



Purchasing Division
 2019 Washington Street East
 Post Office Box 50130
 Charleston, WV 25305-0130

**State of West Virginia
 Request for Quotation
 13 – Equipment**

Proc Folder: 412614

Doc Description: AUTOMATIC BRINE SOLUTION PRODUCTION SYSTEM EQUIPMENT

Proc Type: Central Master Agreement

Date issued	Solicitation Closes	Solicitation No	Version
2018-02-26	2018-03-14 13:30:00	CRFQ 0803 DOT1800000074	1

BID RECEIVING LOCATION

BID CLERK
 DEPARTMENT OF ADMINISTRATION
 PURCHASING DIVISION
 2019 WASHINGTON ST E
 CHARLESTON WV 25305
 US

VENDOR


Vendor Name, Address and Telephone Number:

Cargill, Inc. - Deicing Technology Business
 24950 Country Club Blvd, Suite 450
 North Olmsted, OH 44070
 440-716-4715

03/13/18 10:11:40
 WV Purchasing Division

FOR INFORMATION CONTACT THE BUYER

Mark A Atkins
 (304) 558-2307
 mark.a.atkins@wv.gov

Signature  FEIN # 41-0177680 DATE March 12, 2018

All offers subject to all terms and conditions contained in this solicitation

The West Virginia Purchasing Division is soliciting bids on behalf of the West Virginia Division of Highways (WVDOH), to establish an open-end contract for various sizes of Automatic Brine Maker Production Systems Equipment per attached documents.

VARIOUS AGENCY LOCATIONS AS INDICATED BY ORDER		STATE OF WEST VIRGINIA VARIOUS LOCATIONS AS INDICATED BY ORDER	
No City	WV99999	No City	WV 99999
US		US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
1	AUTOMATIC BRINE SOLUTION PRODUCTION SYSTEM	1.00000	EA	\$86,900.00	\$86,900.00

Comm Code	Manufacturer	Specification	Model #
20122400	Cargill, Inc. - Deicing Technology Business		AccuBrine NXT-Gen TF

Extended Description :

AUTOMATIC BRINE SOLUTION PRODUCTION SYSTEM EQUIPMENT WITH REMOTE TRUCK FILL CAPABILITIES - SECTION 3.2.1 AND SECTION 4.1 OF THE CONTRACT SPECIFICATIONS

VARIOUS AGENCY LOCATIONS AS INDICATED BY ORDER		STATE OF WEST VIRGINIA VARIOUS LOCATIONS AS INDICATED BY ORDER	
No City	WV99999	No City	WV 99999
US		US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
2	AUTOMATIC BRINE SOLUTION PRODUCTION SYSTEM	2.00000	EA	\$99,900.00	\$199,800.00

Comm Code	Manufacturer	Specification	Model #
20122400	Cargill, Inc. - Deicing Technology Business		AccuBrine NXT-Gen TF1

Extended Description :

AUTOMATIC BRINE SOLUTION PRODUCTION SYSTEM EQUIPMENT WITH REMOTE TRUCK FILL CAPABILITIES INCLUDING ONE ADDITIVE BLENDING CAPABILITY - SECTION 3.2.2 AND SECTION 4.2 OF THE CONTRACT SPECIFICATIONS

VARIOUS AGENCY LOCATIONS AS INDICATED BY ORDER		STATE OF WEST VIRGINIA VARIOUS LOCATIONS AS INDICATED BY ORDER	
No City	WV99999	No City	WV 99999
US		US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
3	AUTOMATIC BRINE SOLUTION PRODUCTION SYSTEM	3.00000	EA	\$107,900.00	\$323,700.00

Comm Code	Manufacturer	Specification	Model #
20122400	Cargill, Inc. - Deicing Technology Business		AccuBrine NXT-Gen TF2

Extended Description :

AUTOMATIC BRINE SOLUTION PRODUCTION SYSTEM EQUIPMENT WITH REMOTE TRUCK FILL CAPABILITIES INCLUDING TWO ADDITIVE BLENDING CAPABILITY - SECTION 3.2.3 AND SECTION 4.3 OF THE CONTRACT SPECIFICATIONS

VARIOUS AGENCY LOCATIONS AS INDICATED BY ORDER		STATE OF WEST VIRGINIA VARIOUS LOCATIONS AS INDICATED BY ORDER	
No City	WV99999	No City	WV 99999
US		US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
4	AUTOMATIC BRINE SOLUTION PRODUCTION SYSTEM	2.00000	EA	N/A	

Comm Code	Manufacturer	Specification	Model #
20122400			

Extended Description :

A PORTABLE/MOBILE AUTOMATIC BRINE SOLUTION PRODUCTION SYSTEM EQUIPMENT WITH REMOTE TRUCK FILL CAPABILITIES - SECTION 3.2.4 AND SECTION 4.4 OF THE CONTRACT SPECIFICATIONS



Line	Event	Event Date
1	Technical Questions due by 2:00pm EST	2018-03-02

DOT1800000074	Document Phase Final	Document Description AUTOMATIC BRINE SOLUTION PRODUCTION SYSTEM EQUIPMENT	Page 4 of 4
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ADDITIONAL TERMS AND CONDITIONS

See attached document(s) for additional Terms and Conditions

EXHIBIT_A PRICING PAGE

Automatic Brine Solution Production System Equipment
CRFQ 0803 DOT1800000074

Line Item #	Description	Estimated Quantity	Bid Price (Per Each)	Total Price
1	Automatic Brine Solution Production System Equipment Item 3.2.1 Automatic Brine Maker with Remote Fill Capabilities	1	\$ 86,900.00	\$ 86,900.00
2	Automatic Brine Solution Production System Equipment Item 3.2.2 Automatic Brine Maker with Remote Fill Capabilities including One Additive Blending Capability	2	\$ 99,900.00	\$ 199,800.00
3	Automatic Brine Solution Production System Equipment Item 3.2.3 Automatic Brine Maker with Remote Fill Capabilities including Two Additive Blending Capability	3	\$ 107,900.00	\$ 323,700.00
4	Automatic Brine Solution Production System Equipment Item 3.2.4 Portable/Mobile Automatic Brine Maker with Remote Fill Capabilities	2	N/A	#VALUE!

INSTRUCTIONS TO VENDORS SUBMITTING BIDS

1. REVIEW DOCUMENTS THOROUGHLY: The attached documents contain a solicitation for bids. Please read these instructions and all documents attached in their entirety. These instructions provide critical information about requirements that if overlooked could lead to disqualification of a Vendor's bid. All bids must be submitted in accordance with the provisions contained in these instructions and the Solicitation. Failure to do so may result in disqualification of Vendor's bid.

2. MANDATORY TERMS: The Solicitation may contain mandatory provisions identified by the use of the words "must," "will," and "shall." Failure to comply with a mandatory term in the Solicitation will result in bid disqualification.

3. PREBID MEETING: The item identified below shall apply to this Solicitation.

A pre-bid meeting will not be held prior to bid opening

A **NON-MANDATORY PRE-BID** meeting will be held at the following place and time:

A **MANDATORY PRE-BID** meeting will be held at the following place and time:

All Vendors submitting a bid must attend the mandatory pre-bid meeting. Failure to attend the mandatory pre-bid meeting shall result in disqualification of the Vendor's bid. No one person attending the pre-bid meeting may represent more than one Vendor.

An attendance sheet provided at the pre-bid meeting shall serve as the official document verifying attendance. The State will not accept any other form of proof or documentation to verify attendance. Any person attending the pre-bid meeting on behalf of a Vendor must list on the attendance sheet his or her name and the name of the Vendor he or she is representing.

Additionally, the person attending the pre-bid meeting should include the Vendor's E-Mail address, phone number, and Fax number on the attendance sheet. It is the Vendor's responsibility to locate the attendance sheet and provide the required information. Failure to complete the attendance sheet as required may result in disqualification of Vendor's bid.

All Vendors should arrive prior to the starting time for the pre-bid. Vendors who arrive after the starting time but prior to the end of the pre-bid will be permitted to sign in, but are charged with knowing all matters discussed at the pre-bid.

Questions submitted at least five business days prior to a scheduled pre-bid will be discussed at the pre-bid meeting if possible. Any discussions or answers to questions at the pre-bid meeting are preliminary in nature and are non-binding. Official and binding answers to questions will be published in a written addendum to the Solicitation prior to bid opening.

4. VENDOR QUESTION DEADLINE: Vendors may submit questions relating to this Solicitation to the Purchasing Division. Questions must be submitted in writing. All questions must be submitted on or before the date listed below and to the address listed below in order to be considered. A written response will be published in a Solicitation addendum if a response is possible and appropriate. Non-written discussions, conversations, or questions and answers regarding this Solicitation are preliminary in nature and are nonbinding.

Submitted e-mails should have solicitation number in the subject line.

Question Submission Deadline: March 02, 2018 due by 2:00pm EST

Submit Questions to: Mark Atkins, Senior Buyer
2019 Washington Street, East
Charleston, WV 25305
Fax: (304) 558-4115 (Vendors should not use this fax number for bid submission)
Email: Mark.A.Atkins@wv.gov

5. VERBAL COMMUNICATION: Any verbal communication between the Vendor and any State personnel is not binding, including verbal communication at the mandatory pre-bid conference. Only information issued in writing and added to the Solicitation by an official written addendum by the Purchasing Division is binding.

6. BID SUBMISSION: All bids must be submitted electronically through wvOASIS or signed and delivered by the Vendor to the Purchasing Division at the address listed below on or before the date and time of the bid opening. Any bid received by the Purchasing Division staff is considered to be in the possession of the Purchasing Division and will not be returned for any reason. The Purchasing Division will not accept bids, modification of bids, or addendum acknowledgment forms via e-mail. Acceptable delivery methods include electronic submission via wvOASIS, hand delivery, delivery by courier, or facsimile.

The bid delivery address is:
Department of Administration, Purchasing Division
2019 Washington Street East
Charleston, WV 25305-0130

A bid that is not submitted electronically through wvOASIS should contain the information listed below on the face of the envelope or the bid may be rejected by the Purchasing Division.:

SEALED BID: Auto Brine System
BUYER: Mark Atkins, File #33
SOLICITATION NO.: CRFQ 0803 DOT1800000074
BID OPENING DATE: 03/14/2018
BID OPENING TIME: 1:30pm EST
FAX NUMBER: 304-558-3970

The Purchasing Division may prohibit the submission of bids electronically through wvOASIS at its sole discretion. Such a prohibition will be contained and communicated in the wvOASIS system resulting in the Vendor's inability to submit bids through wvOASIS. Submission of a response to an Expression or Interest or Request for Proposal is not permitted in wvOASIS.

For Request For Proposal ("RFP") Responses Only: In the event that Vendor is responding to a request for proposal, the Vendor shall submit one original technical and one original cost proposal plus N/A convenience copies of each to the Purchasing Division at the address shown above. Additionally, the Vendor should identify the bid type as either a technical or cost proposal on the face of each bid envelope submitted in response to a request for proposal as follows:

BID TYPE: (This only applies to CRFP)

- Technical
 Cost

7. BID OPENING: Bids submitted in response to this Solicitation will be opened at the location identified below on the date and time listed below. Delivery of a bid after the bid opening date and time will result in bid disqualification. For purposes of this Solicitation, a bid is considered delivered when confirmation of delivery is provided by wvOASIS (in the case of electronic submission) or when the bid is time stamped by the official Purchasing Division time clock (in the case of hand delivery).

Bid Opening Date and Time: March 14, 2018 at 1:30pm EST

Bid Opening Location: Department of Administration, Purchasing Division
2019 Washington Street East
Charleston, WV 25305-0130

8. ADDENDUM ACKNOWLEDGEMENT: Changes or revisions to this Solicitation will be made by an official written addendum issued by the Purchasing Division. Vendor should acknowledge receipt of all addenda issued with this Solicitation by completing an Addendum Acknowledgment Form, a copy of which is included herewith. Failure to acknowledge addenda may result in bid disqualification. The addendum acknowledgement should be submitted with the bid to expedite document processing.

9. BID FORMATTING: Vendor should type or electronically enter the information onto its bid to prevent errors in the evaluation. Failure to type or electronically enter the information may result in bid disqualification.

10. ALTERNATES: Any model, brand, or specification listed in this Solicitation establishes the acceptable level of quality only and is not intended to reflect a preference for, or in any way favor, a particular brand or vendor. Vendors may bid alternates to a listed model or brand provided that the alternate is at least equal to the model or brand and complies with the required specifications. The equality of any alternate being bid shall be determined by the State at its sole discretion. Any Vendor bidding an alternate model or brand should clearly identify the alternate items in its bid and should include manufacturer's specifications, industry literature, and/or any other relevant documentation demonstrating the equality of the alternate items. Failure to provide information for alternate items may be grounds for rejection of a Vendor's bid.

11. EXCEPTIONS AND CLARIFICATIONS: The Solicitation contains the specifications that shall form the basis of a contractual agreement. Vendor shall clearly mark any exceptions, clarifications, or other proposed modifications in its bid. Exceptions to, clarifications of, or modifications of a requirement or term and condition of the Solicitation may result in bid disqualification.

12. COMMUNICATION LIMITATIONS: In accordance with West Virginia Code of State Rules §148-1-6.6, communication with the State of West Virginia or any of its employees regarding this Solicitation during the solicitation, bid, evaluation or award periods, except through the Purchasing Division, is strictly prohibited without prior Purchasing Division approval. Purchasing Division approval for such communication is implied for all agency delegated and exempt purchases.

13. REGISTRATION: Prior to Contract award, the apparent successful Vendor must be properly registered with the West Virginia Purchasing Division and must have paid the \$125 fee, if applicable.

14. UNIT PRICE: Unit prices shall prevail in cases of a discrepancy in the Vendor's bid.

15. PREFERENCE: Vendor Preference may only be granted upon written request and only in accordance with the West Virginia Code § 5A-3-37 and the West Virginia Code of State Rules. A Vendor Preference Certificate form has been attached hereto to allow Vendor to apply for the preference. Vendor's failure to submit the Vendor Preference Certificate form with its bid will result in denial of Vendor Preference. Vendor Preference does not apply to construction projects.

16. SMALL, WOMEN-OWNED, OR MINORITY-OWNED BUSINESSES: For any solicitations publicly advertised for bid, in accordance with West Virginia Code §5A-3-37(a)(7) and W. Va. CSR § 148-22-9, any non-resident vendor certified as a small, women-owned, or minority-owned business under W. Va. CSR § 148-22-9 shall be provided the same preference made available to any resident vendor. Any non-resident small, women-owned, or minority-owned business must identify itself as such in writing, must submit that writing to the Purchasing Division with its bid, and must be properly certified under W. Va. CSR § 148-22-9 prior to contract award to receive the preferences made available to resident vendors. Preference for a non-resident small, women-owned, or minority owned business shall be applied in accordance with W. Va. CSR § 148-22-9.

17. WAIVER OF MINOR IRREGULARITIES: The Director reserves the right to waive minor irregularities in bids or specifications in accordance with West Virginia Code of State Rules § 148-1-4.6.

18. ELECTRONIC FILE ACCESS RESTRICTIONS: Vendor must ensure that its submission in wvOASIS can be accessed and viewed by the Purchasing Division staff immediately upon bid opening. The Purchasing Division will consider any file that cannot be immediately accessed and viewed at the time of the bid opening (such as, encrypted files, password protected files, or incompatible files) to be blank or incomplete as context requires, and are therefore unacceptable. A vendor will not be permitted to unencrypt files, remove password protections, or resubmit documents after bid opening to make a file viewable if those documents are required with the bid. A Vendor may be required to provide document passwords or remove access restrictions to allow the Purchasing Division to print or electronically save documents provided that those documents are viewable by the Purchasing Division prior to obtaining the password or removing the access restriction.

19. NON-RESPONSIBLE: The Purchasing Division Director reserves the right to reject the bid of any vendor as Non-Responsible in accordance with W. Va. Code of State Rules § 148-1-5.3, when the Director determines that the vendor submitting the bid does not have the capability to fully perform, or lacks the integrity and reliability to assure good-faith performance.”

20. ACCEPTANCE/REJECTION: The State may accept or reject any bid in whole, or in part in accordance with W. Va. Code of State Rules § 148-1-4.5. and § 148-1-6.4.b.”

21. YOUR SUBMISSION IS A PUBLIC DOCUMENT: Vendor’s entire response to the Solicitation and the resulting Contract are public documents. As public documents, they will be disclosed to the public following the bid/proposal opening or award of the contract, as required by the competitive bidding laws of West Virginia Code §§ 5A-3-1 et seq., 5-22-1 et seq., and 5G-1-1 et seq. and the Freedom of Information Act West Virginia Code §§ 29B-1-1 et seq.

DO NOT SUBMIT MATERIAL YOU CONSIDER TO BE CONFIDENTIAL, A TRADE SECRET, OR OTHERWISE NOT SUBJECT TO PUBLIC DISCLOSURE.

Submission of any bid, proposal, or other document to the Purchasing Division constitutes your explicit consent to the subsequent public disclosure of the bid, proposal, or document. The Purchasing Division will disclose any document labeled “confidential,” “proprietary,” “trade secret,” “private,” or labeled with any other claim against public disclosure of the documents, to include any “trade secrets” as defined by West Virginia Code § 47-22-1 et seq. All submissions are subject to public disclosure without notice.

22. INTERESTED PARTY DISCLOSURE: W. Va. Code § 6D-1-2 requires that for contracts with an actual or estimated value of at least \$100,000, the vendor must submit to the Purchasing Division a disclosure of interested parties to the contract, prior to contract award. That disclosure must occur on the form prescribed and approved by the WV Ethics Commission. A copy of that form is included with this solicitation or can be obtained from the WV Ethics Commission.

"Interested parties" means: (1) A business entity performing work or service pursuant to, or in furtherance of, the applicable contract, including specifically sub-contractors; (2) the person(s) who have an ownership interest equal to or greater than 25% in the business entity performing work or service pursuant to, or in furtherance of, the applicable contract; and (3) the person or business entity, if any, that served as a compensated broker or intermediary to actively facilitate the applicable contract or negotiated the terms of the applicable contract with the state agency: Provided, That subdivision (2) shall be inapplicable if a business entity is a publicly traded company: Provided, however, That subdivision (3) shall not include persons or business entities performing legal services related to the negotiation or drafting of the applicable contract.

23. WITH THE BID REQUIREMENTS: In instances where these specifications require documentation or other information with the bid, and a vendor fails to provide it with the bid, the Director of the Purchasing Division reserves the right to request those items after bid opening and prior to contract award pursuant to the authority to waive minor irregularities in bids or specifications under W. Va. CSR § 148-1-4.6. This authority does not apply to instances where state law mandates receipt with the bid.

GENERAL TERMS AND CONDITIONS:

1. CONTRACTUAL AGREEMENT: Issuance of a Award Document signed by the Purchasing Division Director, or his designee, and approved as to form by the Attorney General's office constitutes acceptance of this Contract made by and between the State of West Virginia and the Vendor. Vendor's signature on its bid signifies Vendor's agreement to be bound by and accept the terms and conditions contained in this Contract.

2. DEFINITIONS: As used in this Solicitation/Contract, the following terms shall have the meanings attributed to them below. Additional definitions may be found in the specifications included with this Solicitation/Contract.

2.1. "Agency" or "Agencies" means the agency, board, commission, or other entity of the State of West Virginia that is identified on the first page of the Solicitation or any other public entity seeking to procure goods or services under this Contract.

2.2. "Bid" or "Proposal" means the vendors submitted response to this solicitation.

2.3. "Contract" means the binding agreement that is entered into between the State and the Vendor to provide the goods or services requested in the Solicitation.

2.4. "Director" means the Director of the West Virginia Department of Administration, Purchasing Division.

2.5. "Purchasing Division" means the West Virginia Department of Administration, Purchasing Division.

