

QUALIFICATIONS

A/E Services

03/21/18 09:53:00
Purchasing Division

WV DEPARTMENT OF AGRICULTURE
FOOD DISTRIBUTION WAREHOUSE
FREEZER WALL REPAIR PROJECT

Prepared for : State of West Virginia
Solicitation Number: 1400 AGR1800000003
Date Issued : 2018-02-20

FOOD PLANT
ENGINEERING
THE HENDON REDMOND GROUP LLC

March 20, 2018

Mr. Guy Nisbet
Purchasing Division
2019 Washington St E
Charleston, WV 25305

Dear Mr. Nisbet:

A state agency that is storing valuable USDA commodities is a critical component in a food-safe supply chain. Yet, as you are well aware, with this important role comes the strain that losing this operation would put on your supply chain, affecting everyone from your suppliers, to your management team, and ultimately your customers. Our firm can assist you with evaluating the integrity of this critical storage component in your supply chain and provide recommendations and corrective actions for remediating the current issues.

Our approach to this project will provide you with the following:

- o Transparent communications on project scope, budget/costs, and schedule
- o A clear understanding of the cost/benefit of the options available for implementing corrective actions
- o Design and construction of a food-safe facility that will enhance productivity.

Your project involves the current WVDAFDP Warehouse which is experiencing ice buildup on interior walls of the freezer section of the warehouse that is used for storing frozen USDA commodities. As a result, the interior freezer walls are bulging and therefore impacting the efficiency of the freezer and integrity of the structure. The freezer section of the WVDAFDP Warehouse is 14,409 square feet and maintains a temperature of minus 10 degrees Fahrenheit. You have requested that our firm provide you with our qualifications for providing the services for the planning, design and construction services for this project.

The first step in this process is to start with Planning Services. This will address questions such as:

- o What issues are causing the current problems with the freezer?
- o What are the options available for remediating the problem?
- o What are the anticipated costs involved for remediating the problem?

After completion of Planning Services, we will provide you with Design Services. The Design Services will provide you with the following:

- o Detailed drawings and specifications that will incorporate food-safe facility designs
- o Services to obtain the building permits
- o Documents for bidding to contractors for competitive pricing

Once the Design Services have been completed, our firm will provide you with Construction Services. Using our firm to provide these services offers the following advantages:

- o **Quality:** We have experience with the nuances of building a food-safe facility and the intricacies involved in the vapor barrier of a freezer.
- o **Oversight:** We will review shop drawings, provide site visits, and keep you informed on the project progress and schedule.
- o **Cost:** We bid out the work to multiple sub-contractors getting a competitively-bid project that will meet the procurement requirements of the State of West Virginia..

Food Plant Engineering, LLC has proven success designing and constructing functional, sanitary food warehouse facilities. Our professional team has provided engineering, architectural and construction management services to the food industry for more than 60 years. We welcome the opportunity to do the same for you.

Sincerely,



Mark E Redmond
President
Food Plant Engineering, LLC.
Food Plant Construction, LLC
markredmond@foodplantengineering.com

HISTORY

Food Plant Engineering is a specialized company that offers planning, design, and construction services for food production, processing, and distribution facilities.

Our doors opened more than 60 years ago as Henry A. Lurie & Associates with a mission to provide innovative design solutions for USDA inspected facilities. While working as an engineer for a meat packing company, founder Henry Lurie heard complaints that the design firms in the industry, “didn’t understand their business and brought little or nothing to the table” so he founded a firm to do just that – understand the unique production and facility needs of food processing companies.

OUR MISSION

We are still following that original mission today. Our goal is to provide you with a facility based on the eight guiding principles that we have developed over the last 60 years working with best-in-class food processing, production, and distribution companies. Our team will work with you to provide cost-effective solutions to integrate these guiding principles into the planning, design, and construction of your project.

GUIDING PRINCIPLES

- 01 FOOD SAFETY
- 02 SANITARY DESIGN
- 03 PRODUCTIVE WORKFLOW
- 04 SENSIBLE AUTOMATION
- 05 SUSTAINABLE CONSTRUCTION
- 06 ENERGY EFFICIENCY
- 07 FOOD DEFENSE
- 08 REGULATORY COMPLIANCE



The planning, design, and construction of food production operations is the specialty of Food Plant Engineering, LLC and Food Plant Construction, LLC. Our cohesive team works together to bring innovation to life in your facility. Many of our associates have hands-on experience in the food-processing environment and understand the special demands placed on a facility and its processing equipment.

