PART 1: GENERAL

1.1 SCOPE

A) This section includes requirements for construction submittals.

1.2 COORDINATION OF SUBMITTALS

A) All submittals to the Owner's Representative, with the exception of the laboratory test certificates, shall be made only by the Contractor. Direct submittals from subcontractor or suppliers will not be accepted.

B) All submittals shall reference the Specification item that it covers, the Contractor's name, the Contract title and location, and the date of submission. Submittal shall also indicate whether the information is for the Owner's Representative's review and approval, for record purposes or for the fulfillment of the operation and maintenance requirements.

C) Prior to Submitting Information to the Engineer:

1) The Contractor shall carefully review the correctness and thoroughness of the material, verify all field measurements, and coordinate all aspects of each item being submitted.

2) The Contractor shall verify his review by affixing his stamp of approval and signature to each page of each required copy of the submittal.

PART 2: PRODUCTS

2.1 GENERAL

A) Three Categories of Information Are Normally Required:

1) Information for record.

2) Information for the Engineer's review and approval.

3) Operation and maintenance information.
2.2 INFORMATION FOR RECORD

A) **Laboratory Certificates:** Certificates shall include the results of tests by an independent laboratory for comparison to Specification requirements, mix design data and approval, plan inspection reports and certification, and other required information from the laboratory. All information submitted shall be signed by an authorized agent of the laboratory.

B) **Licenses and Permits:** The Contractor shall obtain all licenses and permits required by Local, State and Federal laws and submit copies of them to the Engineer.

C) **Installation and Calibration Certificates:** Certificates shall be submitted for equipment as indicated in the individual sections. These certificates shall indicate manufacturer's satisfaction with the installation, the accuracy of calibration and alignment, and the operation of the equipment. Such certificates must be signed by an authorized agent of the manufacturer.

D) **Manufacturers' Literature:** Literature indicating the compliance of the product with the Specifications shall be included with all submittals. This shall include catalogs and other descriptive bulletins. Relevant portions of the literature shall be clearly identified by highlighting or underlining.

E) **Manufacturers' or Suppliers' Certificates:** Certificates shall state that the products have been sampled and tested in accordance with the proper industrial and governmental standards and meet the requirements of the Contract Documents. Certificates shall be signed by an authorized agent of the manufacturer.

F) **Design Data:** Design data shall include the calculations, supporting theories, safety factors and assumptions used in designing the product.
G) **Samples**: Samples shall be provided as required in the individual sections. Samples shall be of the precise material proposed to be furnished. The number of samples and sample size shall be of the industry standard unless otherwise stated in the individual sections.

H) **Substitutions**: Submittals for substitute materials or equipment shall include but not be limited to manufacturer's literature, design criteria, dimensions and installation instruction. The submittal shall also include any certifications or test results required to demonstrate that the proposed materials or equipment meets the requirements of the specifications and is equivalent or better than the specified materials or equipment.

2.3 **INFORMATION FOR THE ENGINEER'S REVIEW AND APPROVAL**

A) **Construction Schedules**: Unless otherwise specified, construction schedules shall include:

1) Prior to starting construction of this Contract, the Contractor shall submit through the Engineer for the Owner's review four (4) copies of a schedule, in the form of a bar chart, of the proposed operations. The schedule shall be complete and show in detail the manner in which he proposes to complete the work within the specified time. The schedule shall include purchase lead time and delivery schedule for major equipment. The Engineer will distribute copies of the approved schedule to the Owner, the Contractor and the Owner's Representative.

2) The Contractor shall update the construction schedule monthly to show the work completed and any changes in the schedule.

B) **Shop Drawings**: Shop drawings shall include the following along with any special requirements listed in the individual Specification Sections:

1) Scaled details

2) Scaled dimensional drawings

3) Sectional assembly drawings

4) Fabrication information

5) Installation instructions and drawings

6) Wiring schematics with termination point identification
7) Motor information, Electric Motors

8) Piping schematics

9) Materials of construction

10) Manufacturer's name and model

11) Manufacturer's catalog data

C) The Contractor shall indicate on the submittals all variances from the Specifications.