2.6. "Award Document" means the document signed by the Agency and the Purchasing Division, and approved as to form by the Attorney General, that identifies the Vendor as the contract holder.

2.7. "Solicitation" means the official notice of an opportunity to supply the State with goods or services that is published by the Purchasing Division.

2.8. "State" means the State of West Virginia and/or any of its agencies, commissions, boards, etc. as context requires.

2.9. "Vendor" or "Vendors" means any entity submitting a bid in response to the Solicitation, the entity that has been selected as the lowest responsible bidder, or the entity that has been awarded the Contract as context requires.

3. CONTRACT TERM; RENEWAL; EXTENSION: The term of this Contract shall be determined in accordance with the category that has been identified as applicable to this Contract below:

Term Contract

Initial Contract Term: This Contract becomes effective on Upon award and extends for a period of one (1) year(s).

Renewal Term: This Contract may be renewed upon the mutual written consent of the Agency, and the Vendor, with approval of the Purchasing Division and the Attorney General's office (Attorney General approval is as to form only). Any request for renewal should be delivered to the Agency and then submitted to the Purchasing Division thirty (30) days prior to the expiration date of the initial contract term or appropriate renewal term. A Contract renewal shall be in accordance with the terms and conditions of the original contract. Unless otherwise specified below, renewal of this Contract is limited to three (3) successive one (1) year periods or multiple renewal periods of less than one year, provided that the multiple renewal periods do not exceed the total number of months available in all renewal years combined. Automatic renewal of this Contract is prohibited. Renewals must be approved by the Vendor, Agency, Purchasing Division and Attorney General's office (Attorney General approval is as to form only)

Alternate Renewal Term – This contract may be renewed for _____ successive _____ year periods or shorter periods provided that they do not exceed the total number of months contained in all available renewals. Automatic renewal of this Contract is prohibited. Renewals must be approved by the Vendor, Agency, Purchasing Division and Attorney General's office (Attorney General approval is as to form only)

Delivery Order Limitations: In the event that this contract permits delivery orders, a delivery order may only be issued during the time this Contract is in effect. Any delivery order issued within one year of the expiration of this Contract shall be effective for one year from the date the delivery order is issued. No delivery order may be extended beyond one year after this Contract has expired.

Fixed Period Contract: This Contract becomes effective upon Vendor's receipt of the notice to proceed and must be completed within _____ days.

Fixed Period Contract with Renewals: This Contract becomes effective upon Vendor's receipt of the notice to proceed and part of the Contract more fully described in the attached specifications must be completed within _____ days. Upon completion of the work covered by the preceding sentence, the vendor agrees that maintenance, monitoring, or warranty services will be provided for _____ year(s) thereafter.

One Time Purchase: The term of this Contract shall run from the issuance of the Award Document until all of the goods contracted for have been delivered, but in no event will this Contract extend for more than one fiscal year.

Other: See attached.

4. NOTICE TO PROCEED: Vendor shall begin performance of this Contract immediately upon receiving notice to proceed unless otherwise instructed by the Agency. Unless otherwise specified, the fully executed Award Document will be considered notice to proceed.

5. QUANTITIES: The quantities required under this Contract shall be determined in accordance with the category that has been identified as applicable to this Contract below.

Open End Contract: Quantities listed in this Solicitation are approximations only, based on estimates supplied by the Agency. It is understood and agreed that the Contract shall cover the quantities actually ordered for delivery during the term of the Contract, whether more or less than the quantities shown.

Service: The scope of the service to be provided will be more clearly defined in the specifications included herewith.

Combined Service and Goods: The scope of the service and deliverable goods to be provided will be more clearly defined in the specifications included herewith.

One Time Purchase: This Contract is for the purchase of a set quantity of goods that are identified in the specifications included herewith. Once those items have been delivered, no additional goods may be procured under this Contract without an appropriate change order approved by the Vendor, Agency, Purchasing Division, and Attorney General's office.

6. EMERGENCY PURCHASES: The Purchasing Division Director may authorize the Agency to purchase goods or services in the open market that Vendor would otherwise provide under this Contract if those goods or services are for immediate or expedited delivery in an emergency. Emergencies shall include, but are not limited to, delays in transportation or an unanticipated increase in the volume of work. An emergency purchase in the open market, approved by the Purchasing Division Director, shall not constitute a breach of this Contract and shall not entitle the Vendor to any form of compensation or damages. This provision does not excuse the State from fulfilling its obligations under a One Time Purchase contract.

7. REQUIRED DOCUMENTS: All of the items checked below must be provided to the Purchasing Division by the Vendor as specified below.

BID BOND (Construction Only): Pursuant to the requirements contained in W. Va. Code § 5-22-1(c), All Vendors submitting a bid on a construction project shall furnish a valid bid bond in the amount of five percent (5%) of the total amount of the bid protecting the State of West Virginia. The bid bond must be submitted with the bid.

PERFORMANCE BOND: The apparent successful Vendor shall provide a performance bond in the amount of _____. The performance bond must be received by the Purchasing Division prior to Contract award. On construction contracts, the performance bond must be 100% of the Contract value.

LABOR/MATERIAL PAYMENT BOND: The apparent successful Vendor shall provide a labor/material payment bond in the amount of 100% of the Contract value. The labor/material payment bond must be delivered to the Purchasing Division prior to Contract award.

In lieu of the Bid Bond, Performance Bond, and Labor/Material Payment Bond, the Vendor may provide certified checks, cashier's checks, or irrevocable letters of credit. Any certified check, cashier's check, or irrevocable letter of credit provided in lieu of a bond must be of the same amount and delivered on the same schedule as the bond it replaces. A letter of credit submitted in lieu of a performance and labor/material payment bond will only be allowed for projects under \$100,000. Personal or business checks are not acceptable. Notwithstanding the foregoing, West Virginia Code § 5-22-1 (d) mandates that a vendor provide a performance and labor/material payment bond for construction projects. Accordingly, substitutions for the performance and labor/material payment bonds for construction projects is not permitted.

MAINTENANCE BOND: The apparent successful Vendor shall provide a two (2) year maintenance bond covering the roofing system. The maintenance bond must be issued and delivered to the Purchasing Division prior to Contract award.

LICENSE(S) / CERTIFICATIONS / PERMITS: In addition to anything required under the Section entitled Licensing, of the General Terms and Conditions, the apparent successful Vendor shall furnish proof of the following licenses, certifications, and/or permits prior to Contract award, in a form acceptable to the Purchasing Division.

The apparent successful Vendor shall also furnish proof of any additional licenses or certifications contained in the specifications prior to Contract award regardless of whether or not that requirement is listed above.

8. INSURANCE: The apparent successful Vendor shall furnish proof of the insurance identified by a checkmark below prior to Contract award. Subsequent to contract award, and prior to the insurance expiration date, Vendor shall provide the Agency with proof that the insurance mandated herein has been continued. Vendor must also provide Agency with immediate notice of any changes in its insurance policies mandated herein, including but not limited to, policy cancelation, policy reduction, or change in insurers. The insurance coverages identified below must be maintained throughout the life of this contract. The apparent successful Vendor shall also furnish proof of any additional insurance requirements contained in the specifications prior to Contract award regardless of whether or not that insurance requirement is listed in this section.

Vendor must maintain:

Commercial General Liability Insurance in at least an amount of:

\$1,000,000.00

Automobile Liability Insurance in at least an amount of: _____

Professional/Malpractice/Errors and Omission Insurance in at least an amount of:

Commercial Crime and Third Party Fidelity Insurance in an amount of:

Cyber Liability Insurance in an amount of: _____

Builders Risk Insurance in an amount equal to 100% of the amount of the Contract.

9. WORKERS' COMPENSATION INSURANCE: The apparent successful Vendor shall comply with laws relating to workers compensation, shall maintain workers' compensation insurance when required, and shall furnish proof of workers' compensation insurance upon request.

10. [Reserved]

11. LIQUIDATED DAMAGES: This clause shall in no way be considered exclusive and shall not limit the State or Agency's right to pursue any other available remedy. Vendor shall pay liquidated damages in the amount specified below or as described in the specifications:

_____ for _____

Liquidated Damages Contained in the Specifications

12. ACCEPTANCE: Vendor's signature on its bid, or on the certification and signature page, constitutes an offer to the State that cannot be unilaterally withdrawn, signifies that the product or service proposed by vendor meets the mandatory requirements contained in the Solicitation for that product or service, unless otherwise indicated, and signifies acceptance of the terms and conditions contained in the Solicitation unless otherwise indicated.

13. PRICING: The pricing set forth herein is firm for the life of the Contract, unless specified elsewhere within this Solicitation/Contract by the State. A Vendor's inclusion of price adjustment provisions in its bid, without an express authorization from the State in the Solicitation to do so, may result in bid disqualification.

14. PAYMENT: Payment in advance is prohibited under this Contract. Payment may only be made after the delivery and acceptance of goods or services. The Vendor shall submit invoices, in arrears.

15. PURCHASING CARD ACCEPTANCE: The State of West Virginia currently utilizes a Purchasing Card program, administered under contract by a banking institution, to process payment for goods and services. The Vendor must accept the State of West Virginia's Purchasing Card for payment of all orders under this Contract unless the box below is checked.

Vendor is not required to accept the State of West Virginia's Purchasing Card as payment for all goods and services.

16. TAXES: The Vendor shall pay any applicable sales, use, personal property or any other taxes arising out of this Contract and the transactions contemplated thereby. The State of West Virginia is exempt from federal and state taxes and will not pay or reimburse such taxes.

17. ADDITIONAL FEES: Vendor is not permitted to charge additional fees or assess additional charges that were not either expressly provided for in the solicitation published by the State of West Virginia or included in the unit price or lump sum bid amount that Vendor is required by the solicitation to provide. Including such fees or charges as notes to the solicitation may result in rejection of vendor's bid. Requesting such fees or charges be paid after the contract has been awarded may result in cancellation of the contract.

18. FUNDING: This Contract shall continue for the term stated herein, contingent upon funds being appropriated by the Legislature or otherwise being made available. In the event funds are not appropriated or otherwise made available, this Contract becomes void and of no effect beginning on July 1 of the fiscal year for which funding has not been appropriated or otherwise made available.

19. CANCELLATION: The Purchasing Division Director reserves the right to cancel this Contract immediately upon written notice to the vendor if the materials or workmanship supplied do not conform to the specifications contained in the Contract. The Purchasing Division Director may also cancel any purchase or Contract upon 30 days written notice to the Vendor in accordance with West Virginia Code of State Rules § 148-1-5.2.b.

20. TIME: Time is of the essence with regard to all matters of time and performance in this Contract.

21. APPLICABLE LAW: This Contract is governed by and interpreted under West Virginia law without giving effect to its choice of law principles. Any information provided in specification manuals, or any other source, verbal or written, which contradicts or violates the West Virginia Constitution, West Virginia Code or West Virginia Code of State Rules is void and of no effect.

22. COMPLIANCE WITH LAWS: Vendor shall comply with all applicable federal, state, and local laws, regulations and ordinances. By submitting a bid, Vendor acknowledges that it has reviewed, understands, and will comply with all applicable laws, regulations, and ordinances.

SUBCONTRACTOR COMPLIANCE: Vendor shall notify all subcontractors providing commodities or services related to this Contract that as subcontractors, they too are required to comply with all applicable laws, regulations, and ordinances. Notification under this provision must occur prior to the performance of any work under the contract by the subcontractor.

23. ARBITRATION: Any references made to arbitration contained in this Contract, Vendor's bid, or in any American Institute of Architects documents pertaining to this Contract are hereby deleted, void, and of no effect.

24. MODIFICATIONS: This writing is the parties' final expression of intent. Notwithstanding anything contained in this Contract to the contrary no modification of this Contract shall be binding without mutual written consent of the Agency, and the Vendor, with approval of the Purchasing Division and the Attorney General's office (Attorney General approval is as to form only). Any change to existing contracts that adds work or changes contract cost, and were not included in the original contract, must be approved by the Purchasing Division and the Attorney General's Office (as to form) prior to the implementation of the change or commencement of work affected by the change.

25. WAIVER: The failure of either party to insist upon a strict performance of any of the terms or provision of this Contract, or to exercise any option, right, or remedy herein contained, shall not be construed as a waiver or a relinquishment for the future of such term, provision, option, right, or remedy, but the same shall continue in full force and effect. Any waiver must be expressly stated in writing and signed by the waiving party.

26. SUBSEQUENT FORMS: The terms and conditions contained in this Contract shall supersede any and all subsequent terms and conditions which may appear on any form documents submitted by Vendor to the Agency or Purchasing Division such as price lists, order forms, invoices, sales agreements, or maintenance agreements, and includes internet websites or other electronic documents. Acceptance or use of Vendor's forms does not constitute acceptance of the terms and conditions contained thereon.

27. ASSIGNMENT: Neither this Contract nor any monies due, or to become due hereunder, may be assigned by the Vendor without the express written consent of the Agency, the Purchasing Division, the Attorney General's office (as to form only), and any other government agency or office that may be required to approve such assignments. Notwithstanding the foregoing, Purchasing Division approval may or may not be required on certain agency delegated or exempt purchases.

28. WARRANTY: The Vendor expressly warrants that the goods and/or services covered by this Contract will: (a) conform to the specifications, drawings, samples, or other description furnished or specified by the Agency; (b) be merchantable and fit for the purpose intended; and (c) be free from defect in material and workmanship.

29. STATE EMPLOYEES: State employees are not permitted to utilize this Contract for personal use and the Vendor is prohibited from permitting or facilitating the same.

30. BANKRUPTCY: In the event the Vendor files for bankruptcy protection, the State of West Virginia may deem this Contract null and void, and terminate this Contract without notice.

31. PRIVACY, SECURITY, AND CONFIDENTIALITY: The Vendor agrees that it will not disclose to anyone, directly or indirectly, any such personally identifiable information or other confidential information gained from the Agency, unless the individual who is the subject of the information consents to the disclosure in writing or the disclosure is made pursuant to the Agency's policies, procedures, and rules. Vendor further agrees to comply with the Confidentiality Policies and Information Security Accountability Requirements, set forth in <http://www.state.wv.us/admin/purchase/privacy/default.html>.

32. YOUR SUBMISSION IS A PUBLIC DOCUMENT: Vendor's entire response to the Solicitation and the resulting Contract are public documents. As public documents, they will be disclosed to the public following the bid/proposal opening or award of the contract, as required by the competitive bidding laws of West Virginia Code §§ 5A-3-1 et seq., 5-22-1 et seq., and 5G-1-1 et seq. and the Freedom of Information Act West Virginia Code §§ 29B-1-1 et seq.

DO NOT SUBMIT MATERIAL YOU CONSIDER TO BE CONFIDENTIAL, A TRADE SECRET, OR OTHERWISE NOT SUBJECT TO PUBLIC DISCLOSURE.

Submission of any bid, proposal, or other document to the Purchasing Division constitutes your explicit consent to the subsequent public disclosure of the bid, proposal, or document. The Purchasing Division will disclose any document labeled "confidential," "proprietary," "trade secret," "private," or labeled with any other claim against public disclosure of the documents, to include any "trade secrets" as defined by West Virginia Code § 47-22-1 et seq. All submissions are subject to public disclosure without notice.

33. LICENSING: In accordance with West Virginia Code of State Rules § 148-1-6.1.e, Vendor must be licensed and in good standing in accordance with any and all state and local laws and requirements by any state or local agency of West Virginia, including, but not limited to, the West Virginia Secretary of State's Office, the West Virginia Tax Department, West Virginia Insurance Commission, or any other state agency or political subdivision. Obligations related to political subdivisions may include, but are not limited to, business licensing, business and occupation taxes, inspection compliance, permitting, etc. Upon request, the Vendor must provide all necessary releases to obtain information to enable the Purchasing Division Director or the Agency to verify that the Vendor is licensed and in good standing with the above entities.

SUBCONTRACTOR COMPLIANCE: Vendor shall notify all subcontractors providing commodities or services related to this Contract that as subcontractors, they too are required to be licensed, in good standing, and up-to-date on all state and local obligations as described in this section. Obligations related to political subdivisions may include, but are not limited to, business licensing, business and occupation taxes, inspection compliance, permitting, etc. Notification under this provision must occur prior to the performance of any work under the contract by the subcontractor.

34. ANTITRUST: In submitting a bid to, signing a contract with, or accepting a Award Document from any agency of the State of West Virginia, the Vendor agrees to convey, sell, assign, or transfer to the State of West Virginia all rights, title, and interest in and to all causes of action it may now or hereafter acquire under the antitrust laws of the United States and the State of West Virginia for price fixing and/or unreasonable restraints of trade relating to the particular commodities or services purchased or acquired by the State of West Virginia. Such assignment shall be made and become effective at the time the purchasing agency tenders the initial payment to Vendor.

35. VENDOR CERTIFICATIONS: By signing its bid or entering into this Contract, Vendor certifies (1) that its bid or offer was made without prior understanding, agreement, or connection with any corporation, firm, limited liability company, partnership, person or entity submitting a bid or offer for the same material, supplies, equipment or services; (2) that its bid or offer is in all respects fair and without collusion or fraud; (3) that this Contract is accepted or entered into without any prior understanding, agreement, or connection to any other entity that could be considered a violation of law; and (4) that it has reviewed this Solicitation in its entirety; understands the requirements, terms and conditions, and other information contained herein.

Vendor's signature on its bid or offer also affirms that neither it nor its representatives have any interest, nor shall acquire any interest, direct or indirect, which would compromise the performance of its services hereunder. Any such interests shall be promptly presented in detail to the Agency. The individual signing this bid or offer on behalf of Vendor certifies that he or she is authorized by the Vendor to execute this bid or offer or any documents related thereto on Vendor's behalf; that he or she is authorized to bind the Vendor in a contractual relationship; and that, to the best of his or her knowledge, the Vendor has properly registered with any State agency that may require registration.

36. VENDOR RELATIONSHIP: The relationship of the Vendor to the State shall be that of an independent contractor and no principal-agent relationship or employer-employee relationship is contemplated or created by this Contract. The Vendor as an independent contractor is solely liable for the acts and omissions of its employees and agents. Vendor shall be responsible for selecting, supervising, and compensating any and all individuals employed pursuant to the terms of this Solicitation and resulting contract. Neither the Vendor, nor any employees or subcontractors of the Vendor, shall be deemed to be employees of the State for any purpose whatsoever. Vendor shall be exclusively responsible for payment of employees and contractors for all wages and salaries, taxes, withholding payments, penalties, fees, fringe benefits, professional liability insurance premiums, contributions to insurance and pension, or other deferred compensation plans, including but not limited to, Workers' Compensation and Social Security obligations, licensing fees, etc. and the filing of all necessary documents, forms, and returns pertinent to all of the foregoing.

Vendor shall hold harmless the State, and shall provide the State and Agency with a defense against any and all claims including, but not limited to, the foregoing payments, withholdings, contributions, taxes, Social Security taxes, and employer income tax returns.

37. INDEMNIFICATION: The Vendor agrees to indemnify, defend, and hold harmless the State and the Agency, their officers, and employees from and against: (1) Any claims or losses for services rendered by any subcontractor, person, or firm performing or supplying services, materials, or supplies in connection with the performance of the Contract; (2) Any claims or losses resulting to any person or entity injured or damaged by the Vendor, its officers, employees, or subcontractors by the publication, translation, reproduction, delivery, performance, use, or disposition of any data used under the Contract in a manner not authorized by the Contract, or by Federal or State statutes or regulations; and (3) Any failure of the Vendor, its officers, employees, or subcontractors to observe State and Federal laws including, but not limited to, labor and wage and hour laws.

