



DEPARTMENT OF THE NAVY
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From: Commander, Naval Sea Systems Command

Subj: TAG-OUT USERS MANUAL (TUM), NAVSEA 0400-AD-URM-010,
ADVANCE CHANGE NOTICE 1/A TO REVISION 07

Ref: (a) COMUSFLTFORCOM MSG DTG 111509Z FEB 16 (Tagout
Management Software)
(b) COMSUBPAC MSG DTG 120245Z JAN 16 (Coordinated
COMSUBLANT-COMSUBPAC Tagout Fleet Advisory)
(c) NAVSEA 0400-AD-URM-010 Rev 06

Encl: (1) NAVSEA 0400-AD-URM-010/TUM, ACN 1/A to Rev 07

1. Purpose. This letter issues the enclosure (1) change to the subject manual. Guidance is included in paragraph 3.b of this letter for use with reference (c).

2. Discussion.

a. Reference (a) and (b) notified the fleet of a problem with SOMS software (Tag-out management software) where previously cleared tags intermittently appear to remain active in the software ("ghost" tags). When this occurs, the Authorizing Officer (AO) will see previously isolated, then cleared, components appear to remain isolated in subsequent tagouts. This problem presents itself when following the normal Tag-out process. In the event of a failure of Ship's Force personnel to recognize the error and the Repair Activity to not notice the physical absence of the tag(s) when requesting a new Tag-out line item, there is a risk of authorizing work on an unisolated system. Investigation has revealed that this problem has existed since 2011 and is related to shipboard network stability and database transfer methodology when installing a new server or moving the database from a Repair Activity to the ship during ship maintenance availabilities.

b. To mitigate the risk of the software issue discussed in paragraph (a), Enclosure (1) has been issued to amplify the steps required to discover and correct the "ghost" tag problem

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when it occurs; not prevent it from occurring. NAVSEA, Fleet Forces Command, and Commander Pacific Fleet are investigating possible long term solutions to this problem and will promulgate more information when it is available.

c. This advance change notice will be incorporated into the TUM hosted electronically at:
<https://www.submepp.csd.disa.mil/jfmm/TUM.htm> and at
<https://mercury.tdmis.navy.mil>. Electronic forms are available at <https://navalforms.daps.dla.mil/web/public/forms>.

3. Action

a. Just prior to implementing ACN 1/A to Rev 07 or just prior to implementing the pen and ink changes to reference (c), perform a complete validation of the SOMS database to verify there are currently no "ghost" tags. Accomplish this validation by comparing the list of "tagged components" from the electronic tag-out program database to all active line items' associated tags on the Active Tags to be Hung Sheets in the tag-out binder of paragraph 1.5.1.e (TUM Rev 07) or Active Tag Record Sheets in the tag-out binder of Appendix I paragraph 5.2 (TUM Rev 06), verifying that all "tagged components" are associated with active line items. Upon completion of the electronic tag-out database validation, perform a tagout audit to verify that all active line item tags are actually hanging per paragraph 1.7.4 (TUM Rev 07) or paragraph 1.7.4 and Appendix I paragraph 13 (TUM Rev 06).

- 1) If a "ghost" tag(s) is found during the electronic tag-out program database validation or tag-out audit, perform the applicable following situational steps to resolve the "ghost" tag issue.
 - a) If the "ghost" tag is not part of an active line item, administratively create, hang and clear a line item containing the "ghost" tag to clear the tag from the database per paragraphs 1.6 and 1.8 (TUM Rev 07) or paragraphs 1.6 and 1.8 and Appendix I paragraphs 7 through 10 (TUM Rev 06).
 - b) If the "ghost" tag is part of an active line item, take missing tag actions per paragraph 1.7.2 (TUM Rev 07) or paragraph 1.7.2 and Appendix I paragraph 11 (TUM Rev 06).

