



OFFICE OF WASTEWATER MANAGEMENT

WASHINGTON, D.C. 20460

SOLICITATION OF PUBLIC COMMENT FOR PROJECT-SPECIFIC BUILD AMERICA, BUY AMERICA NONAVAILABILITY WAIVER PROPOSAL

SUBJECT: UNDER EVALUATION: Project-Specific Nonavailability Waiver of Build America, Buy America Act Manufactured Product Requirements to the City of Cozad in Nebraska, for Multiparameter Monitoring Probes

Intro: This solicitation of public comment by the U.S. Environmental Protection Agency (EPA) is to evaluate a Build America, Buy America Act (BABA) waiver request submitted by an assistance recipient based on nonavailability of a product for a single project.

This solicitation of public comment does not represent a final agency decision. The purpose of this proposal is to inquire whether potential alternative domestic products may be available that were not identified by the assistance recipient or through the EPA's domestic product research efforts, and whether other factors should be considered in the evaluation of a waiver.

The EPA has completed its market research efforts and was unable to identify an alternative domestic product meeting the performance-based specifications, in sufficient and reasonably available quantities and of a satisfactory quality. The EPA makes every effort to locate domestic alternative products through its waiver process and the public comment period provides a meaningful opportunity to vet the Agency's interim research. In the EPA's experience, a viable domestic product is identified through public comment in many cases. Through this public comment period, commenters may provide information that indicates a waiver may not be needed. For example, if the specified item is found to be domestically available, EPA would not issue a final waiver.

Public comments are requested for 15 days (specific dates noted on the EPA's website). Please submit comments to BABA-OW@epa.gov. Please include information in the subject of the email identifying it as a public comment on this waiver request, such as "Waiver Comment: Cozad, Nebraska Multiparameter Monitoring Probes" or similar.

Background

The Buy America Preference set forth in section 70914 of the BABA included in the Infrastructure Investment and Jobs Act (Pub. L. No. 117-58), requires all iron, steel, manufactured products, and construction materials used for infrastructure projects under Federal financial assistance awards be produced in the U.S.

Under section 70914(b), the EPA may waive the application of the Buy America Preference, in any case

in which it finds that: applying the domestic content procurement preference would be inconsistent with the public interest; types of iron, steel, manufactured products, or construction materials are not produced in the US in sufficient and reasonably available quantities or of a satisfactory quality; or the inclusion of iron, steel, manufactured products, or construction materials produced in the U.S. will increase the cost of the overall project by more than 25 percent. All waivers must have a written explanation for the proposed determination; provide a period of not less than fifteen (15) calendar days for public comment on the proposed waiver; and submit the proposed waiver to the Office of Management and Budget's (OMB) Made in America Office for review to determine if the waiver is consistent with policy.

Summary

Proposed Waiver: The EPA is soliciting comments regarding whether to issue a project waiver of the manufactured products requirements of section 70914 of the BABA included in the Infrastructure Investment and Jobs Act (Pub. L. No. 117-58), for multiparameter monitoring probes used in an infrastructure project funded through the Clean Water State Revolving Fund.

Waiver Type: Nonavailability of a domestic product in sufficient and reasonably available quantities or of a satisfactory quality.

Waiver Level and Scope: Project level waiver for a single product for a single project. No other project will utilize the waiver.

Proposed Waiver Description: Project-specific nonavailability waiver of BABA requirements to the City of Cozad in Nebraska (Applicant), for multiparameter monitoring probes for the Water Resource Recovery Facility Improvements project.

Project Summary: This project would install monitoring probes in Cozad, Nebraska, to monitor high strength industrial discharges in the municipal wastewater collection system. These discharges, at times, have made it difficult for the Applicant to meet permitted discharge limits. Installation of the probes is integral to improved operation of the treatment plant. The industrial flow and loading results from the initial monitoring will also be used to inform the rest of the significant improvement project at the Water Resource Recovery Facility that is currently in design phase. Installation of the probes will also allow real time monitoring of multiple water quality parameters including biochemical oxygen demand, chemical oxygen demand, and total suspended solids. This portion of the project includes installation of a shelter, metering manhole, Parshall flume, radar level transmitter, and multiparameter probe at one location and installation of shelter, radar level transmitter and multiparameter probe at another location.

Length of the waiver: From the effective date of the final waiver until project completion, which is estimated to be December 31, 2027.