38. PURCHASING AFFIDAVIT: In accordance with West Virginia Code § 5-22-1(i), the contracting public entity shall not award a contract for a construction project to any bidder that is known to be in default on any monetary obligation owed to the state or a political subdivision of the state, including, but not limited to, obligations related to payroll taxes, property taxes, sales and use taxes, fire service fees, or other fines or fees. Accordingly, prior to contract award, Vendors are required to sign, notarize, and submit the Purchasing Affidavit to the Purchasing Division affirming under oath that it is not in default on any monetary obligation owed to the state or a political subdivision of the state.

39. ADDITIONAL AGENCY AND LOCAL GOVERNMENT USE: This Contract may be utilized by other agencies, spending units, and political subdivisions of the State of West Virginia; county, municipal, and other local government bodies; and school districts (“Other Government Entities”). Any extension of this Contract to the aforementioned Other Government Entities must be on the same prices, terms, and conditions as those offered and agreed to in this Contract, provided that such extension is in compliance with the applicable laws, rules, and ordinances of the Other Government Entity. If the Vendor does not wish to extend the prices, terms, and conditions of its bid and subsequent contract to the Other Government Entities, the Vendor must clearly indicate such refusal in its bid. A refusal to extend this Contract to the Other Government Entities shall not impact or influence the award of this Contract in any manner.

40. CONFLICT OF INTEREST: Vendor, its officers or members or employees, shall not presently have or acquire an interest, direct or indirect, which would conflict with or compromise the performance of its obligations hereunder. Vendor shall periodically inquire of its officers, members and employees to ensure that a conflict of interest does not arise. Any conflict of interest discovered shall be promptly presented in detail to the Agency.

41. REPORTS: Vendor shall provide the Agency and/or the Purchasing Division with the following reports identified by a checked box below:

Such reports as the Agency and/or the Purchasing Division may request. Requested reports may include, but are not limited to, quantities purchased, agencies utilizing the contract, total contract expenditures by agency, etc.

Quarterly reports detailing the total quantity of purchases in units and dollars, along with a listing of purchases by agency. Quarterly reports should be delivered to the Purchasing Division via email at purchasing.requisitions@wv.gov.

42. BACKGROUND CHECK: In accordance with W. Va. Code § 15-2D-3, the Director of the Division of Protective Services shall require any service provider whose employees are regularly employed on the grounds or in the buildings of the Capitol complex or who have access to sensitive or critical information to submit to a fingerprint-based state and federal background inquiry through the state repository. The service provider is responsible for any costs associated with the fingerprint-based state and federal background inquiry.

After the contract for such services has been approved, but before any such employees are permitted to be on the grounds or in the buildings of the Capitol complex or have access to sensitive or critical information, the service provider shall submit a list of all persons who will be physically present and working at the Capitol complex to the Director of the Division of

Protective Services for purposes of verifying compliance with this provision. The State reserves the right to prohibit a service provider's employees from accessing sensitive or critical information or to be present at the Capitol complex based upon results addressed from a criminal background check.

Service providers should contact the West Virginia Division of Protective Services by phone at (304) 558-9911 for more information.

43. PREFERENCE FOR USE OF DOMESTIC STEEL PRODUCTS: Except when authorized by the Director of the Purchasing Division pursuant to W. Va. Code § 5A-3-56, no contractor may use or supply steel products for a State Contract Project other than those steel products made in the United States. A contractor who uses steel products in violation of this section may be subject to civil penalties pursuant to W. Va. Code § 5A-3-56. As used in this section:

- a. "State Contract Project" means any erection or construction of, or any addition to, alteration of or other improvement to any building or structure, including, but not limited to, roads or highways, or the installation of any heating or cooling or ventilating plants or other equipment, or the supply of and materials for such projects, pursuant to a contract with the State of West Virginia for which bids were solicited on or after June 6, 2001.
- b. "Steel Products" means products rolled, formed, shaped, drawn, extruded, forged, cast, fabricated or otherwise similarly processed, or processed by a combination of two or more or such operations, from steel made by the open heath, basic oxygen, electric furnace, Bessemer or other steel making process. The Purchasing Division Director may, in writing, authorize the use of foreign steel products if:
- c. The cost for each contract item used does not exceed one tenth of one percent (.1%) of the total contract cost or two thousand five hundred dollars (\$2,500.00), whichever is greater. For the purposes of this section, the cost is the value of the steel product as delivered to the project; or
- d. The Director of the Purchasing Division determines that specified steel materials are not produced in the United States in sufficient quantity or otherwise are not reasonably available to meet contract requirements.

44. PREFERENCE FOR USE OF DOMESTIC ALUMINUM, GLASS, AND STEEL: In Accordance with W. Va. Code § 5-19-1 et seq., and W. Va. CSR § 148-10-1 et seq., for every contract or subcontract, subject to the limitations contained herein, for the construction, reconstruction, alteration, repair, improvement or maintenance of public works or for the purchase of any item of machinery or equipment to be used at sites of public works, only domestic aluminum, glass or steel products shall be supplied unless the spending officer determines, in writing, after the receipt of offers or bids, (1) that the cost of domestic aluminum, glass or steel products is unreasonable or inconsistent with the public interest of the State of West Virginia, (2) that domestic aluminum, glass or steel products are not produced in sufficient quantities to meet the contract requirements, or (3) the available domestic aluminum, glass, or steel do not meet the contract specifications. This provision only applies to public works contracts awarded in an amount more than fifty thousand dollars (\$50,000) or public works contracts that require more than ten thousand pounds of steel products.

The cost of domestic aluminum, glass, or steel products may be unreasonable if the cost is more than twenty percent (20%) of the bid or offered price for foreign made aluminum, glass, or steel products. If the domestic aluminum, glass or steel products to be supplied or produced in a "substantial labor surplus area", as defined by the United States Department of Labor, the cost of domestic aluminum, glass, or steel products may be unreasonable if the cost is more than thirty percent (30%) of the bid or offered price for foreign made aluminum, glass, or steel products. This preference shall be applied to an item of machinery or equipment, as indicated above, when the item is a single unit of equipment or machinery manufactured primarily of aluminum, glass or steel, is part of a public works contract and has the sole purpose or of being a permanent part of a single public works project. This provision does not apply to equipment or machinery purchased by a spending unit for use by that spending unit and not as part of a single public works project.

All bids and offers including domestic aluminum, glass or steel products that exceed bid or offer prices including foreign aluminum, glass or steel products after application of the preferences provided in this provision may be reduced to a price equal to or lower than the lowest bid or offer price for foreign aluminum, glass or steel products plus the applicable preference. If the reduced bid or offer prices are made in writing and supersede the prior bid or offer prices, all bids or offers, including the reduced bid or offer prices, will be reevaluated in accordance with this rule.

45. INTERESTED PARTY SUPPLEMENTAL DISCLOSURE: W. Va. Code § 6D-1-2 requires that for contracts with an actual or estimated value of at least \$100,000, the vendor must submit to the Agency a supplemental disclosure of interested parties reflecting any new or differing interested parties to the contract, which were not included in the original pre-award interested party disclosure, within 30 days following the completion or termination of the contract. A copy of that form is included with this solicitation or can be obtained from the WV Ethics Commission. "Interested parties" means: (1) A business entity performing work or service pursuant to, or in furtherance of, the applicable contract, including specifically sub-contractors; (2) the person(s) who have an ownership interest equal to or greater than 25% in the business entity performing work or service pursuant to, or in furtherance of, the applicable contract; and (3) the person or business entity, if any, that served as a compensated broker or intermediary to actively facilitate the applicable contract or negotiated the terms of the applicable contract with the state agency: Provided, That subdivision (2) shall be inapplicable if a business entity is a publicly traded company: Provided, however, That subdivision (3) shall not include persons or business entities performing legal services related to the negotiation or drafting of the applicable contract. The Agency shall submit a copy of the disclosure to the Ethics Commission within 15 days after receiving the supplemental disclosure of interested parties.

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.

Danielle Wilford, Sr. Rail Specialist
(Name, Title) Danielle Wilford, Sr. Rail Specialist

(Printed Name and Title)

24950 Country Club Blvd. Suite 450, North Olmsted, OH 44070

(Address)

440-716-4715 / 440-716-0550

(Phone Number) / (Fax Number)

danielle_wilford@cargill.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.

Cargill, Inc. - Deicing Technology Business

(Company)

Danielle Wilford, Sr. Rail Specialist
(Authorized Signature) (Representative Name, Title)

Danielle Wilford, Sr. Rail Specialist

(Printed Name and Title of Authorized Representative)

March 12, 2018

(Date)

440-716-4715 / 440-716-0550

(Phone Number) (Fax Number)

West Virginia Ethics Commission



Disclosure of Interested Parties to Contracts

Pursuant to *W. Va. Code* § 6D-1-2, a state agency may not enter into a contract, or a series of related contracts, that has/have an actual or estimated value of \$100,000 or more until the business entity submits to the contracting state agency a Disclosure of Interested Parties to the applicable contract. In addition, the business entity awarded a contract is obligated to submit a supplemental Disclosure of Interested Parties reflecting any new or differing interested parties to the contract within 30 days following the completion or termination of the applicable contract.

For purposes of complying with these requirements, the following definitions apply:

"Business entity" means any entity recognized by law through which business is conducted, including a sole proprietorship, partnership or corporation.

"Interested party" or "Interested parties" means:

- (1) A business entity performing work or service pursuant to, or in furtherance of, the applicable contract, including specifically sub-contractors;
- (2) the person(s) who have an ownership interest equal to or greater than 25% in the business entity performing work or service pursuant to, or in furtherance of, the applicable contract. (This subdivision does not apply to a publicly traded company); and
- (3) the person or business entity, if any, that served as a compensated broker or intermediary to actively facilitate the applicable contract or negotiated the terms of the applicable contract with the state agency. (This subdivision does not apply to persons or business entities performing legal services related to the negotiation or drafting of the applicable contract.)

"State agency" means a board, commission, office, department or other agency in the executive, judicial or legislative branch of state government, including publicly funded institutions of higher education: Provided, that for purposes of *W. Va. Code* § 6D-1-2, the West Virginia Investment Management Board shall not be deemed a state agency nor subject to the requirements of that provision.

The contracting business entity must complete this form and submit it to the contracting state agency prior to contract award and to complete another form within 30 days of contract completion or termination.

This form was created by the State of West Virginia Ethics Commission, 210 Brooks Street, Suite 300, Charleston, WV 25301-1804. Telephone: (304)558-0664; fax: (304)558-2169; e-mail: ethics@wv.gov; website: www.ethics.wv.gov.

West Virginia Ethics Commission
Disclosure of Interested Parties to Contracts

(Required by W. Va. Code § 6D-1-2)

Contracting Business Entity: Cargill, Inc. - Deicing Technology Business **Address:** 24950 Country Club Blvd
Suite 450

Authorized Agent: Danielle Wilford **Address:** North Olmsted, OH 44070

Contract Number: _____ **Contract Description:** Automated Brine Solution Production System Equipment

Governmental agency awarding contract: State of West Virginia

Check here if this is a Supplemental Disclosure

List the Names of Interested Parties to the contract which are known or reasonably anticipated by the contracting business entity for each category below (attach additional pages if necessary):

1. Subcontractors or other entities performing work or service under the Contract

Check here if none, otherwise list entity/individual names below.

2. Any person or entity who owns 25% or more of contracting entity (not applicable to publicly traded entities)

Check here if none, otherwise list entity/individual names below.

3. Any person or entity that facilitated, or negotiated the terms of, the applicable contract (excluding legal services related to the negotiation or drafting of the applicable contract)

Check here if none, otherwise list entity/individual names below.

Signature: 

Date Signed: March 12, 2018

Notary Verification

State of Ohio, County of Lorain

I, Danielle Wilford, the authorized agent of the contracting business entity listed above, being duly sworn, acknowledge that the Disclosure herein is being made under oath and under the penalty of perjury.

Taken, sworn to and subscribed before me this 12th day of March, 2018.


Notary Public's Signature HUBBELL

To be completed by State Agency:

Date Received by State Agency: _____

Date submitted to Ethics Commission: _____

Governmental agency submitting Disclosure: _____

Notary Public, State of Ohio
Commission Expires April 26, 2020
Recorded in Lorain County

STATE OF WEST VIRGINIA
Purchasing Division

PURCHASING AFFIDAVIT

CONSTRUCTION CONTRACTS: Under W. Va. Code § 5-22-1(i), the contracting public entity shall not award a construction contract to any bidder that is known to be in default on any monetary obligation owed to the state or a political subdivision of the state, including, but not limited to, obligations related to payroll taxes, property taxes, sales and use taxes, fire service fees, or other fines or fees.

ALL CONTRACTS: Under W. Va. Code §5A-3-10a, no contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and: (1) the debt owed is an amount greater than one thousand dollars in the aggregate; or (2) the debtor is in employer default.

EXCEPTION: The prohibition listed above does not apply where a vendor has contested any tax administered pursuant to chapter eleven of the W. Va. Code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

DEFINITIONS:

"Debt" means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

"Employer default" means having an outstanding balance or liability to the old fund or to the uninsured employers' fund or being in policy default, as defined in W. Va. Code § 23-2c-2, failure to maintain mandatory workers' compensation coverage, or failure to fully meet its obligations as a workers' compensation self-insured employer. An employer is not in employer default if it has entered into a repayment agreement with the Insurance Commissioner and remains in compliance with the obligations under the repayment agreement.

"Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceeds five percent of the total contract amount.

AFFIRMATION: By signing this form, the vendor's authorized signer affirms and acknowledges under penalty of law for false swearing (W. Va. Code §61-5-3) that: (1) for construction contracts, the vendor is not in default on any monetary obligation owed to the state or a political subdivision of the state, and (2) for all other contracts, that neither vendor nor any related party owe a debt as defined above and that neither vendor nor any related party are in employer default as defined above, unless the debt or employer default is permitted under the exception above.

WITNESS THE FOLLOWING SIGNATURE:

Vendor's Name: Cargill, Inc. - Deicing Technology Business

Authorized Signature: *Danielle Wilford* Date: March 12, 2018

State of Ohio

County of Lorain, to-wit:

Taken, subscribed, and sworn to before me this 12 day of March, 2018.

My Commission expires April 26, 2020.

AFFIX SEAL HERE

NOTARY PUBLIC

Yael Hubbell

DANIEL HUBRELL
Notary Public, State of Ohio
My Commission Expires April 26, 2020
Recorded in Lorain County

State of West Virginia

VENDOR PREFERENCE CERTIFICATE

Certification and application is hereby made for Preference in accordance with *West Virginia Code*, §5A-3-37. (Does not apply to construction contracts). *West Virginia Code*, §5A-3-37, provides an opportunity for qualifying vendors to request (at the time of bid) preference for their residency status. Such preference is an evaluation method only and will be applied only to the cost bid in accordance with the *West Virginia Code*. This certificate for application is to be used to request such preference. The Purchasing Division will make the determination of the Vendor Preference, if applicable.

1. **Application is made for 2.5% vendor preference for the reason checked:**
Bidder is an individual resident vendor and has resided continuously in West Virginia, or bidder is a partnership, association or corporation resident vendor and has maintained its headquarters or principal place of business continuously in West Virginia, for four (4) years immediately preceding the date of this certification; or,
 Bidder is a resident vendor partnership, association, or corporation with at least eighty percent of ownership interest of bidder held by another entity that meets the applicable four year residency requirement; or,
 Bidder is a nonresident vendor which has an affiliate or subsidiary which employs a minimum of one hundred state residents and which has maintained its headquarters or principal place of business within West Virginia continuously for the four (4) years immediately preceding the date of this certification; or,
2. **Application is made for 2.5% vendor preference for the reason checked:**
Bidder is a resident vendor who certifies that, during the life of the contract, on average at least 75% of the employees working on the project being bid are residents of West Virginia who have resided in the state continuously for the two years immediately preceding submission of this bid; or,
3. **Application is made for 2.5% vendor preference for the reason checked:**
Bidder is a nonresident vendor that employs a minimum of one hundred state residents, or a nonresident vendor which has an affiliate or subsidiary which maintains its headquarters or principal place of business within West Virginia and employs a minimum of one hundred state residents, and for purposes of producing or distributing the commodities or completing the project which is the subject of the bidder's bid and continuously over the entire term of the project, on average at least seventy-five percent of the bidder's employees or the bidder's affiliate's or subsidiary's employees are residents of West Virginia who have resided in the state continuously for the two immediately preceding years and the vendor's bid; or,
4. **Application is made for 5% vendor preference for the reason checked:**
Bidder meets either the requirement of both subdivisions (1) and (2) or subdivision (1) and (3) as stated above; or,
5. **Application is made for 3.5% vendor preference who is a veteran for the reason checked:**
Bidder is an individual resident vendor who is a veteran of the United States armed forces, the reserves or the National Guard and has resided in West Virginia continuously for the four years immediately preceding the date on which the bid is submitted; or,
6. **Application is made for 3.5% vendor preference who is a veteran for the reason checked:**
Bidder is a resident vendor who is a veteran of the United States armed forces, the reserves or the National Guard, if, for purposes of producing or distributing the commodities or completing the project which is the subject of the vendor's bid and continuously over the entire term of the project, on average at least seventy-five percent of the vendor's employees are residents of West Virginia who have resided in the state continuously for the two immediately preceding years.
7. **Application is made for preference as a non-resident small, women- and minority-owned business, in accordance with *West Virginia Code* §5A-3-59 and *West Virginia Code of State Rules*.**
Bidder has been or expects to be approved prior to contract award by the Purchasing Division as a certified small, women- and minority-owned business.

Bidder understands if the Secretary of Revenue determines that a Bidder receiving preference has failed to continue to meet the requirements for such preference, the Secretary may order the Director of Purchasing to: (a) rescind the contract or purchase order; or (b) assess a penalty against such Bidder in an amount not to exceed 5% of the bid amount and that such penalty will be paid to the contracting agency or deducted from any unpaid balance on the contract or purchase order.

By submission of this certificate, Bidder agrees to disclose any reasonably requested information to the Purchasing Division and authorizes the Department of Revenue to disclose to the Director of Purchasing appropriate information verifying that Bidder has paid the required business taxes, provided that such information does not contain the amounts of taxes paid nor any other information deemed by the Tax Commissioner to be confidential.

Bidder hereby certifies that this certificate is true and accurate in all respects; and that if a contract is issued to Bidder and if anything contained within this certificate changes during the term of the contract, Bidder will notify the Purchasing Division in writing immediately.

Bidder: N/A Signed: _____
Date: _____ Title: _____

*Check any combination of preference consideration(s) indicated above, which you are entitled to receive.

REQUEST FOR QUOTATION
CRFQ 0803 DOT1800000074
Automatic Brine Solution Production System Equipment

SPECIFICATIONS

1. **PURPOSE AND SCOPE:** The West Virginia Purchasing Division is soliciting bids on behalf of the West Virginia Division of Highways (WVDOH), to establish an open-end contract for various sizes of Automatic Brine Maker Production Systems Equipment. This equipment shall produce brine, automatically monitoring and controlling brine concentration during production, without the intervention of an operator.

2. **DEFINITIONS:** The terms listed below shall have the meanings assigned to them below. Additional definitions can be found in section 2 of the General Terms and Conditions.
 - 2.1 **“Contract Item” or “Contract Items”** means the list of items identified in Section 3 and 4 and on the Pricing Pages.
 - 2.2. **“Pricing Pages”** means the schedule of prices contained in wvOASIS and totals attached hereto as Exhibit A and used to evaluate the Solicitation responses.
 - 2.3 **“Solicitation”** means the official notice of an opportunity to supply the State with goods or services that is published by the Purchasing Division.
 - 2.4 **“WVDOH”** used throughout this Solicitation means the West Virginia Division of Highways.
 - 2.5 **“Automatic Brine Makers” or “Brine Makers” or “System(s)”** used throughout this Solicitation means Automatic Brine Maker Production System Equipment.
 - 2.6 **“Contractor” or “Vendor”** used throughout this Solicitation and in any cited sections of the West Virginia Department of Transportation, Division of Highways Standard Specifications, Roads and Bridges, adopted latest edition, as modified by all subsequent annual Supplemental Specifications, are interchangeable.

