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NATAA/100/MFFS

27 Feb 23

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POLICY ON TRIALS OF MAJOR FIRE-FIGHTING SYSTEMS (MFFS) IN MACHINERY/ MISC COMPARTMENTS DURING MAJOR REFITS (NR/ MR)

- 1. Refer to the following pertaining to NBCD trials: -
 - (a) NO (Str) 03/10 NBCD Test, Trials and Returns.
 - (b) NO (Str) 03/19 NBCD policy for ships.
 - (c) NO 14/15 Electrical Trials and Modification Authority (ETMA), Electrical Trials and Modification Units (ETMUs) and Electrical Trial Teams (ETTs).
 - (d) IHQ MoD(N)/ DNBCD letter NB/0695/Policy dated 07 Dec 20.

- 2. <u>Background</u>. NATAA has been revitalised wef 01 Jan 22 with an aim of synergising and strengthening the trials and acceptance procedures pan-Navy as per IHQ MoD(N)/ DNP letter PL/1680/Policy/2020 dated 24 Sep 21. Presently, various orders/policy letters wrt responsibility for conduct of trials/ checks of Major Fire-Fighting Systems onboard ships/ submarines post completion of major refits (NR/ MR) or after major overhaul/ retrofitting of the system are open to more than one interpretation which need to be addressed.
- 3. Gaps in Present System. Major fire-fighting systems (MFFS) are being checked/ accepted by ships/ submarines post major refits (NR/ MR) and not by any external agency. Further, many a times, trial protocols for these systems are not available with ship staff which leads to ambiguity wrt efficacy of in-house checks. In the absence of trial protocols, it is difficult for ship staff to comprehend the extent of installation inspections and functional checks required to be undertaken to ensure correct functioning of the systems. This leads to various shortcomings being highlighted during Staff Sea Checks Stage 1 and during BST/ IST/ OST. In the recent past, there have also been a few incidents of inadvertent operation of major fire-fighting systems onboard operational platforms as well as platforms in refit.
- 4. Procedure Followed in Commands. In order to address these gaps, WNC and ENC have adopted some procedures and issued orders to ensure checks/ trials of the MFFS. In WNC, trials of all major fire-fighting systems are being undertaken by a composite team comprising members from ship staff, WATT(Mbi), MTU(Mbi), ETMA, RAQAS and Refitting Authority with ship staff being the presenting agency. Trials of other fire fighting systems fitted onboard such as galley fire-fighting systems etc are undertaken by ship staff. Trials of AFDS and AFWS are undertaken by ETMA iaw NO 14/15. In case of ENC, whilst there are no specific directives wrt conduct of End of Refit trials of these systems, half-yearly audit of all major fire-fighting systems in machinery spaces by a competent team from within the Command, has been instituted.
- 5. <u>Aim</u>. Aim of this policy letter is to address lacunae and institutionalise the checks/ trials and acceptance procedures for all major fire-fighting systems in machinery/ miscellaneous compartments onboard ships and submarines during End of Refit trials for major refits (NR/ MR).
- 6. <u>Methodology to be Implemented</u>. In light of the aforesaid, there is a need to streamline the trials procedure across all Commands with clear division of roles and responsibilities. Post deliberations at IHQ MoD(N), the following methodology has been arrived at: -
 - (a) <u>Extent of Checks/ Trials</u>. Considering that a large quantum of repair/ maintenance work is undertaken during major refits (NR/ MR), it is prudent that the

checks/ trials are undertaken as per following procedure: -

- (i) Installation inspection.
- (ii) HATs followed by functional checks.
- (b) <u>Division of Responsibility</u>. The division of responsibility for checks/ trials of major fire-fighting systems in machinery compartments will be as follows: -
 - (i) <u>Machinery Compartments/ Equipment</u>. The Installation Inspection followed by functional checks of all major fire-fighting systems in engine rooms/ machinery compartments/ AVCAT compartments are to be undertaken by MTUs/ CTT(Pbr). The checks/ trials of fire-fighting systems of specific machinery such as GTs, Diesel Engines, DA enclosures etc are to be undertaken by respective trial units.
 - (ii) <u>Miscellaneous Compartments</u>. The checks/ trials of fire-fighting systems in all other compartments such as galley, pantry, paint store, bosun store, etc are to be undertaken by ship staff.
- (c) Accordingly, the responsibility matrix for trials and acceptance of major firefighting system for machinery compartments of ships and submarines will be as under: -

<u>Ser</u>	MFFS/ Compartment/ Location	Presenting Agency	<u>Trial Unit</u>
(i)	Engine Rooms/ Machinery spaces/ AVCAT compartments		MTUs/ CTT(Pbr)
(ii)	Specific fire-fighting system of any machinery	Ship Staff	Concerned Trials Unit
(iii)	Compartments such as galley, pantry, paint store, bosun store, etc.		Ship Staff

(d) Formulation of Trial Protocols. Trial Protocols for all major fire-fighting systems are to be formulated by the respective trial units/ ship staff as per class of ship/ submarine, based on the division of responsibility indicated at Para 6(c) above. The respective Operational authorities are to direct the ships/ submarines under their command to formulate draft trial protocols as per class of ship/ submarine. The draft trial protocols are to be forwarded to NATAA for vetting and promulgation by 30 Apr 23.

- 7. <u>Conduct of Pre/ End of Refit Trials</u>. The following procedure is to be adopted for conduct of Pre/ End of Refit trials of ships and submarines (NR/ MR): -
 - (a) Ship staff is to undertake in-house checks of the major fire-fighting systems in machinery compartments and forward in-house trials report to the respective Trials Unit.
 - (b) Trials Unit is to undertake checks as per the approved Trial Protocols thereafter. Deficiencies/ deviations observed, if any, are to be intimated to ship staff. All defects/ shortcomings are to be attended to by the Refitting Authority.
 - (c) In case of NR/ MR, the trials of major fire-fighting systems in machinery compartments post repairs/ maintenance are to be completed in all respects prior starting of any Auxiliary/ Power Generation/ Main Propulsion Equipment for trials/ acceptance.
 - (d) Post successful completion of trials of any major fire-fighting system, a report is to be rendered by respective Trials Unit (to be endorsed by the Trials Officer, ship staff, rep of Refitting Authority). The same is to be countersigned by the Commanding Officer of the concerned ship/ submarine.
- 8. It is requested that the procedure/ methodology elucidated at Para 6 and 7 above be implemented with immediate effect. All relevant NOs/ IHQ MoD(N) Policy letter(s) would be amended in due course.
- 9. It is further requested that the contents of this letter be disseminated to all units/ships.

(K Srinivas) Rear Admiral Director General

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