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ARAB ENGINEERING BUREAU

## 9 NONCONFORMITY MONITORING

### 9.1 INTRODUCTION

#### 9.1.1 General

- 1 The Contractor shall ensure that any product which does not conform to specified requirements is identified and controlled to prevent its unintended use or delivery. A documented procedure shall be established to define the controls and communicate responsibilities and authorities for dealing Nonconformity of a product. The Contractor is expected to take a proactive approach to any Nonconformity by:
  - (a) taking action to estimate the detected Nonconformity.
  - (b) authorizing its use, release or acceptance under concession by the Engineer
  - (c) taking action to preclude its original intended use or application.
  - (d) taking action appropriate to the effects, or potential effects, of the nonconformity when nonconformity product is detected after delivery or use has started.
- 2 When Nonconformity is corrected it shall be subject to re-verification to demonstrate conformity to specified requirements.
- 3 Records of the nature of nonconformities and any subsequent actions taken, including concessions obtained by the engineer, shall be maintained.
- 4 The monitoring system shall apply to material and equipment as well as installation and construction which fail to conform to the Contract.
- 5 A Contractors Nonconformity Report Template is included in Appendix B of this Section and shall be used for recording and managing any Nonconformity identified.

#### 9.1.2 Review and Disposition of Nonconforming Items

- 1 The responsibility for review and authority for the disposition of nonconforming items shall be defined in the Contractor Project Quality Plan.
- 2 Nonconforming items shall be reviewed and actioned in accordance with documented procedures. A nonconforming item may be:
  - (a) reworked to meet the specified requirements
  - (b) accepted with or without repair if agreed in writing by the Engineer
  - (c) re-graded for alternative applications
  - (d) rejected or scrapped.
- 3 The proposed use or repair of an item which does not conform to the requirements of the project documentation shall be reported to the Engineer. The description of the Nonconformity and any repair undertaken shall be recorded to denote the actual condition.
- 4 Repaired and/or reworked products shall be inspected in accordance with the Project Quality Assurance Plan and/or documented procedures

### **9.1.3    Corrective Action**

1      The Contractor shall take action all necessary action to eliminate the causes of Nonconformity in order to prevent recurrence. Corrective actions shall be appropriate to the effects of the Nonconformity encountered.

A documented procedure shall be established to define requirements for:

- (a)     Reviewing nonconformities (including Engineer complaints)
- (b)     Determining the cause of Nonconformity
- (c)     Evaluating the need for action to ensure that a Nonconformity do not re-occur
- (d)     Determining and implementing any actions required
- (e)     Record of the results of action taken and
- (f)     Reviewing the effectiveness of the corrective action taken

2      Any corrective or preventive action taken to eliminate the causes of actual or potential nonconformities shall be to a degree appropriate to the magnitude of problems and commensurate with the risks encountered.

3      The Contractor shall implement and record any change required to the documented procedures for implementing corrective and preventive action.

4      The Contractor shall take prompt action to identify the causes of each Nonconformity and the corrective action necessary prevent recurrence. The results of failure and discrepancy report summaries, Contractor evaluations, and any other pertinent applicable data shall be used for determining corrective action. Information developed during construction, tests, and inspections that support the implementation of required improvements and corrections shall be used to support the adequacy of corrective action taken.

5      The procedures for preventive action shall include but not be limited to:

- (a)     the use of appropriate sources of information such as processes and work operations which affect product quality, concessions, audit results, quality records and service reports to detect, analyse and eliminate potential causes of Nonconformity
- (b)     the determination of the steps needed to deal with any problems requiring preventive action
- (c)     the initiation of preventive action and application of controls to ensure that it is effective
- (d)     the ensuring that relevant information on actions taken is submitted for management review

### **9.1.4    Identification of Nonconforming Items**

1      The Contractor shall clearly identify each nonconforming item with a status tag or other distinguishing mark. The Contractor shall establish documented procedures for installing, monitoring, and removing these status tags and identify personnel authorised to remove status tags.

#### **9.1.5 Acceptance and Approval of Nonconforming items**

- 1      Acceptance of the Contractors proposed disposition of Nonconformity should be obtained in writing from the Engineer prior to the undertaking of any remedial works by the Contractor.
- 2      The close out of any Nonconformity must be agreed in writing by the Engineer.
- 3      Nonconformity follow up meetings shall be held between the Contractor and Engineer at suitable intervals to ensure satisfactory and timely closure of pending Nonconformity Reports.
- 4      The Engineer shall have the right to withhold payment for any part of the Works that have open nonconformities until the Nonconformity is closed to the satisfaction of the Engineer.

#### **9.1.6 Nonconformity Records**

- 1      The Contractor shall provide the Engineer with the following information for each Nonconformity:
  - (a) identification of the Nonconformity
  - (b) description of the Nonconformity
  - (c) evaluation of the Nonconformity to establish the cause
  - (d) the recommended corrective action
  - (e) date the Nonconformity was identified
  - (f) date corrective action was completed
  - (g) description of final corrective action.
- 2      The Contractor shall establish and maintain a Nonconformity log. The log shall contain the following information as a minimum:
  - (a) unique sequential reference number
  - (b) date issued
  - (c) originator
  - (d) description of item deemed to be nonconforming
  - (e) description of Nonconformity
  - (f) Contractors recommended and final disposition
  - (g) Engineers acceptance of Contractors recommended and final disposition
  - (h) date closed
  - (i) remarks, as applicable

#### **9.1.7 Acceptance and Approval of Nonconforming items**

- 1      Any Nonconformity that has been pending closure for more than sixty (60) days shall require the Contractor to report to the Engineer each month the ongoing actions that are being taken towards achieving a satisfactory closure of the Nonconformity.

**END OF PART**