3. **GENERAL REQUIREMENTS:**
 - 3.1 **Contract Items and Mandatory Requirements:** Vendor shall provide Agency with the Contract Items listed below on an open-end and continuing basis. Contract Items must meet or exceed the mandatory requirements as shown below.

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- 3.2 Contract Items:** Listed below are the brine makers being pursued with this Solicitation:
- 3.2.1** An Automatic Brine Maker System with Remote Truck Fill Capabilities (Section 4.1)
 - 3.2.2** An Automatic Brine Maker System with Remote Truck Fill Capabilities including One Additive Blending Capability (Section 4.2)
 - 3.2.3** An Automatic Brine Maker System with Remote Truck Fill Capabilities including Two Additive Blending Capability (Section 4.3)
 - 3.2.4** A Portable/Mobile Automatic Brine Maker System with Remote Truck Fill Capabilities (Section 4.4)
- 3.3 Pre-Service for Contract Items 3.2.1, 3.2.2 and 3.2.3:** The WVDOH may or may not provide a heated room for placement of the automatic brine maker; however, whether the brine maker itself is in a heated room or not, the control system will be in a heated room. This will be determined by the WVDOH once the need arises to purchase an automatic brine maker. The location and size of the heated room will be provided to the vendor on the Delivery Order.
- Whether inside a heated room or not, the vendor shall deliver the automatic brine maker with all fittings, connections and hoses, in place, for immediate use of the unit. WVDOH will complete all external connections to the unit. The automatic brine maker shall be completely serviced and made ready for use upon delivery.
- The WVDOH will provide electrical and water service to the placement area of the automatic brine maker and shall perform all necessary connections and installations when the Vendor delivers the brine maker, on site.
- 3.4 Pre-Service for Contract Item 3.2.4:** There shall be no pre-service required for the Portable/Mobile Automatic Brine Maker System

4. EQUIPMENT REQUIREMENTS:

- 4.1 An Automatic Brine Maker System with Remote Truck Fill Capabilities, Item 3.2.1** shall make the salt act as a filter bed as the water moves down through to the sump area and filter screen. The System shall produce, at a minimum, 5,000 gallons of brine per hour (based on available water supply of 6,000 gallon/hour and storage tank configuration static discharge of 45 ft. head pressure). The System shall be capable of remotely filling trucks with brine. The System shall be able to record truck fill data, truck flow rates and individual user ID passwords identifying volume and blend ratios via RFID card reader system or alpha numeric keypad system.

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4.1.1 List of <u>Minimum</u> Requirements for the Salt Hopper:
The salt hopper shall have a minimum capacity of 4.5 cubic yards.
The salt hopper shall hold a minimum .75 cubic yards of sediment without interfering with the brine outlet.
The minimum inside dumping width shall be no less than 120 inches.
The salt hopper shall be constructed of 16,000-pound tensile strength fiberglass and isophthalic resin with all inside surfaces coated with a ceramic resin .050 inches thick.
The vessel shall have structural integral ribs allowing flex with the salt hopper from full to empty.
The salt hopper shall be capable of being cleaned via flush components of the unit and any disassembly of components for cleaning is not acceptable.
Whether full or empty, the salt hopper shall be able to be cleaned by a process of opening the sump outlet cap and water flush valves. If the salt hopper is empty, the inside floor panel should have the capability of being removed for cleaning by attached lifting straps or some other form of easily removing the inside floor panel.
There shall be a fresh water flushing system to force sediment to and out of the sump.
All valves, bulkhead fittings, etc. one-inch and larger shall be manifold type fittings.
There shall be a pressure transducer connected to the PLC to activate brine pump on and off and water flow into the salt tank. These levels shall be adjustable from the HMI Interface and be adjustable to within one-inch increments.
The transducer shall have an air capillary to the inside of the salt hopper.
The vessel shall have two-inch male cam-lock type fittings and on/off ball valves for hose connections (fresh water, brine return, brine outlet to pump).
There shall be reinforced forklift pockets for moving the salt tank.
304 stainless steel is required for all metallic items as it is the most corrosion resistant of the 300 series of stainless steel.

4.1.2 List of <u>Minimum</u> Requirements for the Control System:
Brine pumped from the salt tank shall be monitored for salt concentration by a sensor which shall monitor the brine for temperature and automatically compensate brine concentration accordingly. Any need for an operator to manually test the brine concentration is not acceptable.
All brine exiting the salt tank shall pass over the brine concentration sensor that monitors brine between 0.0 and 27.0 percent concentration by

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weight.
The system shall come complete with the ability to access the HMI (operator interface) via Internet. The system shall have the ability for the operator to view the brine maker's functions, remotely, via internet connection.
The system shall include a 256-color LCD touch screen display, minimum 7 ½ diagonal.
The information on the display screen shall include, but not be limited to: 1) actual brine production concentration in the form of percentage of sodium chloride concentration by weight. 2) gallons of fresh water used to make brine.
If the brine concentration is above the target, the brine shall be returned to the salt tank until the correct amount of water is automatically added and the brine reaches the desired concentration.
Once the brine is at the desired concentration (+or-3% of target concentration), the brine will be diverted to storage tanks.
If the concentration is below the minimum desired concentration, the system shall automatically divert the brine to the salt tank for a second pass through the salt bed to achieve the desired concentration.
The system shall be configured to accept a signal from a pressure transducer located in a storage tank to automatically stop brine production when the tank is full or when production batch is complete.
The system shall display the storage tank volume.
The system shall monitor total gallons of water used, salt used and brine produced daily and seasonally for record keeping.
Electric valves or pneumatic operated, industrial diaphragm valves shall include manual overrides for operation of the system in the event of an electrical component failure.
In the event of a component failure, the system shall automatically shut down and inform the operator of the specific failure along with a corrective measure. This includes how to manually override the problem and provide a part number.
The system shall be designed with a manual valve counterpart to the electric valve valves or pneumatic operated, industrial diaphragm valves to run parallel for a redundant manual control system.
Electric components mounted onto the control panel shall have UL rated conduit protecting connections and wiring outside of the enclosure.
Individual components over 10amps shall have circuit breakers so if the machine is not working, the operator may quickly assess by checking the breaker and if tripped, flip the breaker and be back in brine production. This will also provide more protection in the water environment. Components less than 10amps shall be fuse protected from inside of the

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control panel. Fuses shall illuminate when diagnostic LED detects fuse fault.
All wetted parts on the control panel except for the pump shall be manifold type glass filled polypropylene rated for 150 psi or schedule 80 PVC pipe and fittings rated for 270 psi.

4.1.3 List of <u>Minimum</u> Requirements for the Mechanical Components:
The pump shall be constructed of cast 304 stainless steel with a stainless-steel shaft and impeller. 304 stainless-steel is required as it is the most corrosion resistant of the 300 series of stainless-steel.
The electric pump motor shall be thermally protected 3 HP 220-volt single phase or a variable speed motor drill.
The pump shall be capable of delivery 5,000 gallons per hour of salt brine to storage tanks with a dynamic head of 45 feet.
All fittings and valves shall be manifold type glass filled polypropylene.
Wetted steel components shall be kept to a minimum; all steel components shall be constructed of 304 stainless steel. 304 stainless-steel is required as it is the most corrosion resistant of the 300 series of stainless steel.
All exposed electric components shall be rated at NEMA 12X.
All fasteners shall be constructed of stainless-steel.

- 4.2 An Automatic Brine Maker System with Remote Truck Fill Capabilities including One Additive Blending Capability, Item 3.2.2 shall make the salt act as a filter bed as the water moves down through to the sump area and filter screen. The System shall produce, at a minimum, 5,000 gallons of brine per hour (based on available water supply of 6,000 gallon/hour and storage tank configuration static discharge of 45 ft. head pressure). The system shall be capable of remotely filling trucks with brine. The system shall be able to record truck fill data, truck flow rates and individual user ID passwords identifying volume and blend ratios via RFID card reader system or alpha numeric keypad system.**

4.2.1 List of <u>Minimum</u> Requirements for the Salt Hopper:
The salt hopper shall have a minimum capacity of 4.5 cubic yards.
The salt hopper shall hold a minimum .75 cubic yards of sediment without interfering with the brine outlet.
The minimum inside dumping width shall be no less than 120 inches.
The salt hopper shall be constructed of 16,000-pound tensile strength fiberglass and isophthalic resin with all inside surfaces coated with a ceramic resin .050 inches thick.

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The vessel shall have structural integral ribs allowing flex with the salt hopper from full to empty.
The salt hopper shall be capable of being cleaned via flush components of the unit and any disassembly of components for cleaning is not acceptable.
Whether full or empty, the salt hopper shall be able to be cleaned by a process of opening the sump outlet cap and water flush valves. If the salt hopper is empty, the inside floor panel should have the capability of being removed for cleaning by attached lifting straps or some other form of easily removing the inside floor panel.
There shall be a fresh water flushing system to force sediment to and out of the sump.
All valves, bulkhead fittings, etc. one-inch and larger shall be manifold type fittings.
There shall be a pressure transducer connected to the PLC to activate brine pump on and off and water flow into the salt tank. These levels shall be adjustable from the HMI Interface and be adjustable to within one-inch increments.
The transducer shall have an air capillary to the inside of the salt hopper.
The vessel shall have two-inch male cam-lock type fittings and on/off ball valves for hose connections (fresh water, brine return, brine outlet to pump).
There shall be reinforced forklift pockets for moving the salt tank.
304 stainless-steel is required for all metallic items as it is the most corrosion resistant of the 300 series of stainless-steel.

4.2.2 List of <u>Minimum</u> Requirements for the Control System:
Brine pumped from the salt tank shall be monitored for salt concentration by a sensor which shall monitor the brine for temperature and automatically compensate brine concentration accordingly. Any need for an operator to manually test the brine concentration is not acceptable.
All brine exiting the salt tank shall pass over the brine concentration sensor that monitors brine between 0.0 and 27.0 percent concentration by weight.
The system shall come complete with the ability to access the HMI (operator interface) via Internet. The system shall have the ability for the operator to view the brine maker's functions, remotely, via internet connection.
The system shall include a 256-color LCD touch screen display, minimum 7 ½ diagonal.
The information on the display screen shall include, but not be limited to: 1) actual brine production concentration in the form of percentage

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of sodium chloride concentration by weight.
2) gallons of fresh water used to make brine.
If the brine concentration is above the target, the brine shall be returned to the salt tank until the correct amount of water is automatically added and the brine reaches the desired concentration.
Once the brine is at the desired concentration (+or-3% of target concentration), the brine will be diverted to storage tanks.
If the concentration is below the minimum desired concentration, the system shall automatically divert the brine to the salt tank for a second pass through the salt bed to achieve the desired concentration.
The system shall be configured to accept a signal from a pressure transducer located in a storage tank to automatically stop brine production when the tank is full or when production batch is complete.
The system shall display the storage tank volume.
The system shall monitor total gallons of water used, salt used and brine produced daily and seasonally for record keeping.
Electric valves or pneumatic operated, industrial diaphragm valves shall include manual overrides for operation of the system in the event of an electrical component failure.
In the event of a component failure, the system shall automatically shut down and inform the operator of the specific failure along with a corrective measure. This includes how to manually override the problem and provide a part number.
The system shall be designed with a manual valve counterpart to the electric valve valves or pneumatic operated, industrial diaphragm valves to run parallel for a redundant manual control system.
Electric components mounted onto the control panel shall have UL rated conduit protecting connections and wiring outside of the enclosure.
Individual components over 10amps shall have circuit breakers so if the machine is not working, the operator may quickly assess by checking the breaker and if tripped, flip the breaker and be back in brine production. This will also provide more protection in the water environment. Components less than 10amps shall be fuse protected from inside of the control panel. Fuses shall illuminate when diagnostic LED detects fuse fault.
All wetted parts on the control panel except for the pump shall be manifold type glass filled polypropylene rated for 150 psi or schedule 80 PVC pipe and fittings rated for 270 psi.

4.2.3 List of <u>Minimum</u> Requirements for the Mechanical Components:
The pump shall be constructed of cast 304 stainless-steel with a stainless-

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steel shaft and impeller. 304 stainless-steel is required as it is the most corrosion resistant of the 300 series of stainless-steel.
The electric pump motor shall be thermally protected 3 HP 220-volt single phase or a variable speed motor drill.
The pump shall be capable of delivery 5,000 gallons per hour of salt brine to storage tanks with a dynamic head of 45 feet.
All fittings and valves shall be manifold type glass filled polypropylene.
Wetted steel components shall be kept to a minimum; all steel components shall be constructed of 304 stainless-steel. 304 stainless-steel is required as it is the most corrosion resistant of the 300 series of stainless-steel.
All exposed electric components shall be rated at NEMA 12X.
All fasteners shall be constructed of stainless-steel.

4.2.4 List of <u>Minimum</u> Requirements for the Single Additive Injection System:
The control system shall be capable of automatically injecting a pre-determined ratio of brine and a single additive into the finished product tank (0 to 100%). Additives shall be mixed as the trucks are being loaded.
There shall be an additive storage tank volume sensor to determine if enough additive is available to produce desired volume ratio batch.
There shall be a blended product storage tank volume sensor to determine if enough volume is available to produce desired batch/ratio of blended product.
Tank volume sensors shall be solid state.
There shall be actuated valves to divert brine or additive into the processing pump, with manual override valves mounted onto an expandable modular panel.
Processing shall be graphically displayed on to HMI (operator display).
Process shall be fully automated with self-diagnostics.
The sub-panel shall come equipped with one additional modular plumbing module for recirculation of additive storage tank.
Modules shall include electric ball valve, manual override valve and electric circuitry.
Modules shall be mounted onto the stainless steel modular panel.
Electric valves shall be controlled via the automation process where the operator may select a desired "on" and "off" time for desired recirculation intervals.
The control system shall be capable of automatically injecting a predetermined ratio of a micro ingredient into the finished product tank or truck fill, if equipped.

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The system shall include a diaphragm pump and automation controls to inject a predetermined ratio of micro ingredient between a ratio of 1:1,000 and 1:10,000 units. Set up shall be configured via the operator display.

4.3 An Automatic Brine Maker System with Remote Truck Fill Capabilities including Two Additive Blending Capability, Item 3.2.3 shall make the salt act as a filter bed as the water moves down through to the sump area and filter screen. The System shall produce, at a minimum, 5,000 gallons of brine per hour (based on available water supply of 6,000 gallon/hour and storage tank configuration static discharge of 45 ft. head pressure). The System shall be able to record truck fill data, truck flow rates and individual user ID passwords identifying volume and blend ratios via RFID card reader system or alpha numeric keypad system.

4.3.1 List of <u>Minimum</u> Requirements for the Salt Hopper:
The salt hopper shall have a minimum capacity of 4.5 cubic yards.
The salt hopper shall hold a minimum .75 cubic yards of sediment without interfering with the brine outlet.
The minimum inside dumping width shall be no less than 120 inches.
The salt hopper shall be constructed of 16,000-pound tensile strength fiberglass and isophthalic resin with all inside surfaces coated with a ceramic resin .050 inches thick.
The vessel shall have structural integral ribs allowing flex with the salt hopper from full to empty.
The salt hopper shall be capable of being cleaned via flush components of the unit and any disassembly of components for cleaning is not acceptable.
Whether full or empty, the salt hopper shall be able to be cleaned by a process of opening the sump outlet cap and water flush valves. If the salt hopper is empty, the inside floor panel should have the capability of being removed for cleaning by attached lifting straps or some other form of easily removing the inside floor panel.
There shall be a fresh water flushing system to force sediment to and out of the sump.
All valves, bulkhead fittings, etc. one-inch and larger shall be manifold type fittings.
There shall be a pressure transducer connected to the PLC to activate brine pump on and off and water flow into the salt tank. These levels shall be adjustable from the HMI Interface and be adjustable to within one-inch increments.
The transducer shall have an air capillary to the inside of the salt hopper.
The vessel shall have two-inch male cam-lock type fittings and on/off

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ball valves for hose connections (fresh water, brine return, brine outlet to pump).
There shall be reinforced forklift pockets for moving the salt tank.
304 stainless steel is required for all metallic items as it is the most corrosion resistant of the 300 series of stainless steel.

4.3.2 List of <u>Minimum</u> Requirements for the Control System:
Brine pumped from the salt tank shall be monitored for salt concentration by a sensor which shall monitor the brine for temperature and automatically compensate brine concentration accordingly. Any need for an operator to manually test the brine concentration is not acceptable.
All brine exiting the salt tank shall pass over the brine concentration sensor that monitors brine between 0.0 and 27.0 percent concentration by weight.
The system shall come complete with the ability to access the HMI (operator interface) via Internet. The system shall have the ability for the operator to view the brine maker's functions, remotely, via internet connection.
The system shall include a 256-color LCD touch screen display, minimum 7 ½ diagonal.
The information on the display screen shall include, but not be limited to: 1) actual brine production concentration in the form of percentage of sodium chloride concentration by weight. 2) gallons of fresh water used to make brine.
If the brine concentration is above the target, the brine shall be returned to the salt tank until the correct amount of water is automatically added and the brine reaches the desired concentration.
Once the brine is at the desired concentration (+or-3% of target concentration), the brine will be diverted to storage tanks.
If the concentration is below the minimum desired concentration, the system shall automatically divert the brine to the salt tank for a second pass through the salt bed to achieve the desired concentration.
The system shall be configured to accept a signal from a pressure transducer located in a storage tank to automatically stop brine production when the tank is full or when production batch is complete.
The system shall display the storage tank volume.
The system shall monitor total gallons of water used, salt used and brine produced daily and seasonally for record keeping.
Electric valves or pneumatic operated, industrial diaphragm valves shall include manual overrides for operation of the system in the event of an electrical component failure.
In the event of a component failure, the system shall automatically shut

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down and inform the operator of the specific failure along with a corrective measure. This includes how to manually override the problem and provide a part number.
The system shall be designed with a manual valve counterpart to the electric valve valves or pneumatic operated, industrial diaphragm valves to run parallel for a redundant manual control system.
Electric components mounted onto the control panel shall have UL rated conduit protecting connections and wiring outside of the enclosure.
Individual components over 10amps shall have circuit breakers so if the machine is not working, the operator may quickly assess by checking the breaker and if tripped, flip the breaker and be back in brine production. This will also provide more protection in the water environment. Components less than 10amps shall be fuse protected from inside of the control panel. Fuses shall illuminate when diagnostic LED detects fuse fault.
All wetted parts on the control panel except for the pump shall be manifold type glass filled polypropylene rated for 150 psi or schedule 80 PVC pipe and fittings rated for 270 psi.

4.3.3 List of <u>Minimum</u> Requirements for the Mechanical Components:
The pump shall be constructed of cast 304 stainless-steel with a stainless-steel shaft and impeller. 304 stainless-steel is required as it is the most corrosion resistant of the 300 series of stainless-steel.
The electric pump motor shall be thermally protected 3 HP 220-volt single phase or a variable speed motor drill.
The pump shall be capable of delivery 5,000 gallons per hour of salt brine to storage tanks with a dynamic head of 45 feet.
All fittings and valves shall be manifold type glass filled polypropylene.
Wetted steel components shall be kept to a minimum; all steel components shall be constructed of 304 stainless-steel. 304 stainless-steel is required as it is the most corrosion resistant of the 300 series of stainless-steel.
All exposed electric components shall be rated at NEMA 12X.
All fasteners shall be constructed of stainless steel.