The design of food production facilities must balance the need for productive layouts with food safety considerations. A facility layout that will help reduce cross contamination caused by food-borne pathogens, food allergens, and people-and-product flow while producing products efficiently requires careful thought and planning.

FOOD SAFETY

Food Plant Engineering has extensive experience designing food facilities under regulatory inspection for food safety. With this background, we can bring to you innovative and cost-effective ideas for the construction of a facility that meets today's requirements.

The current necessity for FDA, USDA, FSMA, HACCP, SQF and BRC planning makes layout and design of the food facility very important. In order to produce safe products in the current environment, key factors should be considered when laying out and designing the facility.

For example, how the food preparation, production and packaging flow are integrated into the layout of the facility affects the ability to implement FDA, USDA, FSMA, HACCP, SQF and BRC requirements. Also, the flow of this process and how it is integrated with employee movement is important for both efficiency and food safety.

PRODUCTIVITY

Increasing productivity in a food plant is a goal for many food producers. Many look to automation (the application of equipment and technology to produce food products) with the goal of reducing the amount of human intervention, improving the process, and/or increasing productivity.

Automation of food production processes that are normally performed by people can benefit a food plant in many different ways: reduced labor, higher throughput, higher quality, greater product consistency, and improvement in food safety.

As with all choices, there are trade-offs when weighing the level and complexity of the automation needed for the returns and benefits to outweigh the costs and risks. Food Plant Engineering, LLC has successfully applied food processing automation to many different types of food processing operations and can assist with the proper application in your operation.

OUR VALUE



FORWARD THINKING

We have addressed issues facing the food industry, such as allergen control and sustainable design, well before these topics became industry-wide concerns.

We don't just talk about the future, we build for it.

PROVEN VALUE

Our integrated project delivery system blends cost, quality, and timeliness to yield projects with outstanding value for your investment.

Our 60 years of success speaks for itself.

STRAIGHTFORWARD

We work with you from the start of the project to develop a clear scope and budget that will meet your project investment and expansion goals.

We work to protect your investment.

The components and materials used in construction will determine the food safety, sanitation, life-cycle cost, durability and maintenance cost of a food facility. Food Plant Engineering has in-depth knowledge of the many options available. We will discuss with you the various costs and benefits of each option to find the most appropriate solution for your operation.



FLOORS

Food facility floors are under constant strain from the physical abuse, thermal shock, and cleaning chemical attack. We review with you the benefits and cost effectiveness of various flooring systems so the correct system may be applied to your facility.



WALLS

Walls are subject to physical abuse from traffic and chemical abuse from cleaning products. We know the materials that can withstand the physical and chemical abuse, the proper application of the materials, which manufacturers to specify and the best methods for protecting walls from extreme physical abuse.



CEILINGS

Many food products are exposed at some point in the process to overhead ceilings, piping, and other objects. Understanding ceiling materials and systems that are cleanable and prevent product contamination is critical for your facility.



DRAINS

Floor drains are a source of potential contamination. We know who manufactures the most sanitary floor drains, which drains are easiest to clean and how to design process-waste systems that minimize the potential for food contamination.



LIGHTS

Food facility lighting fixtures must be easy to clean and maintain. We know which fixtures are appropriate for each application in a food facility.



PIPES

In a food processing facility, piping and conduit materials must be sanitary on the interior and exterior. We know the proper application of materials that are sanitary, able to withstand the abuse of chemical cleaning and hold up to temperature variations.



CONDENSATION

Condensation will occur in improperly designed facilities and can cause food products to become adulterated. Problems often stem from improper vapor barriers in insulated panel construction, vapor pressure issues or infiltration/exfiltration between different types of rooms. We know how to avoid these pitfalls and prevent condensation from occurring.



A/C & REFRIGERATION

Air temperature in a food facility is important for employee comfort, productivity and the safety of food products. Ventilation systems can also create food quality and contamination issues if not properly designed. We know the temperature and air balance necessary to maintain an environment for the efficient and safe production of food.



ENERGY

Food processing equipment can require different types of energy sources. Often, choices can be made between sources. We are familiar with all types of food processing equipment in the facility and the best sources of energy. We have designed many similar utility infrastructures and know how to design the most efficient total system.



EQUIPMENT CONNECTIONS

Food equipment requires many connections for operation. We have first-hand knowledge of the requirements for connecting food processing equipment.



