5730 CO2 Fire Extinguishing

# NB518:

|  |  |
| --- | --- |
| Question | Answers |
| Are you satisfied with the technical output and choises of the system? | * Design: Ideally, we should provide a pneumatic release for the EDG to cover the risks when the ship is being restarted.  ECR could use water mist with pre-action system as in the wheelhouse, rather than clean agent system. The system is tailored and very sensitive to changes in the piping. We had to re-order nozzles to adjust the system to actual piping layout due to changes done in various phases of the construction (detail design and production). For this reason, system should only be used in a few areas of limited size. * Design: We should provide a little bit more portable extinguishers. in this type of ships. |
| Rules requirements : Easy/hard? Everything fulfilled? Issues with class worth mentioning? | * Design: The effect of release on pressure in the protected space hasn't been addressed. Location of the rooms and lack of suitable solutions (with approvals) made it impossible. To be considered for future projects. Otherwise, rules are fulfilled.  Class reviewed only supplier's documentation, not shipyard documentation issued for the system. * Design: Rules are fulfilled but when NB518 left, the signage was still missing in many places. For a proper readiness of the fire control plan items, the ship needs to be fully ready.  This was inspected by Class and approved but there will be more inspections, for example by USCG. Situation was better in NB517 where all these inspections were carried out before the ship left teh shipyard. |
| Material (purchase, logistics, budget) : Your experience and feedback? | * Design: System was well in budget despite the changes during design and the differences with reference project. Same supplier as in NB516/517. * Design: Items were purchased on time. Delivery was a little late due to invoice payment issues. However, it was without consequences due to delays in the project. Purchases were within budget. |
| Drawings (schedule, comments received, changes..) : Lessons learned? | * Design: Changes in the system are first changes versus reference ships. Then, piping arrangement done in detail design in the protected spaces varied from supplier proposed arrangement. As built system varied also from the detail design. In this system, the changes need to be addressed and resulted in necessary adjustments. * Design: First revision of the drawing was late. Class used this document to comment on general safety related issues as this gives an overview of safety on board.  First approved revision was revision C. When preparing updated revision due to change of flag. Many items inaccurate were found. Also changes in GA plan needed to be addressed.  Elaboration of this document is requiring more work than it looks because information is presented and categorized in a different way than on dedicated system drawings. Level of details required is not always available in other basic design documentation. Drawing released early can receive an approval in principle. However, the drawing needs a lot of work in late phase to bring some accuracy and show exact location of equipment and devices on board.  The difficult situation related to the fact that the ship left the shipyard unfinished was partly compensated by the good work and effort paid during the last 2 weeks to get the material installed on board. However, readiness for these items could have been achieved earlier in machinery spaces which were not late. |
| Communication (internal and external), Co-operation with different parties (In own team, other design teams, subcontractors, production, suppliers, TK.. ) | * Design: System was handled by different persons along the project and this caused a lack of follow-up during some periods of time. Some issues could have been addressed earlier, but without major issues. * Design: The communication and cooperation has been really good in the last run to make the AS BUILT drawing ready and inspection succeed. |
| Comparison to NB516-517 - did we learn? | * Design: System readiness for commissioning was better. * Design: Situation was not as bad as in NB516 where the ship's departure was not so well anticipated. In NB517, due to the change in contract, the ship stayed longer at the shipyard than expected. This added time allowed to reach the necessary completion and readiness for a successful inspection of the fire control plan items. In NB518, the ship was not ready enough, but anticipation of the ship's departure, even though not ready helped to provide a better level than in NB516. Also the failures noticed in NB517 (missing material, wrong information...) were anticipated and corrected in NB518. |