Summary of Items Covered in the Proposed Waiver (including NAICS):

The Applicant is seeking a waiver for multiparameter monitoring probes (NAICS code 334516, PSC code 6695), which are BABA manufactured products. The Applicant proposes to procure multiparameter monitoring probes manufactured outside the U.S. The technical specifications for the project require probes that measure the following parameters: biochemical oxygen demand, chemical oxygen demand, total organic carbon, dissolved oxygen, pressure, pH, temperature, chloride, nitrate, coliforms, tryptophan, refined oils, ammonium, salinity, turbidity, crude oils and colored dissolved organic matter.

No domestic alternative products were identified by the applicant, or through the EPA's market research completed in December 2024.

For additional information on the project and waiver request, see the attached original waiver request from the assistance recipient and supporting documents.

Description of Efforts Made to Avoid the Need for a Waiver

The market research process included thorough review of the waiver request submission, examination of domestic manufacturer catalogs and other technical data and marketing materials, personal communication with domestic manufacturers, inquiries of regional project officers, and outreach to contractors and engineers with expertise and familiarity with the project. During market research, the EPA contacted eight (8) manufacturers and suppliers for the multiparameter monitoring probes. One (1) manufacturer indicated that they could provide BABA compliant monitoring probes. However, upon further communication with the manufacturer, the Applicant determined that the probe could not meet the specifications of the project. The identified probe would not be able to measure biochemical oxygen demand or chemical oxygen demand as required by the specifications.

Description of Award

Recipient Name and/or Unique Entity Identifier (UEI): C7LZS7A8QKP8

Common Government Accounting Code: 068

Federal Financial Assistance Identification Number (FAIN): N/A

Federal Financial Assistance Listing Name: Clean Water State Revolving Fund

Federal Financial Assistance Listing Number: 66.458

Federal Financial Assistance Funding Amount: \$7,500,000

NOTE: Information in this waiver may have been redacted or removed due to issues of proprietary business information or incompatibility with Federal accessibility requirements. To request the information redacted for purposes of accessibility requirements, please email CWSRFWaiver@epa.gov.

Mr. Steve McNulty
Supervisor, State Revolving Fund Section
Nebraska Department of Environment and Energy
PO Box 98922
Lincoln, NE 68509

Re: Build America, Buy America Waiver Request for Cozad, NE
M&A Proj. Number 119-D1-001

Dear Mr. McNulty:

The purpose of this letter is to apply for a waiver of the Build America, Buy America Act - EPA Office of Water Federal Financial Assistance Program. This waiver application has been prepared for the City of Cozad, Nebraska, which is currently in the design phase of significant improvement projects at the Water Resource Recovery Facility (WRRF). The City of Cozad has two industries which currently discharge their wastewater to the municipal system. The two industries are known to discharge high strength wastewater, including BOD, COD and TSS concentrations over 1,000 mg/L. As a result of the high strength wastewater discharges by the industries, the City has, at times, had a difficult time meeting its discharge limits. As a result, the City would like to continuously monitor the wastewater being discharged by the industries. This will enable the City to better operate the WRRF and determine the industrial flows and loadings for future WRRF improvement projects.

In June 2024, [REDACTED] in conjunction with the City of Cozad, applied to the Nebraska Department of Environment and Energy (NDEE) for noncompetitive procurement for the BOD/COD/TSS monitoring probe, [REDACTED]. The request for noncompetitive procurement for the [REDACTED] was accepted and approved by the NDEE on June 5, 2024.

Per the Build America, Buy America Act Implementation Procedures for EPA Office of Water – Federal Financial Assistance Programs Memorandum (dated November 3, 2022), we are providing the following information regarding the waiver request, as noted in *Section 4: Waivers* of the Memorandum.

(1) Summary of the Project

The City of Cozad plans to install monitoring equipment in the industrial manholes, prior to the industrial waste flowing into the municipal manhole. The monitoring equipment will allow the City to monitor multiple water quality parameters in real time, and the multiparameter probe can be customized to provide data on the parameters that are of interest to the City, including BOD, COD and TSS. The industrial monitoring equipment includes an insulated secure shelter, radar level sensor and transmitter (to be used in existing flume) and an online BOD/COD monitor. The online monitoring equipment shall be used to provide COD/BOD/TSS parameters in [REDACTED] output to City SCADA/PLC system. The City intends to purchase and use the [REDACTED] Water Quality Meter, [REDACTED]

Should the [REDACTED] equipment be used for this application, the multiparameter probe would be connected to a flow cell with a PLC controlled peristaltic pump, which would pump a wastewater sample to the probe at a predetermined interval. The flowcell and equipment will be remote mounted in a cabinet, which will be secured in a small shed. The [REDACTED] equipment provides automatic cleaning before every measurement for optimum accuracy and reliability. Therefore, the operators will not need to maintain and clean the probe (other than routine calibrations), or be concerned about maintaining three to four feet of wastewater in the manhole or tank from which the sample is being collected.