SANITATION SYSTEMS

Many types of sanitation systems exist - both wet and dry - and these systems must be applied properly. We know the best temperature and pressure requirements for wet cleanup and sanitation systems. We also know the various methods for heating, circulation and delivery of water, as well as the cost-effectiveness and efficiency of the equipment available.



BIO-SECURITY

Today's facilities must consider internal and external issues affecting the possible contamination of food. We understand how the receiving, storing and producing of food should be designed to help mitigate these issues.

OUR TEAM

Warehouse Freezer Wall Repair Project 9



MARK REDMOND, P.E. | PRESIDENT

Mr. Redmond is a Professional Engineer and holds a B.S. in Mechanical Engineering and an MBA in Operations Management. Mr. Redmond has more than 25 years of experience in project oversight for the planning, design, and construction of sanitary meat, bakery, dairy, and food processing facilities. He is often lauded by clients for his vast knowledge of all facets of the design and construction process.



ERIC WIGGER | PROJECT MANAGER

Mr. Wigger has 25-plus years of experience managing design and construction projects. He is multi-faceted when it comes to understanding the integration of process equipment into a food plant environment and the nuances that come with construction of a sanitary environment.



JOEL YODER, P.E. | ENGINEERING TEAM LEADER

Mr. Yoder is a veteran engineer with an extensive background in the food processing and manufacturing industries. Prior to coming to our firm he was a Senior Project Engineer for Givaudan Flavors where he implemented capital improvement projects. His thoughtful demeanor, creative intellect, and proficient understanding of plant floor issues make him well-suited for effective project leadership.



SHANNON M. STANDISH, AIA | ARCHITECTURAL TEAM LEADER

Ms. Standish is a veteran leader with 15 years of food plant experience. She is very adept at coordinating the complex multi-disciplinary details involved in the design process, and she is known for her excellent communication skills, quick response time to client needs, no-nonsense practical approach to problem solving, and an ability to consistently meet deadlines.



JOHN DORICH, P.E. | STRUCTURAL ENGINEER (GOP LTD)

Mr. Dorich is our structural consultant and has more than 25 years of structural design experience, including analysis of existing structures. His projects have included designs in structural steel, reinforced concrete, reinforced masonry and wood. Mr. Dorich has worked on many food facility projects and understands many of the specialized issues related to sanitation and cold/freezer building construction.

PLANNING, DESIGNING, AND CONSTRUCTING SANITARY FOOD PROCESSING OPERATIONS.

It's what we have been doing for 60 years.

But we don't rest on our laurels. Our engineers and architects continue to implement the best industry practices for the cost effective sanitary design and construction of food plants. We integrate food safety into each phase of a project, from planning through construction, and are continually looking for better solutions to create sanitary food facilities.



PLAN

Planning for growth requires insight into the future. Our consulting services provide a roadmap for site selection, process improvement planning, facility renovation, expansion, and new construction concepts.



DESIGN

Creating a food facility that is functional today and adaptable to the future requires foresight. Our design services generate engineering and architectural concepts, plans, and specifications for building a food facility that will stand the test of time.



BUILD

Building a food plant requires construction techniques that yield an environment safe for food today as well as tomorrow. Our construction services utilize professional management oversight to transform sanitary designs into a hygienic facility.

INFORMATION GATHERING

Food Plant Engineering will attend project meetings with you to discuss and review the project goals, objectives, available information, and issues to be addressed. Meetings and discussions may be held in person, via the web or phone conference during the course of the project.

Food Plant Engineering will gather data from you on the freezer warehouse to gain an understanding of the construction of the facility. We will also perform site visit(s) to gather information and document the extent of the damage to the freezer.

Some of the information gathered may include the following:

SITE CONDITIONS

Information on the existing conditions will be documented. Items to be investigated include conditions such as slab heaving, air infiltration, frost/moisture accumulation, structural damage, temperatures, and IMP panel integrity.

UTILITY INFORMATION

Data on the refrigeration system, as well as relevant MEP systems such as electric system information.

SITE /BUILDING INFORMATION

Copies of any available building floor plans, building architectural drawings, building structural drawings (including foundation and slab design), and refrigeration/mechanical systems drawings.

GENERAL INFORMATION

Information on the facility operation such as: hour of operation, days of operation, times of year of operation, available times for remedial work, and other factors such as food safety considerations, budget, or other financial factors.

REPORT OF FINDINGS

We will process the information gathered regarding the damage to the freezer storage building and evaluate the options available to repair or replace the damaged areas of the freezer. We will then review and discuss with you various ideas, concepts, and options available for repairing or replacing the damaged areas of the freezer.