2.4 OPERATION AND MAINTENANCE INFORMATION

A) The Contractor shall furnish four (4) copies of information for all equipment requiring maintenance.

B) This information will be accepted only if properly identified with Contract Section Numbers and only after revised, where necessary, to conform to the Owner's Representative notes on previous submittals that have been "Approved as Noted." Manuals shall be tailored to suit the specified equipment provided.

C) Submittals shall include but not be limited to the following:

1) Descriptive literature, bulletins or other data covering the equipment or system.

2) Complete list of equipment and appurtenances included with the system, complete with manufacturer and model number.

3) Utility requirements.

4) General arrangement drawing.

5) Sectional assembly.

6) Dimension print.

7) Materials of construction.

8) Certified performance curve.
9) Performance guarantee.
10) Parts list with assembly drawings.
11) Recommended spare parts list with part and catalog number.
12) Lubrication recommendations and instructions.
13) Schematic wiring diagrams.
14) Schematic piping diagrams.
15) Description of associated instrumentation.
16) Drive dimensions and data.
17) Operating instructions.
18) Maintenance instructions including trouble shooting guidelines, lubrication and preventive maintenance instructions with task schedule.
19) Special tools and equipment required for operation and maintenance.
20) Description of equipment controls.
21) Pump seal data
22) Assembly, installation, alignment, adjustment and checking instructions.
23) Confirmation of all corrections noted on shop drawings "Approved as Noted."
24) Suppliers name, address and telephone number along with manufacturers job number and/or Purchase order number.

D) All manuals shall be tailored to the project by highlighting appropriate information and/or deleting or crossing out non-applicable information. All options furnished shall be indicated.

E) Manuals shall be printed on heavy, first quality paper, 8-1/2" x 11" size with standard three hole punching. Large manuals shall be submitted in three ring binders. Drawings shall be reduced to 11" x 17". Where reduction is not possible,
larger drawings shall be folded separately and placed in envelopes which are bound into the manual. A Table of Contents and index tabs shall be furnished for all manuals containing data for three or more items of equipment.

F) Equipment shall not be considered substantially complete until all associated O & M submittals are accepted by the Engineer.

G) Field modifications to equipment during installation shall be included in the manual so that the manual reflects as-built conditions. Revisions to the manual may be submitted for incorporation into the manual where appropriate. However, the Engineer reserves the right to return all four manuals for revision to reflect as-built conditions.

2.5 OTHER SUBMITTALS

A) Other submittals are required under various sections of these Specifications.

PART 3: EXECUTION

3.1 GENERAL

A) Delivery prior to approval of any material or equipment for which submittals are required will be at the Contractor's risk. Material or equipment for which submittals are required shall not be incorporated into the work until after the submittals have been reviewed and approved.

B) Any material or equipment on-site which is rejected by the Owner's Representative after review of submittals shall be removed from the job site by the Contractor within two (2) working days of notification of rejection.

3.2 DISTRIBUTION

A) Distribution of submittals shall be as follows unless otherwise directed in the individual Sections:

1) **Information for Record** - The Contractor or the laboratory shall submit one (1) copy of all test certificates, licenses, permits and installation and calibration certificates directly to the Owner's Representative.

2) **Information for Engineer's Review and Approval**
a) The Contractor shall submit to the Owner's Representative four (4) copies of all documents requiring review.

b) The Owner's Representative will review the submittals with reasonable promptness for their compliance with the design concept and the Contract Documents.

c) If the submittals are found insufficient three copies will be returned to the Contractor for correction. The Contractor shall then resubmit four (4) copies of the corrected information.

d) Upon acceptance, the Owner's Representative will distribute marked copies as follows:

   (1) One (1) copy - Owner's Representative

   (2) Two (2) copies – Contractor

   (3) One (1) copy - Engineer

PART 4: SPECIAL PROVISIONS

4.1 MEASUREMENT AND PAYMENT

   A) When not listed in the proposal, all "CONSTRUCTION SUBMITTAL" costs will be considered incidental work for which no separate payment will be made.

END OF SECTION