SECTION 13060

FISH FACILITIES

PART 1 - GENERAL

1.1 Scope:

A. This section encompasses products, assemblies, design considerations, and basic installation methods required for Fish Facilities specified under this division. It is intended to provide the design engineer, equipment vender, and installation contractor with an understanding of the basic requirements and conditions necessary for consideration in the development and implementation of SHC/SOM Fish Facilities, and include:

1.2 SYSTEM DECRIPTION:

A.

B.

C.

1.3 QUALITY ASSURANCE:

A. Provide equipment and components of type and manufactures which are listed by Underwriter's Laboratories and approved by Factory Mutual and have been successfully applied in installations similar to ones within the scope of this section.

B. The Contractor shall be regularly engaged in the installation of - - - - - -. Provide evidence of such recent experience.

C. Contractor shall submit references for at least three projects of similar type and size installed over the last five years.

D. The Medical Center reserves the right to reject any contractor who fails to demonstrate the experience required by 1.03B

1.4 REFERENCE CODES AND STANDARDS:

A.

1.5 SUBMITTALS:

A. General: Shop drawings shall be submitted to the Project Manager for approval prior to the purchase and installation of equipment. The Project Manager will submit the shop drawings to the University Fire Marshal and SHC Engineering & Maintenance Department for internal review. After receiving review comments from the University Fire Marshal and the SHC E&M Department, the contractor shall make appropriate changes to the shop drawings. Thereafter, the Project Manager will submit the shop drawings to the appropriate jurisdictional agency for required permit, review, and approval.

B. Shop Drawings and other submittals: Shop drawings shall be computer generated (CAD) drawings, compatible with the University Maps and Records department standards. All items shall be submitted for approval within the time specified in this section, and shall include the following, as a minimum.

1. Complete catalog data for all components to be installed, within 21 calendar days of contract award.

2. Complete shop drawings of equipment to be installed, including piping, and any calculations, within 28 calendar days of contract award.

3. Testing schedule, 14 calendar days prior to scheduled start of testing.

4. Test procedure, at same time as Testing Schedule. Test procedure shall include testing alternate power supply and automatic transfer switch, when provided.

5. Recommended spare parts list with any special tools required, wiring schematics, installation/operation/maintenance manuals, and as-built drawings, at same time as training syllabus.

6. Report showing results of Field Acceptance Test, signed by contractor, within two (2) work days of test completion.

7. Maintenance and testing schedule, submitted at the same time as 1.5.B.9

1.6 SAFETY AND INDEMNITY:

A. Safety: The Contractor shall be solely and completely responsible for conditions of the job site, including safety of all persons and property during performance of the work. This requirement will apply continuously and not be limited to normal working hours.

1.7 GUARANTEE:

A. The Contractor shall issue a certificate of guarantee certifying that all materials and workmanship supplied and/or installed by the Contractor shall be free from defects for a period of not less than one year from the date of substantial completion or beneficial occupancy, whichever occurs first.

## PART 2 - DESCRIPTION

2.1 ROOM CONSTRUCTION

A. Any fish facility needs to have/consider the following room requirements
   1. Vibration requirements ?????
   2. Weight bearing floor capable of supporting 2000 pounds on one rack
   3. Wall construction with backing (20 ga studs, with 16 ga backing)
   4. Ceiling Systems (See section vinyl covered sheetrock tiles)
   5. Flooring: Epoxy floor sloped to floor drain, with 4" minimum cove at the walls.
   6. Paint: Epoxy on walls and hard ceilings

B. Accessibility:
   1. Door access into the fish room must be 9'-0" high x 6'-0" wide net clear
   2. Security:
      - Reporting on data center door access lists and actual door use lists.

C. Racks, shelving, and casework:
   1. Average size rack: _____ x _____ x _____ high. Maximum load capacity: 2000 pounds.
   2. Seismic per California Building Code
   3. All racks, shelving, and casework are to be made of brushed stainless steel.

D. Fire Protection
   1. Fire Alarm: 100% smoke detector coverage (See Section 13850 & 13581)
   2. Provide appropriate fire extinguishers where needed in the data center

E. Electrical
   1. Exposed wire mold, conduit, and junction boxes are to be made of plastic
   2. Electrical outlets are to be protected with GFI circuits per California Electric Code

D. HVAC
   1. Air filtration requirements ?????
   2. Minimum 6 air changes per hour

END OF SECTION

FISH FACILITIES

1. Sloped epoxy floor to floor drain
2. Epoxy painted walls
3. Mylar wrapped ceiling tiles for laboratory use
4. Minimum 6 air changes per hour depending on fish density could go to 10 air changes per hour.
5. How will the temperature of the fish be maintained? From the temperature of the air in the room or by heaters in the water.
6. All shelving, cabinets, and casework are to be stainless steel.
7. All shelving to be seismically supported.
8. All filtering systems and water treatment systems will be provided by the department.
9. Electrical outlets are to be protected with GFI
10. Room M3??, the room is coded as ??, it is now a change of use to animal