Based on this review and discussions with you, we will prepare a report of our findings and recommendations. This document is a narrative that outlines and documents the options available for performing corrective actions, as well as a recommendation as to the best course of action. A preliminary estimate of probable cost will be included in this report.

PRELIMINARY DESIGN

We will produce Preliminary Design documents based on our Report of Findings. Preliminary Design documents will describe the design for the project by means of plans, building sections, and elevations. Preliminary Design documents will define the scope of the project and will be submitted to you for review. These documents **may** include (depending on the corrective actions needed) the following:

ARCHITECTURAL

- o Code compliance summary
- o Architectural floor and ceiling plan(s)
- o Typical building elevations and sections
- o Architectural details for typical floor/wall/opening junctures
- o Room finish schedules
- o Door and window schedules
- o Performance specifications for typical building materials

STRUCTURAL

- o Preliminary foundation design
- o Preliminary structural framing design
- o Performance specifications for typical structural components

ELECTRICAL

- o Preliminary design for electric service transformer and switchgear
- o Preliminary design for primary panel distribution boards
- o Preliminary design for lighting plans
- o Performance specifications for typical system components & controls

REFRIGERATION & HVAC

- o Preliminary heating, cooling, and refrigeration load calculations.
- o Preliminary design for evaporators, condensers, make-up air units, exhaust/supply fans, air handlers, heating/cooling units
- o Preliminary design for air ductwork distribution.
- o Performance specifications for typical system components

PLUMBING / PIPING / SEWER / FIRE PROTECTION

- o Preliminary process sewer and sanitary sewer design
- o Preliminary hot/cold water, compressed air, natural gas design
- o Performance specifications for typical system components
- o Preliminary fire protection and sprinkler system criteria

SITE / CIVIL (CONSULTANT IF REQUIRED)

- o Preliminary site design indicating the building outline, driveways/sidewalks, parking areas, grading and drainage plans, sanitary and storm sewer plans, erosion control plans

PRELIMINARY ESTIMATE OF PROBABLE COST

A Preliminary Estimate of Probable Cost will be developed. This will be developed by utilizing a combination of pricing based on historical information and current market conditions.

FINAL DESIGN

Once the Preliminary Design has been completed and upon authorization by you, we will begin the Construction Document Phase, which will include the development of Construction Documents for the purpose of obtaining building permits and competitively bidding the work. The Construction Document packages **may** include the following architectural and engineering services:

ARCHITECTURAL

- o Architectural floor plans
- o Wall sections
- o Architectural details
- o Room finish schedules
- o Door and window schedules
- o Concrete curb and cove conditions

STRUCTURAL

- o Structural framing plans
- o Foundation/Floor slab plans
- o Structural sections and details

ELECTRICAL

- o Power distribution systems including transformers, switchgear, panelboards, motor control centers, and equipment disconnects
- o Lighting systems including emergency/egress lighting
- o Allowances for controls/data/communication system

REFRIGERATION & HVAC

- o Air-conditioning systems including unitary and chilled water.
- o Make-up air systems
- o Heating & ventilation systems
- o Refrigeration systems including evaporators, condensers, compressors, vessels, piping, and valve stations
- o Process cooling systems

PLUMBING / PIPING / SEWER / FIRE PROTECTION

- o Process and sanitary sewer systems
- o Hot and cold water systems
- o Compressed air & natural gas systems
- o Mechanical equipment venting systems
- o Fire protection and sprinkler system criteria

SITE / CIVIL (CONSULTANT IF REQUIRED)

- o Site development plan with site features such as building outline, site drainage, parking, driveways, sidewalks and utilities

BUILDING PERMITS

We will implement the process of submitting and acquiring building department permits for the project on your behalf as follows:

- o Submit sealed construction documents to appropriate governmental authorities.
- o Answer questions from governmental authorities regarding the submitted construction documents.
- o Revise the submitted construction documents to comply with any changes required by the governmental authorities.

CONSTRUCTION ADMINISTRATION

We will submit the project document to contractors for bidding and provide project oversight to review the contractors' general conformance to the designs contained in the project documents as follows:

PROJECT BIDDING

- o Prepare and present a list of qualified bidders for each phase of work. Any trade subcontractors recommended by you will be included.
- o Prepare bid documents and necessary criteria required for bid submission. Included in each bid package shall be an Invitation to Bid, standard bid form, Instructions to Bidders, General and Supplementary General Conditions to the Specifications, and Specifications encompassing the work of a particular trade to accompany drawings to which those Specifications pertain.
- o Answer questions from contractors and render interpretations and clarifications to the bidding documents during contractor bidding.
- o Review and evaluate subcontractor bids and insurance certificates for general compliance with bid documents.
- o Prepare best and final price scope of work based upon bid reviews.
- o Prepare bid summary sheets with recommendations for award for you to review and approve.
- o Prepare construction trade subcontracts and award the work to each selected subcontractor.

