

SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY
RFP 2023-14
WWTP RBC Replacement
Amendment #1

SDSTA amends the subject RFP to include the following addendum from Banner Associates, Inc. as the primary engineering firm on the project. It is hereby understood that all other provisions will not be otherwise changed nor affected.

This Amendment is effective May 2, 2023.



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ADDENDUM | No. 1

PROJECT	Sanford Underground Research Facility WWTP		
PROPOSAL SUBMISSION DATE	2:00 PM	Mountain Time Zone	May 10, 2023
PROPOSAL SUBMISSION LOCATION	Sanford Underground Research Facility 630 East Summit Street Lead, SD 57754		
ISSUE DATE	May 2, 2023		

SCOPE OF THIS ADDENDUM

The following becomes a part of the original project specifications and design drawings, taking precedence over the items that may conflict. The person submitting a proposal shall note receipt and make acknowledgment of the Addendum on his/her proposal form, incorporating its provision in his/her proposal.

PRIOR APPROVALS

The following manufacturers of the items and materials have been added to the list of approved manufacturers. Listing of an item does not change the requirements of the specifications. Equipment furnished shall meet the materials and performance requirements as specified.

SECTION	DESCRIPTION	MANUFACTURER
23 3725	Louvers	Air Balance
23 3423	HVAC Power Ventilators	Aerovent



PROJECT SPECIFICATIONS

The following additions, changes and clarifications have been made to the Project Specifications.

Section 40 0552 Process Valves

Add Section 2.12

2.12 COMBINATION AIR VACUUM VALVE

- A. Manufacturers: APCO or Val-Matic.
- B. Combination Air Vac Valve shall be automatic float operated valves designed to exhaust large quantities of air during the filling of the piping system and close upon liquid entry. The valve end shall open during draining or if a negative pressure occurs. The valve shall also release accumulated air from the piping system while the system is in operation and under pressure. The valve shall perform the functions of both Air Release and Air/Vacuum Valves and be furnished as a single body type.
- C. Combination Air Vac Valve shall be suitable for use with underground water application.
- D. Valves shall be pressure rated for a system pressure up to 150 psig. Minimum operating pressure is 1 psig.
- E. Valves shall be manufactured and tested in accordance with AWWA standards.
- F. The valves shall have full size NPT inlets and outlets equal to the nominal valve size. Float shall be unconditionally guaranteed against failure including pressure surges. Extended mechanical linkage shall provide suitable mechanical advantage so that the valve will open under full operating pressure.
- G. The valve body and cover shall be constructed of Class 300 ductile iron (ASTM A536 Grade 65-45-12 ductile iron). The float, guide shafts, and bushings shall be constructed of Type 316 stainless steel. Non-metallic floats, linkage, or bushings are not acceptable. Resilient seats shall be Buna-N.
- H. The combination air vac release valves shall be sized as shown on the Drawings or as follows: full size NPT 1-inch inlets and 1-inch outlets equal to the nominal valve size.



Section 46 0043 UNIT PROCESS – MOVING BED BIOFILM REACTOR SYSTEM

Section 1.7 – System Design and Performance Requirements

Delete 1.7.B.6.

Add 1.7.B.6.:

6. Retention sieves/screens shall be designed and oriented such that the sieves/screens are continuously being cleaned by impact with the carriers or other proven method. Retention sieves/screens shall minimize hydraulic head loss to less than 4 inches per basin.

Delete 1.7.B.7.

Add 1.7.B.7.:

7. All retention sieves and screens shall be constructed of PVC, HDPE, or FRP material, and hardware shall be duplex stainless steel. No media retention sieves or screens constructed of stainless steel will be accepted. Only duplex stainless steel hardware or prior approved equivalent will be accepted.

Section 2.2 – MBBR Design Requirements

Clarification on Section 2.2.3.:

Influent Ammonia Concentration and Effluent Ammonia Concentration Requirements indicated are shown as mg/L of Nitrogen.

Add 2.2.7 and 2.2.8:

7. Minimum Temperature 10°C
8. Maximum Temperature 27°C

Section 2.5 – Rotary Lobe Positive Displacement Blowers

Replace Section 2.5.C.9 with:

9. Maximum Blower Speed: 75% of maximum

Delete 2.5.M.14.a:

Add 2.5.M.14.a:

- a. Each blower package shall include a factory mounted, 6-pulse, constant torque, variable frequency drive, integral to the blower.



Section 2.6 – Aeration Grid

Clarification on Section 2.6.:

PVC shall be an approved material where CPVC, UPVC and FRP are listed.

Clarification on Section 2.6.:

Reference to “dome diffuser” shall be revised to “diffuser”.

Delete 2.6.D.6.:

Add 2.6.D.6:

6. Aeration Dropleg Pipe: Each aeration grid shall be supplied with a Schedule 10 or 40 galvanized steel dropleg pipe to tie into air piping as shown on the plans, with grooved connection fitting at the top of the tank.

Delete 2.6.D.2. – Base Plates.

Delete 2.6.D.3. – Gaskets.

Delete 2.6.F.1. – Permeability Testing.

Delete 2.6.F.2. – Uniformity Testing.

Delete 2.6.F.3. – Strength Testing.

Delete 2.6.F.7 – Uniformity and Leakage Test:

Add 2.6.F.7 – Uniformity and Leakage Test:

7. Uniformity Test: The tanks shall be flooded with clear water to a depth of one (1) foot above the diffusers. The blower shall be turned on and air supplied evenly to all headers. The surface of the water will then be visually inspected to see that air flow is uniformly distributed across the tanks.

Delete 2.6.G – Liquid Purge System

Delete 2.6.H – Source Quality Control



Section 3.4 – Process Performance Verification

Add 3.4.B.4.

4. All samples for process performance verification shall be 24 hour composite samples.

Add 3.4.B.5.

5. All ammonia testing for process performance verification shall be based on soluble Ammonia (as Nitrogen) using filtered samples.

NOTE

Addendums are available on the SURF website at <http://sanfordlab.org/contractors-and-vendors/contract-opportunities> by clicking on **Request for Proposal (RFP) 2023-14 WWTP RBC Replacement** link.



Project Manual and Drawing inquiries regarding the work should be directed to:

CONTACT PERSON(S)

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