4.3.4 List of <u>Minimum</u> Requirements for the Two Additives Injection System:
The control system shall be capable of automatically injecting a pre-determined ratio of brine and two additives into the finished product tank (0 to 100%). Additives shall be mixed as the trucks are being loaded.
There shall be two additive storage tank volume sensors to determine if

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enough volume of each additive is available to produce desired volume ratio batch.
There shall be a blended product storage tank volume sensor to determine if enough volume is available to produce desired batch/ratio of blended product.
Tank volume sensors shall be solid state.
There shall be actuated valves to divert brine or additives into the processing pump, with manual override valves mounted onto an expandable modular panel.
Processing shall be graphically displayed on to HMI (operator display).
Process shall be fully automated with self-diagnostics.
The sub-panel shall come equipped with two additional modular plumbing modules for recirculation of two additive storage tanks.
Modules shall include electric ball valve, manual override valve and electric circuitry.
Modules shall be mounted onto the stainless steel modular panel.
Electric valves shall be controlled via the automation process where the operator may select a desired "on" and "off" time for desired recirculation intervals.
The control system shall be capable of automatically injecting a predetermined ratio of a micro ingredient into the finished product tank or truck fill, if equipped.
The system shall include a diaphragm pump and automation controls to inject a predetermined ratio of micro ingredient between a ratio of 1:1,000 and 1:10,000 units. Set up shall be configured via the operator display.

- 4.4 A Portable/Mobile Automatic Brine Maker System with Tank to Truck Fill Capabilities, Item 3.2.4 shall make the salt act as a filter bed as the water moves down through to the sump area and filter screen. The System shall produce, at a maximum 9,600 gallons of brine per hour (based on available water supply of 6,000 gallon/hour). The System shall be capable of remotely filling trucks with brine. The System shall be able to record truck fill data, truck flow rates and individual user ID passwords identifying volume and blend ratios via remote access control or a removable memory device.**

4.4.1 List of <u>Minimum</u> Requirements for the Brine Maker:
It shall be constructed of 304 stainless-steel.
It shall be automated and continuous self-cleaning by an electric 120 volts alternating current internal auger.
The hopper capacity shall be at a minimum five cubic yards of salt.
The brine production capacity shall be 6,000 gallons per hour.

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The flow design shall be mid-to-downward flow.

The salt damper shall be adjustable.

4.4.2 List of Minimum Requirements for the Pumping System:

The pump shall be long coupled, pedestal type in case stainless-steel.

The pump flow control shall be proportional, integral and differential variable frequency drive.

The meters shall be solid state magnetic flow meters.

The user interface shall have a color touch 10", minimum, color touch screen.

The system shall have a data logging capability to log each brine production event with, at a minimum, the date, time quantity and average solution concentration.

The pump must be variable speed driven with a totally enclosed, fan-cooled electric motor and control system capable of 20:1 turn-down ratio.

4.4.3 List of Minimum Requirements for the Valves:

All valves that are 2" or smaller shall be pneumatic diaphragm type.

All valves that are 3" and larger shall be butterfly type with fail safe to close.

4.4.4 List of Minimum Requirements for the Salinity Control:

Measurement range shall be .0. to 26.4% concentration by weight.

Dilution shall be proportional, integral and differential loop control from zero, being closed to 16,000 increments, being fully opened.

Factory certified sensor calibration.

Automatic low-level and/or high-level salt and/or water warning and shut off.

Full-storage tank level sensing.

4.4.5 List of Minimum Requirements for the Mobile Trailer System:

The Brine Production System shall be mounted on a portable platform/trailer.

The trailer shall be 26 feet in length and shall provide 12 foot of deck space for the Brine Production System mounting.

The trailer shall have 64 square feet to house an optional generator and/or compressor.

The trailer shall be equipped with two 6,000-pound drop axles with brakes installed on each axle.

There shall be one 32" door and one 36" door.

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There shall be four 5,000 drop-leg-jacks to support the trailer when stationary and in brine production mode.
There shall be one 110-volt combination air conditioner/heater.
There shall be two 110-volt florescent lights and one 12-volt florescent lamp installed in the enclosed portion of the trailer.
There shall be one window installed in the side wall of the enclosed portion of the trailer.
The interior of the trailer shall be finished with white fiberglass reinforced plastic paneling and industrial type rubber flooring.
The trailer shall have exterior light-emitting diodes lamps and all electrical connections shall be soldered.
The trailer shall have 15" radial tires and wheels.

4.4.6 List of <u>Minimum</u> Requirements for the Brine Production Equipment:
All equipment shall be installed onto the portable trailer and fully functional upon delivery.
Vibration isolators shall be installed between the pump frame and the trailer floor.
Expansion joints shall be installed between the stationary pump-skid and the polyvinyl chloride piping and pneumatic valves.
Plumbing, compressed air and electrical connections shall be located on a stainless-steel bulkhead mounted on the driver side of the trailer and shall include the following: A. One 110-volt AC 20-amp plug (example: Hubbell model HBL2315SW or equal) B. One three-phase 30-amp plug (example: Hubbell model HBL2725SW or equal) C. One water supply valve and 2" cam lock male connector constructed of stainless-steel. D. One brine-out valve and 2" cam lock male connector constructed of stainless-steel. E. One 3/8" compressed air supply line connector

5. CONTRACT AWARD:

- 5.1 Contract Award:** The Contract is intended to provide Agencies with a purchase price for all items/sizes/types of Brine Makers. A contract will be awarded to the Vendor(s) that provides the Contract Items meeting the required specifications for the lowest cost per each size/type of Brine Maker as shown on the Pricing Pages.

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- 5.2 Pricing Pages:** Vendors may bid any or all items/sizes/types on the Pricing Page. Price shall be FOB to any WVDOH location in the State of WV. The WVDOH location will be identified on a Delivery Order at the time of need.

The Pricing Page contains a list of the automatic brine makers as described in Sections 3 and Section 4. The quantities listed on the Pricing Page are estimated and not a guarantee of actual quantities to be ordered.

If responding online, Vendor should electronically enter the information into the Pricing Pages through wvOASIS, if available, or as an electronic document. If responding on paper, the Vendor should enter the Unit Price on the Exhibit_A Pricing Page. The Pricing Page has been provided in Excel and formatted to automatically calculate the Total Price for each line item when the Unit Price is entered. However, it is the vendors responsibility to ensure the calculations for their bid is correct before submitting. In the event of an error, the Unit Price shall prevail.

- 5.3 Equipment Information:** Vendors should submit some form of equipment documentation describing, in detail, the style/model of the proposed automatic brine maker(s) with their bid. This is for informational purposes. Vendor shall be available to provide additional information on the proposed equipment upon request.

6. ORDERING AND PAYMENT:

- 6.1 Ordering:** Vendor shall accept orders through wvOASIS, regular mail, facsimile, e-mail, or any other written forms of communication. Vendor may, but is not required to, accept on-line orders through a secure internet ordering portal/website. If Vendor can accept on-line orders, it should include in its response a brief description of how Agencies may utilize the on-line ordering system. Vendor shall ensure that its on-line ordering system is properly secured prior to processing Agency orders on-line.
- 6.2 Payment:** Vendor shall accept payment in accordance with the payment procedures of the State of West Virginia. The State of West Virginia currently utilizes a Purchasing Card program, administered under contract by a banking institution, to process payment for goods and services. The Vendor must accept the State of West Virginia's Purchasing Card for payment of all orders under this Contract.

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7. DELIVERY AND RETURN:

- 7.1 Delivery Time:** Vendor shall deliver the automatic brine maker to the specific WVDOH District site, identified on the Delivery Order, within sixty (60) calendar days of the date of the Delivery Order or an alternative delivery date that has been established between the WVDOH and the vendor. This date shall be noted on the Delivery Order. Vendor shall deliver emergency orders within an established acceptable time frame after the Delivery Order has been issued. Vendor shall ship all orders in accordance with the agreed schedule and shall not hold orders until a minimum delivery quantity is met. If the vendor is unable to furnish material in accordance with the agreed delivery schedule, the WVDOH District Engineer/Manager shall be advised in writing within five (5) working days of the reason for failure to conform to the delivery requirements.

The WVDOH shall provide a loader with forks, or forklift and operator to unload the brine maker at the time of delivery.

- 7.2 Late Delivery:** The Agency placing the order under this Contract must be notified in writing within five (5) days if orders will be delayed for any reason. Any delay in delivery that could cause harm to an Agency will be grounds for cancellation of the delayed order, and/or obtaining the items ordered from a third party.

Any Agency seeking to obtain items from a third party under this provision must first obtain approval of the Purchasing Division.

- 7.3 Delivery Payment/Risk of Loss:** Standard order delivery shall be F.O.B. destination to the Agency's location. Vendor shall include the cost of standard order delivery charges in its bid pricing/discount and is not permitted to charge the Agency separately for such delivery. The Agency will pay delivery charges on all emergency orders if Vendor invoices those delivery costs as a separate charge with the original freight bill attached to the invoice.
- 7.4 Return of Unacceptable Items:** If the Agency deems the Contract Items to be unacceptable, the Contract Items shall be returned to Vendor at Vendor's expense and with no restocking charge. Vendor shall either make arrangements for the return within five days of being notified that items are unacceptable, or permit the Agency to arrange for the return and reimburse Agency for delivery expenses. If the original packaging cannot be utilized for the return, Vendor will supply the Agency with appropriate return packaging upon request. All returns of unacceptable items shall be F.O.B. the Agency's location. The returned product shall either be replaced, or the Agency shall receive a full credit or refund for the

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Automatic Brine Solution Production System Equipment

- purchase price, at the Agency's discretion.
- 7.5 Return Due to Agency Error:** Items ordered in error by the Agency will be returned for credit within thirty days of receipt, F.O.B. Vendor's location. Vendor shall not charge a restocking fee if returned products are in a resalable condition. Items shall be deemed to be in a resalable condition if they are unused and in the original packaging. Any restocking fee for items not in a resalable condition shall be the lower of the Vendor's customary restocking fee or 5% of the total invoiced value of the returned items.
- 8. WARRANTY:** The awarded Vendor(s) shall provide a copy of the manufacturer's standard warranty and service policy to the WVDOH upon delivery of the automatic brine maker. A standard warranty of less than one year is not acceptable.
- 9. SERVICE MANUALS, PARTS LISTS AND TRAINING:** Two copies of the parts list, service and maintenance manuals and operator's manual shall be furnished to the WVDOH with the automatic brine maker at the time of delivery. Upon installation, the Vendor shall provide on-site training on the operation of each automatic brine maker when purchased at no additional cost.
- 10. VENDOR DEFAULT:**
- 10.1** The following shall be considered a vendor default under this Contract.
- 10.1.1** Failure to provide Contract Items in accordance with the requirements contained herein.
- 10.1.2** Failure to comply with other specifications and requirements contained herein.
- 10.1.3** Failure to comply with any laws, rules, and ordinances applicable to the Contract Services provided under this Contract.
- 10.1.4** Failure to remedy deficient performance upon request.
- 10.2** The following remedies shall be available to Agency upon default.
- 10.2.1** Immediate cancellation of the Contract.
- 10.2.2** Immediate cancellation of one or more release orders issued under this Contract.

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10.2.3 Any other remedies available in law or equity.

11. MISCELLANEOUS:

- 11.1 No Substitutions:** Vendor shall supply only Contract Items submitted in response to the Solicitation unless a contract modification is approved in accordance with the provisions contained in this Contract.
- 11.2 Vendor Supply:** Vendor must carry sufficient inventory of the Contract Items being offered to fulfill its obligations under this Contract. By signing its bid, Vendor certifies that it can supply the Contract Items contained in its bid response.
- 11.3 Reports:** Vendor shall provide quarterly reports and annual summaries to the Agency showing the Agency's items purchased, quantities of items purchased and total dollar value of the items purchased. Vendor shall also provide reports, upon request, showing the items purchased during the term of this Contract, the quantity purchased for each of those items and the total value of purchases for each of those items. Failure to supply such reports may be grounds for cancellation of this Contract.
- 11.4 Contract Manager:** During its performance of this Contract, Vendor must designate and maintain a primary contract manager responsible for overseeing Vendor's responsibilities under this Contract. The Contract manager must be available during normal business hours to address any customer service or other issues related to this Contract. Vendor should list its Contract manager and his or her contact information below.

Contract Manager: Danielle Wilford
Telephone Numbers: 440-716-4715
Fax Number: 440-716-0550
Email Address: danielle_wilford@cargill.com

 **ACCUBRINE[®]**
 automated brine maker
 NXT-Gen



 **ACCUBRINE[®]**
 automated brine maker
 NXT-Gen



**KEEP ROADS SAFER BY STAYING
 AHEAD OF THE STORM.**



Cargill Deicing Technology
 24950 Country Club Blvd, Suite 450
 North Olmsted, OH 44070
 phone: 866-900-SALT (7258)

www.cargilldeicing.com

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AB66-1001 6/16/17



Providing customers with deicing solutions that save lives, enhance commerce and reduce environmental impact.

THE NEXT GENERATION OF BRINE MAKERS IS HERE.

Brine, whether used to wet salt or as an anti-icer, is a highly effective and surprisingly economical solution for combating snow and ice issues on roadways. Now, Cargill Deicing Technology introduces the next generation of brine production that is more efficient and cost-effective than ever before with the AccuBrine® automated brine maker NXT-Gen. All the benefits of brine use — with none of the typical production and supply headaches.

- **Consistently** achieve ideal brine concentration
- **Modular add-on system** allows operator to create “customized blends” using brine and liquid additives

A CAPITAL INVESTMENT WITH A PAYBACK.

The best investments are those that pay for themselves. The AccuBrine® automated brine maker NXT-Gen does exactly that. Municipalities and DOTs have found that costs are quickly recouped through reduced operational costs. What's more, the AccuBrine® automated brine maker NXT-Gen is built to endure. Its low maintenance fiberglass construction is both reliable and durable.

AccuBrine® automated brine maker NXT-Gen features:

- **Programmable Logic Controller:** The PLC initiates the production process while a patented sensing system monitors salinity levels.
- **Accurate Data Tracking:** The PLC tracks daily and seasonal data including production volume, water, salt and additives usage, and operator hours.
- **Modular system:** Add Truck filling options and additive blending system easily and economically.



 **ACCUBRINE®**
automated brine maker
NXT-Gen

NJPA AWARDED CONTRACT

System Includes:

- Improved brine production efficiency:
 - Addition of proportional control valve
 - More accurate concentration sensor that is easier to calibrate
- Salt tank
- Control panel
- Improved HMI design and layout with intuitive navigation
- Plug and play connections for control components
- 1 Level Sensor: Measures volume in brine storage tank
- All new Remote Access:
 - Allows customer to remotely monitor and operate via Apple® or Android™ mobile device or desktop
 - Enables remote troubleshooting technical support for quicker uptime
- Air Purge: Automatically purges fresh water supply lines to salt mixing tank to avoid freezing
- Roll Tarp: Prevents debris from contaminating the salt tank.
- Available in single or three phase motor options
- **Pump Upgrade** - Includes more powerful pump than prior versions:
 - 200 GPM - 6,000 GPH
 - Stainless steel cast
 - Stainless impeller
- Compact Physical Footprint:
 - Salt tank: 65.5”H x 125.5”W x 62.25”D
 - Control panel: L=53” W= 21” H= 75”

SIMPLE IMPROVEMENTS FOR GREATER BENEFITS.

By making some exciting new upgrades from the original AccuBrine® automated brine maker model, users can expect a more user-friendly system with improved accuracy and efficiency. These features include:

- Redesigned operator interface screen layout and new PLC program provides a cleaner screen navigation that is easier to use
- Updated electrical components to replace outdated/obsolete electrical hardware and software with state of the art components
- Remote access that improves service and troubleshooting capabilities while reducing amount of time consuming on-site service calls
- Dilute valve replacement with proportional control valve for enhanced brine making efficiency
- Conductivity controller and sensor for improved accuracy and ease of calibration
- Improved tank level management logic for better truck loading accuracy



A SYSTEM THAT EXPANDS TO MEET YOUR NEEDS.

 **ACCUBRINE® blend**
truck loading & blending system

As you continue to grow your anti-icing program, your AccuBrine® automated brine maker NXT-Gen can easily expand to accommodate your needs. With the AccuBrine® blend truck loading & blending system, you can create custom liquid blends of your choosing at the touch of a button.

The AccuBrine® blend truck loading & blending system is a modular system that, when added to your brine maker, enables you to produce any custom blend by mixing your brine with various other liquid additives to enhance performance and lower the effective melting temperature.

Using an in-line volume ratio blending method to fill your truck with customized brine blends accurately and quickly, the AccuBrine® blend truck loading & blending system's modular design gives you the option to add additives to blend with brine. The system also gives you the option to add tanker truck offload capabilities easily and economically. Finally, it eliminates the need to store blended product in storage tanks as a custom blend can be made in real time as it is being sent directly to a liquid application truck. Configured to meet your specific needs, the AccuBrine® blend truck loading & blending system is the best way to achieve the custom blends you desire efficiently and effectively.

Features include:

- Allow customer to load trucks while making brine at the same time
- Password protected accessibility
- Allows customer to remotely monitor and operate via Apple® or Android™ mobile device or desktop
- Enables remote troubleshooting technical support for quicker uptime
- Available in single or three phase motor options
- Truck fill system includes powerful, high-volume centrifugal pump
 - 300 GPM with three settings to allow you to safely fill different tank capacities
 - Stainless steel cast housing with stainless impeller
- Remote operated truck fill station
- HMI read out with touchpad, no key fobs needed
- Unlimited users and various product recipes
- System tracks usage totals that can be downloaded to an SD card for measuring purposes
- Each additive module:
 - Can be initially purchased as part of the system or added on later
 - Allows one additive to be mixed with brine in unlimited concentrations
 - Permits customer to set tank recirculation times and frequency
- Modular tanker truck offload option
- System can be used to offload additive or liquid application tanker trucks back into storage tanks
- Improved HMI design and layout with intuitive navigation
- Storage tank high and low level alarms




A Cargill Deicing Technology Product

Providing customers with deicing solutions that save lives, enhance commerce and reduce environmental impact.

NXTGEN Accubriner® blend truck loading system

Site Preparation/Installation Checklist

Thank you for the purchase of your AccuBrine® automated brine maker NXT-Gen. Carefully read through the following list of requirements and indicate if each requirement is complete and/or available to ensure that the installation of your new equipment is as efficient as possible. Cargill Deicing Technology (CDT) or your dealer representative will schedule your installation when all requirements are complete. Please call the AccuBrine® Support number at 1-866-900-7258, or your dealer representative with any questions.

Cargill is unable to maintain knowledge of all electrical and plumbing code requirements for every customer location. Maintaining code requirements are the customer's responsibility. Please notify Cargill if you have any requirements that may affect the installation at least two weeks prior to the installation.

Pre-installation Inspection and Storage

To prevent warranty nullification the AccuBrine® components must be damage free at the time of installation. It is the responsibility of the customer to:

1. Inspect the AccuBrine® components for damage. If damage has occurred contact your AccuBrine® representative immediately or call 866-900-7258.
2. To prevent damage to the Control Panel, the unit should be stored in a clean, dry environment above freezing temperatures. Failure to do so will nullify the warranty. If you have any questions regarding storage of machine until it is installed and commissioned, please contact Cargill at 866-900-7258.

Customers are responsible for making sure the following infrastructure items are in place prior to scheduling the installation. Failure to do so may result in the rescheduling of the AccuBrine® installation and additional installation fees.

Machine Components

The NXTGEN AccuBrine® Blend Truck Loading System consists of three main components:

1. Truck loading and blending system – this is the skid consisting of electrical power and control panels as well as an independent pump and the necessary instrumentation and valves required for the truck loading and additive blending process
2. Remote Truck Loading HMI - truck operators use this remote mounted HMI enclosure to load brine and/or brine mixes into their liquid application trucks.
3. Brine and Additive Storage tanks – the truck loading and blending system are plumbed to brine and additive storage tank. Additive storage tanks are only required if the customer purchased an additive blending option. The customer is responsible for supplying the required storage tanks. See below for configuration recommendations.
 - a. Note: Cargill can also supply storage tanks – please discuss your needs with your AccuBrine® brine maker sales representative.