SUBMITTAL REVIEW

- o Maintain a log of shop drawings and submittals
- o Review shop drawing or similar submittals from the contractors.
- o Review and act on final document submittals from contractors.

REQUESTS FOR INFORMATION (RFI)

- o Maintain a Request for Information log
- o Answering questions from contractors (RFIs) and rendering interpretations and clarifications (Bulletins) with regard to the intent of the design during construction.

PROJECT REVIEW

- o Review the work of trade subcontractors for general compliance with the requirements contained in the Contract Documents.
- o Advise you on any non-conforming work and corrective actions needed.
- o Reject work that does not conform to the requirements of the Contract Documents. Implement remedial procedures to correct the work.
- o Maintain and distribute a Change Order Log of approved and potential changes to the scope of work and associated costs.
- o Review all subcontractor Change Order Requests and negotiate the final costs where they are deemed necessary.
- o Review, approve and process subcontractor applications for progress payment. Make adjustments to reflect actual work performed and certify requisitions to you for payment.

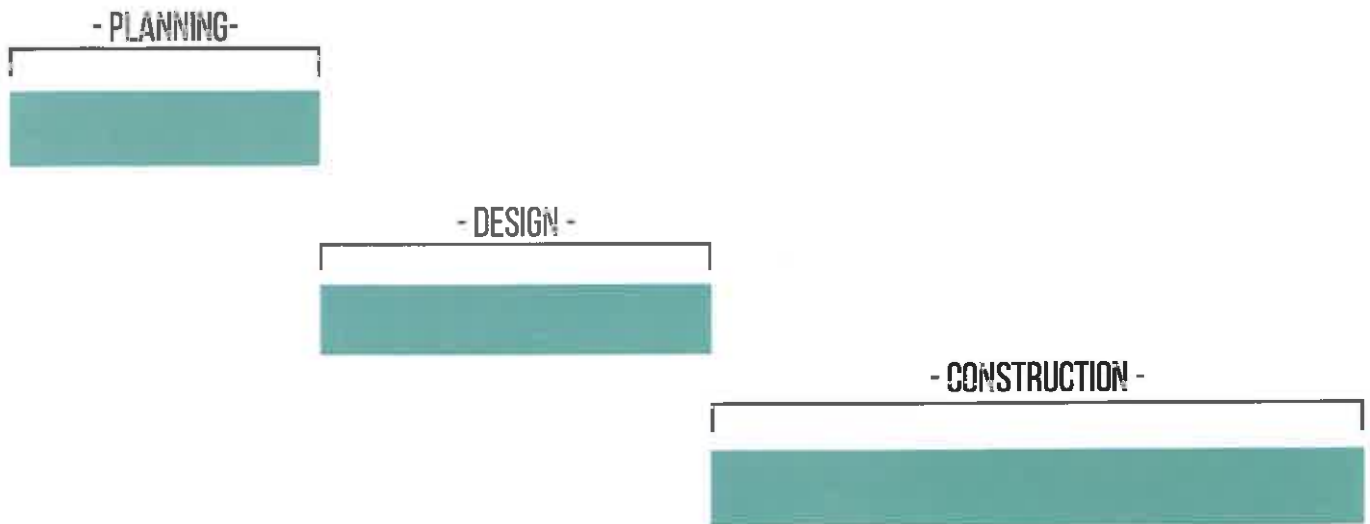
PROJECT CLOSE-OUT

- o Upon the subcontractor's determination of substantial completion of the work, or designated portions thereof, prepare a punch list of incomplete or unsatisfactory items and a schedule for their completion. Supervise the correction and completion of work.
- o Upon completion of work, obtain "Certificates of Completion" from all Governmental Agencies.
- o Obtain subcontractors certificates of warranties and guarantees, operating and equipment manuals, as-built drawings, certificates of release of liens and proof of payment of materials purchased for the project, prior to approval of final payment.

PROJECT TIMELINE

Warehouse Freezer Wall Repair Project **15**

ANTICIPATED PROJECT TIMELINE



PLANNING 6 - 8 WEEKS

Planning is an iterative process during which we work with you to review the benefits and costs for various options, layouts, and systems.

