

**INVESTMENT DIVISION  
PROCUREMENT DEPARTMENT**

**SUBJECT: Response to a request for clarifications concerning the technical specifications of the Call for Tenders TED 028E, for the supply and installation of two (2) Ship To Shore crane avoidance systems to STS cranes.**

With reference to the above tender process we wish to respond to the following query as received from a bidder:

**Question**

Regarding **Part B – Technical Terms, Article 10. Network Equipment - Switches**, the Switch described has no optical drives and such will probably be needed.

This product cannot accept optic fiber.

The most important is at the end of the Shock and Vibration features, will you accept better features with the corresponding certification and fiber optic capability?

**Reply**

Equivalent equipment shall also be accepted, provided they have the following certificates since there will be much vibration during the operation of the crane.

Shock and Vibration

- IEC 60068-2-27 (Operational Shock: 30G 11ms, half sine)
- IEC 60068-2-27 (Non-Operational Shock 55-70G, trapezoidal)
- IEC 60068-2-6, IEC 60068-2-64, EN 61373 (Operational Vibration) 1
- IEC 60068-2-6, IEC 60068-2-64, EN 61373 (Non-operational Vibration)

**The Procurement Department of ThPA**