(2) Need for the Waiver

The City of Cozad is applying for a waiver for the [REDACTED]. While the majority of the project equipment meets BABA requirements (including the shelters, pumps, manholes and flume), the [REDACTED] equipment does not meet BABA requirements. [REDACTED] which supplies similar real-time BOD/COD monitoring equipment, and has confirmed that [REDACTED] does not meet the BABA requirements.

(3) Summary of Domestic Alternatives

[REDACTED] was in correspondence with [REDACTED], when researching suppliers that provide real-time BOD/COD/TSS sensors. As mentioned previously, [REDACTED] and [REDACTED]. [REDACTED] was not able to find a domestic supplier of the multiparameter probe necessary to complete this project.

(4) Quantity and Materials of the Product

The City of Cozad intends to purchase and install two [REDACTED] multiparameter probes; one at the location of each industrial discharger. [REDACTED] and the City of Cozad researched several products and installation details and have determined that the City should

purchase the [REDACTED] multiparameter probe. [REDACTED] [REDACTED] [REDACTED] real-time sensor platform to accurately and reliably measure BOD, COD, TOC and Coliforms in a wide range of water quality, environmental and industrial applications. The technological breakthrough uses bio lumination, using Typtophan fluorescence. Amino acids and other organic compounds respond to the fluorescence and the mathematical algorithm which has been discovered, brought [REDACTED]. The product innovation brings real time readings from water, some parameters of which take 5 days in a laboratory, due to necessary incubation periods per the test protocol. The technology is attractive to municipal treatment facilities due to its real time readings, saving untold time and money by mitigating upsets of their WWTP.

(5) Engineering Specifications and Project Design Considerations

[REDACTED] probe can monitor up to thirty-two parameters in one instrument. Other equipment available, such as [REDACTED] sensors, require multiple probes for monitoring the various parameters. In addition, the [REDACTED] sensors require three to four feet of submergence in wastewater for installation. This is problematic for industrial waste, as there is concern about solids building up in the bottom of the sampling manhole/tank, rendering the sensors useless until cleaned. This creates a hazard for City staff, as they would continuously need to monitor and clean the multiple probes, which are in direct contact with raw wastewater. Another probe option was briefly discussed but it used hazardous chemicals for analysis and the disposal and handling of the chemicals was not conducive to the installation and it had limited range of application which would not work for this installation as the results vary considerably.

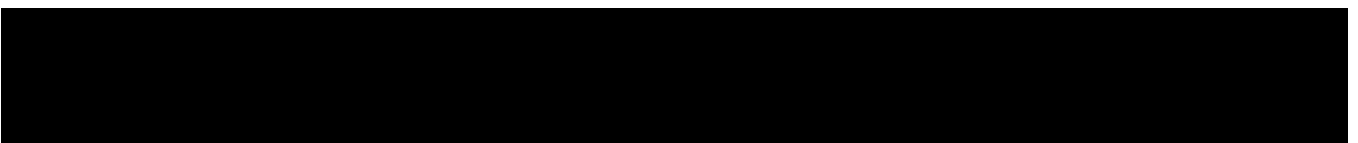
(6) Approximate Unit Cost of Items

The estimated cost of the [REDACTED] multiparameter probe is [REDACTED]. The City intends to purchase two [REDACTED] multiparameter probes. The complete industrial sampling project is estimated to be [REDACTED] and includes the following:

- Installation of shelter, metering manhole, Parshall flume, radar level transmitter, and [REDACTED] BOD/COD/TSS multiparameter probe at [REDACTED]
- Installation of shelter, radar level transmitter and [REDACTED] BOD/COD/TSS multiparameter probe at [REDACTED].

(7) Date Products Needed On-site

The City of Cozad needs to purchase and install the industrial monitoring equipment as soon as possible, as the design of the Water Resource Recovery Facility improvements depends heavily on the results of the industrial monitoring. Due to the fluctuation of the industrial flows, the City will likely implement an ordinance for industrial contributors or will need to increase the capacity of the WRRF in the future. The industrial sampling and



monitoring will allow the City to better determine the flows and loadings from the industries, which will help shape the future WRRF improvement plans.