DESIGN 8 - 10 WEEKS

Design involves developing detailed drawings and specifications for permitting, bidding, and constructing the project.

CONSTRUCTION 2 - 4 MONTHS

Construction of the project is delivered by bidding to local/ regional sub-contractors.

SYSCO FOODS DISTRIBUTION FACILITY ADDITION



SCOPE OF SERVICES

- o Programming services
- o Schematic design services
- o Site investigation and studies
- o Construction document services
- o Construction administration services

PROJECT HIGHLIGHTS - CINCINNATI, OH

Being the firm of choice for this regional facility has resulted in our firm performing numerous engineering studies and building/site upgrades for this distribution center including:

- o Ammonia refrigeration upgrades
- o Process safety management plan changes
- o Engineering document upkeep
- o Freezer expansion that included a new 32,000 SF freezer and associated site improvements

ALDI FOODS MULTIPLE DISTRIBUTION FACILITY ADDITIONS



SCOPE OF SERVICES

- o Programming services
- o Schematic design services
- o Site investigation and studies
- o Construction document services
- o Construction administration services

PROJECT HIGHLIGHTS - TULLY, NY

400,000 SF existing facility

- o 60,000 SF freezer addition
- o 80,000 SF dry warehouse addition
- o 35,000 SF existing freezer space converted into 32 deg F cooler space
- o 2,500 SF office expansion
- o 15,000 SF existing office renovation

PROJECT HIGHLIGHTS - EAST SPENCER, NC

400,000 SF existing facility

- o 63,000 SF freezer addition
- o 73,500 SF dry warehouse addition
- o 2,500 SF office expansion
- o 15,000 SF existing office renovation

PROJECT HIGHLIGHTS - SPRINGFIELD, OH

400,000 SF existing facility

- o 63,000 SF freezer addition
- o 60,000 SF dry warehouse addition
- o 30,000 SF freezer space renovated and converted to a new produce and meat cooler
- o 5,000 SF loading dock expansion
- o Ammonia refrigeration system capacity increased
- o 3,000 SF office expansion
- o 14,000 SF existing office renovation including new HVAC variable air volume control

GUGGISBERG CHEESE WAREHOUSE FACILITY



SCOPE OF SERVICES

- o Programming services
- o Schematic design services
- o Site investigation and studies
- o Construction document services
- o Construction administration services

PROJECT HIGHLIGHTS - SUGAR CREEK, OH

40,000 SF addition to an existing facility

- o Master planning for growth of overall cheese operation including a phased implementation approach
- o Constructed of a new addition to house packaging, finished goods refrigerated storage, dry storage, shipping and employee areas
- o Hygienic core concept integrated in exposed finished product areas to avoid cross contamination and increase shelf life
- o Integrated newly developed product handling and packaging methodologies into operation
- o Renovated and reconfigured existing plant areas

THANK YOU
FOR YOUR
CONSIDERATION

DESIGNATED CONTACT: Vendor appoints the individual identified in this Section as the Contract Administrator and the initial point of contact for matters relating to this Contract.

Mark Redmond

(Name, Title) _____
Mark E. Redmond, President

(Printed Name and Title) _____
10816 Millington Court, Suite 110, Cincinnati, OH 45242

(Address) _____
513-488-8888

(Phone Number) / (Fax Number) _____
markredmond@foodplantengineering.com

(email address) _____

CERTIFICATION AND SIGNATURE: By signing below, or submitting documentation through wvOASIS, I certify that I have reviewed this Solicitation in its entirety; that I understand the requirements, terms and conditions, and other information contained herein; that this bid, offer or proposal constitutes an offer to the State that cannot be unilaterally withdrawn; that the product or service proposed meets the mandatory requirements contained in the Solicitation for that product or service, unless otherwise stated herein; that the Vendor accepts the terms and conditions contained in the Solicitation, unless otherwise stated herein; that I am submitting this bid, offer or proposal for review and consideration; that I am authorized by the vendor to execute and submit this bid, offer, or proposal, or any documents related thereto on vendor's behalf; that I am authorized to bind the vendor in a contractual relationship; and that to the best of my knowledge, the vendor has properly registered with any State agency that may require registration.

Food Plant Engineering, LLC

(Company) _____

Mark Redmond

(Authorized Signature) (Representative Name, Title) _____

Mark E. Redmond, President

(Printed Name and Title of Authorized Representative) _____

3-20-18

(Date) _____

513-488-8888

(Phone Number) (Fax Number) _____