Customer is responsible for receiving, unloading and setting all components of the AccuBrine[®] brine maker NXT-Gen system in place. This includes the Salt Tank, the NXT-Gen brinemaker skid, Truck Loading/Blending skid and all storage tanks. Please see the below details to determine best placement of the brine maker components.

Machine Component Location and Placement

- Assure that placement of both skids meets local building code requirements.
- **Both skids should be located indoors in a dry environment and kept above freezing.**

AccuBrine[®] blend truck loading & blending skid

- Dimensions: 36" wide x 98" long x 52" high
- Allow at least 36" clearance around both skids to facilitate installation, hose runs and periodic maintenance, unless local codes require more.
- Recommend location as close to the truck loadout station as possible
- Can be located up to 300 feet from the NXT-Gen brine maker system.
 - **NOTE:** Please notify your Cargill Accubrine Technical Support Team or Sales Representative if distance is more than 50 ft.
- Electrical service should be no more than five horizontal feet from the loading and blending skid.



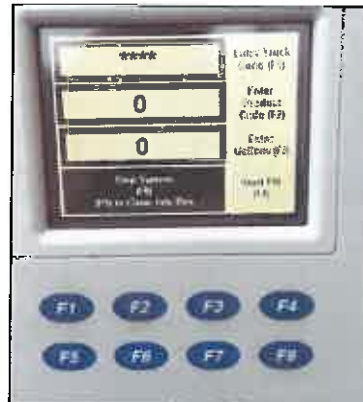
AccuBrine[®] blend truck loading & blending skid

Remote Truck Loading Station

- The remote truck loading station is made up of the Remote HMI enclosure and a manual shutoff valve.
 - Remote HMI
 - Remote mounted, touch screen HMI that truck operators use to load product into liquid application trucks.
 - Typically mounted outdoors, close to the truck loadout shutoff valve, easily accessible for operators.
 - Locate within 50 feet of the Truck Loading/Blending skid if at all possible
 - **Note:** Please notify your Cargill Accubrine Technical Support Team or Sales Representative if distance is more than 50 ft



Remote Truck Fill HMI



Closeup of Truck Fill HMI Screen

- **Truck Filling Station**
 - Consists of a manually actuated ball valve, which is supplied by the Truck Loading/Blending skid and connected via customer supplied hose to liquid application trucks.
 - Typically the manual valve is located outdoors near the Remote HMI and Truck Loading/Blending skid.
 - Locate the truck filling station in an area that works well with your traffic pattern.
 - How does traffic flow through your facility?
 - Will the filling area create congestion?
 - Easy truck access and egress.



Truck Filling Station setup(hose connecting to tanker truck not shown)

- Cargill personnel will mount the Truck Loadout Station. Customer is responsible for selecting location of components. Cargill personnel can assist customer in optimum location for the Truck Fill Station. Please call Technical Support line at 866-900-7258.

Storage Tank and Plumbing Layout

Due to the different layout of each customer's site the following details will help you determine what additional parts you will need to provide in order to correctly plumb the Accubrine brine maker and Truck Loading and Blending system to your storage tanks.

You will need to determine the following:

1. Additional hose required - each machine model comes with a standard amount of hose which may not be enough based on your site layout.
2. Storage tank flanges required - storage tank flanges are NOT included with any machine.
3. Storage tank shutoff valves required - Shutoff valves are NOT included with any machine.
4. Additional plumbing fittings required - Y-kits are NOT included with any machine. They are needed if your site will have multiple storage tanks of the same product.

If you determine that you require any additional parts, these can be ordered from Cargill or vendor of your choice. All additional parts must be on site prior to the start of the Accubrine installation process. If you have any questions or need further assistance with determining the additional parts you need based on your layout, please call your Cargill Technical Representative at 866-900-7258. .

The following tables and the Plumbing Layout Schematic found in Appendix A provide you with the information to determine what parts you will need based on your facility layout. Please feel free to contact your Cargill sales or technical representative if you have any questions or need further assistance with your layout.

Storage Tanks

- o Grade must be level
- o Loading: Approximately 5 lbs/square inch.
- o If at all possible the elevation of the fresh water line and supply lines from the storage tank farm should be at or slightly above the elevation of the main pump located on the brine maker. The pump is not self-priming.
- o Customers in high wind environments should consider anchoring all storage tanks to prevent displacement by strong winds
- o Your storage tanks must be empty of all liquid within 6" or less from the bottom of the tank in order to install tank fitting kits on existing tanks
- o Double walled storage tanks must be fitted with the appropriate tank flanges prior to installation. Typically tank flanges on double walled tanks cannot be installed in the field. Please contact your Cargill representative if you are planning on using double walled storage tanks.

Note: If purchasing new storage tanks, please provide your tank supplier with the information regarding the required tank flanges. Most tank manufacturers can supply tanks with flanges pre-installed which is significantly more time efficient and cost effective than installing them in the tanks on site.

All customer supplied storage tanks shall include the tank flanges and manual shutoff valves as listed in the table below. Cargill installation technicians will not be responsible for installing tank flanges on storage tanks. It is required that this task is complete prior to the start of the installation and commissioning of your Accubrine.

Storage Tanks - Minimum Required Tank Flanges and Shutoff Valves (Banjo Mfr Part Numbers listed)												
Storage Tank	Supply Line			Return Line			Pressure Transducer			Fill Line		
	Size (Dia)	Tank Flange Type ¹		Size (Dia)	Tank Flange Type ¹		Size (Dia)	Tank Flange Type ¹		Size (Dia)	Tank Flange Type ¹	
		Bulkhead ³ (Female NPT)	Manifold ² (Boltable)		Bulkhead ¹ (Female NPT)	Manifold ² (Boltable)		Bulkhead ³ (Female NPT)	Manifold ² (Boltable)		Bulkhead ³ (Female NPT)	Manifold ² (Boltable)
Brine Tanks	3"	TF300	MBF335	2"	TF220	MBF223	2"	TF220	MBF223	2"	TF220	MBF220
Additive 1 Tanks	2"	TF220	MBF223	2"	TF220	MBF223	2"	TF220	MBF223			
Additive 2 Tanks	2"	TF220	MBF223	2"	TF220	MBF223	2"	TF220	MBF223			
Additive 3 Tanks	2"	TF220	MBF223	2"	TF220	MBF223	2"	TF220	MBF223			

Footnotes:

- 1** - Check tank thickness before ordering tank flanges - discuss with flange manufacturer
- 2** - For Banjo Tank Flange Manifold-style parts:
 - MBF 220 2-1/2" bolts (max tank thickness 0.32")
 - MBF 223 3" bolts (max tank thickness 0.80")
 - MBF 222 3-1/4" bolts(max tank thickness 1.05")
 - MBF 229 3-1/2" bolts(max tank thickness 1.32")
 - MBF 335 3-1/2" bolts(max tank thickness 1.25")
- 3** - For every bulkhead style with female pipe thread flange, you need to order the following:
 - For each 3" size flange - Banjo Part number M300MPT - pipe thread to manifold flange adapter
 - For each 2" size flange - Banjo Part number M220MPT - pipe thread to manifold flange adapter



2- Banjo manifold style tank flange



3- Banjo bulkhead style tank flange(with female pipe thread)



Example of manifold tank flange kit: manifold style tank flange with shutoff valve and hose connected.

Hose Connections and Quantity

Please reference the Plumbing Schematic in Appendix A to see the configuration of the hose connections depending on your site layout.

- As depicted in the Plumbing Schematic, the amount of hose you will need to properly plumb the Accubrine system is different at every location and based on the following:
 - Distance between the truck loading/blending skid and brine and additive tanks
 - Distance between the truck loading/blending skid and truck loadout location.
 - Number of storage tanks and distance between them.

- The following hose lengths and sizes are INCLUDED with your NXT-Gen AccuBrine® brine maker and the AccuBrine blend® truck loading & blending system based on the model option:
 - Model: NXT-Gen AccuBrine® brine maker with Truck Loading/Blending system = 2 rolls(2") @100 ft/roll + 1 roll(3") @100ft./roll
 - Each Additive Module(1, 2 or 3) = 1 roll (2") @ 100 ft/roll per additive

NOTE: See your Cargill sales representative for a quotation if more hose is required, based on your facility layout, in order to make the connections to the salt tank and storage tanks listed in the table below. Hose is supplied in units of 100 feet per roll.

- Based on your facility layout there may be several hoses and electrical lines that may need to pass through a wall(s) to connect the brinemaker and truck loading/blending system skids to various tanks. **Cargill personnel can provide on-site guidance and recommendation but will not be responsible for cutting and/or coring through facility walls or sealing the area for hose runs.**
 - The outside diameter of all 2" hose is nominal 2-3/4"
 - The outside diameter of all 3" hose is nominal 3-7/8"



Ex 1: Wall plate used for thru-wall hose run



Ex 2: 8" diameter pipe for thru-wall hose run

- If any hoses will need to run over the top of a retention wall, or if the brinemaker skid will be at a significantly higher elevation than the salt tank or storage tanks, installation of check valves in the suction lines may be warranted. Check valves will be supplied by Cargill at an additional cost. Please discuss any layout questions or concerns you have with a Cargill Technical or Sales representative.

PVC Pipe Option

Cargill does NOT recommend the use of PVC for plumbing the brinemaker or Truck Loading and Blending skid to the Salt tank or Storage Tanks. PVC joints have a tendency to leak due to the expansion and contraction of the entire plumbing systems based on exposure to ambient temperatures. If the customer elects to do this:

1. PVC piping installation will be at the expense of the customer. Cargill does not provide the installation of PVC as part of the AccuBrine installation service.
2. Cargill can assist with details of the location and/or layout of all piping terminations during the planning and/or design phase
3. Cargill supplied custom adaptors are required at each end of the PVC pipe to transition between the PVC and fittings on the machine panel and hoses. Cargill can provide assistance in determining how many you will need and will provide a quote.

4. To maximize the efficiency of the AccuBrine®, the installer should use sweeping 90 degree elbows instead of “right angle” 90 degree elbows.

Electrical Service

AccuBrineBlend™ truck loading & blending Skid

The electrical power cord supplied with the unit is located on the AccuBrine blend® truck loading & blending system electrical panel which is mounted on the skid. The customer supplied electrical source(s) should be located within 5 horizontal feet of the AccuBrine® electrical panel.

- **Single phase option** - Minimum 100 amp single phase 240 VAC 60 Hz electrical service. A single phase option kit, which comprises of a Cargill supplied phase converter and plug/receptacle kit is required for the proper installation and operation of the truck loading system. The phase converter is mounted on the Truck Loading skid and will be wired up from the factory. Customer is required to do the following:
 - Provide and mount 6”L x 6”W x 4”D junction box that will house the Cargill-supplied receptacle. Junction box should be located within five horizontal feet from the location of the Truck Loading and blending skid.
 - Secure the receptacle and receptacle housing onto the junction box.
 - Terminate electrical service to the Cargill-supplied receptacle and receptacle housing to the junction box. (Meltric Corporation 31-64172-K07 Receptacle with an MP6 Housing). Cargill will provide the receptacle and receptacle housing at the time of installation
 - Customer is required to follow all local electrical and NEC codes.
 - Please coordinate with your Cargill representative in order to ship the phase converter and receptacle parts so they can be installed prior to the commencement of machine installation.

NOTE – Single phase 208V service WILL NOT provide the appropriate voltage to the AccuBrine system for proper function and cannot be used.

- **3 phase option** – *This is the preferred service as it is more energy efficient and economical to operate.* Service requires a 60 amp 208 VAC, 60 Hz located within 5 feet of the control panel electrical enclosure location. Customer is required to do the following:
 - Provide and mount 6”L x 6”W x 4”D junction box that will house the Cargill-supplied receptacle. Junction box should be located within five horizontal feet from the location of the brinemaker skid.
 - Secure the receptacle and housing onto the customer supplied junction box.
 - Terminate electrical service to the Cargill-supplied receptacle and receptacle housing. Cargill will provide the receptacle and receptacle housing at the time of installation (Meltric Corporations 31-64172-K07 Receptacle with an MP6 Housing).
 - Customer is required to follow all local electrical and NEC codes.
 - Please coordinate with your Cargill representative in order to ship the receptacle parts so they can be installed prior to the commencement of machine installation.



Truck Loading and Blending Skid Receptacle/Plug - 6" x 6" x 4" junction box shown with receptacle, receptacle housing & plug

Conduit/Wire Runs

Please Reference the Electrical Layout Schematic in Appendix A, which reflects the information found in the table below.

- **NOTE:** Cargill does not install conduit for the wiring runs as part of the installation service. Customer is responsible for the installation of conduit if it is required. See "Wire Runs" table below and on the following page for a completed list of wire connections.
- Termination of wiring in the AccuBrine[®] control cabinet must be completed by Cargill or a certified Cargill dealer representative.

Wire Runs

Accubriner Model Options	From	To	Minimum # Conductors	Wire Size (ga.)	Shielded: Yes/No
NXT Gen Brinemaker + Truck Fill system	Truck Fill Skid – Brine Line Flowmeter	NXT Brinemaker Skid – PLC/HMI Panel	7	16	Yes
NXT Gen Brinemaker + Truck Fill System	Truck Fill/Blending Skid	NXT Brinemaker Skid	Ethernet	Cat 6 Cable	No

NXT Gen Brinemaker + Truck Fill system	Truck Fill/Blending Skid	Remote Truck Fill Enclosure/HMI	2 Ethernet	18-20 (stranded) Cat 6 Cable	Yes No
Remote Access	Facility Network Connection	Brinemaker Control Panel	Ethernet	Cat 6 cable	No
<i>If your machine is equipped with an additive blending option, the following wiring runs are required based on each additive module.</i>					
NXT Gen Brinemaker + Truck Fill with One Additive Blend	Truck Fill/Blending Skid	Additive 1 Storage Tank PT	2	18-20 (stranded)	Yes
NXT Gen Brinemaker + Truck Fill with Two Additives Blend	Truck Fill/Blending Skid	Additive 2 Storage Tank PT	2	18-20 (stranded)	Yes
NXT Gen Brinemaker + Truck Fill with Three Additives Blend	Truck Fill/Blending Skid	Additive 3 Storage Tank PT	2	18-20 (stranded)	Yes

Pressure Transducer Mounting

Pressure transducers are instruments used to monitor the liquid levels in the salt tank and storage tanks.

The following PTs are included with the NXTGEN AccubrineBlend Truck Loading System:

- Storage Tanks
 - Brine – 1 PT
 - Additive 1(if applicable) – 1 PT
 - Additive 2(if applicable) – 1 PT
 - Additive 3(if applicable) – 1 PT

If your facility will have more than one tank of any given product(Brine, Additives 1, 2, or 3) you will need to purchase additional PT kits. Please contact your Cargill sales representative or call 866-900-7258 for assistance.

There are two mounting methods:

1. Preferred Method – Side Mounted
 - The side mounted method allows the PT to mount to an "L" shaped pipe assembly that is attached to a shutoff valve, located on the side of a storage tank approximately 6"-10" above the bottom of the storage tank. This method enables a much safer and faster access than the top mounted method.

- As described above in the Storage Tank section, each side mounted PT would require a tank flange and manual shutoff valve. See Table in the Storage Tank sections to determine flange and valve sizes and types.
- **NOTE: If you have existing storage tanks that have liquid already in them, a side mount option may not be possible at time of installation. Please discuss this with your Cargill installation technician.**

2. Alternative Method – Top Mounted

- **NOTE: Customer is required to provide assistance mounting each pressure transducer(PT) assembly in the top of the storage tanks. Cargill personnel are not allowed to do elevated work above 4 ft. unless provided with a certified tie-off point. This includes securing the PT assembly(see details below), along with attaching the wired connector to the top of the PT.**
- Cargill will assemble the PT assembly which consists of 1-1/4" PVC pipe, mounting flange, pipe cap, PT and PT connector. Cargill will assist in terminating the wire in the PT connector. Customer personnel will be required to attach the PT connector to the PT.
- Customer is required to cut a 2" to 2-1/4" diameter hole into the top of the tank that allows the pipe to be inserted into the tank and the mounting flange to be secured to the top of the tank. Customer is also required to anchor the flange piece to the top of the tank with the four lag bolts that will be supplied with the kit.
- The pipe length is cut such that when it is inserted into the tank, the bottom of the pipe rests 2"-3" above the bottom of the tank floor and it extends approximately 8-12" out of the top of the tank. The flange is fitted down onto the pipe and is glued in place, supporting the pipe. The flange is anchored onto the tank via 4 lag screws. A cap is glued onto the top of the pipe which the pressure transducer threads into. The wire is terminated into the pins of the connector which is then threaded onto the top of the pressure transducer.



PT assembly – pipe, pipe cap, mounting flange, PT and PT connector shown

Remote Access Setup

The Accubrine NXTGEN has the ability to be remotely accessed. How you configure your network will drive whether the access is "private" (ie. open to local operators/managers) or "public" (ie. open to

Cargill technicians). Remote access allows an operator to use other devices such as a desktop, laptop, smartphone or tablet to view, control, or troubleshoot the machine. The level at which the owner of the Accubrine wants to provide access is strictly up to the owner. The following provides you with information on how different network configurations can affect accessibility and features of the Accubrine NXTGEN machine.

NOTE: If you want to enable this feature please let your Cargill representative know before installation begins as it will drive how certain components are setup during the machine commissioning process.

MAIN COMPONENTS:

There are four main components that have the potential to be remotely accessed:

1. Brinemaker skid - Main PLC (Programmable Logic Controller)
2. Brinemaker skid - Main HMI (Human Machine Interface)
3. Truck Loading System - Remote Truckfill HMI (Human Machine Interface)
4. Truck Loading System - Junction Box Murr Module (Expansion IO)

These four components will require individual IP addresses of the same subnet.

Here are the two main network scenarios we will be talking about:

1. Private
2. Public

1. Private Network:

With additional setup Private networking allows managers and/or operators to remotely view and operate the Accubrine machine with their desktop, laptop, smartphone and tablet.

The machine is setup for a private network as it leaves the factory. The Factory IP addresses are as follows:

- Main PLC – 192.168.2.21, Subnet 255.255.255.0
- Main HMI – 192.168.2.29, Subnet 255.255.255.0
- Truckfill HMI – 192.168.2.99, Subnet 255.255.255.0
- Murr Module – 192.168.2.31, Subnet 255.255.255.0

The machine has a built-in unmanaged switch and no gateway associated to the IPs. An **unmanaged switch** simply allows Ethernet devices to communicate with one another, such as a PC or network printer, and those are typically what we call “plug and play.” In this case, we use our automation devices housed within the machine. This system is standalone and does not need to be connected to another network to function properly.

If minimal network integration is desired this is the ideal configuration. Typically access must be provided by a direct drop or wireless hub connected directly to the machine. This will keep the Accubrine NXTGEN machine on a separate network.

With this setup you can do the following:

- Use EasyBuilder HMI Software to access the HMI
 - Free downloads are available on the internet. See <http://www.weintek.com/globalw/Software/EasyBuilderPro.aspx> or do an Internet search for Easy Builder Pro by Weintek.
- OR**
- Use a VNC program to access the HMI
 - There are many VNC programs available for free on the internet. A few examples are TightVNC, RealVNC, VNCViewer. They provide the same functionality for this type application.

Once the two programs have been loaded to your device, you will have the ability to remotely VIEW and CONTROL your Accubrine unit.

2. Public Network:

The Accubrine NXTGEN machine is capable of being integrated onto an existing network. This feature can provide external access to the machine ie; if the customer wishes to allow Cargill technicians to remotely access the machine to speed up troubleshooting efforts and to push any program improvements or updates to the machine. External access can be controlled by the owner depending on how your network is configured. Below are three network configuration scenarios outlined based on varying levels of network security: Simple, Moderate, and Complex. Workable network configurations are not limited to only these three, but are examples of the networks that could be setup for external machine access.

