MEGALOPOLIS UNIT IV
GREECE

Problem occurred during the maintenance of Feed-water pump No.3 (suction pressure 15 bar and discharge pressure 250bar) at Unit 4 of Steam Electric Station located in Megalopolis Greece.

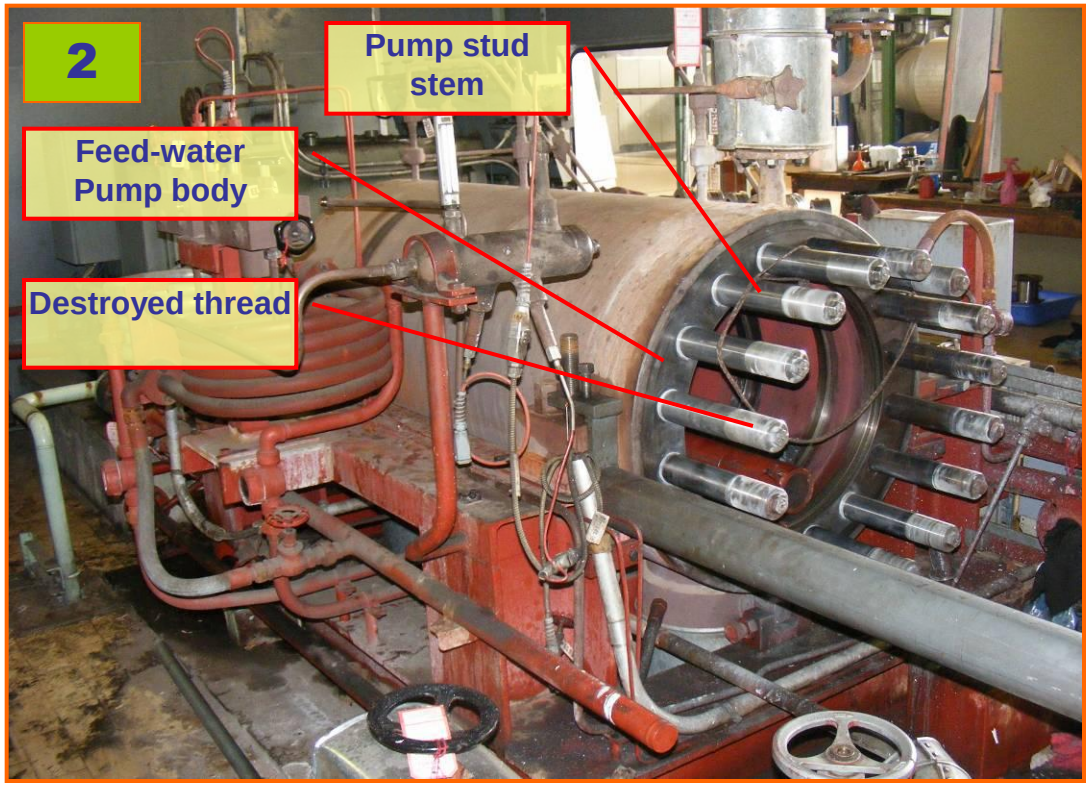
The extraction of the main plate nuts from the discharge side of the pump deteriorate the studs threats.

Since threads of severe studs were destroyed, it was necessary for them to be cut away and removed from the pump body.



Pic.1 Plate with holding nuts

Pic.3 Polytron PL been spayed



Pic.2 Main plate studs, some must be removed.

PUBLIC POWER CORPORATION
SES MEGALOPOLIS UNIT IV
GREECE

More specifically, some of the studs stems were cut and the threaded ends remaining in the water pump body. They were then drilled over and over with increasing size drill.

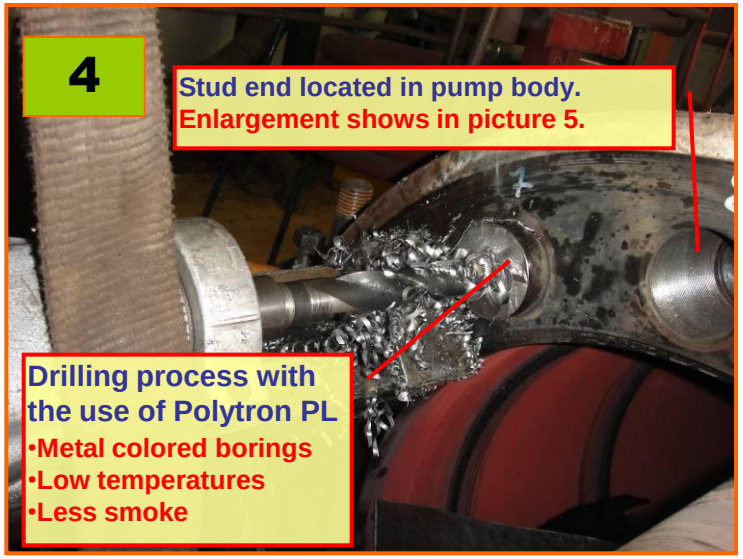
This procedure was carefully repeated until all the material belonging to the stud end was removed.

This was necessary to protect the original threats (see picture 5) of the pump body in order for the new studs to be successfully bolted in place.

The drilling of stud ends was difficult because the studs were made of hardened steel 20NiCrMo145 Din 1.6772. This is why well know penetrating spray were used during the drilling process.

During the drilling process though problems occurred with overheating, the creation of rough surfaces, smoke and blue colored borings.
Technicians who were aware of the effectiveness of Polytron products suggested the use of the company's spray for this difficult process.

The use of Polytron PL made the drilling procedure unobstructed, quicker, more efficient and solve the problem of overheating. The drilling borings had become metal-colored and the surfaces that had been drilled were much smoother.



Pic.4 Drilling process with the use of Polytron PL

Pic.5 Threading belonging to the pump body after the removal of the stud ends