



NAUTILUS



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GRAND GARANT



D2.2 – Safety Requirements

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Deliverable D2.2 – Safety Requirements

Short summary: This task deals with safety requirements for the on-board power generation and power distribution systems. Relevant rules, regulations, guidelines, and standards on marine fuel cell and battery installations are reviewed. The analysis covers the storage and processing of the fuel, the fuel cells and batteries as well as the electrical power and heat generation and distribution. Furthermore, required system redundancies are determined. Safety requirements are investigated early on in the project to incorporate the results in the system design. The topic will be reviewed again towards the end of the project as new regulations may become public. Results will be summarised and contributed to the compilation of a project report on safety and regulatory requirement for the integration of the genset system on-board.

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Dissemination Level

- PU** Public
- PP** Restricted to other programme participants (including the Commission Services)
- RE** Restricted to a group specified by the consortium (including the Commission Services)
- CO** Confidential, only for members of the consortium (including the Commission Services)

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1 Introduction

This report provides results for the deliverable D2.2 Safety Requirements and allows the EC or Project Management to assess the progress of the work. This chapter could be available to Project Management Team if requested to fulfil European Commission obligations, such as the writing of the periodic reports. In the following safety requirements for the on-board power generation and power distribution systems will be provided. Relevant rules and regulations, guidelines and standards on marine fuel cell and battery installations are addressed.

The following chapters explains the role of a Classification Society and organisations like IMO and IACS. Regulations, test procedures and standards are identified and provided on a high-level basis. A detailed background relating regulations and their application is provided while finally specific conclusions on required system redundancies for the for the storage and processing of the fuel, the fuel cells and batteries as well as the electrical power and heat generation and distribution with required system redundancies are provided.