SIMPLE SETUP (No Security):

The Simple setup requires the following:

- VNC Program on mobile device used to access the Accubrine machine.
- An active internet connection provided by an ISP (eg: Time Warner, Comcast, or Verizon (but not limited to them))
- Ethernet connected to the Accubrine machine
- Static/Dynamic IP address of the router provided by your ISP
- Four static IP addresses reserved on your network (ie. unique static IP addresses that cannot be assigned to any other machines or devices on the network.) If these are not available, the machine must be setup as a private network as detailed above.

You can create a VNC connection. There are many free programs available for download (see above).

This will provide access via your desktop or mobile device (smartphone or tablet) to the machine for troubleshooting purposes and machine control.

SIMPLE SETUP (Low Security):

The Simple setup requires the following:

- VPN Software (Windows)
- An internet connection such as Time Warner, Comcast, or Verizon (but not limited to them)
- Ethernet connected to the Accubrine machine
- Static/Dynamic IP address of the router provided by your ISP
- Four static IP addresses on your network (ie. unique static IP addresses that cannot be assigned to any other machines or devices on the network.) If these are not available, the machine must be setup as a private network as detailed above.

You can create a VPN connection. This would give you a secure point-to-point tunnel between your PC, and a computer which is connected to the Machine. All Windows computers have this capability built into the operating system.

This would provide access via your desktop or mobile device (smartphone or tablet) to the machine for troubleshooting purposes and machine control. This would also enable the machine to be accessed remotely by Cargill technical support to provide real-time troubleshooting assistance and program updates.

MODERATE SETUP (Moderate Security):

The Moderate setup requires the following:

- Router with virtual server capabilities
- An internet connection such as Time Warner, Comcast, or Verizon (but not limited to them)
- IP address of the router provided by your ISP

- Four static IP addresses on your network (ie. unique static IP addresses that cannot be assigned to any other machines or devices on the network.) If these are not available, the machine must be setup as a private network as detailed above.

The router needs to be setup with the following port forwarded to the PLC IP Address for the PLC Remote Connections.

- 2222
- 44818
- 135

The router needs to be setup with the following port forwarded to the Murr Module IP Address for the PLC Remote Connections.

- 80

The router needs to be setup with the following port forwarded to the Main HMI IP Address for the PLC Remote Connections.

- 5900

This would enable the machine to be accessed remotely by Cargill technical support to provide real-time troubleshooting assistance and program updates.

COMPLEX SETUP (Maximum Security):

This setup will allow you to write custom firewall rules that enable and disable external access (ie. Cargill technical support) to your system for maximum security. This would enable Cargill to remotely access your machine for troubleshooting assistance and ability to update machine operating programs.

This particular setup requires the following:

- Router with Firewall capabilities
- Mac Address filtering can be setup to limit connections specific remote devices.
- An internet connection such as Time Warner, Comcast, or Verizon (but not limited to them)
- Ethernet connected to the Accubrine machine
- IP address of the router provided by your ISP
- Four static IP addresses on your network (ie. unique static IP addresses that cannot be assigned to any other machines or devices on the network.) If these are not available, the machine must be setup as a private network as detailed above.

The router needs to be setup with the following port forwarded to the PLC IP Address for the PLC Remote Connections.

- 2222
- 44818
- 135

The router needs to be setup with the following port forwarded to the Murr Module IP Address for the PLC Remote Connections.

- 80

The router needs to be setup with the following port forwarded to the Main HMI IP Address for the PLC Remote Connections.

- 5900

This would provide access via your desktop or mobile device (smartphone or tablet) to the machine for troubleshooting purposes and machine control. This would also enable the machine to be accessed remotely by Cargill technical support to provide real-time troubleshooting assistance and program updates.

Optional Kits (NOT included in model packages)

1. Recycled Water option

NOTE: Please use the same electrical phase for the recycled water option that you will be using to power the Brinemaker and Truck Loading/Blending System.

The Recycled Water option consists of a Cargill supplied single or three-phase 5hp pump/motor on a mounting plate, a disconnect/control box, plumbing module and a side mount PT kit to measure recycle water storage tank level.

- A. **Single phase option** - Minimum 60 amp single phase 240 VAC 60 Hz electrical service. Customer is required to do the following:
- Determine location of pump/motor and motor control box. .
 - Terminate electrical service into the Cargill-supplied motor disconnect/control enclosure.
 - Customer is required to follow all local electrical and NEC codes.
 - If you require the motor control box be shipped prior to Accubrine machine installation, please contact your Cargill representative.
- B. **3 phase option** – *This is the preferred service as it is more energy efficient and economical to operate.* Service requires 30 amp/208 VAC, 60 Hz Customer is required to do the following:
- Determine location of pump/motor and motor control box. .
 - Terminate electrical service into the Cargill-supplied motor disconnect/control enclosure.
 - Customer is required to follow all local electrical and NEC codes.
 - If you require the motor control box be shipped prior to Accubrine machine installation, please contact your Cargill representative.

2. Auxillary 300 GPM Pump option

An additional 3 phase 208 Volt/60 amp service is required. This should be located within 5 ft. of the 300 GPM pump control/disconnect enclosure. This system does not integrate with the main AccuBrine® system. Customer is responsible for terminating power into the pump control box. *There is no single phase option available for this kit.*

Approximate Time Required for Installation

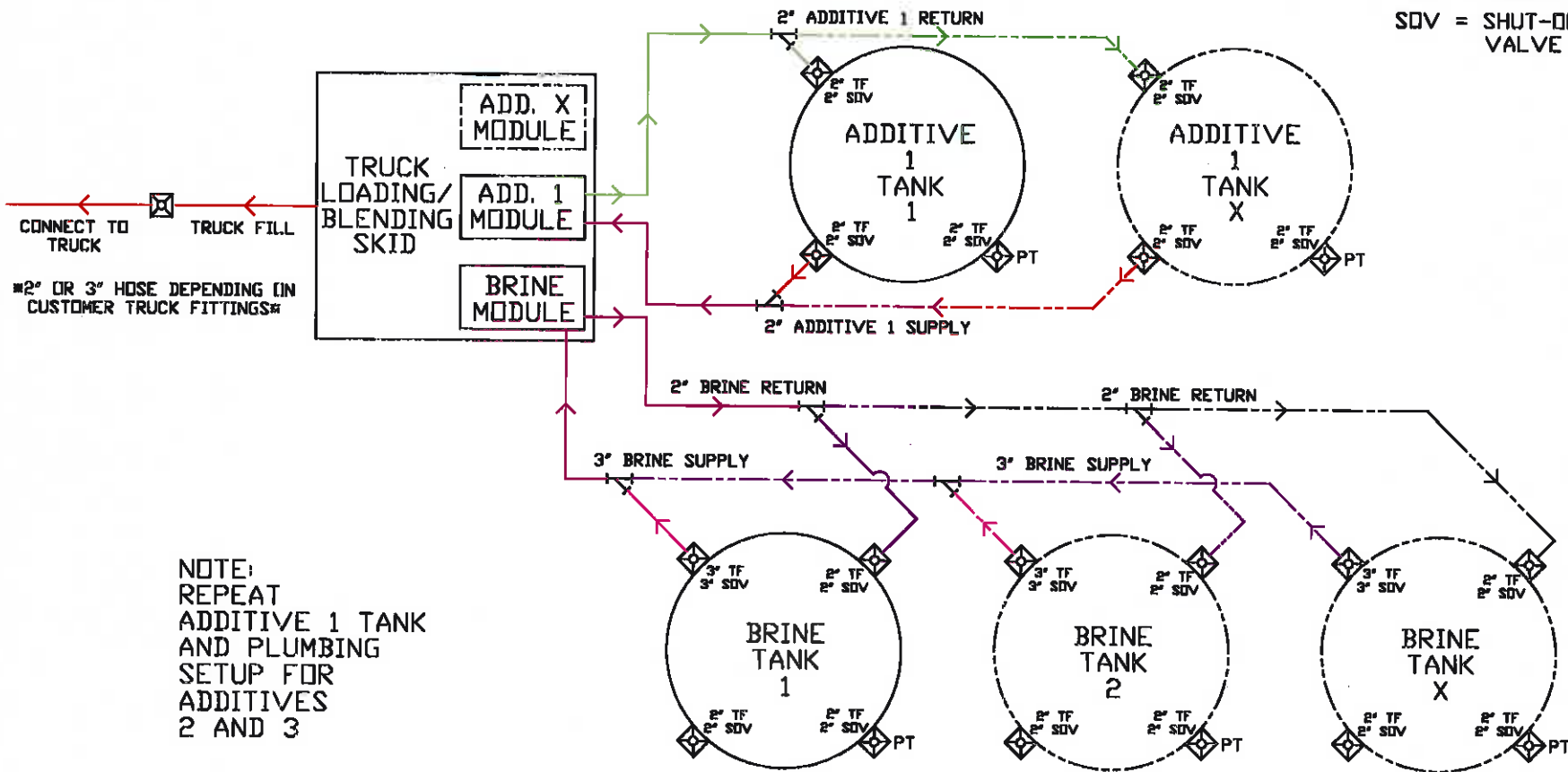
- Cargill representatives will be on site to:
 - Connect hoses between the systems and the storage tanks and truck fill
 - Connect hoses between the system and salt tank
 - Complete final wiring connections
 - Inside the AccuBrine® electrical panels
 - Calibrate the salinity sensor
 - Test the system, adjust, and set the system settings
 - Provide operator training
- Cargill requires the customer to provide a minimum of one employee to assist with the installation and be someone who is going to operate the AccuBrine® system.
- **The facility and worker(s) must be available on the days of installation no less than 7:00 AM to 5:00 PM.**

- AccuBrine® automated brine maker NXT-Gen + AccuBrine® blend truck loading system – approx. 3 full days
 - AccuBrine® automated brine maker NXT-Gen + AccuBrine® blend truck loading & blending system + 1 additive blending system – approx. 3.5 full days
 - AccuBrine® automated brine maker NXT-Gen + AccuBrine® blend truck loading & blending system + 2 additives blending system – approx. 4 full days
 - AccuBrine® automated brine maker NXT-Gen + AccuBrine® blend truck loading & blending system +3 additives blending system – approx. 4.5 full days
- **Training on the AccuBrine® system will be provided to the customer and its representatives after the installation is complete. If the installation or training is delayed by the customer and/or requires Cargill to return to complete training, Cargill reserves the right to charge extra installation fees to complete the process.**

IMPORTANT: Please sign and return the following checklist in order to schedule your Accubrine installation. Installation will NOT be scheduled without a signed copy of the checklist.

Appendix A

→ = HOSE
 ☒ = SHUT-OFF VALVE
 ⚡ = 'Y' FITTING
 ASSEMBLY KIT
 TF = TANK FLANGE
 SDV = SHUT-OFF VALVE

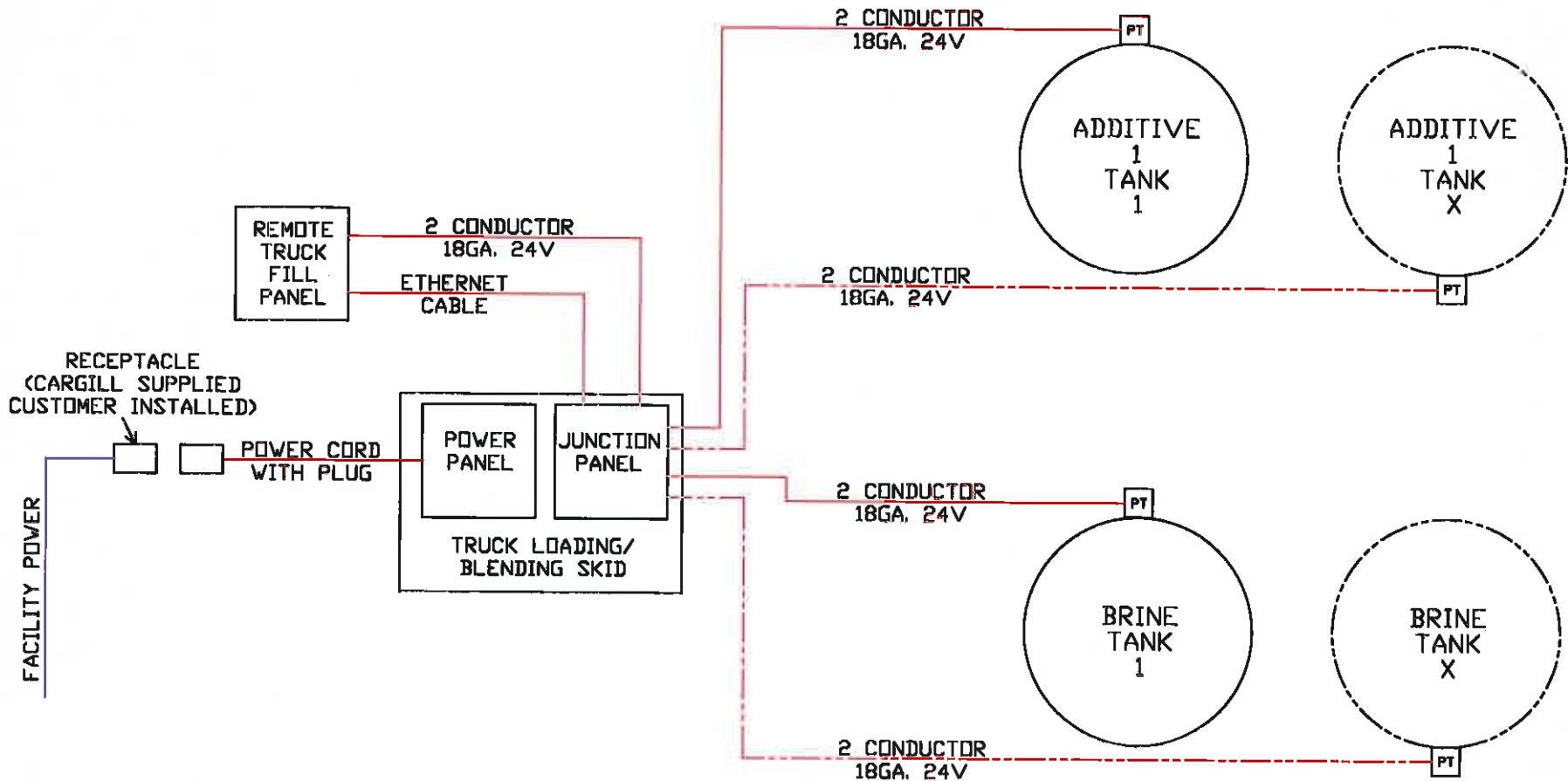


NOTE:
 REPEAT
 ADDITIVE 1 TANK
 AND PLUMBING
 SETUP FOR
 ADDITIVES
 2 AND 3

TRIVACO MFG. AND SERVICES 2615 ARBOR TECH DR. HEBRIN, KY 41048 859-525-9890	TOLERANCE UNLESS OTHERWISE SPECIFIED			DWG. NO. -	JOB # -	QTY. -	DESC. PLUMBING SCHEMATIC -- STAND ALONE TRUCK LOADING/BLENDING SYSTEM
	X	XX	XXX				
	± 0.06	± 0.01	± 0.005				
ANGLES ± 1°	FRACTIONAL ± 1/16		DRAWN BY JPY	DATE 11/10/16	REV. -	SCALE NTS	MAT'L -

LEGEND

- CARGILL INSTALLED
- CUSTOMER INSTALLED



NOTE: REPEAT ADDITIVE TANK ELECTRICAL SETUP FOR ADDITIVES 2 AND 3 IF APPLICABLE

TRIVACO MFG. AND SERVICES 2615 ARBOR TECH DR. HEBRON, KY 40448 859-525-9890	TOLERANCE UNLESS OTHERWISE SPECIFIED .X .XX .XXX ± 0.06 ± 0.01 ± 0.005			DWG. NO.	JOB #	QTY.	DESC.
	ANGLES ± 1°	FRACTIONAL ± 1/16	DRAWN BY SWM	DATE 5/4/2017	REV.	SCALE NTS	MAT'L



ACCUBRINE[®]
automated brine maker

Pre-installation Checklist

Accubrine Blend -Truck Loading/Blending System

REQUIREMENTS: Please sign and return the following checklist. Your installation will NOT be scheduled without a signed copy of the checklist.

This checklist coincides with the Site Preparation/Installation Checklist document which provides detailed information on proper site preparation. It is meant to cover the basic requirements for an efficient install. If questions arise during the process you are encouraged to call and hopefully we can provide you with a path forward. Taking the time to ask questions before the install can greatly reduce the time needed on site and make for a smooth and problem free install.

CHECKLIST

Machine Layout

Truck Loading/Blending skid removed from pallet and placed in room where it will be installed. Pg. 2

What is the length and width of clear area where the Truck Loading/Blending skid will be located?

Is building heated where Truck Loading skid is located? Pg. 2

Electrical Requirements

Please reference Electrical Layout Schematic in Appendix A.

If you have ordered a Single Phase Option kit for your Truck Loading and Blending unit, do you have the following: 100 amp 240VAC 60Hz electrical service within 5 feet of the truck loading skid? Pgs. 7-8

Please provide address and contact name and phone number where the phase converter and receptacle parts can be sent in order for them to be installed prior to machine installation.

If you ordered a 3-phase Truck Loading and Blending system do you have the following: 60 amp, 208VAC, 60 Hz electrical service within 5 horizontal feet of the truck loading skid location Pg. 8

Please provide address and name and phone number of contact to send receptacle parts to in order for them to be installed prior to the machine installation.

If you are requiring conduit for control wiring purposes, do you have a minimum of 3/4" in place? Pgs. 9-10





AccuBrine® Pre-installation Checklist Continued

Accubrine Blend -Truck Loading/Blending System

Storage Tank Layout

Please reference Plumbing Schematic Layout in Appendix A.

1. How many tanks of each product do you have?

Brine _____
 Additive 1 (if applicable) _____
 Additive 2 (if applicable) _____
 Additive 3 (if applicable) _____

2. We require that tank flanges be installed in each tank prior to the installation of the truck loading system. Please reference the table below and the Plumbing Schematic in Appendix A.

Storage Tanks - Minimum Required Tank Flanges and Shutoff Valves (Banjo Mfr Part Numbers listed)												
Storage Tank	Supply Line			Return Line			Pressure Transducer			Fill Line		
	Size (Dia)	Tank Flange Type ¹		Size (Dia)	Tank Flange Type ¹		Size (Dia)	Tank Flange Type ¹		Size (Dia)	Tank Flange Type ¹	
		Bulkhead ³ (Female NPT)	Manifold ² (Boitable)		Bulkhead ³ (Female NPT)	Manifold ² (Boitable)		Bulkhead ³ (Female NPT)	Manifold ² (Boitable)		Bulk-head ³ (Female NPT)	Manifold ² (Boitable)
Brine Tanks	3"	TF300	MBF335	2"	TF220	MBF223	2"	TF220	MBF223	2"	TF220	MBF220
Additive 1 Tanks	2"	TF220	MBF223	2"	TF220	MBF223	2"	TF220	MBF223			
Additive 2 Tanks	2"	TF220	MBF223	2"	TF220	MBF223	2"	TF220	MBF223			
Additive 3 Tanks	2"	TF220	MBF223	2"	TF220	MBF223	2"	TF220	MBF223			

Footnotes:

1 - Check tank thickness before ordering tank flanges - discuss with flange manufacturer

2- For Banjo Tank Flange Manifold-style parts:

- MBF 220 2-1/2" bolts (max tank thickness 0.32")
- MBF 223 3" bolts (max tank thickness 0.80")
- MBF 222 3-1/4" bolts(max tank thickness 1.05")
- MBF 229 3-1/2" bolts(max tank thickness 1.32")
- MBF 335 3-1/2" bolts(max tank thickness 1.25")

3 - For every bulkhead style with female pipe thread flange, you need to order the following:
 For each 3" size flange - Banjo Part number M300MPT - pipe thread to manifold flange adapter
 For each 2" size flange - Banjo Part number M220MPT - pipe thread to manifold flange adapter

- a. 2" Tank Flanges – Qty needed _____
- b. 3" Tank Flanges – Qty needed _____
- c. 2" Tank Shutoff Valve kit – Qty needed _____
- d. 3" Tank Shutoff Valve kit – Qty needed _____

If you would like Cargill to supply any of the parts listed above with your machine order, please contact your Cargill Sales rep or call us on our Customer Technical Support line at 866-900-7258.