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c) In both cases, report any "ghost" tag(s) found and corrective action taken via naval message to ISIC and TYCOM. ISIC/TYCOM will arrange for any required assistance to the affected unit.

b. If maintaining a hard copy of this manual, remove and destroy existing pages i, ii, iii, iv, 17, 18, 19 and 20. Replace with enclosure (1) pages. Record this action in the Record of Changes on page ii.

c. For platforms still using reference (c), make the following pen and ink changes and record this action in the Record of Changes on page ii:

1) Appendix I Paragraph 10.2: Add the following sentences, "Refresh electronic tag-out program database and verify the Clearances (Tagout) module tag series "Tagged Components", no longer list the tags in the active section. If tags are still listed in the active section of the "Tagged Components" tab, take actions per Appendix I paragraph 14.1.b."

2) Appendix I: Add Paragraph 14 to read:

14. VALIDATING THE ELECTRONIC TAG-OUT PROGRAM DATABASE.

14.1 General: It may be necessary to move the electronic tag-out program database and/or server during maintenance or upgrade periods or it may be necessary to restore the program database in the event of a server crash. Experience has shown that moving or restoring the database/server has the potential to corrupt the database and cause tags that were previously cleared to appear in the database as active tags ("ghost" tags). The following action is necessary after the electronic tag-out program database and/or server is moved/restored, prior to resuming tagout processing:

a. Perform a validation of the electronic tag-out program database to verify there are currently no "ghost" tags. Accomplish this validation by comparing the list of "tagged components" from the electronic tag-out program database to all active

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line items' associated tags on the Active Tag Record Sheets in the tag-out binder of Appendix I paragraph 5.2, verifying that all "tagged components" are associated with active line items. Upon completion of the electronic tag-out database validation, perform a tagout audit to verify that all active line item tags are actually hanging per paragraph 1.7.4 and Appendix I paragraph 13.

b. If a "ghost" tag(s) is found during the electronic tag-out program database validation or tag-out audit, perform the applicable following situational steps to resolve the "ghost" tag issue.

- (1) If the "ghost" tag is not part of an active line item, administratively create, hang and clear a line item containing the "ghost" tag to clear the tag from the database per paragraphs 1.6 and 1.8 and Appendix I paragraphs 7 through 10.
- (2) If the "ghost" tag is part of an active line item, take missing tag actions per paragraph 1.7.2 and Appendix I paragraph 11.
- (3) In both cases, report any "ghost" tag(s) found and corrective action taken via naval message to ISIC and TYCOM. ISIC/TYCOM will arrange for any required assistance to the affected unit.

c. Request the Joint Fleet Maintenance Manual Manager at SUBMEPP and the Naval Systems Data Support Activity update their applicable sites with this advance change notice, and include it on their next editions of JFMM and Monthly Ship Initial Distribution CD-ROMs, respectively. The electronic file will be uploaded separately. Note that electronic and paper forms have different national stock numbers for the same form number.

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d. Private Shipyards. The action taken by this manual change notice is considered by NAVSEA to be within the scope of existing contracts, and no change in contract delivery or completion dates or in current negotiated price or amount of any Government contract is authorized. If the Contractor considers that implementation of this manual revision requires a contract change, the Contractor should not implement such part but should promptly, and in any event within 30 days of receipt of this manual revision, notify the Contracting Officer in writing via the Supervisor of Shipbuilding of the facts and reasons for considering that a contract change is required. In addition to revising local instructions, contractors are requested to review all NAVSEA approved documents under their cognizance and determine if changes are needed to fully implement this manual revision. Changes to NAVSEA approved documents should be recommended to this contract change where the base document is used.

4. Implementation

a. Fleet Forces, Naval Supervising Authorities and other work authorizing activities are to implement this change when operationally feasible. Both ships and repair activities working aboard should use the same revision and advance change notice.

5. Engineering Manager for the Tag-out Users Manual is Mr. Matt Rohrer, SEA 04X6R, at (202) 781-2074 or matthew.rohrer@navy.mil.