(8) Other Pertinent Information

Based on our investigation of similar products, the [REDACTED] equipment is the most suited for the application in Cozad and an equivalent was not located. It does not require compressed air for cleaning and does not require three to four feet of wastewater be maintained, which we believe will cause significant maintenance and operations issues. In addition, the [REDACTED] equipment can monitor several parameters in one probe, thereby reducing costs related to purchasing and maintaining several different probes for the two industrial installations. The turn-key project being proposed is also not available by suppliers of similar solutions in the nearby vicinity. The current configuration of the piping at the monitoring locations is not conducive to maintain three to four feet of wastewater, other equipment used hazardous chemicals for analysis, and therefore no other equal instrument was discovered that is suitable for this specific monitoring application with the range required for analysis. The City of Cozad believes this one responsible supplier/contractor will make for a quicker turn around, commissioning and lower maintenance going forward. It is for the reasons above that we believe the City should be granted a waiver, as we have not identified a domestic supplier of the multiparameter probe necessary to complete this project.

It is our understanding that in the case of indirect federal assistance, such as State Revolving Loan Fund (SRF), the NDEE shall review and convey the waiver request to the EPA (CWSREFWaiver@epa.gov). [REDACTED]

[REDACTED] you have any questions regarding this waiver request.

[REDACTED]

[REDACTED]

Derived Parameter Specifications

Parameter		Range	Resolution	Accuracy	Comments
BOD	BOD mg/l	0 - 2000 mg/l	0.01 mg/l	±5 % of reading*	Local site calibration can improve accuracy.
Coliform Counts	CFU/100 ml	>1 count/100ml	1 count/100ml	±10 Coliforms*	Local site calibration can improve accuracy. Can be used for faecal coliforms, E. coli or total coliforms.
COD	COD mg/l	0 - 4000 mg/l	0.01 mg/l	±5 % of reading*	Local site calibration can improve accuracy.
DOC	DOC mg/l	0 - 3000 mg/l	0.01 mg/l	±5 % of reading*	Local site calibration can improve accuracy.
TOC	TOC mg/l	0 - 3000 mg/l	0.01 mg/l	±5 % of reading*	Local site calibration can improve accuracy.
Ammonium (Optical or ISE)	NH4	0-200 mg/l	0.01 mg/l	±0.1 mg/l 0 - 10 mg/l* ±0.5 mg/l 10 - 200 mg/l*	Environmental/river applications typically 0 - 2 mg/l Wastewater applications typically 0 - 50 mg/l
Phosphate	PO4	0 - 100 mg/l	0.01mg/l	±0.1 mg/l 0 - 2 mg/l* ±0.5 mg/l 2 - 100 mg/l*	Environmental/river applications typically 0 - 1mg/l Wastewater applications typically 0 - 50 mg/l
Turbidity	Total Suspended Solids (TSS)	0 to 500 mg/l	4 digits max 2 d.p.	±2 % of reading or 0.2	Calculated using the correlation between turbidity and a sediment standard or sample. Local calibration can be applied .

Benefits and Features

Self cleaning: As it is essential that optical sensors have a cleaning mechanism, the [REDACTED] is also supplied with an integral wiper which cleans all of the [REDACTED] sensors before every measurement cycle.

Process control: [REDACTED] monitor multiple process parameters 24/7.

Simple to use & intuitive software

Scalable: [REDACTED] unique platform to add additional sensors such as pH, REDOX, electrical conductivity, dissolved oxygen, turbidity and many others.

Robust: Exceptional build quality with CPVC body and sensor guard

Coliforms: [REDACTED] is the first instrument globally that has the potential to measure bacteria/coliforms in drinking water in real time.

Multiple power options: Power can be provided by an optional internal lithium battery pack for unattended logging, or an external power source (battery, mains or solar). External ON/OFF switch for logging without need for PC connection.

Ultra-low maintenance: The system is fully serviceable in the field but requires almost no maintenance and no reagents. Logs data unattended minimizing manpower requirements and safety issues for up to 2 years.

Easy integration: [REDACTED] can be effortlessly integrated with telemetry/SCADA systems and other 3rd party or datalogging devices via [REDACTED]

