Title: **ESD in a DP Vessel - For Safety, not for Blackout**

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Abstract

The ESD - Emergency Shutdown or AVS - Abandon Vessel Shutdown system is installed on vessels with the aim to minimize the consequences of emergency situations. It is a Class Society requirement for any vessel regardless its application. However, for DP vessels there are no special rules and this can direct to a dangerous situation. Reliability of the DP system relies on avoidance of spurious operation of the ESD System, whereas reliability of the ESD System requires that it operates correctly when required to.

An ESD, after a fire emergency situation, for instance, will make the scenario even worse as the crew will face a critical situation with no power available. According to the specifications, the ESD levels begin from a single engine shutdown to a complete shutdown of the vessel. Because of that, an intentional activation, which can cause a blackout, must be highly restricted to authorized personnel and should be done only when no other solution can be taken. For other levels of minor importance, a mechanical protection that avoids an inadvertent actuation should be enough.

This paper intends to bring the subject ESD into view for specialist‘s discussion. Also, it wants to propose some alternatives to its application on DP vessels for they present characteristics that are considered critical and, for that reason and for that matter, should receive a different treatment from MODU and the Classification Societies.

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