PAUL T. COLAHAN
By direction

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TAG-OUT USERS MANUAL

LIST OF EFFECTIVE PAGES

Page Numbers	Change in Effect
i thru iv	Rev 07 ACN 1/A
1 thru 17	Rev 07
18 thru 20	Rev 07 ACN 1/A
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B-1 thru B-4	Rev 07
C-1 thru C-2	Rev 07
D-1 thru D-14	Rev 07
E-1 thru E-2	Rev 07
F-1 thru F-4	Rev 07
G-1 thru G-4	Rev 07
H-1 thru H-2	Rev 07
I-1 thru I-2	Rev 07
J-1 thru J-2	Rev 07
K-1 thru K-14	Rev 07
L-1 thru L-2	Rev 07
M-1 thru M-2	Rev 07

TAG-OUT USERS MANUAL
RECORD OF CHANGES

CHANGE NO.	DATE	TITLE OR BRIEF DESCRIPTION	ENTERED BY (INITIALS)
1/A		Para. 1.8.2.c.(2) updated and Para. 1.9 added to address "ghost" tag issues with SOMS databases.	

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NAVSEA/SPAWAR TECHNICAL MANUAL DEFICIENCY/EVALUATION REPORT (TMDER)

- powered ships, shall be documented on a valve lineup checksheet in accordance with reference (e).
- (c) Report all discrepancies in the check of actual position at once to the Authorizing Officer (and RA Representative) before proceeding any further with the tag audit. Appropriate action shall be taken to ensure the continued protection of personnel and equipment.
 - (d) Evaluate whether the danger tagged component is located in a high traffic area. If this is the case, inform the Authorizing Officer.
- (6) Record results of tag audits by a line entry on an Audit Report Cover Sheet (see Appendix D, Figure 10). Record the date completed, the discrepancies noted, and the signature of person doing the audit on the Audit Report (see Appendix D, Figure 11).
- c. Ship's Force audit of LIRS (if not using electronic signatures).
- (1) The Line Item Record Sheets will be audited against the electronic tag-out program (if not using electronic signatures).
 - (2) Record the results of the audit by a line entry on the Audit Report Cover Sheet (see Appendix D, Figure 10). Record the date completed, the discrepancies noted, and the signature of the person doing the audit. The AO shall annotate on the audit report cover sheet once completed audits are returned.
 - (3) Completed LIRS will be routed to the cognizant department representative (department head/principle assistant) for review.
- d. Following correction of all discrepancies discovered during the audit process, the cleared line items may be archived. The frequency of electronically archiving line items is at the discretion of the ship. Upon completion of the audit, discard cleared THS and TRS records.

1.7.5 Danger Tagged Components Found Out of Position or Wrong Component Tagged. When a danger tagged component is found out of position or a danger tag is found on the wrong component, the following actions shall be taken:

- a. Report the condition immediately to the Authorizing Officer and RA Representative (if applicable).
- b. Stop affected work, notify Department Head and appropriate RA supervision (if applicable) and take appropriate action to ensure continued protection of personnel and equipment.
- c. Replace the tag using the damaged tag process of paragraph 1.7.2.c, except:
 - (1) Indicate the component was "out of position" or the tag was "on wrong component" in the **Replaced Tag** block on the original THS.
 - (2) Before the replacement tag is posted, the Authorizing Officer shall ensure that the deficient tag is cleared and the component is placed in the appropriate position.
- d. Conduct an investigation to determine the circumstances surrounding a danger tagged component found out of position or wrongly tagged.
- e. The Authorizing Officer and the RA Representative (when applicable) shall verify plant conditions/system status and determine any effects on plant conditions/system status.
- f. Recommence work when authorized by appropriate Ship's Force Department Head and appropriate RA supervision.