Accubrine® Pre-installation Checklist Continued
 Accubrine Blend -Truck Loading/Blending System

Reference the Plumbing Schematic to determine how many "Y Kits" you will need which is based on how many storage tanks you have. See table below for part numbers associated with each Y-kit.

Part Description	Banjo Part Number	Quantity
2" Y-Kit Parts		
Y Flange, 2" X 45°	M220Y45	1
2" T-Bolt Manifold Clamp	FC220TB	3
2" Manifold Gasket	200G	3
2" T-Bolt Corrugated Hose Clamp	TC231	3
2" Hose Barb	M220BRB	3
3" Y kit Parts		
3" Y Flange 45 Degree	M300Y45	1
3" T-Bolt Manifold Clamp	FC300TB	3
3" Gasket	300G	3
3" T-Bolt Corrugated Hose Clamp	TC-323-1	3
3" Hose barb	M300BRB	3

If you would like Cargill to supply any Y-kits with your machine order, please contact your Cargill representative or call our Customer Support line at 866-900-7258

- Have you ordered additional PT kits in order to monitor the liquid volumes in each storage tank? Your Accubrine machine will be sent with one PT per product storage tank, depending on the model you order. You must purchase additional PT kits in order to monitor multiple storage tanks that hold the same product.

Contact your Cargill Sales representative or call 866-900-7258 to order.

For example:

Number of Brine PT needed = # of brine storage tanks - 1

(Do the same with Additive 1, 2, and 3 storage tanks, as applicable)

- If hoses are required to pass through any type of wall, are the holes cut or arranged to be cut at time of installation? Have you made arrangements for how you want to configure the area where the holes will pass through walls of any other structure? (Cargill does not supply any additional parts for sealing holes or slots required for hose runs) **Pgs. 6-7**





Accubriner® Pre-installation Checklist Continued
Accubriner Blend -Truck Loading/Blending System

What is the distance between the following (if applicable based on the model of your unit):

1. Truck Loading Skid and brine storage tank(s) _____
2. Truck Loading skid and additive storage tank(s) _____
3. Truck Loading skid and truck loadout station _____

Based on the distances above and the hose connections shown in the Plumbing Schematic in Appendix A, approximately how much hose will you need?

2" _____
3" _____

Based on how much comes standard with your model(page 7) how many additional rolls do you need to order? 2" _____; 3" _____

Hose Manufacturer: Apache
Model: Enforcer
2" hose part number - 10212964
3" hose part number - 10212966

If you would prefer Cargill supply any additional hose you need with your machine order, please call your Cargill Sales Representative or our Customer Support line at 866-900-7258

Are there any hoses that are required to go up and over containment walls?
Are there any tanks at a lower elevation than the brinemaker and/or truck loading skids? If yes to either question, you will need a check valve installed on the supply lines only(suction).

Please see the below table of parts required per check valve assembly.

Part Description	Banjo Part Number	Quantity
2" Check Valve assembly - Parts		
2" Full Port Flange Poly Check Valve	MCV221	1
2" T-Bolt Manifold Clamp	FC220TB	2
2" Manifold Gasket	200G	2
2" T-Bolt Corrugated Hose Clamp	TC231	2
2" Hose Barb	M220BRB	2
3" Check Valve assembly - Parts		
3" Poly Flange Check Valve	MCV300	1
3" T-Bolt Manifold Clamp	FC300TB	2
3" Gasket	300G	2
3" T-Bolt Corrugated Hose clamp	TC-323-1	2
3" Hose barb	M300BRB	2

If you would like Cargill to supply any check valve assemblies with your machine order, please contact your Cargill representative or call our Customer Support line at 866-900-7258





AccuBrine® Pre-installation Checklist Continued

Accubriner Blend -Truck Loading/Blending System

Commissioning Requirements

- Will storage tanks be full with brine and additive(if applicable) in order to test and calibrate the loading/blending system?

- Will a liquid application truck be available to load in order to fully calibrate the truck loading and blending system?"

- Do you want either private or public remote internet access? If yes, is there an Ethernet cable ran to the location of the Brinemaker control panel? Forward Network Configuration details found in the "Remote Access" section in the Site Preparation/Installation checklist document your IT personnel. **Pgs. 11-14**

- If you want remote internet access from Cargill please supply us with FOUR static IP addresses and list them below:

- Allocate one employee to assist technician, preferably one that will be operating the machine.

- Ability to have your designated employees present for AccuBrine® operation training which occurs after installation and machine setup is complete. If training cannot be done during the installation and commissioning of the machine and a return trip is required, additional fees will be assessed.





AccuBrine® Pre-installation Checklist Continued

Accubrine Blend -Truck Loading/Blending System

After signing this document please forward via email to your Cargill representative and a date will be set for installation. If you have any questions regarding any information requested in this checklist, please contact us at 866.900.7258.

Photo requirement: Please include the following photos:

- Brinemaker near power and water supply
- The building and cleared area where brinemaker skid is or will be
- Salt tank location.
- Storage tanks with tank flanges installed.

Customer Signature _____ Date _____



A Cargill Dairying Technology Product



AccuBrine® automated brine
maker NXT-Gen

Manufacturer Warranty Terms

One-Year Limited Brine Maker Warranty

Cargill Deicing Technology (CDT) warrants to customers who purchase, for use in the United States, new AccuBrine® automated brine makers from CDT's authorized distributors or from CDT ("original purchasers") that the AccuBrine® automated brine maker ("Brine Maker") will be free from defects in material and workmanship for a period of one (1) year beginning after the completion date of installation and customer training by a CDT authorized distributor or CDT personnel, and that CDT will repair any defect in material or workmanship, and repair or replace any defective part, subject to the conditions, limitations, and exclusions set forth herein. CDT will cover all parts and labor for the first year of qualified repairs and replacements for original purchasers.

Parts that are not from the original manufacturer are not covered by this warranty. Any defect resulting from an individual or entity's misuse, alteration, improper adjustment, neglect, or accident - including but not limited to any damage caused to any components by vehicles or other mobile equipment striking any component of the Brine Maker - is not covered by this warranty. If the Brine Maker must be stored prior to installation and customer training by a CDT authorized distributor or CDT personnel, this warranty does not cover any damage to the Brine Maker or its components resulting from the purchaser's neglect or failure to use due care in storing or handling the Brine Maker - this includes, but is not limited to, storing the Brine Maker control panel indoors in a clean, dry environment warmer than 32°F (0°C) and cooler than 90°F (32°C). Any failure to comply with the requirements set forth herein will void the warranty.

Conditions, Limitations, Exclusions

This warranty is subject to the additional following conditions, limitations, and exclusions:

- The original purchaser must complete and sign the warranty registration form included with the shipped Brine Maker after installation and training by an authorized distributor or CDT personnel. Send warranty registration form to Deicing@trivaco.com within one week after putting machine into service. If this form is not received by Cargill, our warranty coverage period will start the day the machine is shipped from the warehouse and/or warranty claims may be denied.
- AccuBrine® machines that are not installed within six months of shipment will start the warranty timeline automatically six months from shipment from the Cargill warehouse.
- The original purchaser must notify CDT or an authorized distributor of the need for warranty service within five (5) business days of discovering any defect in material or workmanship and/or any defective part.
- Warranty claims **MUST BE** submitted within 10 days of the related service date. Claims can be emailed to Deicing@trivaco.com. Claims that are not received within 10 days of the original service date, WILL NOT be approved for warranty service. A Return Materials Authorization (RMA, AB205) will be sent to the customer or dealer.
- The replacement part and a completed Return Materials Authorization form received from Cargill. Defective parts must be returned to Trivaco within 10 business days of receipt of the RMA.. Parts received after 10 days will be denied warranty.
- For Trivaco to send a part, they must have a PO. The customer or dealer must provide that PO for replacement part. Trivaco will not invoice for the part if the part is found to be defective and the PO can be canceled. Trivaco will invoice for the replacement part using the purchase order number that was issued from the customer if the part does not fall under the warranty. If nothing is wrong with the part, the customer there will be a 25% restock fee issued in addition the cost of the part using the purchase order number that was issued by the customer.



AccuBrine® automated brine
maker NXT-Gen

Manufacturer Warranty Terms

- If any work is performed by anyone other than an authorized CDT representative (ie. trained dealer technician) the warranty is considered void.
- For parts replaced towards the end of the warranty period, those parts will have a 90 day warranty. Example: A customer's warranty ends September 1, 2016. A part fails August 15, 2016. The warranty on that specific part will not end September 1, it will end 90 days from replacement.

This warranty is subject to the following limitations:

- This warranty applies only if the Brine Maker is put to ordinary, reasonable, brine making uses. Any deviations from the designed setup of the machine as defined in the Pre-Installation checklist must be authorized by Cargill prior to installation to be covered under manufacturer's warranty.
- CDT may from time to time change the design of its products. Nothing contained in the warranty shall be construed as obligating CDT to incorporate such designs into previously manufactured products, nor shall such changes be construed as an admission that previous designs were defective.
- This warranty applies only if the Brine Maker was originally installed by a CDT authorized dealer and trained dealer technician.
- Part replacement covered by warranty will be sent via standard ground shipping. If customer requires expedited shipping services, they will be responsible for all charges relating to those services.
- Returned parts inspection period may be up to but not limited to 30 days to make a warranty determination.
- Reconditioned parts may be sent as replacement parts. Any reconditioned parts will carry the same warranty as a new part.

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, That Cargill, Incorporated, a Corporation duly organized and existing under the laws of the State of Delaware, and having its Home Office in the City of Minneapolis, Minnesota, has made, constituted and appointed, and does by these presents, constitute and appoint:

Jim Anderson
Dawn Bekoscke
Thomas Bowling
Stacey Bruzda
Pamela S. Burcewicz
Deseree Caver
Jean Davis
Elaine Dembinski
Tony DiPietro
Adam Donegan
Ken Ellen
Ron Erjavec
Joshua D. Evcic
Courtney Fugate
Chris Gampfer
Nadine Gilbert

Jim Hart
Kenneth G. Howe
Gail Hubbell
Brittney Ingold
Rebekah Irish
Kaitlyn L. Jackson
Robin Kiewatt
Mary Kleiner
Amanda Knaus
Denise A. Koch
Sarah Liederbach
Alison Marincek
Richard Maxfield
Bill Miller
Lisa O'Neal
Aileen Orlando

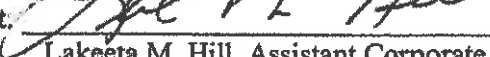
Angele Peterson
Stewart Petrick
John Petryszyn
Sean M. Riley
Tameka Roby
Christine M. Rupert
Anna Sarley
Ashley Sliffe
George Varga
Ryann Walsh
Danielle Wilford
Deborah D. Williams
Roger Wilson
Chet Womack

each its true and lawful Attorneys-in-Fact, with full power and authority hereby conferred in its name, place and stead, to execute, seal, acknowledge and deliver bids, bid bonds, contracts, performance bonds, and such other documents as may be necessary or required in connection with the bid, sale or delivery of mineral rock salt, solar salt, salt chemical mixtures, evaporated salt, and/or road deicing salt, to any state, county, city, municipality, or corporate body with which the Company may do business and to bind the Corporation thereby as fully and to the same extent as if such documents were signed by an officer of Salt, sealed with the Corporate Seal of the Corporation and duly attested by its Assistant Corporate Secretary, hereby ratifying and confirming all the said Attorney(s)-in-Fact may do in the premises.

IN WITNESS WHEREOF, Cargill, Incorporated has caused these presents to be signed by its President, Cargill Deicing Technology, and its Assistant Corporate Secretary, and its Corporate Seal to be hereunto affixed this 7th day of August, 2017.

Cargill, Incorporated

By: 
Richard Maxfield, President, Cargill Deicing Technology

Attest: 
Lakeeta M. Hill, Assistant Corporate Secretary

STATE OF OHIO

) ss

COUNTY OF LORAIN

On March 12, 2018 before me, a Notary Public in and for said County and State, residing therein, duly commissioned and sworn, personally appeared Danielle Wilford known to me to Attorney-in-Fact of CARGILL, INCORPORATED, the Corporation described in and that executed the within and fore-going instrument, and known to me to be the person who executed the said instrument in behalf of the said corporation; and he duly acknowledged to me that such corporation executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal, the day and year stated in the certificate above.



Notary Public

GAIL HUBBELL
Notary Public, State of Ohio
My Commission Expires April 26, 2020
Recorded in Lorain County

EVIDENCE OF CASUALTY INSURANCE

POLICY YEAR
06/01/17-06/01/18

PRODUCER

Hays Companies
IDS Center, Suite 700
80 South 8th Street
Minneapolis, MN 55402

THIS DOCUMENT IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE DOCUMENT HOLDER. THIS DOCUMENT DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.

INSURERS AFFORDING COVERAGE

INSURER A: Old Republic Insurance Company

PHONE NO. 612-333-3323

FAX NO. 612-373-7270

INSURER B:

INSURED

CARGILL, INCORPORATED,
ITS SUBSIDIARIES, AND BUSINESSES
PO BOX 5612, MS-12
MINNEAPOLIS, MN 55440-5612

INSURER C:

INSURER D:

INSURER E:

INSURER F:

COVERAGES

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS DOCUMENT MAY BE DISPENSED OR MAY PERTAIN. THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	ADD + INSR 2	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS	
A		GENERAL LIABILITY	MWZY310323	06/01/17	06/01/18	EACH OCCURRENCE	\$15,000,000
		<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY				DAMAGE TO RENTED PREMISES (Ea occurrence)	\$1,000,000
		<input type="checkbox"/> CLAIMS MADE <input checked="" type="checkbox"/> OCCUR				MED EXP (Any one person)	\$10,000
		GEN'L AGGREGATE LIMIT APPLIES PER:				PERSONAL & ADV INJURY	\$15,000,000
		<input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PROJECT <input type="checkbox"/> LOC				GENERAL AGGREGATE	\$50,000,000
						PRODUCTS-COMP/OP AGG	\$50,000,000
A		AUTOMOBILE LIABILITY	MWTB310326 (AOS)	06/01/17	06/01/18	COMBINED SINGLE LIMIT (Ea Accident)	\$10,000,000
		<input checked="" type="checkbox"/> ANY AUTO				BODILY INJURY (Per Person)	
		<input type="checkbox"/> ALL OWNED AUTOS				BODILY INJURY (Per Accident)	
		<input type="checkbox"/> SCHEDULED AUTOS				PROPERTY DAMAGE (Per Accident)	
		<input type="checkbox"/> HIRED AUTOS					
		<input checked="" type="checkbox"/> NON-OWNED AUTOS					
		<input type="checkbox"/> CARGO LEGAL LIABILITY AND CONTINGENT CARGO LEGAL LIABILITY					
		EXCESS/UMBRELLA LIABILITY				EACH OCCURRENCE	
		<input type="checkbox"/> OCCUR <input type="checkbox"/> CLAIMS MADE				AGGREGATE	
		<input type="checkbox"/> DEDUCTIBLE					
		<input type="checkbox"/> RETENTION					
A		WORKERS COMPENSATION AND EMPLOYERS' LIABILITY	MWC31032400 (AOS)	06/01/17	06/01/18	<input checked="" type="checkbox"/> WC STATUTORY LIMITS	OTHER
		ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? NO				E.L. EACH ACCIDENT	\$15,000,000
		If yes, describe under SPECIAL PROVISION BELOW				E.L. DISEASE - EA EMPLOYEE	\$15,000,000
		OTHER				E.L. DISEASE - POLICY LIMIT	\$15,000,000
A		EXCESS WORKERS COMPENSATION	MWXS310322 (OH, USLH)	06/01/17	06/01/18	Statutory Excess \$1,000,000 SIR	

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES / EXCLUSIONS ADDED BY ENDORSEMENT / SPECIAL PROVISIONS

SEE ATTACHED ADDENDUM

AUTHORIZED SIGNATURE



The Named Insured under the General Liability and Automobile Liability policies includes Cargill, Incorporated and any subsidiary, affiliate, or business where Cargill, Incorporated (Cargill) owns an interest of more than 50% or exercises active management control.

A Partial Listing of U.S. Subsidiaries and Businesses insured by the General and Automobile Liability policies includes (but is not limited to):

Cargill AgHorizons
 Cargill Animal Nutrition (Cargill Feed & Nutrition, Cargill Premix & Nutrition and Cargill Aqua Nutrition)
 Cargill Case Ready
 Cargill Cocoa and Chocolate Inc.
 Cargill Corn Milling North America
 Cargill Deicing Technology
 Cargill Dressings, Sauces & Oils
 Cargill Dry Corn Ingredients, Inc.
 Cargill Financial Services Corporation
 Cargill Food Distribution
 Cargill Grain and Oilseed Supply Chain North America
 Cargill Kitchen Solutions, Inc.
 Cargill Malt
 Cargill Meat Logistics Solutions, Inc.
 Cargill Meat Solutions Corporation
 Cargill Beef
 Cargill Salt
 Cargill Specialty Seeds & Oils
 Cargill Texturizing Solutions
 Cargill Turkey Production, LLC
 Cargill Value Added Protein
 Cargill Turkey & Cooked Meats
 G & M Stevedoring Co., Inc.
 Black River Asset Management LLC
 Provimi North America, Inc.
 Toshoku America, Inc.
 Five Star Custom Foods LTD
 Cargill, Incorporated dba Truvia Company LLC

PLEASE NOTE: Cargill Inc. and certain U.S. subsidiaries are self-insured for Workers' Compensation under the Federal Longshore and Harbor Workers' Compensation Act. Cargill and certain U.S. subsidiaries are self-insured for Workers' Compensation through the Department of Labor in the State of Ohio. Policy number MWXS310322 provides Workers' Compensation coverage excess of the authorized self-insured limit in jurisdictions where Cargill or a Cargill subsidiary is self-insured. Cargill operations in North Dakota, Washington and Wyoming are insured for Workers' Compensation under the monopolistic state fund of each state. The Workers' Compensation policy listed in the preceding page insures Cargill and non-self-insured U.S. subsidiaries in the remaining states where Cargill has operations or employees.

- Under the General Liability policy, Additional Insured—Vendors (CG 20 15 04 13) is provided to vendors of products of the Named Insured as described above, if required in a written contract with such Named Insured.
- Under the General Liability policy, Additional Insured status for persons or organizations, other than vendors, is provided under ISO Additional Insured endorsements, if required in a written contract with the Named Insured as described above, with respect to liability for "bodily injury", "property damage" or "personal and advertising injury" caused, in whole or in part, by any Named Insured's acts or omissions or the acts or omissions of those acting on any Named Insured's behalf in the performance of any Named Insured's ongoing operations, or in connection with any Named Insured's completed operations, equipment leased to any Named Insured.
- Under the General Liability policy, Additional Insured - Managers or Lessors of Premises (CG 20 11 04 13) is provided if required in a written contract with the Named insured as described above.
- Under the Automobile Liability policies, Additional Insured status is provided if required in a written contract with the Named Insured as described above.
- Under the General Liability, Automobile Liability and Workers Compensation policies, a Waiver of Subrogation is provided if required in a written contract with the Named Insured as described above.
- Contractual Liability (tort liability assumed in an "insured contract") is included under the Commercial General Liability and Automobile Liability policies.