Sensor Specifications

Parameter		Range**	Resolution	Accuracy	Comments
Temperature	Water Temperature	-5 to 50°C	0.01	±0.01°C	Never needs calibration.
pH/ORP	pH	0 to 14 units	0.01	±0.1 within 10°C of calibration, 0.2°C otherwise	Refillable reference electrode; corrected for temperature; typical sensor life > 4 years.
	ORP	-999 to 999 mV	1	±20 mV	Platinum ORP sensor is combined with pH sensor.
Turbidity	Turbidity	0-40 NTU	4 digits max 2 d.p.	±2 % of reading or 0.2	Compensated for temperature; filtered for non-turbidity spikes; includes wiper to clean the optics.
		40-400 NTU		±2 % of reading or 0.2	
		400-5000 NTU		±2 % of range	
Transmissivity	Transmissivity	0 to 100 % transmission	4 digits	Linearity of 0.99R ²	Mounts alongside the
Optical Dissolved Oxygen	Concentration	0 to 20 mg/l	0.01	±0.1	Compensated for temperature and salinity; EPA approved "lifetime" luminescence method; typical sensor cap life > 4 years.
		20 to 30 mg/l	0.01	±0.15	
		30 to 50 mg/l	0.01	±5 % of reading	
	% saturation	0 to 500 % saturation	0.1%	Corresponds with the accuracy of the concentration reading	
Conductivity	Specific conductance, µS/cm	0 to 5000 µS/cm	0.1	±0.5 % of reading ±0.001	Corrected for temperature; four easy-to-clean graphite electrodes.
	Specific conductance, mS/cm	0 to 100 mS/cm	0.001	±1 % of reading	
		100 to 275 mS/cm	0.001	±2 % of reading	
	Salinity	0 to 70 PSU	0.01	±2 % of reading	Calculated from specific conductance. PSU = Practical Salinity Units which is equivalent to ppt.
	Total dissolved solids (TDS)	0 to 65 g/l	0.1	±5 % of reading	Calculated from specific conductance.
Pressure	Depth	0 to 25 m	0.01	±0.05 m	Conductivity sensor fitted for Salinity.
		0 to 100 m		±0.4 m	
	Vented depth (level)	0 to 10 m	0.001	±0.003 m	Compensated for temperature, salinity, barometric pressure.
Fluorometers	Barometric pressure	400 to 900 mmHg	0.1 mmHg	±1.5 mmHg	Included with (non-vented) depth sensor.
	CDOM/fDOM	0 to 1000 ppb	4 digits max 2 d.p.	Linearity of 0.99R ² (temperature compensated 0-50°C) Accuracy ±1 ppb	Highest-quality LED based fluorometric sensors rated to 100 m depth otherwise max depth same as depth sensor.
	Chlorophyll a (red excitation)	0 to 500 µg/l			
	Chlorophyll a (blue excitation)	0 to 500 µg/l			
	Crude oil	0 to 1500 ppb			
	Fluorescein dye	0 to 500 ppb			
	Optical brighteners	0 to 15,000 ppb			
	Phycocyanin (freshwater BGA)	0 to 40,000 ppb			
	Phycoerythrin (marine BGA)	0 to 750 ppb			
	Refined oil	0 to 10,000 ppb			
	Rhodamine dye	0 to 1000 ppb			
	Tryptophan	0 to 2000 ppb			
Ion-selective electrodes (ISE's)	Ammonium	0 to 100 mg/l as nitrogen	0.01	±5 % or 2 mg/l	Corrected for ionic strength (via conductivity readings); the accuracy specification relies on non-trivial maintenance practice and frequent calibration near the temperature of measurement; ammonium and nitrate require tip replacement every 3 - 6 months. Please contact us for applications >10 m.
	Nitrate	0 to 100 mg/l as nitrogen			
	Chloride	0 to 18,000 mg/l			
	Sodium	0 to 20,000 mg/l			
	Calcium	0 to 40,000 mg/l			
TDG	Total Dissolved Gas	600-800 mmHg	0.1 mmHg	±0.1 mmHg	Pressure sensor with gas permeable membrane, max depth 15m.
PAR	Photometric PAR	10,000 µmol/cm2	4 digits	±5 % of reading	 sensor.

* Providing local adequate field calibration. Contact us for details.

** customised ranges are available

General Specifications

	Proteus 35	Proteus 40
Diameter	89 mm (3.5")	102 mm (4.00")
Length - w/o Battery Pack	483 mm (19")	483 mm (19")
Material	CPVC body and sensor guard	
Typical Weight - with IBP	2.85 kg (6.28 lbs)	3.00 kg (6.61 lbs)
Number of sensors	Up to 11	Up to 13
Battery Pack	8 "C" cells	8 "C" cells

Internal Power Battery Life	1 to 24 month depending on sensors / logging rates
External Power	5-15 vdc
Operating Temperature	-5 to +50°C, non-freezing
Calibrated Range	-5 to +30°C
Depth Rating	100 m

Communications	as standard. Bluetooth® optional.
Sample Rate	1 Hz
Data Memory	>1,000,000 logged readings
Logging Rates	1 second to 1 day
Warranty	2 years (All sensors excluding ISE's)