



**US Army Corps
of Engineers®**

ENGINEERING AND CONSTRUCTION BULLETIN

No. 2007-18

Issuing Office: CECW-CE

Issued: 10 Sep 2007

Subject: Construction Warranty Management

Applicability: Guidance

1. References

- a. ER 415-345-38 dated 30 June 2000, Construction: Transfer and Warranties
- b. UFGS-01 78 02.00 10 (April 2006), Closeout Submittals
- c. FAR 52.246-21, Warranty of Construction (Mar 1994)

2. Purpose: The purpose of this ECB is to provide guidance for the planning, execution, and management of construction warranty throughout USACE.

3. Background: The National Management Board (NMB) directed a Value Stream Analysis (VSA) of the USACE Construction Warranty Management Process. The results of the VSA indicate the current references and specified warranty management processes are adequate. However, inconsistent implementation of the references and processes combined with additional emphasis on improving customer satisfaction during the warranty period were identified as focus areas for improvement. The purpose of this ECB is to provide guidance and recommendations to address these focus areas.

- a. During the requirements definition phase, conduct market research to identify industry warranties applicable to components, sub-systems and systems. Also identify the end user's warranty requirements.
- b. Adhere to the guidance and requirements in reference 1a. Compliance with these requirements is essential to ensuring that a uniform process is implemented throughout USACE.
- c. The Memorandum of Understanding (MOU) for each installation or the specific MOU for large and complex projects must address warranty management. The MOU's must be kept current to include changes in signatory personnel.
- d. The Project Management Plan (PMP) must address construction warranty management. Installation personnel must be involved in the development of warranty criteria so that a clear understanding of and concurrence with warranty response times and requirements are achieved. Some warranty items and services requested by the installation may not be covered by the typical project Supervision & Administration expenses and thus require additional funding by the customer.

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- e. Warranty requirements should be addressed in the Pre-Construction Conference and routinely discussed throughout project execution.
- f. During each “Red Zone” meeting, actions and documents required from the contractor that affect warranty and turn over of the facility must be closely tracked. These include O&M manuals, training, as-built drawings, contractor’s warranty plan, performance verification test dates, fire alarm and fire protection system tests, pre-commissioning dates, and commissioning dates. This list is not to be considered all inclusive, but indicates the type of items and actions that must be tracked until completed to facilitate successful project turnover and construction warranty management.
- g. The participation of key installation maintenance personnel in training, testing, and pre-commissioning and commissioning of systems is critical to ensuring that required maintenance is properly completed and to minimizing warranty issues during the warranty management period.
- h. Key members of the Project Delivery Team (PDT), including the Contract Specialist, Project Manager, Designers, Resident Engineer, Quality Assurance Representatives, Contractors, and Installation Representatives must be actively engaged during closeout phase of construction.
- i. The contractor’s Warranty Plan shall provide the necessary information required by the installation to contact the contractor during the warranty period and shall include the procedures the contractor will follow to correct warranty issues.
- j. The Pre-Warranty Conference is conducted not only to review the contractor’s responsibilities and procedures for warranty response, but must also address the installation’s point of contact for warranty issues; installation’s procedures for determining if an item is covered under warranty; notification procedures; who the contractor needs to contact at the project site and how the installation will document and track warranty notifications and timeliness of contractor response. Agreement on all these items shall be documented and properly communicated to all required personnel. It is recommended that installation personnel notify the contractor of warranty items by both phone and electronic means either fax or email. The warranty notification method must be reliable so that the contractor can respond and take the necessary actions as stated in its Warranty Plan., (i.e. sending an email to someone on vacation could delay response time). Field offices are encouraged to use the RMS, “Warranty Inspections” module under Closeout as the mechanism to track warranty issues. RMS instructions are available in the guide at <http://www.rmssupport.com/guides.aspx>.

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- k. As specified in reference 1a., when a defect is discovered, the installation is responsible for investigating and determining whether the defect results from user abuse, improper operation or maintenance, design or construction problem. This initial determination may require the assistance of the Construction Agent (USACE field office) when there is doubt as to the construction contractor's liability. If the defect is determined to be the responsibility of the contractor, the installation must notify the contractor of the warranty item. If practicable within USACE Field Office staffing constraints, optional reimbursable support by USACE to handle construction warranty issues in their entirety may be discussed with the customer while completing items 4. a. and c. above.
 - l. Representatives of the Contractor, Installation, USACE Area / Resident Office and other appropriate PDT members will participate in the four and nine month warranty walk-through inspections.
 - m. As part of the nine month warranty walk-through inspection, an After Action Review (AAR) should be conducted to review the number and types of warranty calls, as well as the Contractor's warranty performance. As part of this review, an evaluation is made to determine if there are systemic problems with workmanship, material, or design. Reference 1a. provides information on resolving design issues. If warranty calls reflect workmanship issues, the contractor is non-responsive, or is performing marginally during the warranty period, the ACO/COR should consider preparing a revised DD FORM 2626 Performance Evaluation (Construction) for the warranty period so that it can be annotated in the Construction Contractor Appraisal Support System (CCASS). Additionally, the performance bond is still in effect during warranty period and can be used if the contractor is non-responsive. Letters to the contractor concerning inadequate performance during the warranty period should be copy furnished to the surety.
4. Warranty procedures for Work of Others and Civil Works may vary slightly from the above stated procedures, with clarifications provided in reference 1.
 5. The attached Warranty Process flow chart outlines the recommended steps and actions to achieve successful warranty management.
 6. Point of contact for this ECB is Paul Dicker, CECW-CE, 202-761-0995.

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Enclosure

Warranty Management Process