1.7.6 Monitoring by Shipyards. During Chief of Naval Operations availabilities, the tag-out process shall be monitored by the shipyard. The shipyard shall review the tag-out log and check to ensure Ship's Force is properly posting tags. The goal of the monitoring is to provide timely data on tag-out performance so emerging adverse trends can be quickly addressed. Any deficiencies found during the monitoring shall be recorded by date, description and signature entry in a formal shipyard document.

1.8 CLEARING TAG-OUTS.

1.8.1 General. Remove danger and caution tags immediately when the operation/work line item(s) requiring the tag(s) has been corrected and clearing of tags has been authorized by the Authorizing Officer and RA Representative (when applicable).

1.8.2 Completion of Operation/Work Items.

- a. As operations/work items are completed, the associated line item shall be cleared. To clear an active line item, open the line item to be cleared and select the **Line Item Verification** tab. Have the Repair Activity Representative sign the **Repair Activity Rep. (work complete)** block, if applicable. The Authorizing Officer electronically signs the **WCS or POIC (work complete)** block for authorization to clear the line item.
- b. If completing the line item results in no tags to be cleared, the Authorizing Officer will concur with the line item clearance and sign for completion of tag removal.

NOTE: The Assistant Authorizing Officer can also clear line items within a tag-out (for Completed work) that would not result in the clearing of any tags.

- c. If the electronic tag-out program determines that any of the tags are not referenced by open line items, a Tags to be Removed window will open. Clicking the **Authorize Removal** button will print the TRS and will change the status of the line item to **Work Complete**.
 - (1) Review the TRS to identify the tags to be cleared. However, the TRS cannot be the sole source for determining readiness to clear tags. After signing for work complete, verify all of the tags on the TRS have turned blue under the Line Item Tags tab.
 - (2) Refresh the electronic tag-out program database and verify the Clearances (Tagout) module tag series "Tagged Components", no longer list the tags in the active section. If tags are still listed in the active section of the "Tagged Components" tab, take actions per paragraph 1.9.1.b.
 - (3) Continue with clearing tags per the following paragraphs.

1.8.3 Position/Condition. Fill in the appropriate **Clearance Position/Condition** on the TRS for each of the tags to be removed. Specific consideration must be given to the sequence of any valve repositioning and the type, size, and rating of any fuses being reinstalled. If a tag is to be removed from a component that has more than one tag attached, the specified position/condition must be compatible with the tagged/position condition. Repositioning of a component with multiple tags is never authorized until all tags have been cleared.

1.8.4 Authorization.

- a. When all line items requiring a tag are cleared as indicated by the tag being listed on the TRS, authorization to remove a tag and intent to reposition the previously tagged item is indicated by signature of the Authorizing Officer in the **Clearance Authorized Authorizing Officer** block of the TRS. If the tag supported Repair Activity work (e.g., Repair Activity Witness block on THS is initialed) then the RA Representative signs the **Clearance Authorized Repair Activity** block. In situations where the RA Representative is no longer available (i.e., RA has completed work and left the geographical area or the ship has departed) the Authorizing Officer may authorize clearing the tag by marking the **Clearance Authorized Repair Activity** block on the TRS as "RA Not Available".
- b. The Authorizing Officer will sign the TRS for clearing tags and to approve the component be placed in the position or condition specified in **Clearance Position/Condition** block of the TRS. The Authorizing Officer shall inform the person clearing the tag if the Authorizing Officer's permission should be obtained just prior to repositioning the component, in order to sequence the operation of several components.

1.8.5 Removal.

- a. Issue the TRS for clearance of tags.
- b. The person assigned shall remove the tag. If repositioning is required, the person assigned shall place

the previously tagged component in the position or condition specified on the TRS. Enter the date/time in the **Date/Time Cleared** block and enter initial in the **Cleared By** block of the TRS. Specific amplifications are:

- (1) If the person directed to remove a tag finds that the clearance position/condition specified would require repositioning an item which has more than one tag attached, all efforts to remove the tag shall be stopped. The discrepancy shall be reported immediately to the Authorizing Officer, and to the RA Representative.
 - (2) If upon removal of a tag the item is found out of its expected position, all tag removal/restoration efforts for the items shall be stopped. The discrepancy shall be reported immediately to the Authorizing Officer and RA Representative.
- b. All tags should be returned immediately to the Authorizing Officer. If a tag is in a location that prevents returning the tag to the Authorizing Officer, such as a radiological or hazardous material containment, the tag may be destroyed and disposed of in the appropriate manner within the containment following an independent verification that the correct tag has been cleared. This independent verification shall be performed by another person assigned by the Authorizing Officer.

1.8.6 Completion of Tag Removal.

- a. Upon return of the TRS and the individual tags, the Authorizing Officer must verify that the proper tags were removed and that documentation of their removal was completed on the TRS.
- b. Update the applicable valve status board(s), and then destroy the removed tags. Exercise care when updating applicable valve status boards following removal of tags. A valve may still be tagged (issued by another tag-out log/folder), or it may not be in the normal position specified on the applicable valve status board. The position/condition specified on the TRS for each removed tag must be used for updating the valve status board.
- c. Open the line item to be cleared, select the **Line Item Verification** tab, sign on for **Tags Removed** line and click the **Sign On** button.

NOTE: ONCE THE LINE ITEM IS STATUSED AS WORK COMPLETE, ALL TAGS FOR THAT LINE ITEM WILL BE LISTED AS CLEARED ON THE ELECTRONIC LINE ITEM SHEET. THIS DOES NOT NECESSARILY MEAN THE TAGS ARE CLEARED; IT MEANS THEY NO LONGER APPLY TO THAT LINE ITEM.

1.8.7 Completion of Line Item Record Sheet and Tags to be Removed Sheet.

- a. When all actions for a LIRS/TRS have been completed, all tags have been cleared and destroyed, and the applicable valve status board(s) updated, the Authorizing Officer will:
 - (1) Notify DC Central, if applicable, that work has been completed.
 - (2) File the completed LIRS (if not using electronic signatures) in the cleared section of the tag-out log binder.
 - (3) File the completed TRS in the cleared section of the tag-out log binder until after completion of the audit of paragraph 1.7.4.b(2).

1.9 VALIDATING THE ELECTRONIC TAG-OUT PROGRAM DATABASE.

1.9.1 General: It may be necessary to move the electronic tag-out program database and/or server during maintenance or upgrade periods or it may be necessary to restore the program database in the event of a server crash. Experience has shown that moving or restoring the database/server has the potential to corrupt the database and cause tags that were previously cleared to appear in the database as active tags ("ghost" tags). The following action is necessary after the electronic tag-out program database and/or server is moved/restored, prior to resuming tagout processing:

- a. Perform a validation of the electronic tag-out program database to verify there are currently no "ghost" tags. Accomplish this validation by comparing the list of "tagged components" from the electronic tag-out program database to all active line items' associated tags on the Active Tags to be Hung Sheets in the

tagout binder of paragraph 1.5. I.e , verifying that all “tagged components” are associated with active line items. Upon completion of the electronic tag-out database validation, perform a tagout audit to verify that all active line item tags are actually hanging per paragraph 1.7.4.

- b. If a “ghost” tag(s) is found during the electronic tag-out program database validation or tag-out audit, perform the applicable following situational steps to resolve the “ghost” tag issue.
- (1) If the “ghost” tag is not part of an active line item, administratively create, hang and clear a line item containing the “ghost” tag to clear the tag from the database per paragraphs 1.6 and 1.8.
 - (2) If the “ghost” tag is part of an active line item, take missing tag actions per paragraph 1.7.2.
 - (3) In both cases, report any “ghost” tag(s) found and corrective action taken via naval message to ISIC and TYCOM. ISIC/TYCOM will arrange for any required assistance to the affected unit.